शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और अध्यापक शिक्षा संस्थानों के लिए प्रोत्साहन- राष्ट्रीय संगोष्ठी: 2024-2025

Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions- National Seminar: 2024-2025

विद्यालय और अध्यापक शिक्षा में नवाचार

Innovations in School and Teacher Education

प्रो. शरद सिन्हा
अध्यक्ष, अध्यापक शिक्षा विभाग
Prof. Sharad Sinha
Head, Department of Teacher Education
&
प्रो. ब्रहम प्रकाश भारद्वाज
परियोजना समन्वयक
Prof. B.P. Bhardwaj
Programme Coordinator

अध्यापक शिक्षा विभाग
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
श्री अरबिंदो मार्ग, नई दिल्ली- **110016**
(राष्ट्रीय संगोष्ठी:26-27 जून, 2025)

DEPARTMENT OF TEACHER EDUCATION
National Council of Educational Research and Training
Sri Aurobindo Marg, New Delhi- 110016
(**National Seminar: 26-27 June, 2025)**

Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions, 2024-25
(National Seminar: 26-27 June, 2025)

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शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और
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(राष्ट्रीय संगोष्ठी 26-27 जून, 2025)

परिचय

साठ के दशक के आरंभ में, एनसीईआरटी के माध्यमिक शिक्षा विस्तार कार्यक्रम विभाग ने "माध्यमिक विद्यालयों के शिक्षकों एवं प्रमुखों के लिए सेमिनार रीडिंग कार्यक्रम" नामक एक योजना का शुभारंभ किया। इस योजना ने तब, शिक्षण कार्यविधियों और तकनीकों पर, अंग्रेजी तथा किसी भी अन्य आधुनिक भारतीय भाषाओं में विस्तृत आधारपत्र लिखने का अवसर प्रदान किया, जिसे उन्होंने सबसे प्रभावी माना। एनसीईआरटी के विस्तार सेवा विभाग को आधारपत्र प्रस्तुत किए गए थे। समय-समय पर, योजना में परिवर्तन किए गए और इसके नामकरण, प्रतिभागियों की प्रकृति, पात्रता मानदंड, विषय वैशिष्ट्य, आधारपत्रों की संक्षिप्त सूची, पुरस्कारों की संख्या, नकद पुरस्कार की राशि, आधारपत्र प्रस्तुत करने की कार्यविधि, नकद पुरस्कार की पात्रता आदि के संबंध में इसका दायरा बढ़ाया गया।

2004-05 तक, इस योजना को “विद्यालयी शिक्षकों और शिक्षक अध्यापकों के लिए नवाचार पद्धतियों और प्रयोगों पर अखिल भारतीय प्रतियोगिता” के रूप में जाना जाता था। इसमें प्रत्येक को 2,000/- रुपये के 100 नकद पुरस्कारों का प्रावधान था। (विद्यालयी शिक्षकों के लिए 70: प्रारंभिक स्तर के लिए 50 और माध्यमिक स्तर पर 20, और शिक्षक अध्यापकों के लिए 30: प्रारंभिक शिक्षक अध्यापकों के लिए 20 और माध्यमिक शिक्षक अध्यापकों के लिए 10)।

इस योजना की समीक्षा एनसीईआरटी ने 2005-07 के दौरान आरआईई के संकाय सदस्यों एवं विद्यालयी शिक्षा और अध्यापक शिक्षा के क्षेत्र के कुछ बाहरी विशेषज्ञों की मदद से की थी। समीक्षा के बाद योजना को “शिक्षा में नवाचार पद्धतियों और प्रयोगों के लिए विद्यालयों और अध्यापक शिक्षा संस्थानों के लिए अखिल भारतीय प्रतियोगिता” के रूप में पुनः तैयार किया गया।

योजना के लगभग दस वर्षों तक कार्यान्वयन के बाद, यह महसूस किया गया कि नवाचारों का प्रयास करने वाले व्यक्तिगत शिक्षकों और अध्यापक शिक्षकों को राष्ट्रीय स्तर पर पुरस्कार देकर मान्यता दी जानी चाहिए। इसलिए, इस योजना का नाम बदलकर 2017-18 से

2022-23 तक "शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और अध्यापक शिक्षा संस्थानों के लिए राष्ट्रीय पुरस्कार" कर दिया गया।

राष्ट्रीय शिक्षा नीति 2020 ने प्रेरणा और प्रोत्साहन के माध्यम से शिक्षा में नवाचार पद्धतियों को बढ़ावा देने के महत्व पर प्रकाश डाला, साथ ही इस बात पर जोर दिया कि शिक्षकों को आत्म-सुधार के लिए निरंतर अवसर दिए जाने चाहिए और उन्हें अपने पेशे में नवीनतम नवाचारों और प्रगति को सीखने का मौका दिया जाना चाहिए। इस संदर्भ में, 2023-24 से, कार्यक्रम का नाम बदलकर "शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और अध्यापक शिक्षा संस्थानों के लिए प्रोत्साहन" कर दिया गया है।

योजना के मुख्य उद्देश्य हैं

- शिक्षण अधिगम में सुधार के लिए नवाचारी पद्धतियों और प्रयोगों की क्षमता के बारे में शिक्षकों/शिक्षक-अध्यापकों को संवेदनशील बनाना।
- शिक्षकों एवं शिक्षक-अध्यापकों को विद्यालयी शिक्षा एवं अध्यापक शिक्षा के विभिन्न क्षेत्रों में सुधार के लिए नए विचारों और पद्धतियों का प्रयोग करने के लिए प्रोत्साहित करना।
- शिक्षकों एवं शिक्षक-अध्यापकों को उनके शिक्षण-अधिगम प्रक्रिया में आने वाली समस्याओं की पहचान करने और उनके समाधान खोजने के लिए यथार्थवादी दृष्टिकोण अपनाने के लिए प्रोत्साहित करना।
- विद्यालयों और अध्यापक शिक्षा संस्थाओं में नवाचार की निरंतरता सुनिश्चित करने के लिए एक वातावरण का निर्माण करना।
- शिक्षकों और शिक्षक-अध्यापकों को सभी हितधारकों के साथ अपने नवाचारी विचारों को साझा करने के लिए एक मंच प्रदान करना।

कार्य-प्रणाली

- शिक्षकों/शिक्षक-अध्यापकों से परियोजना प्रस्ताव आमंत्रित करना।
- क्षेत्रीय शिक्षा संस्थानों और एनसीईआरटी स्तर पर परियोजना प्रस्तावों का मूल्यांकन।
- परियोजना का कार्यान्वयन।
- विद्यालयों/संस्थाओं का शैक्षणिक मार्गदर्शन और क्षेत्र का दौरा।
- अध्यापक शिक्षा विभाग को परियोजना रिपोर्ट प्रस्तुत करना।
- पुरस्कार के लिए राष्ट्रीय संगोष्ठी का आयोजन।

नवाचारों की कुल संख्या

2023-24 से, कार्यक्रम का नाम बदलकर "शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और अध्यापक शिक्षा संस्थानों के लिए प्रोत्साहन" कर दिया गया है। वर्तमान कार्यक्रम के तहत, 60 नवाचार पद्धतियों और प्रयोगों (विद्यालयी शिक्षा के तहत 40 और शिक्षक शिक्षा संस्थान के तहत 20) की पहचान की जाएगी और उन्हें बढ़ावा दिया जाएगा, और प्रत्येक चयनित अभिनव पद्धति/प्रयोग को प्रमाण पत्र के साथ 10,000/- रुपये की प्रोत्साहन राशि दी जाएगी।

- 2017-18 के दौरान - 25 शिक्षकों/शिक्षक-अध्यापकों को सम्मानित किया गया।
- 2018-19 के दौरान - 34 शिक्षकों/शिक्षक-अध्यापकों को सम्मानित किया गया।
- 2019-20 के दौरान - 28 शिक्षकों/शिक्षक-अध्यापकों को सम्मानित किया गया।
- 2020-22/2021-22 के दौरान - 16 शिक्षकों/शिक्षक-अध्यापकों को सम्मानित किया गया।
- 2022-23 के दौरान - 26 शिक्षकों/शिक्षक-अध्यापकों का चयन किया गया।
- 2023-24 के दौरान - 35 शिक्षकों/शिक्षक-अध्यापकों का चयन किया गया।

वर्ष 2024-25 के लिए कुल 27 शिक्षकों/ शिक्षक-अध्यापकों का चयन किया गया है। इनमें से 26 ने अपनी अंतिम परियोजना रिपोर्ट प्रस्तुत की है और उन्हें 26-27 जून, 2025 को निर्धारित "शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और अध्यापक शिक्षा संस्थानों के लिए प्रोत्साहन के लिए राष्ट्रीय संगोष्ठी: 2024-25" में अपनी परियोजना रिपोर्ट प्रस्तुत करने के लिए आमंत्रित किया गया है।

चयनित नवाचार पद्धतियों की समीक्षा की जाएगी और प्रसार के लिए उनका दस्तावेजीकरण किया जाएगा।

प्रो. ब्रह्म प्रकाश भारद्वाज

परियोजना समन्वयक

Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions, 2024-25 (National Seminar 26-27 June, 2025)

Introduction

In the early sixties, the then Department of Extension Programme for Secondary Education launched a Scheme entitled "Seminar Readings Programme for Teachers and Heads of Secondary Schools". The scheme provided an opportunity to teachers to write detailed papers in English or in any other modern Indian language on teaching procedures or techniques, which they found most effective. The papers were submitted to the Extension Service Department of the NCERT. From time to time, changes were made in the Scheme and its scope was widened with regard to its nomenclature, nature of participation, eligibility criteria, specification of themes, procedure of submission of papers, short listing of papers, number of awards, eligibility for cash prize, amount of cash prize etc.

Till 2004-05, the Scheme was known as "All India Competition on Innovative Practices and Experiments for School Teachers and Teacher Educators". There was a provision of 100 cash prizes of Rs. 2,000/- each (70 for school teachers: 50 for elementary level and 20 at secondary level, and 30 for teacher educators: 20 for elementary teacher educators and 10 for secondary teacher educators).

The Scheme was reviewed by the NCERT during 2005-07 with the help of faculty members of RIEs and some external experts in the area of school education and teacher education. The review led to the reformulation of the Scheme as "All India Competition on Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions".

After the implementation of the Scheme for about ten years, it has been felt that individual teachers and teacher educators attempting innovations need to be accorded recognition by giving those awards at the national level. Therefore, the scheme was rechristened as "National Awards for Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions" from 2017-18 onwards till 2022-23.

National Education Policy 2020 highlighted the importance of promoting innovative practices in education through motivation and incentivisation, while underpinning that teachers be given continuous opportunities for self-improvement and to learn the latest innovations and advances in their professions. In this context, **from 2023-24 onwards**, the programme is renamed as **"Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions".**

The main objectives of the programme are:

- To sensitise teachers and teacher educators about the potential of innovative practices and experiments for improvement of teaching-learning.
- To encourage teachers and teacher educators to try out innovative ideas and practices for improvement of different areas of school education and teacher education.

- To encourage teachers and teacher educators to identify problems they face in their teaching-learning process and adopt a realistic approach to find their solutions.
- To create an environment in schools and teacher education institutions to ensure sustainability of innovation.
- To provide a forum to teachers and teacher educators to share their innovative ideas with all the stakeholders.

Methodology

- Invited Project Proposals from Teachers/Teacher Educators.
- Evaluation of Project Proposals at RIEs & NCERT level.
- Implementation of project.
- Academic guidance and field visit to the Schools/Institutions.
- Submission of Project reports to DTE
- Organisation of National Seminar.

Total Number of Innovations:

- From 2023-24 onwards, the programme is renamed as "Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions". Under the present programme, 60 Innovative Practices and experiments (40 under School Education and 20 under Teacher Education Institution) will be identified and promoted, and a seed money of Rs.10,000/- will be given to each selected innovative practice/experiment along with a certificate.
- During 2017-18 - 25 Teachers/Teacher Educators were awarded.
- During 2018-19 - 34 Teachers/Teacher Educators were awarded.
- During 2019-20 - 28 Teachers/Teacher Educators were awarded.
- During 2020-22/ 2021-22- 16 Teachers/Teacher Educators were awarded.
- During 2022-23- 26 Teachers/Teacher Educators were selected.
- During 2023-24- 35 Teachers/Teacher Educators were selected

For the year 2024-25, a total number of 27 Teachers/Teacher Educators are selected. Of these, 26 submitted their final project reports and have been invited to present their project reports in the "National Seminar for Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions: 2024-25" scheduled on 26–27 June, 2025.

Selected innovative practices will be reviewed and documented for dissemination.

Prof. B.P. Bhardwaj

Programme Coordinator

DEPARTMENT OF TEACHER EDUCATION
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

National Seminar for Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions: 2024-25

Date: 26-27, June, 2025
Venue: Room No. 229, Chacha Nehru Bhawan (CIET)
NCERT, New Delhi – 110016

(Tentative Programme Schedule)

DAY 1 (26/06/2025)			
9:00 to 9:45 A.M	**Registration of Participants**		
9:45-10:30 A.M.	Inaugural Session Welcome: Prof. Sharad Sinha, Head, DTE Briefing about the Programme: Prof. B.P. Bhardwaj, Programme Coordinator Address: Prof. Prakash Chandra Agarwal, Joint Director, NCERT Inaugural address: Prof. Dinesh Prasad Saklani, Director, NCERT Vote of thanks: Prof. Vijayan K –Interaction with participants		
Time	**Topic/Title**	**Name & Designation of the Project Coordinator**	**Name of the School /Teacher Education Institutions**
10:30-10:45 A.M.	Developing Interactive e- Content for Foundational Numeracy under NIPUN Bharat Program	Dr. Atul Bamrara, Assistant Teacher & Poonam Bamrara, Assistant Teacher	Govt. Primary School, Chaunrkhal, Pauri Garhwal, Uttarakhand- & Govt. Model Primary School, Pokhriket, Pauri Garhwal, Uttarakhand
10:45-11:00 A.M.	रुचिपूर्ण बुनियादी शिक्षा में तकनीक का समावेश, खेल, स्वच्छता, स्वास्थ्य, पर्यावरण एवं जल संरक्षण जागरूकता ज्ञान के साथ- Holistic development of studens at foundation level	Mrs. Sheela Asopa , Principal	Govt. Girls Senior Secondary School, Shyam Sadan , Jodhpur, Rajasthan-342003

11:00-11:15 A.M.	**Tea Break**		
11:15-11:30 A.M.	Advent of speech modifier: A Post-panoptic Facilitator to Rectify the Conundrums in Speaking and Reading	Nikhil Tony	St. Dominic's Academy, Bhooda, Agra road, Shikohabad, Firozabad, Uttar Pradesh-283135
11:30-11:45 A.M.	A comparative Study of Two Different Innovative Methods to Reduce Academic Stress in Science Students	Arti Sachdev, Lecturer in Chemistry	DIET , Ferozepur-152002, Punjab
11:45-12:00 A.M	Effectiveness of FLN-based Intervention Using GRR Model of Scaffolding on Development of Pronounciation Skills of Class-II Students in Odia Language	Rasmita Dash, Teacher	NC Nodal High School, Puruna Bazar, Bhadrak, Odisha-756100
12:00-12:15 P.M.	Fostering innovation in classroom teaching through Artificial Intelligence	Sandip Mondal, Assistant Teacher & Dibyendu Bagchi, Headmaster	Durganagar Bipin Behari Vidyapith (H.S), 3 No. Durganagar, P.O-Chakdaha, Dist.-Nadia, West Bengal- 741222
12:15-12:30 P.M.	Enhancing Higher-Order Thinking Skills Through Experiential Learning: The Panchakosiya Siksha Approach	Dr. Priyaranjan Dash, Teacher Educator	Govt. Elementary Teacher Education Institution, W.N 3, Baripada, Mayurbhanj, Odisha-757001
12:30-12:45 P.M.	Pattern Discovery, An Immersive Interdisciplinary Instructional Strategy to Foster Mathematics Appreciation and Learning	Uttam Chandra Das, Teacher	P.M Shree Loharghat Govt. M.V. School, 1 No Sasalpara, Loharghat, Palasbari, Kamrup, Assam-781120

12:45-1:00 P.M.	Designing Innovative teaching learning materials based on gamification and use of ICT for selected lessons of English textbook of class VI as prescribed by secondary Education Board of Assam (SEBA)	Dr. Rashmi Rekha Devi, Lecturer	Post Graduate Training College (IASE) M.G. Road, P.O. Jorhat, Dist-Jorhat, Assam-785001
1:00-2:00 P.M.	**Lunch Break**		
	Rapporteur:		
2:00-2:15 P.M.	Multiplication of Integers on The Number Line	CH. Pradeep Kumar, Secondary Grade Teacher	MPUPS-Sangupally, Village Sangupally, Mandal Gajwel, District Siddipet, Telangana – 502278
2:15-2:30 P.M	Interactive Story Books: Enhancing English Learning through Creativity and Technology	N Rajkumar, Primary School Teacher	Government Primary School, Indira Nagar, Zone-II, Puducherry– 605 5006
2:30-2:45 P.M	Learning of Maths four operations in a daily life through joyful activities	Dr. V. Rex @ Radhakrishnan	Thillaiyadi Valliammai Government High School, Kadirkamam, Puducherry – 605009
2:45-3:00 P.M	CHEERFUL CBSE: Enhancing CBSE Learning through Generative Artificial Intelligence	K.M. Ramyasri, Trained Graduate Teacher	Government High School, Suthukeny, Puducherry-605502

3:00-3:15 P.M	Hands-on Physics: Empowering Students through Practical STEM Education	Dr V. Gurunadha Rao, School Assistant (Physical Science)	Zilla Parishad High School Penugonda – 506 101 Village: Penugonda Mandal: Kesamudram Dist: Mahabubabad Telangana
3:15-3:30 P.M	Exploring the 21st century applications of Matrix Cryptography with Education 4.0	Dr. Thirumurugan K, Post Graduate Teacher in Mathematics	Govt. Higher Secondary School, Vazhuthavur, Villupuram District, Tamilnadu - 605502
3:30-3:45 P.M	Academic Achievement and Proficiency in Grammar and discourses	Dr. Shankarabhaktula Satyam, SA English	ZPHS Laknepally, Narsampet (M), Warangal (Dist.), Telangana – 506331
3:45-4:00 P.M	**Tea Break**		
	Rapporteur:		
4:00-5:00 P.M.	**TA/DA Auditing Assistant Programme Coordinator DTE & Account Team**		

Day 2 (27/06/2025)			
Time	**Topic/Title**	**Presenter & Designation**	**Schools/Institutions**
9:30-9:45 A:M.	Innovative Experimental aspects in Sanskrit Learning: Enhancing Learning through ICT Integration	Dr. Jinesh Sekhar J. R., Trained graduate teacher (Sanskrit)	VSSC Central School, Vikram Sarabhai Space Centre, St. Xavier's College P O, Thiruvananthapuram – 695586
9:45-10:00 A.M.	Elements – Engaging Learning through Enhanced Methods and New Technological Systems	K. Karthikeyan, Trained Graduate Teacher & P. Saranya, Trained Graduate Teacher	Govt. Higher Secondary School, Karayambuthur, Krayambuthur main road, Puducherry - 605106
10:00-10:15 A.M.	Developing Out Of the Box Thinking among Eighth Standard Students through Open Ended Questioning in Teaching Social Science	Dr. P. Vel Murugan, Assistant Professor in History	Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous), Periyanaichenpalayam, SRKV Post, Coimbatore, Tamilnadu – 641 020
10:15-10:30 A.M.	Enabling active engagement in the concept of metric measurements using interactive multimedia system among the upper primary children	Dr. S. Prabu Senior Depty Director	SCERT, Chennai-600006

REMARK: Not Submitted	Enhancing Pre-Service Teacher Education Through Virtual Reality Integration	Dr. M. Rama Devi, Prof in Education	Govt. IASE, Masab tank, Hyderabad, Telangana – 500028
10:30-10:45 A.M.	**Tea Break**		
10:45-11:00 A.M.	Tribal Talk For EngliShine (Oriental & Occidental Collage- Fun and Engaging English Learning for Tribal Communities)	Dr. S. Devika Assistant Professor of Education & Dr. P. Sheela Librarian and Faculty in Library Science	N.V.K.S.D College of Education (Autonomous) Attoor, Kanniyakumari Dist. Tamilnadu– 629177
11:00-11:15 A.M.	Empowering Young Women: The Role of STEM Education and Lab Practices in Improving Female Participation	Rajesh Kumar N Assistant Professor in Biological Science	Sri RamaKrishna Mission Vidyalaya College of Education (Autonomous), Periyanaickenpalayam, SRKV Post, Coimbatore DT, Tamilnadu – 641020.
11:15-11:30 A.M.	Easy Social Science by Gamification	Vandanaben Kishorbhai Balbhadra, Assistant Teacher	Shri Vadala Primary School, At-Vadala, Ta- Wadhavan, Dist-Surendranagar, Gujarat-363030

11:30 A.M-12:00 P.M.	Use of Supplementary Educational Games and Tools for Development of Language Skills of Children in Foundational Stage	Mrs. Shweta Sachin Phadke, Teacher & Mrs. Rati Narendra Bhosekar, Principal	Saraswati Mandir Trust, Poorva Prathamik Vibhaag, 1st Floor, M.G. Rd., Naupada, Thane West,Maharashtra -400602,
12:00-12:15 P.M.	Art with Narratives: Effectiveness of Illustration to Enable Active Learning through Art Integration	Dr. Deepak Mahakul, Visual Art Director	Navrachana Higher Secondary School, Sama, Vadodara, Gujarat-390008
12:15-12:30 P.M.	Techno-based Active Learning (TBAL)	Dr. Pallavi Sameer Talekar, Associate Professor	Gujarat Research Society's Hansraj Jivandas College of Education, Dr. Madhuri Shah Campus, Ramkrishna Mission Marg, Khar (W), Mumbai, Maharashtra-400052
12:30-01:30 P.M.	**Valedictory Session** i. Sharing of the Experience and Discussion on Dissemination of Innovative Practices and Experiments: - Prof. Sharad Sinha, Head DTE - Prof. B.P. Bhardwaj - Prof.Vijayan K - Dr. Sushil Kumar Tiwari - Dr. Jitendra Kumar Patidar ii. Observations and Suggestions by Experts. ➢ **Rapporteur:**		
1:30- 2:30 P.M.	**Lunch Break**		
2:30- 3:30 P.M.	**Visit to Library** - Dr. Sushil Kumar Tiwari		
3:30- 3:45 P.M.	**Tea Break**		
3:45- 4:45 P.M.	**Visit to CIET** - Dr. Sushil Kumar Tiwari		

National Seminar for Promoting Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions 2024-25

List of Invited Teachers / Teacher Educators: 2024 – 25

S.No.	Topic/Title	Name & Designation of the Project Coordinator	Name & Designation of the head of the school/institution	Name of the School /Teacher Education Institutions
1.	Developing Interactive e-Content for Foundational Numeracy under NIPUN Bharat Program	Dr. Atul Bamrara, Assistant Teacher, 7983031351 atulbamrara@gmail.co m, & Poonam Bamrara, Assistant Teacher, 9634276387 bamrarapoonam@gmai l.com	Smt Nanda Rawat Head Mistress, 7300924840 gpschaurnkhal@gmail. com & Kamlesh Baluni Head Master	Govt. Primary School, Chaunrkhal, Pauri Garhwal, Uttarakhand- & Govt. Model Primary School, Pokhriket, Pauri Garhwal, Uttarakhand
2.	रुचिपूर्ण बुनियादी शिक्षा में तकनीक का समावेश, खेल, स्वच्छता, स्वास्थ्य, पर्यावरण एवं जल संरक्षण जागरूकता ज्ञान के साथ- Holistic development of students at foundation level	Mrs. Sheela Asopa , Principal 9413057111 sheelaasopa123@gmail .com	Mrs. Sheela Asopa, Principal, 9413057111 sheelaasopa123@ gmail.com	Govt. Girls Senior Secondary School, Shyam Sadan , Jodhpur, Rajasthan-342003
3.	Advent of speech modifier: A Post-panoptic Facilitator to Rectify the Conundrums in Speaking and Reading	Nikhil Tony 7593925792, nikhiltony.jmj@gmail.c om	Fr. Noby Emmanual Joseph 9415563586 principalsdas2007@g mail.com	St. Dominic's Academy, Bhooda, Agra road, Shikohabad, Firozabad, Uttar Pradesh-283135
4.	A comparative Study of Two Different Innovative Methods to Reduce Academic Stress in Science Students	Arti Sachdev, Lecturer in Chemistry 9501019187 aartisethi1979@gmail.com	Mrs. Seema 9814631462 dietferozepur@pu njabeducation.gov. in	DIET , Ferozepur-152002, Punjab

5	Effectiveness of FLN-based Intervention Using GRR Model of Scaffolding on Development of Pronounciation Skills of Class-II Students in Odia Language	Rasmita Dash, Teacher, 9178911523, rasmitadash939@gmail .com	Dr. Sukirti Kar, 8984575850, nchs1908@gmail.com	NC Nodal High School, Puruna Bazar, Bhadrak, Odisha-756100
6	Fostering innovation in classroom teaching through Artificial Intelligence	Sandip Mondal, Assistant Teacher, 7980020550, sandymondal1982@gmail.com & Dibyendu Bagchi, Headmaster, 8250324028, dbagchi1979@gmail .com	Dibyendu Bagchi, Headmaster, 8250324028, dbbv1953@gmail .com	Durganagar Bipin Behari Vidyapith (H.S), 3 No. Durganagar, P.O-Chakdaha, Dist.-Nadia, West Bengal- 741222
7	Enhancing Higher-Order Thinking Skills Through Experiential Learning: The Panchakosiya Siksha Approach	Dr. Priyaranjan Dash, Teacher Educator, 9692179334 dpriyaranjan90@gmail. com	Rathindranath Ghose, Principal, 7978495505, rathighose@gmail .com	Govt. Elementary Teacher Education Institution, W.N 3, Baripada, Mayurbhanj, Odisha-757001
8	Pattern Discovery, An Immersive Interdisciplinary Instructional Strategy to Foster Mathematics Appreciation and Learning	Uttam Chandra Das, Teacher 7086752154 uttam.das1978@gmail. com	Dhiraj Das, Head Master, Loharghat Govt. M.V. School 7002297378 dhiraj2246@gmail.com	P.M Shree Loharghat Govt. M.V. School, 1 No Sasalpara, Loharghat, Palasbari, Kamrup, Assam-781120
9	Designing Innovative teaching learning materials based on gamification and use of ICT for selected lessons of English textbook of class VI as prescribed by secondary Education Board of Assam (SEBA)	Dr. Rashmi Rekha Devi, Lecturer 9101246769 rashmirekha.devi@gmail.com	Dr. Tridib Bordoloi, Principal i/c, 9435247168 iasepgtcjorhat@gmail.com,	Post Graduate Training College (IASE) M.G. Road, P.O. Jorhat, Dist- Jorhat, Assam-785001

10	Multiplication of Integers on The Number Line	CH. Pradeep Kumar, Secondary Grade Teacher 9490771141 chiliveripradeep@gmai l.com	P Adilaxmi, Head Mistress 9959645659 pothulaadilaxmi@ gmail.com	MPUPS-Sangupally, Village Sangupally, Mandal Gajwel, District Siddipet, Telangana – 502278 chiliveripradeep@gmai l. com , 9490771141
11	Interactive Story Books: Enhancing English Learning through Creativity and Technology	N Rajkumar, Primary School Teacher 9843987974 nrajkumar531@gmail.c om	A.Indira, HM (Primary) 9952217499 34020113814@dsepdy .edu.in	Government Primary School, Indira Nagar, Zone-II, Puducherry– 605 5006
12	Learning of Maths four operations in a daily life through joyful activities	Dr. V. Rex @ Radhakrishnan 9600672101 rexvinolia1976@gmail. com	Mr. S. Balamurugan, Headmaster 7305347890	Thillaiyadi Valliammai Government High School, Kadirkamam, Puducherry – 605009
13	CHEERFUL CBSE: Enhancing CBSE Learning through Generative Artificial Intelligence	K.M. Ramyasri, Trained Graduate Teacher, 9786950359/ 8610875780 ramyadevi1607@yahoo .com	Amalraj Leemas L	Government High School, Suthukeny, Puducherry-605502
14	Hands-on Physics: Empowering Students through Practical STEM Education	Dr V. Gurunadha Rao, School Assistant (Physical Science), 8712309298 gurunadharao01@gmai l.com	K Yadagiri, Headmaster 9949495034 kaleruyada987@g mail.com	Zilla Parishad High School Penugonda – 506 101 Village: Penugonda Mandal: Kesamudram Dist: Mahabubabad Telangana
15	Exploring the 21st century applications of Matrix Cryptography with Education 4.0	Dr. Thirumurugan K, Post Graduate Teacher in Mathematics, 9787062570/ 8778812368 thirumurugan.kirithish @gmail.com	Selvakumar R, Headmaster 8072572380 vpm1540020@ya hoo.in	Govt. Higher Secondary School, Vazhuthavur, Villupuram District, Tamilnadu - 605502
16	Academic Achievement and Proficiency in Grammar and discourses	Dr. Shankarabhaktula Satyam, SA English 9848927472 sbsatyam66@gmail.co m	D S V N Madhuri, PGHM, Gr-II 9849215412 zphslaknepally@gmail .com	ZPHS Laknepally, Narsampet (M), Warangal (Dist.), Telangana – 506331 zphslaknepally@gmail. c om

17	Innovative Experimental aspects in Sanskrit Learning: Enhancing Learning through ICT Integration	Dr. Jinesh Sekhar J. R., Trained graduate teacher (Sanskrit) 9249586356 jrjsekhar@gmail.com	Dr. Beena Prabha, Principal 9895093716 beena_prabha@vssc.gov.in beena_prabha@gmail.com	VSSC Central School, Vikram Sarabhai Space Centre, St. Xavier's College P O, Thiruvananthapuram – 695586 school@vssc.gov.in 0471256283 (school office)
18	Elements – Engaging Learning through Enhanced Methods and New Technological Systems	K. Karthikeyan Trained Graduate Teacher 9952473615 9524527149 karthikeyanghsskbr@gmail.com & P. Saranya, Trained Graduate Teacher	A Premkumar Julien (Vice Principal) 9443156050 34020202003@dsepdy.edu.in	Govt. Higher Secondary School, Karayambuthur, Krayambuthur main road, Puducherry - 605106
19	Developing Out Of the Box Thinking among Eighth Standard Students through Open Ended Questioning in Teaching Social Science	Dr. P. Vel Murugan, Assistant Professor in History 9894916237 velmpngl@gmail.com	Dr V Srinivasan Principal 9443655403 srinivasansrkvcoe@gmail.com	Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous), Periyanaichenpalayam, SRKV Post, Coimbatore, Tamilnadu – 641 020 8012533915, srkvcoen@yahoo.co.in
20	Enabling active engagement in the concept of metric measurements using interactive multimedia system among the upper primary children	Dr. S. Prabu Senior Depty Director prabusdiet@gmail.com 9842797063	Dr.D. Uma Director 044-28278742 tnscert2@gmail.com	SCERT, Chennai-600006
21	Enhancing Pre-Service Teacher Education Through Virtual Reality Integration	Dr. M. Rama Devi, Prof in Education 9393608261	Smt A Usha Rani, Principal 9246967778	Govt. IASE, Masab tank, Hyderabad, Telangana – 500028 govtiasehyd@gmail.com

22	Tribal Talk For EngliShine (Oriental & Occidental Collage- Fun and Engaging English Learning for Tribal Communities)	Dr. S. Devika Assistant Professor of Education devikamanusr23@gmail.com , 9497639612 & Dr. P. Sheela Librarian and Faculty in Library Science sheelanvksd@gmail.co m 9488881294	Dr S Sreelatha Principal 9446969747 sreelathanvks@gmail.com	N.V.K.S.D College of Education (Autonomous) Attoor, Kanniyakumari Dist. Tamilnadu– 629177 nvksdcollege@gmail.co m 04651-282130 9446969747
23	Empowering Young Women: The Role of STEM Education and Lab Practices in Improving Female Participation	Rajesh Kumar N Assistant Professor in Biological Science 9042006696 rajeshkumar@rmv.ac.in	Dr V Srinivasan Principal I/C 94436 5540 srinivasansrkvcoe@gmail.com	Sri RamaKrishna Mission Vidyalaya College of Education (Autonomous), Periyanaickenpalayam, SRKV Post, Coimbatore DT, Tamilnadu – 641020. srkvcoen@yahoo.co.in 8012533915
24	Easy Social Science by Gamification	Vandanaben Kishorbhai Balbhadra, Assistant Teacher, 7383091586,+919662043490 vkkanaiya@gmail.com	Vinodbhai Jeshingbhai Khandala, Head Teacher, 9924280833, vadalaprimaryschool@gmail.com	Shri Vadala Primary School, At-Vadala, Ta-Wadhavan, Dist-Surendranagar-363030, Gujarat
25	Use of Supplementary Educational Games and Tools for Development of Language Skills of Children in Foundational Stage	Mrs. Shweta Sachin Phadke, Teacher & Mrs. Rati Narendra Bhosekar, Principal, Mob:9867937386/ 9969634472, ratibhosekar@ymail.com	Mrs. Rati Narendra Bhosekar, Principal, Mob:9867937386/ 9969634472, ratibhosekar@ymail.com	Saraswati Mandir Trust, Poorva Prathamik Vibhaag, 1st Floor, M.G. Rd., Naupada, Thane West-400602, Maharashtra smtpps123@gmail.com
26	Art with Narratives: Effectiveness of Illustration to Enable Active Learning through Art Integration	Dr. Deepak Mahakul, Visual Art Director, Mob: 9824068608, deepakm@navrachana.edu.in	Ms. Suprabha Menon, Principal, 9925260895 suprabham@navrachana.edu.in	Navrachana Higher Secondary School, Sama, Vadodara, Gujarat-390008 Ph.-0265-2791643/ 2783766

27	Techno-based Active Learning (TBAL)	Dr. Pallavi Sameer Talekar, Associate Professor, Mob: 9969456333 talekarpallavi19@gmail .com	Prof. (Dr.) Geeta Shetty, Principal 9869242039, 022-26044641 principal.hjc@gmail.com, hjcollege@rediffmail.com	Gujarat Research Society's Hansraj Jivandas College of Education, Dr. Madhuri Shah Campus, Ramkrishna Mission Marg, Khar (W), Mumbai-400052, Maharashtra Mob:022-26044641/9869242039 principal.hjc@gmail.com / hjcollege@rediffmail.com

List of Selected Teachers / Teacher Educators: 2023-24

S. No.	Topic/Title	Name & Designation of the Project Coordinator	Name & Designation of the head of the school/institution	Name of the School /Teacher Education Institutions with postal address e-mail phone number, fax number etc.
1.	Integration of Social Science Content and Target Language: An Inverted CLIL Approach	Dr. Himanshu Tripathi, Assistant Teacher, ved.van.ved@gmail.com 7668925453	Sh. Uma Shankar, Principal, kic7905999790@gmail.com 7905999790	Krishak Inter College Hinauta, Kaushambi U.P-212207
2.	Animation as a Teaching Learning Tool	Mr. Amit Kumar Tiwari, TGT(WE) kvs.tiwari.9@gmail.com 8486018327/ 9099523329 & Ms. Poonam Kapil, TGT (Sci.) poonamkapil25@gmail.com 9460722244	Sh. Pushpendra Singh, Principal kvbundi1@gmail.com 7085321200	Kendriya Vidalaya, Bundi, Gate No.3, Rajatgarh Colony, Nainwa Road, Bundi – 323001, Rajasthan
3.	Genetics For "Gen Z" (Gamification Of	Dr. Shilpa Raghuvanshi Chauhan,	Ms. Priyanka Barara, Principal principal@salwanpubl	Salwan Public School,Rajendra Nagar, New Delhi-

	Genetics)	PGT Biotechnology, chauhan.shilpa@salwanpublicschool.com 9911008409	icschool.com 9312749269	110060
4.	Professional sensitivity of Supervision in the implementation of Foundational Literacy and Numeracy	Mr. Satish Kumar Sharma, Principal, satishdhikauli@gmail.com , 9435523638	Mr. Satish Kumar Sharma, Principal, satishdhikauli@gmail.com , 9435523638	Kendriya Vidyalaya Lalitpur, Budhwar Road, Uttar Pradesh -284403 **New school address: PM Shri Kendriya Vidyalaya Janakpuri, Delhi-110058**
5.	Nurturing the Talents of Gifted Students: Strategies and Approaches-Innovative Teaching Approaches in Class IX	Ms. Vidhi Oberoi, TGT Biology, vidhi.oberoi@nd.balbharati.org , 9871775115	Ms. Asha Prabhakar, Principal, bbpsnd@balbharati.org , 981050227	Bal Bharati Public School, Noida, Sec-21 Noida, Dist.-Gautam Buddha Nagar Uttar Pradesh - 201301
6	To develop sense of Practical life skill among the students of rural area	Ms. Monika Singhal, Assistant Teacher, singhalmonika60@gmail.com , 7982052865	Priyanka Verma I/C Head Master	Composite School Beeghepur, Block-Dhaulana,Dist.-Hapur, U.P.
7	To develop linguistic proficiency by using teacher-learning materials and activities in teaching words to students from primary level	Mr. Sushil Kumar, Principal, sushilkumar8755583770@gmail.com , 8755583770	Mr. Sushil Kumar, Principal, sushilkumar8755583770@gmail.com , 8755583770	Prathmik Vidyalaya Firozabad, P.O-Chilkana, Block-Sarsawa, Dist.-Saharanpur, Uttar Pradesh - 247231
8	Developing Numeracy Skills at Preparatory Stage using Indigenous Games	Dr. Atul Bamrara, Assistant Teacher, atulbamrara@gmail.com , 7983031351	Smt. Laxmi Pokhriyal, Head Mistress, gmpsgbm@gmail.com , 9634276387	Government Model Primary School Ganga Bhogpur, Post Office Ganga Bhogpur Malla via Swargashram, Pauri Garhwal, Uttarakhand – 249306
9.	अंग्रेजी भाषा के	Ms. Anju Verma, Head Teacher	Ms. Anju Verma, anjuv1411@gmail.co	Primary School Vitthalpur

	शब्दकोश में वृद्धि	anjuv1411@gmail.com , 7376429137	m , 7376429137	Masaudha, Ayodhya – 224127, Uttar Pradesh
10	प्राथमिक स्तर पर व्यावसायिक शिक्षा : कौशल विकास कार्यक्रम	Ms. Shweta Dixit, Assistant Teacher, shivshweta15@gmail.com , 9818999456	Ms. Kalpna, Head Master, 9999868355	Primary School Salempur Kayasth, Block-Sikandrabad, Dist.-Bulandshahar, Uttar Pradesh – 203205
11	Indigenous Toys and Play Based Pedagogy to Assess the Learning Outcome in Numeracy for Foundational Year Learners	Dr. Gargee Mitra, Head, gargeemitra@yahoo.com , head-sscd@symbiosis.ac.in , 9850555784	Dr. Gargee Mitra, Head, gargeemitra@yahoo.com , head-sscd@symbiosis.ac.in , 9075088770	Symbiosis Schools Central Directorate (SSCD), Symbiosis School, 15th Lane, Kashinath Shastri Abhyankar Road, Deccan Gymkhana, Pune-411004, Maharashtra. Contact No.-9075088770, Email: gargeemitra@yahoo.com
12	Augmenting Learning Parameters of Universal Design Learning through Art Integrated Approach in Mathematics	DR. Vini Sebastian, Professor, vinseb2@gmail.com , 9664799979	DR. Vini Sebastian, Principal i/c, sxieinfo@gmail.com , 9820653125	St. Xavier's Institute of Education (Autonomous), 40-A New Marine Lines, Opp. State Bank of India, Churchgate, Mumbai-400020, Maharashtra Contact no.-02222014666 Email-sxieinfo@gmail.com

13	The Impact of Mathematics-Enhanced Van Hiele Model (VHM) Learning Activities Based on Experience-Language-Pictorial-Symbolic-Application {ELPSA} framework on Spatial Reasoning of Students Engagement in Mathematics at Elementary Level	Dr. Ashutosh Prabhakar, TGT (Maths/Science) ashuprabhakar.007@gmail.com 7277578697	Sh. Sanjay Kumar, Principal, rameshwarmiddleschoolsalempur@gmail.com 9576231689	Rameshwar Middle School, Salempur, Tekari, Gaya-824236, Bihar
14	Effect of Steam-based Learning on Mathematical Creativity of Middle School Students	Dr. Tarun Kumar Tyagi, Assistant Professor, taruntyagi@cusb.ac.in 9411230445 & Lt (Dr.) Pragya Gupta, Assistant Professor, pragyagupta@cusb.ac.in 9508376400	Col. Rajiv Kumar Singh, Registrar, registrar@cub.ac.in , 06312229507	Central University of South Bihar, Gaya SH-7, Gaya Panchanpur Road, Village-Karhara, Post- Fatehpur, Gaya- 824236, Bihar
15	Effect of Socio-cognitive Approach based Activities on Writing Skill of Middle School Students	Dr. Ravindra Kumar, Assistant Professor, ravindra.kumarte01@gmail.com 9990713343 /6200957082 & Prof. Ravi Kant, ravikantdr@cusb.ac.in 9870980107	Col. Rajiv Kumar Singh, Registrar, registrar@cub.ac.in , Phone-06312229507	Central University of South Bihar, Gaya-Panchanpur Road,Tikari, Gaya-824236, Bihar

16	Innovative Learning Methods for Science Concepts through School Herbal Gardens- A Novel Approach	Mr. A Guruprasad, Lecturer in Science (Botany), DIET, Kaliyampoondi Kanchipuram- 603 402, Contact no- 9943519795 gprasad26july@gmail.com	Dr S Balasubramaniam Principal DIET Kaliyampoondi, Kanchipuram- 603 402, Email: dietkpm@gmail.com	DIET, Kaliyampoondi Kanchipuram- 603 402 Tamil Nadu Contact no.- 9943519795 gprasad26july@gmail.com dietkpm@gmail.com
17	School Academic Supporting Functionaries' Development Initiative- SADI. STRENGTHENING SCHOOL SUPPORT FUNCTIONARIES THROUGH ACTION RESEARCH	Dr. Hariprasad G V DIET, B H Road, Shivamogga- 57 201 Contact no.- 9964314575 harivana@gmail.com	Basavarajappa B R Principal, DIET, Shivamogga, Cont. no.-944899379 diet.shimoga@gmail.com	DIET, B H Road, Shivamogga- 577 201, Karnataka diet.shimoga@gmail.com harivana@gmail.com 9964314575
18	Imbibing Teaching Skills and Moral Values Through Story Telling	Mr. S. Rajkumar, Lecturer, DIET, Tholkappier Street, Ashok Nagar Lawspet, Puducherry- 605 008 Contact no. 9994203828, rajkumarpavitra@yahoo.com	Ms Sougouna Souguirda Baye Principal, DIET, Tholkappler Street, Ashok Nagar Lawspet Puducherry- 605 008, dietpuducherry@gmail.com contact no. 9486521794	DIET, Tholkappler Street, Ashok Nagar Lawspet Puducherry- 605 008 0413-2251243 diet
19	Effectiveness of mathematical content knowledge of D.El.Ed student teachers in the facilitation of mathematics	Ms. Thanuja K S, Lecturer, Sacred Heart Teachers Training Institute Carmel Convent Campus, 4th T Block, East Eng Main Road Jayanagar Bengaluru- 560 041 Thanunagaraj13@gmail.com , contact no- 9900024573	Dr. Joyce Mary Claris D'sa, Principal, Sacred Heart Teachers Training Institute Carmel Convent Campus, 4th T Block, East Eng. Main Road, Jayanagar Bengaluru- 560 041 sacredhearttti@gmail.com , 94448376618	Ms Thanuja K S Sacred Heart Teachers Training Institute Carmel Convent Campus, 4th T Block, East Eng Main Road Jayanagar Bengaluru- 560 041, Karnataka

20	Exploring of Science by Preparing Learning Resources from Low Cost and No Cost Materials by Student Teachers of D.EI.Ed. in RV Teachers Training Institute, Bengaluru	Smt. K H Mamatha Lecturer, Email: mamathaprakash2008@gmail.com Contact no. 9916212566	Sri P V Shivanna, Principal, Email: rsst.rvtti@gmail.com Cont. no-9448101909	RV Teachers Training Institute, No. 11, 31st Cross, 11th Main, Jayanagar 4th Block, Bengaluru – 560 011, Karnataka 080 26635935 9448101909 rsst.rvtti@gmail.com
21	A Study of factors that influences the lack of Speaking skills in D.El.Ed Students of Dharwad Dist.	Ms. Sandhya G Vaidya, Lecturer, sandhya190676@gmail.com Contact no.- 9986621404	Prakash S Siddaklavara, Principal	Vanita Teachers Training Institute, Near NTTF, Ram Nagar, Dharwad – 580 001, Karnataka vanitadedcollegedwd@gmail.com 9986621404
22	A study on facilitating the use of innovative learning resources/method in teaching the basic four operations in learning Mathematics for first year D.El Ed students	Jasmin R B Moras, Lecturer, Email; jasmine.moras@gmail.com Contact no.- 9880107283/ 8618250702	Mrs Lavina Lobo, Principal	Rosa Mystica Teacher Training, Kinnikambla, Mangaluru - 575 014 Dakshina Kannada, Karnataka jasmine.moras@gmail.com 8618250702
23	Do and Play with no cost play tool	Mr. Chandru M PST, chandbavan@gmail.com 9787715291	Ms. Kalaiselvi Head Mistress, 8870225667	Mayor Ramalinga Counder Government Primary School St, Mettupalayam, Puducherry – 605009 chandbavan@gmail.com 9787715291
24	Create to learn- An innovative approach to achieve 21st century skills to enhance the Students into Masters by	Ms. R Porselvi, PST, Selvisabarivignesh82@gmail.com Contact no.-	Mr. S Thirunarayanan, Head Master, 34020200501@dsepdy.edu.in	Government Primary School, Indira Nagar, Zone-II, Puducherry – 605006 sabarivignesh82@g

	using Scratch 3.0	8754172748 & S. Sabarinathan, PST 9659446787		mail.com 9600485036
25	Integrating Social Emotional Learning with English Literacy skills	R Nithia Primary School Teacher, dse00005690@dsepdy.edu.in Contact no.- 9789693810/ 8610811401	Mrs. Kida E Headmistress, 34020102502@dsepdy.edu.in 6380437781	Government Primary School, Thattanchavady, Subbiah Nagar, Zone-I, Puducherry-605009
26	Learning Time measurements through GOALS Pedagogy	Ms. A Sharmila Begum, Graduate Teacher, sharmi532007@gmail.com Contact no. 9488386444	K Nagaiya, Head Master, ghss.bommahalli@gmail.com 7373773250	Government Higher Secondary School, Bommanahalli, Karimangalam Block, Dharmapuri, Tamilnadu – 635 111 ghss.bommahalli@gmail.com Mob.7373773250
27	Fostering computer literacy skills among students through activities	Ms. P. Saranya, PST, saranyakar86@gmail.com contact no. 8667271354, 9524527149	Mr. V Vasugi Teacher in –charge, gmstnpalayam@gmail.com 9488018176	Government Middle School TN Palayam TN Palayam Main Road Puducherry-605 007 gmstnpalayam@gmail.com 9488018176
38	Empowering B.Ed. Trainees for Using IDEA Method in LAC Approach	Dr. C. C Kurian, Associate Professor, kuriancc9@gmail.com , Contact no.- 9446132340 & Rev. Dr. Johnson Mathew	Dr Johnson Mathew Principal, johnsonoroplackal1970@gmail.com , 9947940525	St. Thomas College of Teacher Education, Mylacompu, Thodupuzha, Idukki-685608, Kerala 9947940525 stmprincipal123@gmail.com
29	Pragya : A School Programme on Stimulation of Analytical Thinking through	Mr. V Eswaran, Assistant Professor in Mathematics, dreswaransrkv@gmail.com , 9486689789	Dr. V Srinivasan, Principal, srkvcoen@yahoo.co.in , 9443655403	Sri Ramakrishna Mission Vidyalaya College of Education (Autonomous)

	Mathematics			Periyanaickenpalayam, SRKV Post, Coimbatore District, Tamilnadu-641 020, 9443655403 srkvcoen@yahoo.co.in 8012533915
30	My IND – EDUGA (My INDIgenous EDUcational GAmes for understanding Science and Mathematics of School Curriculum)	Dr. K.P. Kannan, Director of Physical Education, kpkannandevi@gmail.com, Contact no-8903915059 & Dr D.S. Prasobh Madhavan, Assistant Professor of English, dsp.madhav@gmail.com , contact no.-7598623797	Dr. S Sreelatha, Principal, nvksdcollege@gmail.com, 9446969747	N.V.K.S.D College of Education (Autonomous) Attoor, Kanniyakumari District – 629177, Tamilnadu 9446969747 nvksdcollege@gmail.com
31	Empowering ADHD Students : Effective Teacher Strategies for Academic and Behavioural improvement	Smt. S R Sheelavantar, Assistant Teacher, sudhalekhana@gmail.com , contact no.-9449419541	Smt. D G Kammar, Head Mistress, ghsvnagarhubli@gmail.com , Contact no.-9886571877	Government High School, Vishweshwar Nagar, Hubballi- 580 031, Karnataka 9886571877 ghsvnagarhubli@gmail.com
32	Creation of student writers, authors and poets through Innovative activity	Ms. Brinda. D Graduate Teacher (English), raneekutti@gmail.com contact no.-8072272349, 9344932835	Mrs. K Venkateswari, Head Master, mpm.ghs@gmail.com , 9486616629	Government High School Melpattabakkam Post Cuddalore Dist. – 607 104, Tamil Nadu mpm.ghs@gmail.com 9486616629
33	Effectiveness of Non-digital Educational Games as a Tool for Assessment as Learning for Biological Concepts of Class	Ms. Shivangi Mishra, PGT-Biology shivangimishra2596@gmail.com, Cont.No-9473346465	Mr. Hitesh Kumar Verma, PGT-CS, Hitesh.verma07@gmail.com, 9827249124	Kendriya Vidyalaya, Mangaldoi, Block Chowk, Mangaldoi, P.O Mangaldoi, Darrang District, Assam, India –

	IX Students			784125 Contact No. – 9473346465/ 9827249124 Email: shivangimishra2596@gmail.com kvmldi2003@gmail.com

List of Selected Teachers / Teacher Educators: 2022-23

S. No.	**Topic/Title**	**Name & Designation of the Project Coordinator**	**Name & Designation of the Head of the school/Institution**	**Name of the School/Teacher Education Institutions**
1.	Smart and interesting Tricks for teaching map-work among class - X students.	Dr. Vikas Kohli Principal vikas.kohli@ymail.com 9416023857 & Mrs. Manju Suthar Manjusuthar1967@gmail.com 8168404361	Dr. Vikas Kohli Principal vikas.kohli@ymail.com 9416023857	Police DAV Public School, Police Line Grounds, Ambala City, Haryana-134001
2	मूलभूत साक्षरता और संख्यात्मकता के परिपेक्ष्य में प्राथमिक स्तर के विद्यार्थियों के हिन्दी भाषा ज्ञान के उत्कर्ष हेतु कला समेकित शिक्षा की संकल्पना	Dr. Deepty Pandya deepty.pandya77@gmail.com Cont.- 7016207451	Mr. Arun Kumar Principal arunkvt2016@gmail.com 9460875566	Kendriya Vidyalaya No.2, Eklinggarh, Cantt. Gordhan Villas, Udaipur - 313001, Rajasthan
3	Diagrammatic Learning - A Budding Concept for Comprehensive Reading in Primary Classes	Mr. Vipin Kumar Tyagi, Principal vk64tyagi@gmail.com 9410578969 & Mrs. Rakhi Dayma PRT rakhidayma@yahoo.c	Mr. Vipin Kumar Tyagi Principal	Kendriya Vidyalaya Baoli, Baghpat, Uttar Pradesh-250621 kvbaoli@gmail.com & Kendriya Vidyalaya No. 1 Roorkee,

		om 8630892710		Distt.- Haridwar-247667, Uttarakhand Ph. – 01332-297950 kvroorkee1@gmail.com
4	My City: My Learning Tool (Learning by Knowing)	Ms. Poonam Kapil PRT Poonamkapil25@gmail.com 9460722244 & Mr. Amit Kumar Tiwari TGT(WE) Kvs.tiwari.9@gmail.com 8486018327, 9099523329	Mr. Pushpendra Singh Principal kvbundi1@gmail.com 7085321200	Kendriya Vidyalaya Bundi, Gate No. 3 Rajat Grah Colony, Nainwa Road Bundi, Rajasthan- 323001 Ph. 0747-2940161
5	Language Education through illustrated children's stories (written by me) .	Mr. Parmar Maheshkumar Chimanbhai Head Teacher Email- sparsh81mahesh@gmail.com Cont.- 9662519275/9638994659	Mr. Parmar Maheshkumar Chimanbhai Head Teacher	Mahalaxmi Talukashala, Thasra Village – Thasra, TA- Thasra, Dist. Kheda, Gujarat – 388250 Email- kanyashalathasra@gmail.com Cont.9662519275/9638994659
6	Cartoons' Carnival	Ms. Tank Sandhyaben Harsukhbhai Assistant Teacher sandhyatank45@gmai.com Cont.- 9879251908	Mr. Ketanbhai Jayatilal Ladani Principal	Shree pau sim Primary School, Pau Sim Area, Taluko -Ranavav, Dist.-Porbandar, Gujarat -360550 Email- pausim.pbr.ranavav.kamarshala@gmail.com Cont.- 9879251908/9925988530
7	Effect of mathematics teaching through toys on achievement	Mr. Ashok Kumaar Mohanlal Parmar Assistant Teacher mr.ashokmp@rediffmail.com Cont.-	Mr. Tusharbhai J. Joshi Principa Cont.- 9426058489	Hiten Dholakiya Vidyalaya Dindayal Nagar Post: Bhuj, Dist. Kutch, Gujarat – 370001

		9427249362/9664714270		Email- hdvbhuj15@gmail.com Cont.- 9427249362
8	Using the ancient technique of Abacus to develop mathematical intelligence in tribal students	Smt. Jyoti Bapu Ahire Primary Teacher Email- jyotiahire2@gmail.com Cont.- 9423001237	Mr. Uttam Hari Gaikwad Headmaster Email- gaikwaduttam661@gmail.com Cont.- 8605909230	Z.P. Primary School, Bhatode. Taluka: Dindori, Dist. Nashik, Maharashtra – 422215
9	Mathematics Floor Games	Mr. Pankaj Kumar Gupta Secondary Teacher Email– pankajguptaaq8943@gmail.com Cont.- 9977635371	Mr. Pankaj Kumar Gupta (In-charge)	EPES Govt. Girls Middle School, Kayampur, Tehsil-Sitamau, Dist.-Mandsaur, Madhya Pradesh – 458558 Email– ggmskayampur1@gmail.com Cont.- 9977635371
10	Enhancing Writing Skills in English through Scaffolding Writing Strategies (IMSCI *Inquiry,-Modeling-Shared-Collaborative-Independent)* among ninth standard students in Sivagangai District	Mrs. S.Usha Lecturer usha71183@gmail.com Cont.-8838755505	Dr.A.Ananthi, Principal Incharge dietsvg@tn.nic.in 04575-239614	District Institute of Education and Training, Kalayarkovil, Sivgangai District, Tamilnadu-630551 Ph. - 04575-239614
11	Enhancement of Problem Solving skills of Student Teachers by 3P (Planning, Presentation and Practice) Method. (PESST3)	Dr. Rajanna SP Lecturer rajannamandalor@gmail.com Cont.-9902990188	Dr. Rajanna. SP Principal Incharge Gtti.chikkanahalli@gmail.com 9902990188	Government Teachers Training Institute, Chikkanahalli, Sira Tq, Tumkur Dist, Karnataka-572125
12	Hands on puppet with +2 or zero method of evaluation	Dr.D.S. Prasobh Madhavan, Assistant Professor (English) dsp.madhav@gmail.com Cont.-7598623797	Dr.S. Sreelatha, Principal nvksdcollege@gmail.com 9446969747	N.V.K.S.D. College of Education (Autonomous), Attoor, Kanniyakumari district, Tamilnadu-629177

				91 4651-282130, 282821
13	Designing and Teaching of EVS content through craft	Ms. B. Sasireka, Primary school teacher Sasirekasasireka065@gmail.com Cont.-9791364658	V. Vassugi, Incharge gmstnpalayam@gmail.com	Government Middle School, TN Palayam, TN Palayam(Post) Puducherry -605007
14	Know my Child and Quizzino: The Online Web Application for Assessment for Learning and Qualitative Feedback	Mr. Vidhu K.P, Headmaster Vidhunair001@gmail.com Cont.-8281138218	Mr. Vidhu K.P, Headmaster Vidhunair001@gmail.com 8281138218	NSS LP School Kappu, Madakkathanam PO, Muvattupuzha, Ernakulam district, Kerala – 686670
15	Learning of mathematics through activities	Ms. S. Indra Priyadharshini, PST dharshinipst@gmail.com Cont.-7397065579/ 9600571965	Mrs. V Navamany, Headmistress gpsktkuppam@gmail.com	Government Primary School, Kalitheerthal Kuppam, Madagadipet (Post), Puducherry - 605107
16	Solving addition of integers using multimedia	Ms. Jeya Lakshmi. P, PST jeyajeya885@gmail.com Cont.-7358747557	Mrs. N.Kumutham H.M pumstherkuppatti@gmail.com 7397087976	Panchayat Union Middle School, Jayankondam main road, Therkkupatti, Maruthur (Post), Andimadam block, Ariyalur District – 621710 Tamil Nadu
17	Achievement in science of 9th Standard students through TPSR (Think-Pair-Share-Reflect) strategies	Ms. Pradeepa.S, B.T Assistant deepasubramanian1490@gmail.com Cont.- 8760392979/6374010634	Mr. C. Chitharthan, Headmaster, 36ati061@gmail.com 9385229084	GHS, Periyalur, Aranthangi Taluk, Pukkottai District, Tamil Nadu-614624
18	Developing moral values and human values in children by creating Students Banking System (SBS)	Ms. Kayalvizhi.S, PST Kayalvizhi.teacher@gmail.com Cont.-9500365883	Mr. R.Kulasegaran, Headmaster ghs.kalmandapam@gmail.com 9894739283	Government High School, Kalmandapam, Madukarai main road, Puducherry-605106
19	ALS Project Work:	Mr. Jinu Harikesh	Mr. Ravi Venkateswer	Kendriya Vidyalaya

	A means to an end [A Design Thinking & Social Innovation Challenge]	Pavithran, PGT (English) Jinu.pavithran@gmail.com Cont.-9482396354	Rao, Principal kvdrdobangalore@gmail.com	DRDO, CV Raman Nagar, Bengaluru-560093 Karnataka Ph. - 080-25243919
20	Language Learning through master mind cards	Mrs.Virginia Sunder Raj, TGT (English) virginiasraj@gmail.com Cont.-9949310877	Sri Ch. Sreenivasulu, Principal, principalkvpicket1521@gmail.com Cont.-9618067234	Kendriya Vidyalaya Picket, Secunderabad, 500009, Telangana Cont.- 9618067234
21	Effectiveness of GKA Kit in Developing the addition in the student of class-03 In FLN (Numeracy)	Mr. Rajesh Kumar Biswal Assistant Teacher Email:rajeshbiswal450@gmail.com Cont. 9337872575	Mr. Satyanarayan Sahu Headmaster	Govt. UGHS, Nirgundi, Jhigidi, B.Cuttack , Dist. Rayagada Odisha-765019 Email:govtughsnirgundi1962@gmail.com Cont. 9438237515
22	Connecting village locals to school through sociocultural cum environmental events: An experiment conducted in UMS Shikarpur	Mr. Kamakhya Narahyan Singh Assistant Teacher Email:Kanasingh@gmail.com Cont. 8789730624	Shri Jaydev Marandi Head Master	Upgraded Middle School, village - Shikarpur, Block-Masalia, Dist.- Dumka, Jharkhand – 814167 Email:jaidevmarandi80@gmail.com Cont. 8789576322
23	Effect of Documented Problem Solving Strategy on the academic achievement in physics at senior secondary level	Mr. Bhimsen Panda (PGT Physics) Email:Bpbhimsenpanda0@gmail.com Cont.-7008947539/9692392109	Mr. Aditya Kumar Panda Principal	Kendriya Vidyalaya No. 1 Bhubaneswar(2nd shift), Unit-IX, Bhoi Nagar, Bhubaneswar, Odisha-751022 Email:Kv1bbsrconf@gmail.com Kv1bbsrweb2@gmail.com Cont- 6306093784/ 9450130588
24	Innovative teaching approaches for science in class VIII (after the COVID - 19 Pandemic)	Ms. Snigdha Panda Headmaster Email:snigdha.rk@gmail.com Cont.- 9861323650	Ms. Snigdha Panda Headmaster	Govt. High School, Lahanda, Atabira, PO-Lahanda, dist – Bargarh, Odisha – 768111

				Email: lhs.lahanda.barg1499@gmail.com Cont. - 9861323650
25	Effect of Recreational Mathematical Activities on Students' creativity in Mathematics	Dr. Tarun Kumar Tyagi Assistant Professor taruntyagi@cusb.ac.in Cont- 8789847951 & Lt (Dr.) Pragya Gupta Assistant Professor pragyagupta@cusb.ac.in Cont- 9508376400	Col. Rajiv Kumar Singh (Retd.) Registrar	Central University of South Bihar, GayaSH-7, Gaya Panchanpur Road, Vill.Karhara, P.O.- Fatehpur, Gaya, Bihar- 824236 Email: registrar@cub.ac.in Cont. 06312229507
26	Development of Teaching-Learning Material by incorporating of Naga Indigenous games/Toys and Naga Oral tradition of storytelling	Smt. Vikeseno Visa, Teacher Educator Vikeseno14@gmail.com 08837264885	Smt. Keruupfeu Rupreo, Principal principidietchc@gmail.com 09436011911	District Institute of Education and Training (DIET), Chiechama, P.O. Cheichama, Kohima, Nagaland - 797105 Mob No: 9436011911 Email: principidietchc@gmail.com

List of Awardee Teachers / Teacher Educators: 2021-22

S. N	Topic/Title	Name & Designation of the Project Coordinator	Name & Designation of the Head of the school/Institution	Name of the School/Teacher Education Institutions
1.	Developing In-Service Teachers' Competence for designing theories driven online lessons using innovative instructional strategies	Dr. Sneh Bansal Principal sneh.bansal40@gmail.com 09216413124/ 9781925200	Dr. Sneh Bansal Principal	Chandigarh College of Education, Landran, Mohali, Punjab- 140307 principal.cce@cgc.edu.in Ph.-01723984210/237

2	Integration of other subjects with EVS.	Ms. Rakhi Dayma, PRT rakhidayma@yahoo.com 8630892710 Sh. V.K. Tyagi Principal kvroorkeel@gmail.com	Sh. V.K. Tyagi Principal kvroorkeel@gmail.com	K.V. No. 1 BEG & C Khanjarpur, Distt.- Roorkee, Haridwar-247667 Ph. – 01332-272402
3	Developing Reading and writing skills at Preparatory stage.	Dr. Atul Bamrara Assistant Teacher atulbamrara@gmail.com 7500941108	Smt. Laxmi Pokhriyal Head Mistress gmpsgbm@gmail.com 9634276387	Government Model Primary School Ganga Bhogpur Malla via Swargashram, Puri Garhwal, Uttarakhand-249306
4	Creating alphabetic zoo in the classroom.	Ms. Savita Head Teacher savitachauhan1972@gmail.com 8923995858	Ms. Savita Head Teacher	Primary School Naudai Bangar, P.O.- Narora Block-Debai, Distt.- Bulandshahar Uttar Pradesh- 203389
5	"Catalysing biology lessons of NCERT textbook of Senior Secondary classes through QR codes"	Ms. Rina Krishnan PGT (Biology): rina.krishnan22@gmail.com 8383843294	Mr. Satish Kumar Sharma Principal satishdhikauli@gmail.com 9435523638	Kendriya Vidyalaya Lalitpur, Budhwar Road, Lalitpur, Uttar Pradesh-284403 kvlalitpur@gmail.com Ph.- 05176-297123
6	Virtual Yatra (Bring the world inside classroom)	Mr. Amit Kumar Tiwari TGT (WE) imind.amit@gmail.com 8486018327/9099523329	Mr. PushpendraSingh Principal kvbundi@gmail.com 7085321200	Kendriya Vidyalaya Bundi, Gate No. 3 Rajat Grah Colony, Nainwa road Bundi, Rajasthan-323001 Ph. 0747-2940161
7	Math's Phobia now no more, Amazing Maths ye Dil maange more	Mrs. Suman Soral & Mr. Pankaj Soral Primary Teacher sumansoral@gmail.com 7231964151 soralpankaj@gmail.com 7231964152	Sh. Vivek Yadav Principal kv1afsjodh@rediffmail.com 8527050370	Kendriya Vidyalaya, No. 1 Air Force Station, near Polo ground, Air Force Area), Jodhpur Rajasthan-342011

8	Developing Mathematisation ability through Real-world Mathematics problems : An Experimental Study	Dr. Tarun Kumar Tyagi Assistant Professor taruntyagi@cusb.ac.in 8789847951	Mr. Rajiv Kumar Singh Registrar	Department of Teacher Education, Central University of South Bihar, GayaSH-7, Gaya Panchanpur Road, Vill.- Karhara, P.O.- Fatehpur, Gaya, Bihar- 824236
9	Effectiveness of verbal mode of answering questions during written examination converted into list using software: A case study.	Mr. Kousik Mukherjee PGT Biology kmjnvk007@gmail.com 9437657261/7978418870	Mr. Nrusingha Charan Kar Principal jnvdhenkanal@gmail.com 9437665821	Jawahar Navodaya Vidyalaya, AT/Po. IGIT Sarang, Dist-Dhenkanal, Odisha-759146 Ph.- 06760-295622
10	Enhancing reading comprehension skills in English among VIth Standard Students through Semantic Mapping Strategies	Ms. Usha. S Lecturer usha71183@gmail.com 8838755505	Dr. A. Ananthi Principal In-charge: dietsvg@tn.nic.in 04575-239614	District Institute of Education and Training, Kalayarkovil, District- Sivgangai Tamilnadu- 630551
11	Reinforcement of Concepts in 'Progressions' through Arith-Metric Game	Dr.Kappagantu Rama Krishna, Lecturer krkrishna2011@gmail.com 9032044115/ 8897547548	Dr. A. SrinivasaMurthy Principal smanantharaju@gmail.com 9848341971	.R.S.V College of Education , Gandhi Nagar, Vijayawada, Andhra Pradesh- 520003 Email:srsvce_vja@yahoo.com
12	Teaching the concept of 'Location of the Places on the Globe & Map'	Dr. M.R. Brahmanandan Teacher Educator brahmanandan36@gmail.com 8281721753/9388701753	Dr. V.K. Jayakumar Sr. Principal vkjk99@gmail.com 9447047599	Sabarigiri College of Education, Anchal (P.O) Dist.- Kollam Kerala- 691306 sceaprincipal@gmail.com Ph.- 0475-2277387
13	Learning Science through Stop Motion Animation	Mrs. A. Suganthi, PRT asuganthi531@gmail.com 9843680227/9843987	Mr. Tajudeen Ali Ahmed Head Master	Government Primary School Koonichempet, Puducherry- 605501

		974		
14	TAPS (An acronym for Title, Author, Paragraph and Structural Study), a Novel Technique for improving comprehending ability of a prose text in English among Secondary School Students	Dr.Surekha Rani Kotha, School Assistant krishnasurekha1@gmail.com 7095448485	Mrs. S. Durga Devi Head Mistress sddevi1970@gmail.com 9182757972	Z.P. High School, Siripalli, AinvilliMandal, Dist.- East Godavari, Andhra Pradesh- 533211
15	The Effectiveness of "7E' Learning Cycle Model and Simulations on High School Students' Understanding and Motivation in Physics Concepts	Dr. V. GurunadhaRao, School Assistant nathvoore06@gmail.com . 9866549297	Mr. S.Vishnuvardhan Head Master zphs.kambalapally1617@gmail.com 9398310236	ZillaParishad High School, Kambalapally, Dist.- Mahabubabad, Telangana- 506103
16	Mathematics made Joyful with Geogebra	Mrs. K. Nirmala Devi TGT kvafsbegumpet@gmail.com 9346977652	Mr. R. Sankar Principal ramisettysankar@gmail.com 7337526735	Kendriya Vidyalaya, AFS Begumpet, Bala Nagar Road, New Bowenpally Beside Bharat Petroleum, Hyderabad, Telengana- 500011
	Prof. B.P. Bhardwaj Programme Coordinator DTE, NCERT Sri Aurobindo Marg, New Delhi – 110016 Email : bpbhardwajncert@rediffmail.com Mob.: 09810600537			

List of Awardee Teacher / Teacher Educators: 2019-20

S.N.	Topic/Title	Name & Designation of the Project Coordinator	Name & Designation of the head of the school/institution	Name of the School /Teacher Education Institutions with postal address e-mail phone number, fax number etc.
RIE Ajmer : Category – Secondary School Education (SSE)				
1.	कक्षा में हिन्दी भाषा शिक्षण को रुचिकर व आनंददायक बनाने हेतु नवाचार शिक्षण अधिगम सामाग्री का निर्माण एवं उसका क्रियान्वयन	Dr. Vijay Kumar Chawla PGT, Hindi Email:- vijaychawla95@gmail.com M. 9416189435	Mr. Sandeep Singh, Principal Email:- gmsssskeorak@gmail.com M. 9416295152	Government Model Sanskriti Senior Secondary School (2186) Keorak Kaithal- 136207 Haryana
2.	I-Movie Preparation on a subject topic by use of features of android mobile for revision purpose (Use of ICT In Education)	Ms. Sheela Asopa Principal Email:- sheelaasopa123@gmail.com M.- 9413057111	Ms. Sheela Asopa Principal Email:- sheelaasopa123@gmail.com M.- 9413057111	Government Senior Secondary School Dhawas, Block-Luni Distt.- Jodhpur – 342014 Rajasthan
Category - Secondary Teacher Education (STE)				
3.	Skill Development Programme to Prepare Competent Teachers	Dr.Jasdeep Kaur & Ms. Shilpa Kaura, AssistantProfessor Email:- jasdeep.simarnoor@gmail.com M.- 8872231965, 82824862505	Dr. Monika Dua Principal Email:- monikasethi840@gmail.com M. 9815408765	BCM College of Education, Sec-32 A, Urban Estate Chandigarh Road, Ludhiana- 141010, Punjab
4.	Poetic presentation of mathematics and its pedagogy	Mr. Shashi kant Pandey, Assistant Professor Email:- shashikantpandey@msi-ggsip.org M.- 8826185268	Dr. Rachita Rana Director Email:- director@msi-ggsip.org M.- 9891113744	Maharaja Surajmal Institute (Affiliated to GGSIP University) C-4, Janakpuri, Delhi-110058
Category- Elementary School Education (ESE)				
5.	Snakes and Ladders (A Play way approach of teaching in Mathematices for Class I)	Mr.Varinder Kumar Head Teacher Email:- vk727vk@gmail.com	Mr.Varinder Kumar Head Teacher Email:- vk727vk@gmail.com	Govt. Primary School Vill.- Machaki Mal Singh, Po.- Sandhwan Distt.- Faridkot- 151209, Punjab

		M.- 9872600104	M.- 9872600104	
6.	To assess and Enhance Physical Environmental Awareness among the elementary school students	Mr Pankaj Kumar Sharma TGT Science Email:- pksasr@gmail.com M.- 9915231591	Ms. Ritu, In-charge Teacher Email:- gmsbhoewaliasr@gmail.com M.- 9464777568	Govt. Middle School, Village- Bhoewali, Tehsil- Ajnala Amritsar Punjab - 143102
RIE Bhopal : Category- Secondary Teacher Education (STE)				
7.	Integrated and Collaborative Teaching Learning (ICTL) Model to meet the challenges of students, in and out of the class room: An Experimental Study	Dr. Susamma Johnson, Assistant Professor Email : sweetjohn_65@rediffmail.com M. 7566983065	Mr. Dinesh Awasthy Director Email :- dineshawasthy@gmail.com M. -9407869774	State Institute of Science Education, PSM Campus, Jabalpur- 482001 Madhya Pradesh
Category- Elementary School Education (ESE)				
8.	Impact of the ARCS Blended Teaching learning programme on teaching and learning of Environmental Science at primary level	Dr. Gargee Mitra Deputy Head Email:- gargeemitra@yahoo.com M.- 9850555784	Dr. Gargee Mitra In charge Head Email:- head-sscd@symbiosis.ac.in M.- 9075088770	Symbiosis School Central Directorate (SSCD), Symbiosis School, 15th Lane, Kashinath Shastri abhyankar road Deccan Gymkhana , Pune- 411004, Maharashtra
Category- Secondary School Education (SSE)				
9.	Don't Say It Problem, It Is A Solution Nature Gifted Me Precious Menstruation	Mrs. Sarika Dhanyakumar Jain, Sec.Teacher Email:- jsarika945@gmail.com M. 9420421380, 9325730020	Mr. Gorakhnath Patilba Najan Headmaster Email:- najangp@gmail.com M.- 8888131288	Zilla Parishad Secondary School, Ladsawangi, TQ & Distt.- Aurangabad, - 431007, Maharashtra
10.	Developing a sense of preserving Indian Culture among students through the Performing Art Education-Dance	Mr. Nilesh Arvindbhai Parekh Dance Teacher Email:- nilesh.dance@gmail.com M.- 9426336901	Dr. Archana Mishra Principal Email:- vidyani@navrachana.edu.in M.- 9824353133	Navrachana Vidyani Vidyalaya, Near Sama Sports Complex, Vadodara-390024, Gujarat M.- 9429429374
NERIE Shillong : Category- Elementary Teacher Education (ETE)				

11.	School Gardening- A Science learning Tools for sustainable development	Mr. Rajib Ranjan Dhar, Email:- dharrajib72@gmail.com M.- 6002521443	Mr. Sekhar Dhar Headmaster Email : M.	Rabindra Vidyapith ME School, Triangular Colony, Pandu , Guwahati-781012, Assam
Category- Secondary School Education (SSE)				
12.	Finding out Square of any Number Arithmetically	Mr. Tapash Kumar Sarkar, Asst. Teacher Email:- tapashdeysarkar.321@gmail.com M.- 9954525893	Mr. Victor Tigga Head Master Email:- victigga@gmail.com M.- 9435725359	St. Joseph's High School (Amalgan) Barpeta Road, Barpeta Assam-781315
13.	Implementation of creativity and problem solving through Art Education	Miss Shaheena Ali , TGT (Art.Education) Email:- shaheenaali0@gmail.com M. 9599542297	Mr. K. Alung Khumba Principal & Project Coordinator Email:- kv2langjing@gmail.com M.- 9435516758	K.V. No.2, Imphal, Langjing, G.C. (CRPF), P.O. Langjing, Imphal West,Manipur-795113 Ph. 0385-2436136
14.	Innovative method of Teaching in Mathematics Classroom	Dr. Munindra Kumar Mazumdar PGT Mathematics Email:- coexammps@gmail.com M.- 9864091419	Principal Maria's Public School Email :- principal@mariaspublicschool.org Ph.- 0361-2647880	Maria's Public School, Birkuchi, Narengi Guwahati- 781026, Assam
RIE Mysore : Category- Elementary School Education (ESE)				
15.	Developing observation skill of budding scientist through Science experiments and activities	Ms. Chandiraleka Gurusamy, PRT, Email:- chandiralekagurusamy@gmail.com M.- 9597187722	Mrs. D. Kalaivani Teacher Incharge Email- gpsktkuppam@gmail.com M.- 9003738586	Govt. Primary School Kalitheerthal Kuppam Madagadipet (Post) Puducheryy-605107
Category- Secondary School Education (SSE)				
16.	Vocabulary development in Hindi Language- A Language Game	Smt. D.S.B. Subrahman- - yeswari, School Assistant Email :-	Mr. N.V.S. Suryanarayana Principal Email :- suryammtm@gmai	Jai Hind Secondary School (Aided), Inagudurupeta, Machilipatnam-521001,

		krish.pav@gmail.com M.- 09293171818	l.com M.- 09246451158	Andhra Pradesh
17.	Let's be Cyber Smart: Cyber Security awareness and Education among students	Mr. Mujib Rahiman K U Librarian Email :- kvklibrarian@gmail.com M. 9946152785	Ms. Anitha G Principal Email:- anithag67@gmail.com M.- 9447946235	Kendriya Vidyalaya Kanjikode West, Palakkad, Kerala- 678623 Email- principalkanjikode@yahoo.com Tel.- 0491-2566317
18.	Effectiveness of Six thinking Hats Technique in Teaching History among the high school students in Puducherry: An Experimental Study	Ms. P. Vanthy TGT Email :- vanathy.teacher@gmail.com M.- 9994196886	Mrs. G. Papmmal Headmistress Email- kvghss@gmail.com M.- 9442516170	Kavingareru Vanidasanar Govt. High School, Seliamedu, Puducherry- 607402
19.	Development of 'Seven Seventy' strategy for learning of English	Mr. Shaik Habeeb Ali, PGT English Email:- habeebshaik2020@gmail.com M.- 9618809463	Dr. Mohd. Mubeen Principal Email:- mdmubeen@hotmail.com M. 949304786	Knowledge Park International School, Nizamabad- 503186 , Telangana
20.	Poorna Samghyam, Knowing Integers	Smt. Mini Sekhar S, TGT Email :- mini.sekhar42@gmail.com M.- 8129839822	Mr. MK Rajappan Principal Email:- mkrajappankozhuvallor@gmail.com M.- 9496297233	Kendriya Vidyalaya No.1, Hemambika Nagar, Palakkad- 678009, Kerala
21.	Re-Building the green Earth	Mr. Rajesh Kumar .G.C, TGT, Science Email:- rajeshabeer@gmail.com M.- 9447717154	Mr. Jyothi Mohan.N.V. Principal Email:- kvsaptvpm@gmail.com M.- 9496654918	Kendriya Vidyalaya-Sap, Peroorkada, Thiruvananthapuram, Kerala- 695005
22.	The Use of ICT in ELT	Dr. S.Satyam School Assistant (English) Email :- sbsatyam66@gmail.com M. 09848927472, 08919776108	Mr. K. Laxmanna Head Master (FAC) Email:- laxman7199@gmail.com M. 9182441908	ZPHS Mondrai, Mdl. Sangem, Warangal Rural Distt. Telangan- 506331
23.	Learning Science through stop motion	Ms. R.Anita TGT	Mr.D. Vijeacoumary	Government High School,

	Animation	Email:- malarsvsani@yahoo.co.in M.- 9943923777	Head Master Email:- ghsmettupalayam2@gmail.com Tel.-04132274088	Mettupalayam, Puducherry- 605009
RIE Bhubaneswar- Category- Secondary School Education (SSE)				
24.	Evolve strategies for inculcation of peace and other Human values in the school children	Mr. Ajay Kumar Barad Asst. Teacher Email:- ajaybarad62@gmail.com M.- 7978022457	Mrs. Baijayanti Satal Head Master Email:- samalb2020@gmail.com M.- 7205750373	Bajpur Nodal high School, Post- Bajpur, Distt.- khordha- 752060, Odisha
25.	Impact of Microscopic study and experiment based video on the learning process of Life Science in class Seven and Nine	Dr. Tushar Kanti Nath Assistant Teacher Email:- tushar_kly@rediffmail.com M.- 9635547188/ 9434553582	Mr. Sudin Bhattacharyya Head Master Email:- 19101711401.hsb@gmail.com M.- 9830343995	Fatepur High School, P.O.- Fatepur, VIA- Subaranapur, Haringhata, Dt.- Nadia- 741249, West Bengal
Category- Elementary Teacher Education (ETE)				
26.	Combating Dyslexia through suitable Learning Strategies	Mr. Alok Rana Teacher Educator Email:- alok.kjr07@gmail.com M.- 9438192207	Dr. Kartikeswar Roul, Principal Email:- kartik.diet@gmail.com M.- 7205991148	Government Elementary Teacher Education Institution, Fakirpur At/Po- Fakirpur- , Keonjhar- 758022, Odisha
27.	Effects of Pupperty based learning activities on achievement of the learners in Social Studies	Dr. Santosh Kumar Parida, Senior Teacher Educator Email:- parida.santosh123@gmail.com M.- 9668728400	Dr. Manju Bala Sahoo Principal Email:- nayagarhdiet@gmail.com M.- 9437289905/ 6370707671	District Institute of Education and Training Nayagarh, Raisunakhala, At/Po- Rajsunakhala- 752065, Dist.- Nayagarh ,Odisha
Category- Elementary School Education (ESE)				
28.	Innovative Teaching Practice in Mathematics of Class Sixth	Dr. Namita Mohapatra Asstiant Teacher Email:- namitalig105@gmail.com M.- 9861124280	Mr Haramani Behera Head Master Email:- haramani.behera@gmail.com M.- 9337547469	UGUP School Aerodrome Colony , Lane-2, Aerodrome Area, , Bhubaneswar – 751020, Odisha

	Prof B.P. Bhardwaj Programme Coordinator Department of Teacher Education NCERT, Sri Aurbindo Marg, New Delhi- 110016	Phone No. 011-26567320 Mob No. – 9810600537 bpbhardwajncert@rediffmail.com

List of Awardee Teacher / Teacher Educators: 2018-19

(2017-18 onwards the scheme for award has been revised as National Awards for Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions)

S.N	Topic/Title	Name of School/Education Institutions	Name & Designation of Team Leader & Project Coordinator
1.	Innovative Practices For Teaching Science To School Students With Learning Disabilities.	DAV Centenary School Urban Estate Jind-126102 (Haryana)	Ms.Sukriti PGT, Biology Copy : Dr. D.D.Vidyarthi Principal
2.	Overcoming Maths Phobia: Blending of Ancient, Modern and Traditional Techniques in Mathematics.	Govt. Boys Sec. School No. 3, Mehrauli, New Delhi-110030 gbssno3@live.in Phone: 011-26645218	Sh. Praveen Kumar TGT Computer Science Copy : Sh. V. Selvarasu HOS/Vice Principal
3.	High Five Approach (STPPST)	SKV, IARI, Pusa, New Delhi- 110012 skvpusa@gmail.com Phone : 011-25841085	Ms. Surinder Kaur TGT (N.Science) Copy : Ms.Darshan Kalra Head of School
4.	Importance of positive student-teacher relationship	Govt.Co Ed. S S School Sec.6 Rohini, Delhi- 110085	Mrs. Reena TGT, Math Copy to : Dr. G.S. Sharma Principal
5.	Improvement in the infrastructure and basic amenities of schools by securing financial assistance from the alumni of schools.	Primary School Firojabad Sarsawa, Saharanpur Uttar Pradesh-247231	Sh. Sushil Kumar, Principal Copy to : Sh. Sushil Kumar, Principal
6.	Learning outcome by concept mapping	Firojabad Sarsawa, Saharanpur	Dr. Shrawan Kumar Gupta, Assistant Teacher

		Uttar Pradesh-247231	Copy to : Sh. Onkar Mishra Principal
7.	8Inclucation of Environment Awareness and environmental ethics among students to conserve the environment through low cost innovative Projects and activities.	Maharaja Agrasen Model School, CD-Block, Pitampura, Delhi- 110034	Dr. PratibhaKohli, Principal Copy to : Dr. PratibhaKohli, Principal
8.	Developing of Handwriting Skills among KG and Ist grade Students of Primary Schools of Jammu and Kashmir.	Govt. Middle School Mohlipora Saidpora Sopore Zone Dangerpora, Dist. Baramullah -193201 J&K	Sh. KhadimHussain Wani Teacher Copy to : Ms. Abida Nabi Headmaster
9.	Innovative Practices for Correlation terminology of different languages	Govt. Middle School, Ramgarh(Nawapind), Khanna, Ludhiana- 141401 Punjab	Sh. Balram Sharma Punjabi Master Copy to : Dr. Shiv Sharan Head Master
10	Impact of Project RAM (Room as a Mathematical Tool) on Expected learning outcomes of class-3 students in the subject of Mathematics : A Study	District Institute of Education and Training (DIET) ChhotaMawana, Distt. Meerut, Uttar Pradesh-250401	Ms.Poonam Garg Assistant Teacher Copy to : Sh.Shravan Kumar Yadav, Principal
11.	Attitudinal Change and Learning Achievement among Pre-Service Teachers through Blended Learning: An Experimental Study	Amity Institute of Behavioural and Allied Sciences, Amity University, D Block- IIIrd Floor, Sector-125,Gautam Budh Nagar Noida, Uttar Pradesh-201313	Dr. Harish Kumar Head of Department Copy to : Dr. Harish Kumar Head of Department
12.	Improving Science Teaching Skills of Prospective Teachers using 5E Model	District Institute of Education and Training (DIET) Gyanpur, Bhadohi, Uttar Pradesh - 221401	Sh.Rajesh KumarPandey Teacher Educator Copy to : Sh.Bhupendra Kumar Singh Principal

13.	Preparing School to meet the Challenge of Inclusive Education for Children with with Disabilities: A Collaborative Action Research Network.	Chandigarh College of Education, Landran, Mohali, Punjab- 140307	Dr.Sneh Bansal Principal Copy to : Dr.Sneh Bansal Principal
14.	Web Based Collaborative Pedagogy	Hansraj Jivandas College of Education, Dr. Madhuri Shah Campus Ramkrishna Mission Marg, Khar(W), Mumbai-400052 Maharashtra	Dr. Usha Borkar Associate Professor Copy to : Dr. Anita Swami Principal
15.	Programme for pre-service teachers for teaching school subjects using ESA model and their teaching competency	Adarsha Comprehensive College of Education and Research, Erandavana, Karve Road, Pune-411004 Maharashtra	Dr. Lalita R. Vartak Principal Copy to : Dr. Lalita R. Vartak Principal
16.	Use of QR Code in Teaching Learning Process	Zilha Parishad Primari School Dahiwadi, Tal-Tasgaon Dist-Sangli-416311-Maharashtra	Mr. Ajay Mahadev Kale PRT Copy to : Sh. Namdev Tukaram Patil Principal
17.	Living Economic Theories and Learning to Apply	Navrachana School, Sama, Vadodara, Gujarat, 390008	Dr. Smita Das PGT- Economics Copy to : Ms. Bijoya Baksi, Director
18.	Developing B.Ed. trainees'Vocabularywith cross word puzzles	SPMH College of Education Edepally, Machiliptnam -521001 Distt. Krishna, Andhra Pradesh	Ch. S. Sailaja, Lecturer in English Copy to : Dr. V.V. Sailaja, Principal
19.	Effectiveness of Self Questioning Practice as a revolutionary strategy towards enhancing ownership in learning of secondary school Students	NSS Training College, Pandalam, Pathanamthitta (Dist) Kerala -689501	Dr.Sreevrinda Nair N Assistant Professor Copy to : Dr K Remadevi Principal,
20.	Development of a Strategy	SCERT Kerala Poojappura,	Dr B Sreejith

	for continuous and comprehensive assessment of Pre- Service Teacher Trainees based on Meta Cognitive Aspects	Thiruvananthapuram -695 012 Kerala	Assistant Professor, Copy to : Dr J Prasad Director
21.	Primary Students as problem framers in Making connections between school Maths and everyday experiences – An Experiment	Bhashyam Blooms School,D.No. 4-5-67/6 Ring Road, Guntur-522007 Andhra Pradesh	Ms. D Sarala, Mathematics Teacher Copy to : Sh.M. Ashalatha Principal
22.	Enhancing Science Learning Through Mobile –Technology	Indira Gandhi Government High School, Sugar Mill road, Katterikuppam, Puducherry – 605 502	Sh. S. Rajkumar TGT Science Copy to : Sh.R.Vijayalatchoumy Headmistress
23.	"CRA Technique" in teaching Mathematics	Union Middle School, Kattalai, Marakkanam Block,Tindivanam TK, Villupuram District Tamilnadu – 604307	Mr. C. Sugadev Secondary Grade Teacher Copy to : Director of Elementary Education
24.	Problem formulating Ability among Secondary school Studentsfrom the given number : A Study	Z.P.P. High School, Bandarulanka, Amalapuram Mandal, E.G.Dt, Andhra Pradesh– 533221	Sh. M Ramarao, School Assistant (Maths) Copy to : Sri N.V.S.S. DurgaPrasad Principal
25.	'Participatory Assessment Techniques for Science Learning – Innovation'	Cheddilal Government High School, Abishegapakkam, Puducherry 605 007	Sh.V. Jayasundhar, TGT Copy to : Sh. K Bakyalaxmi, Headmistress
26.	Dialogue Writing ability in English of students of A.P. BalayogiGurukulam Schools – A Study	AP Balayogi Gurukulam Kadakatla,Tadepalligudem, West Godavari District, Andhra Pradesh – 534101	Dr. B Raja Rao English Teacher/Principal Copy to : Sh. B Raja Rao Principal
27.	A Study of the habitat of theplantsthrough morphological analysis	Government High SchoolMettupalayam, Puducherry – 605009	Ms. R Anita TGT Copy to:

			Sh. D. Vidjeacoumary Headmistress
28.	Impact of Teaching Through Shadow puppets on Identification of Alphabets amongearly grade students	Sarsara Project U.P School V.P.O-Sarsara Distt.-Bondh, Odisha, -762026	Sh.Basanta Kumar Sahu Headmaster Copy to : Sh. Basant Kumar Sahu Headmaster
29.	Gamify Mathematics (Creating interest and fun in learning Mathematics through games and art activities among primary learners)	Kerala Public School, Kadma, Uliyan, Jamshedpur, Jharkhand-831005	Ms. Arpita Singh Assistant Teacher Copy to : Ms. K. Jaishree Headmistress
30.	Application of co-curricular activities for promoting interest among the rural Odia learners towards learning Hindi	Jawahar Navodaya Vidyalaya, PO-Gurujang, Khordha,Odisha-752057	Sh. Dilip Kumar Badatya TGT Hindi Copy to : Mr.P. Narasima Rao Principal
31.	Effect of Mathematical Games on Developing Mathematical Skills among the Young Learners.	New Address : DIET, Dhenkanal Dhenkanal- 759001, Odisha **Old Address :** Govt. ETEI, Athgarh, Cuttack, Odisha-754029	Sh. Sachidananda Mishra, (New Post after Transfer) Sr. Teacher Educator **Old Address Post** Sh. Sachidananda Mishra, Principal
32.	Effect of Problem Based Learning Approach on knowledge Integration among Higher Secondary Students	JNV, Goju, Bordumsa, Changlang, Arunchal Pradesh-792056	SH. Sandip Dutta, PGT Biology Copy to : Sh.D.Vijay Bhasker Principal
33.	Learning outcomes among school going children : Comparison of Informal and formal Science Teaching	Delhi Public School Duliajan, Dibrugarh, Assam- 786602	Sh. Subrahmanya Kumar Sripada, Principal Copy to : Sh. Subrahmanya Kumar Sripada, Principal

34.	ICT Supported Techniques for developing scientific Skills among the high school students	Zilla Parishad Secondary School Kambalapally – 506103 District & Mandal: Mahabubabad, Telangana	Dr. V Gurunadha Rao Teacher Copy to : Sh. M Srinivasulu Head of the School

List of Selected Teacher /Teacher Educators: 2017-18

(2017-18 onwards the scheme for award has been revised as National Awards for Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions)

S.N.	Topic/Title	Name of School/Education Institutions	Name & Designation of Team Leader & Project Coordinator
1.	Mind Mapping an innovative ICT oriented approach to learn and memorize	Jawahar Navodaya Vidhyalaya Theog Distt. Shimla HP- 171201 01783-238248,	Sh. Yogesh Kumar PGT Biology Copy to: Sh. Suman Kumar, Principal
2.	Yuva Gram Panchayat Competition	SCERT Haryana, Sohna Road, Gurugram- 122001 Haryana	Sh. Braham Parkash, Lecturer Copy to: Dr. Kiran Mayee, Director SCERT
3.	Comparative study of PEN_PAPER and ICT based exam at school level	Govt. Middle School Ramgarh (Nawapind) Khanna, Ludhiana, Punjab-141401	Sh. Kapil Dev Soni, Science Master Copy to: Dr. Shiv Sharan, Principal
4.	Developing ICT enabled Multimedia Educational videos in regional languages using Local resources (Teacher & Students)	DIET, Sopore, Opposite Habibulla Eye Hospital, Town Hall, Sopore, Baramulla-193201, J&K	Sh. Sajad Akbar Rather, Teacher Copy to: Sh. Balbir Singh, Principal
5.	Development of classroom support material in mathematics using Geogebra application.	DIET, Uddham Singh Nagar Rudrapur, Uttrakhand-263153	Sh. Mohan Singh Rawat Lecturer Copy to: Sh. Dharam Singh Rawat, Principal

6.	Magicof Science Experiments in My School"	Jepar Primary School At-Jepar Ta-Chuda Dist-Surendranagar Gujarat -363410	Dr. Dipak Kumar Ratilal Mehta, Assistant teacher Copy to: Sh. Mukundbhai Prabhubhai Makvana Head Teacher
7.	Creating Audio Books for developing linguistic skills and making it available for students and community through social media.	Zilla Parishad School Anjurfata, Anandnagar Rahnal, Taluka-Bhiwandi, Dist-Thane, Maharashtra 421302	Sh. Alankar Kanha Warghade Copy to: Mrs. Pushplata Kashinath Gaikwad
8.	Movable Library	Kalol Primary School No.9 Near Ice Factory, Kalol, Dist-Gandhinagar, Gujarat 382721	Ms. Priti Roopchand Gandhi (Head Teacher) Copy to: Ms. Priti Roopchand Gandhi (Head Teacher)
9.	**I**mproving the Students Grammar Through Innovative Grammar Games-(Play Way Method)	KV No.1(MR Campus), Shahibaug Near Police Commissioner Office, Ahmedabad Gujarat -380004	Mrs Rashmi Jain Bayati PRT
10.	Construction and Effectiveness of the Learning Strategies Programme for the Students of Senior Secondary School	**G**ovt. Model School, Avaniya, At- Avaniya, Town-Ghogha, Distt.-Bhavnagar, Gujrat-364110	Dr. Nikunjkumar B. Vyas.(Shikshan Sahayak) Copy to: Sh. Samirbhai Jani, Principal
11.	Beautyof ART through GOLDEN RATIO Exploring Nature's Great Secrets through Mathematics Integrated Art Education (MIA)	Navrachana School, Sama, Vadodara, Gujarat, 390008	Dr**.** Deepak Mahakul (Visual Art Director) Copy to: Ms. Bijoya Baksi,Director
12.	A Smart Hand Glove for the Children with hearing and speech impairment	Navrachana School, Sama, Vadodara, Gujarat, 390008	Sh.Tushar Upadhyay (Asssistant Teacher) Copy to: Ms. Bijoya Baksi, Director
13.	To create interest and motivate students towards the subject mathematics by applying various	Jawahar Navodaya Vidyalaya, Gurujanga, Khurda, Odisha 752057	Ms Pramila kumari Sahoo TGT, Mathmatics Copy to: Mr. P. Narasimha Rao Principal

	techniques		
14.	Teenagers of tomorrow through life skill experience	SDSM School for excellence, Dispensary Road, Sidhgora, PO Agrico, Jamshedpur, Jharkhand 831009	Ms Abha Biswakarma PGT Copy to: Ms. Moushumi Das Principal
15.	Effectiveness of the vocabulary kit in developing the Vocabulary	Balabhadrapatana UGUP School Balabhadrapatana, Palanka Puri, Odisha 752011	Ms. Akhaya Kumar Dash Asst. teacher Copy to: Purusottam Prathan Head master
16.	Correlating language learning with other subjects (Maths & EVS)	Government Primary School Kalitheerthal Kuppam Madagadipet (Post) Puducherry-605107	Ms. B SuganthiProject Coordinator Copy to: S Selvacoumar Head of the School
17.	Gamified Grammar – G2	Govt. Higher Secondary School Gingee Taluk, Villupuram District, Tamil Nadu – 604153	Shri. S Dhilip Project Coordinator Copy to Shri. G. Ganapathy Head of the School
18.	Secondary School Students ability to formulate problems from the diagrams	Zilla Panchayat Primary Boys High School, Mukteswaram, Antapuram Mandal, East Godavari District, Andhra Pradesh-533201	Mr. T S V S Suryanarayana Murty Project Coordinator Copy to Sri P V Ravi Prasad Head of the School
19.	Enhance science learning through exp EYES junior toolkit	Government Boys Higher Secondary School Sayalgudi, Ramanathapuram District, Tamilnadu – 623120	Mr. Bergin G Project Coordinator Copy to Mr.G. Sekar Head of the School
20.	Effectiveness of Medium – Impact of Blend in teaching of Integer arithmetic and Algebra for class VII students	District Institute of Education and Training, Palayampatti, Virudhunagar District Tamil Nadu– 626112	Mr. D Kasi Project Coordinator Copy to Mr. G Shanmugasivamani Head of the Institution

21.	Improving students cognitive retention through drawing techniques at elementary level in sivgangai district	DIET, Kalayarkoil Sivagangai Dt. Tamil Nadu – 630551	Dr. A Ananthi Project Coordinator Copy to Dr. M Chinnappan Head of the Institution
22.	Learning Different Landforms and their Conventional Colour Symbols through Games	DIET, Kalayarkoil Sivagangai Dt. Tamil Nadu – 630551	Dr. M Chinnappan Project Coordinator Copy to Dr. M Chinnappan Principal
23.	Developing ASK in Organic Farming among Prospective Teachers	St. Thomas College of Teacher Education Mylacompu, Thodupuzha-685608 Idukki, Kerala	Dr. Johnson Mathew Project Coordinator Dr. C.C Kurian (Assistant Coordinator) Copy to Dr. (Sr.) Christina Augustine Head of the Institution
24.	Identification and Management of Scholastic Problems of Children	Delhi Public School, Duliajan, Dibrugarh, Assam 786602	Ms. Nandita G. Sarma PGT English, Psychological Counsellor Copy to: Mr. Subrahmanya K.S. Principal
25.	Virtual Classroom System	Jawahar Navodaya Vidyalaya Rohtak, Pipley, Naya bazar, West Sikkim, Sikkim 737121	Sh. Prashant Kumar PGT Computer Science Copy to: Sh. Jitendra Kumar Principal

List of the selected Schools/Institutions: 2016-17

S.N	Topic/Title	Name of School/Education Institutions	Name & Designation of Team Leader & Project Coordinator
1.	Lexicon Safari An Initiative to Bridge the Gap between Vocabulary and Communication Skills	Kendriya Vidyalaya No-1 , Opp. Central India Flour Mill, Bhopal, Madhya Pradesh Pin code-462011	Shri. Saurabh Jaitly Principal Mrs. Lalima Bhattacharya (Primary Teacher)
2.	The Role of Class Magazine for Development of Language Skill	Kendriya Vidyalaya Kanker, Dist. Kanker Chhattisgarh-493776	Principal Dr. Ajay Arya (T.G.T. Sanskrit)
3.	The School Organic - Garden Project	DIET Chiechama Kohima, Nagaland Pin Code-797001	Sh. Keruupfeu Rupreo Principal Ms. Agnes Krocha (Lecturer)
4.	Child Friendly Schools -First Step from the Classrooms Ensuring Child Friendly Classroom environment An experiment to experience and expedite	Sannathi Aided Elementary School, 38-B Sannathi Street Vandavasi-604408 Thiruvannamalai DT Tamilnadu	Ms. V. Sasikala (Head Master (I/C)) Sh. Thiru J. Rangabashyam
5.	Return to Regular Reading Habits - A Teacher CumCommunity Effort – An Innovation in Rural School	Center for English Govt. HSS Puthur Campus Kollam Kerala State-691507	Sh. Manoj C Chief Tutor Shri Anil Kumar K. Tutor, DCE
6.	Developing Human Values Grade I to V	Kendriya Vidhyalaya, AGCR Colony, Near Karkardooma Court, Delhi-110092	Sh. Mukesh Kumar Principal Dr. Rachna Jain Headmistress
7.	Student Empowerment through Values in Action	Him Academy Public School Vikas Nagar ,P.O. Daruhi, Teh. & Distt. Hamirpur (H.P.)Pin code-177001	Dr. Himanshu Sharma Principal (Academics) Dr. Pankaj Lakhanpal Director

8.	Paradigm Shift in Teaching Learning with Technological Pedagogy	Kendriya Vidhyalay No.1 CRPF GCI, GC Road, Ajmer-305007 (Rajasthan)	Sh. V.P. Sharma Principal Mrs. Ramesh Kakari
9.	माध्यमिक स्तर के विद्यार्थियों के गणित एवं विज्ञान शिक्षण में प्रायोगिक कार्य एवं आईसीटी का उपयोग	श्री अग्रसेन स्नातकोत्तर शिक्षा महाविद्यालय, सीटीई, केप्रव विद्यापीठ, जामडोली, जयपुर-302031 राजस्थान	डॉ अभिषेक कुमार सिंह प्राचार्य एवं डॉ सतीश चंद मंगल प्रवक्ता
10.	QUEST (Quality-Understand & Ensure Strategic Teaching)	DIET Barajaguli, P.S. Haringhata, Nadia, West Bengal 741221	Sri Somenath Roy Principal Dr. Ramprasad Roy

List of the selected Schools/Institutions: 2015-16

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	Effectiveness of ICT Integrated Art Education at Elementary School Stage	District Institute of Education and Training (DIET) Bhadrak, Agarapada, At-Purusandha, Po-B.T. Pur, PS- Agarapada, Dist-Bhadrak, St- Odisha, Pin-756115	Mr. Khageswar Nayak Principal Dr. Ranjan Kumar Rout
2.	Reinventing Teaching-learning Methods for Effective Learning Outcomes	SRDAV Public School, Dayananda Vihar Delhi-110 096	Mrs. Renu Laroiya Principal Ms. Vineeta Grag
3.	Soft Skills Education Programme to Foster Communication and Employability Skills among Pupil Teachers	B.C.M. College of Education, Sec 32A, Urban Estate, Chandigarh Road, Ludhiana, Punjab - 141010	Dr. Monika Sethi Officiating Principal Ms. Jasdeep Kaur
4.	A Study of Effectiveness, Problems and Prospects of the Internship Program in D.Ed. Course in Haryana	District Institute of Education and Training (DIET), Biswa Mile, Sonepat, Haryana-131001	Principal Dr. Naresh Kumar Sachdeva
5.	Health and Hygiene Programme in Schools	District Institute of Education and Training	Mr. Rakesh Kumar Principal

		(DIET,) Dadrol, Shahjahanpur (Uttar Pradesh)- 242226	Dr. Arun Kumar Gupta
6.	Parent-Teacher Co-ordinate Assessment Process for 'Facilitating the Transition of Children from Pre-Primary to Primary Section'	Saraswati Mandir Trust, Poorva Prathamik Vibhag, M.G. Road, Naupada, Thane (W)-400602	Mrs. Rati Narendra Bhosekar Principal Mrs. Anagha Aashish Rajvade
7.	Enhancing Instructional Competency of D.Ed. Trainees in Teaching Multi-grade Classes at Elementary Level	District Institute of Education and Training (DIET), Bheemunipatnam- 531 163, Visakhapatnam-Andhra Pradesh	Mr. A. Saibabu Principal Mr. K. Ramakrishanarao
8.	Dirary Writing in English - Cultivating the Regular Habit among Students of Thinking, Reflecting and Writing-aiming at Acquiring better English	Navajeevan Bethany Vidyalaya, Nalanchira P.O. Thiruvananthapuram-695 015	Ms. Shahna Renjith Principal Mrs. Suja Abraham
9.	Lecture Method: From Passive to Active Teaching-Learning Through Cooperative Learning	St. Mary's College of Teacher Education, Boyce Road, Laitumkhrah, Shillong-793003	Dr. (Sr.) Clarissa Wallang Principal Mrs. Calmy R. Kharlukhi

List of Awarded Schools/Institutions: 2014-15

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	Stress to Wellness	Kerala Samajam Model School, Sakchi Jamshedpur-831001 Jharkhand	Mrs. Nandni Shukla Principal & Team Leader Ms. Abha Viswakarma Sr. Sec. Teacher & Project Co-ordinator
2.	Promoting Inclusive Classroom Practices Among Student-Teachers in the Initial Teacher Education	District Institute of Education and Training (DIET), Old TownKeonjhar, Dist-Keonjhar-758002	Sh. Tapas Kumar Nayak Sr. Teacher Educator & Team Leader Sri Vivekananda Naik Teacher Educator & Project

	Programme Through Innovative Activities	Odisha	Co-ordinator
3.	बाल मनोप्रवृत्तियों का विकास करना	राजकीय माध्यमिक विद्यालय आच्छापुर, पोस्ट-हामिरवास, भाया- सादुलपुर, तहसील- राजगढ़, जिला- चुरू, राजस्थान- 331305	प्राचार्य एवं टीम लीडर श्री विजय कुमार आर्य वरिष्ठ अध्यापक एवं परियोजना समन्वयक
4.	Decoding Maths	D.A.V. Public School, Pushpanjali Enclave, Outer Ring Road, Delhi- 110 034 Ph. 011-27018261, 27010377	Mrs. Rashmi Raj Biswal, Principal & Team Leader Mrs. Seema Behl Project Co-ordinator
5.	Innovative Strategy for Teaching NCERT History Text Book (Themes in world History) at 10+1 Level	Govt. Model Senior Secondary School, Sector 32-C, Chandigarh-160 031	Mr. Darshanjit Singh, Principal & Team Leader Mr. Arun Kumar Sharma Lecture in History and Project Co-ordinator
6.	Integrated English for Tribes : An Evolving method of English Language Acquisition	District Centre for English Govt. B.H.S.S.Campus, Neyyattinkara Thiruvananthapuram	Dr. B. Sreejith Chief Editor & Team Leader Mr. Manoj C. Project Co-ordinator
7.	Designing and Implementing a Blended Teaching Learning Programme for Improving Pedagogical Practices in Classrooms	School of Education, Pondicherry University, Pondicherry- 605 014	Prof. M. S. Lalithamma Head & Dean and Team Leader Dr. Sreekala E Assistant Professor and Project Co-ordinator

List of Awarded Schools/Institutions: 2013-14

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	Child's Problems and problem Child : Learn to solve and solve to learn	Govt. Senior Secondary School, Bhiwani Road, Rohtak-124001 (Haryana)	Mr. Baljeet Singh Principal & Team Leader Mr. Yashpal Singh, Lecturer Project Co-ordinator
2.	Inculcation of value of respect for female gender through value oriented activities	Babe Ke College of Education, V.P.O. Mudki, Distt. Ferozepur-142060 (Punjab)	Dr. Ram Mohan Tripathi Principal & Team Leader Dr.Amardeep Kaur, Associate Professor Project Co-ordinator
3.	Effect of Mobile learning on achievement of B.Ed. students	B.C.M. College of Education Sec. 32 A, Urban Estate, Chandigarh Road, Ludhiana -141010 (Punjab)	Dr. Khushivinder Kumar Principal & Team Leader Mrs. Maninder Kour Project Co-ordinator
4.	A study of Impact of induction programmes upon the professional development of teachers & quality in education	District Institute of Education and Training, 20th Mile, Sonepat -131029 (Haryana)	Principal & Team Leader Dr. Naresh Kumar Sachdeva Project Co-ordinator
5.	Oratory Training for Student Teachers for Enhancing Communication Skills	Mount Tabor Training College Pathanapuram, Kollam – 689 695 (Kerala)	Dr. Sunny Skariah Principal & Team Leader Dr.Rosamma Phillip Project Co-ordinator
6.	Developing a model of peer tutoring for effective implementation of individualized Education programme in inclusive school	District Institute of Education and Training (DIET), Ernakulam Kuruppampady, Ernakulam District - 683545 (Kerala)	Dr. K V Narayana Kurup Principal & Team Leader Dr. N Sethumadhavan, Sr. Lecturer Project Co-ordinator
7.	Initiating an orientation towards neuro cognitively targeted teaching practices among the students of teacher education programme at the primary level	District Institute of Education and Training (DIET),Oddanchatram Dindigual Distt. – 624619 (Tamil Nadu)	Thiru S. Natrajan Principal & Team Leader Dr. A. Prabhakar Devaraj, Sr. Lecturer Project Co-ordinator

8.	Beyond the Black Board	Excel Public School 1-C,Hootagalli Industirial Area, Belavadi Post, Mysore - 570 018 (Karnataka)	Mr. Mathew K G Principal & Team Leader Ms. Nagashree T. R. Project Co-ordinator
9.	Integrating Cultural Formats and Artistic Expression in the Academic Life—Experiment and education Initiatives	Sri Tarachand Galada Jain Matriculation School 44, Madley, 1st Street, T Nagar, Chennai – 600 017 (Tamil Nadu)	Dr. (Smt.) Sita Ranjit Principal & Team Leader Shri S. Sabrinathan Project Co-ordinator
10.	Development of reusable Learning Contents and Interactive Student Response System with optimal information technology	Dighalgram Netaji Vidhyapith High School (HS) Vill/P.O. Dighalgram, Distt.-Nadia – 741257 (West Bengal)	Dr. Santanu Mandal Principal & Team Leader Sri Kakali Majumdar Project Co-ordinator

List of Awarded Schools/Institutions: 2012-13

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	Application of innovative methods in Teacher Training Colleges including teaching through CAI and framing lesson plans based on the branching pattern of programmes instruction	Shri Bhawani Niketan TT college Sikkar Road, Chomu Puliya, Jaipur-302023. Rajasthan	Dr. Savitri Mathur, Principal & Team Leader Smt. Seema Singh, Project Co-ordinator
2.	Ruchikar Vyaaharik Ganit - NCF 2005 ke alok mein Eco club ke madhyam se ganit shikshan adhigam ko ruchikar va prabhavi banaya jana	Govt. Inter College Simlakha Block-Betalghat, Janpad, Nainital-263135. Uttrakhand	Sh. H.R. Arya, Principal & Team Leader Sh. Himanshu Pandey Mitr, Project Co-ordinator
3.	Heritage Studies: Transforming Integrated Pedagogy	GD Salwan Public School Rajinder Nagar, New Delhi-110060	Mrs. Vijaylaxmi Singh Principal & Team Leader Mrs. Seema Goyal Project Co-ordinator

4.	Fostering Creative thinking among students through innovative teaching methodology	CB Gupta Saraswati Vidyapeeth, VIII-Singharpur, Mathura Road, Aligarh (UP) 202001.	Sh. B.D. Sharma, Principal & Team Leader Sh. Raj Kumar Sharma Project Co-ordinator
5.	The School outreach programme: A collaborative model of professional development for student-centred pedagogy	Princess Esin Girls' High school, 22-3-660, Purani Haveli, Hyderabad-500 002 Andhra Pradesh	Mrs. Javeria Siddique Vice-Principal & Team Leader Mr. Minhaj Arastu, Project Co-ordinator
6.	Inculcating values through Game and Discussion (GAD) Strategy	ST. Thomas College of Teacher Education, Mylacompu, Thodupuzha Idukki (Distt.) Kerala- 685608	Dr. Johnson Mathew Vice-Principal & Team Leader Dr. C.C. Kurian, Project Co-ordinator
7.	Portfolio writing: An Innovative Instructional Strategy for students in Teacher Education	School of Education Pondicherry University RV Nagar, Kalapet Puducherry-605014	Prof. M.S.Lallithamma, Dean, School of Education & Team Leader Dr. K. Chellamani, Project Co-ordinator
8.	Effectiveness of Teacher made Kit in Developing Language Skills of the learners of Class-VI in English	Mendhakhai UGUP School, Ward No 8,at PO- Udala, Dist.Mayurbhanj-757040 (Odisha)	Smt. Sandhya Padhi Headmistress & Team Leader Dr. Duryodhan Dash, (District Inspector of Schools) & Project Co-ordinator
9.	Leverage to Success	Kerala Public School, Burmamines (Mills and Godown area, Near Lakdi Taal) , Jamshedpur-Jharkhand -831007	Mrs. Sreekala, Karunakarn, Principal & Team Leader Mrs. Sheela Satish Project Co-ordiantor & Junior School Co-ordinator
10.	A study of Innovative experiences of Semesterization School Experience Programme (SEP) & Co-curricular Activities (CCA) in D.Ed Course and their impact on the Quality of Teacher Education	DIET Beeswa (20th) Mile, Badh Malik, Sonepat Haryana	Principal & Team Leader Dr. Naresh Kumar Sachdeva Project Co-ordinator

List of Awarded Schools/Institutions: 2011-12

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	Spelling Made Easy by Visualisation Techniques	Kendriya Vidyalaya, Shalimar Bagh AN Block, Delhi-110088	Mrs. Sushma Chaudhary Principal & Team Leader Mrs. Sangeeta Arora PRT & Project Co-ordinator
2.	CMP युक्त कार्यक्रम के अनुप्रयोगों द्वारा शैक्षिक उत्कर्ष और समुन्नयन	Kendriya Vidyalaya, Eklinggarh Cantt. GordhanVillas, Udaipur-313001 (Rajasthan)	Shri S.P. Agrawal Principal & Team Leader Mrs. Bindu Gupta PGT Hindi & Project Co-ordinator
3.	Development of Safest Sixth Sense	Kendriya Vidyalaya, Tagore Garden, New Delhi-110027	Mrs. Seema Srivastava Principal & Team Leader Mrs. Krishna Purohit H. M. & Project Co-ordinator
4.	Believe in Yourself	Kendriya Vidyalaya, NFC Vigyan Vihar Delhi-110092	Shri M.L. Agrawal Principal & Team Leader Mrs. Rachana Jain PRT & Project Co-ordinator
5.	Teaching Water Pollution through Innovative Techniques using Bottle Ocean Activity and Concept Map	Govt. In-service Training Centre, Circular Road, Faridkot-151203 Punjab	Shri S. Manjeet Singh Principal & Team Leader Dr. Kirandeep Kaur Brar Lecturer Chemistry & Project Co-ordinator
6.	History Teaching –Some New Aspects इतिहास शिक्षण- कुछ नए आयाम	Kendriya Vidalaya No.01 Navy Nagar, Colaba, Mumbai-400005, Maharashtra	Sh. P. Salvaraj Principal & Team Leader Mrs. Neelam Awasthi PGT History & Project Co-ordinator
7.	शिक्षा में नवाचार पद्धतियों को बढ़ावा देने के लिए सामुदायिक सहभागिता एवं संसाधनों के प्रबंधन से संबन्धित नवाचार परियोजना	District Institute of Education & Training Pendra, P. O. Pendra, Dist. Bilaspur, Chhattisgarh	Mrs. Meeta Mukherjee Principal & Team Leader Shri. Kaushal Prasad Rao Project Co-ordinator

8.	Open Education Resources in Teacher Education	Pushpanjali College of Education, 50 M.G. Marg Papdy Vasai (W), Dist. Thane, Maharashtra -401207	Dr. Mariamma Joseph Principal & Team Leader Agnes R. D' Costa Assistant Professor & Project Co-ordinator
9.	Challenges for ransfer of learning towards multilingual target–group and converting the text into activity-based communicable concept (in the special reference of Kendriya Vidyalaya Donimalai)	Kendriya Vidyalaya Donimalai, Dist. Bellary, Karnataka –583 118	Mrs. Nirmala Kumari M Principal & Team Leader Dr. Ram Kumar Singh PGT Hindi & Project Co-ordinator

List of Awarded Schools/Institutions: 2010-11

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	पर्यावरण संरक्षण में शैक्षिक नवाचारों की भूमिका	Shri Agrasen PG College of Education, (CTE) KeshavVidyapeeth Jamdoli, Jaipur – 302031	Dr. Ashok Kumar Sharma Principal & Team Leader Dr. Ashok Kumar Sidana Project Co-ordinator
2.	HUGS-Unified Holistic and Graphophonic Strategy to enhance reading skills of English Language	Govt. Model High School, Sector 37-C, Chandigarh-160036	Mrs.Chanderkanta, Principal & Team Leader Ms.Ratinder Kaur Project Co-ordinator
3.	Open-ended approach for Learning History at Senior Secondary Level	Govt. Model Senior Secondary School, Sector-32, Chandigarh	Mr. Darshanjit Singh Principal & Team Leader Mr.Arun Kumar Sharma Project Co-ordinator
4.	Classroom Management Techniques for Primary Classes	Kendriya Vidyalaya Sector-VIII, RK Puram Delhi-110022	Dr. S.P. Thakur Principal & Team Leader Miss.Sunita Mishra Project Co-ordinator
5.	Free and Open Source Softwares: A tool for Learning Language &	Mayoor School, Ranade Marg, Alwar Gate, Ajmer-305008	Mr. Neeraj. K. Bedhotiya Principal & Team Leader Ms.Sindhu Chaturvedi

	Mathematics		Project Co-ordinator
6.	Dynamic Integration for the Generation of English Language	District Centre for English,Neyyattinkara, Thiruvananthapuram, Kerala	Dr. B. Sreejith Chief Tutor & Team Leader Sri Manoj. C Project Co-ordinator
7.	Reflective process enhances instructional competency among student teachers at primary level	Govt. DIET, Bheemunipatnam, Visakhapatnam, AP,531163	Sri.M. Surya narayana Principal & Team Leader Dr.M .S.RSarma Project Co-ordinator
8.	Identification of Dyslexic students in English and Mathematics and giving them adequate remedial measures with help of training and scientific technology	Govt. Primary School, Ecole Anglaise, Laporte Street, Puducherry-605001	Ms. K.Poyadhamourthy HM & Team Leader V. George Fernandez Project Co-ordinator
9.	Library Junction: Development of an online academic social Network	KendriyaVidyalaya, Pattom, Thiruvananthapuram, Kerala,695004	Mr.C.P.Kumaran, Principal& Team Leader Mr. Fiasal. S.L Project Co-ordinator
10.	Developing Skills in Solving Mathematical word problems through innovative approach at elementary level	DIET, Dhenkanal, Orissa 759001	Dr.Susandhya Mohanty Principal I/C& Team Leader Mr.Tapas Kumar Nayak Project Co-ordinator
11.	Experiments and practices in class-room teaching learning procedure for enhance the understanding level of the children on Sound-Letter Correspondences in the first language/Bengali	Bhotepatty R.R Primary School, P.O. Bhotepatty, Jalpaiguri-Dist. W.B - 735305	Santosh Kumar Roy Head Teacher & Team Leader Supriya Ranjan Paul Project Co-ordinator

List of Awarded Schools /Institutions: 2009-10

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	Developing Physical Education Culture in Schools	District Institute of Education & Training, Idukki, Thoddupuzha-685584 Kerala	Shri K. Prabhakaran Principal & Team Leader Dr. C.C.Kurian Senoir Lecturer K.G.Vijaya Babu Project Co-ordinators
2.	Mobile teacher group for improving quality of learning in lower primary schools	District Institute of Education & Training, District-Darang P.O Dalgaon, Assam-784116	Md.Momtaz Ali Ahmed Principal & Team Leader Shri Bhupen Kr. Das Project Co-ordinator
3.	Effect of Story Centred approach for overall development during early childhood	Salwan Montessori School Sector-5, Gurgoan- 122001 Haryana	Dr. Indu Khetarpal Principal & Team Leader Ms. Moushumi Project Co-ordinator
4.	Strategies for Inculcating Human Values in School Education	Vyasa International School, No. 101/2, Doddabommasandra B.E.L.North Gate Vidyaranyapura, Bangalore-560092	Mrs.Sunita Phadnis Principal & Team Leader Shri. Vivekanandda J Project Co-ordinator
5.	For Green scene - Stay Green	Bhartiya Vidya Bhavan's Public School (Vidyashram), Jubliee Hills, Hyderabad- 500096	Mrs. C. Rama Devi Principal & Team Leader Mrs. Survarni Rao Project Co-ordinator
6.	Creativity Unleashed through Fun Science	Sri Vani Education Centre School, 16th&17th km off Magadi Road, Bangalore- 91	Mrs. Karthiayani Bhat Vice-Principal & Team Leader Mrs. Shalini Bhat Project Co-ordinator

List of Awarded Schools/Institutions: 2008-09

S. No.	Topic/Title	Name of Schools/Teacher Education Institutions	Name & Designation of Team Leader and Project Coordinator
1.	"Environmental Awareness for Secondary School Student"	New Era Senior Secondary School, Vadodara. Opp. Jayprakash Society, Nizampura, Vadodra-390002, Gujarat	Mrs. Priyadarshini S. Kelkar Principal & Team Leader Ms. Pradnya Gokhale Project Coordinator
2.	Development of Values among the Learners through Specific Designed Activities at Primary Level	Kendriya Vidyalaya No. 1(Army), Army Area, Ajmer Road, Nr. Army Pub. School, Jodhpur-342010	Dr. Hoshiyar Singh Principal & Team Leader Mr. Satish Chand Sharma Project Coordinator
3.	Science- For the Liberation of Marginalized People	District Institute of Education and Training, Wayanad, Sultan's Bathery, Wayanad, Kerala-673592	Shri. P.Abdul Razak, Principal & Team Leader Mr. Siva Prasad. P Project Coordinator
4.	Reaching the Dropout in Formal and Community based learning- Community intervention through Neighbouring School Teachers	District Institute of Education and Training, Shankar Nagar, Raipur, Chattisgarh	Dr. (Smt.) R Bambra Principal & Team Leader Dr. S. K. Jain Project Coordinator

Summary of Projects (2024-25)

01

DEVELOPING INTERACTIVE E-CONTENT FOR FOUNDATIONAL NUMERACY UNDER NIPUN BHARAT PROGRAM

Dr Atul Bamrara & Poonam Bamrara

SUMMARY OF PROJECT REPORT

The processes of teaching and learning have experienced significant changes in the 21st century due to changes taking place in society. One of the changes has been with regard to the application of technology in learning. Pierce and Ball (2009) acknowledge that teachers today have an extensive range of sophisticated technology available to them. Technologies such as Mathematics software, scientific calculators, spreadsheets, and statistical packages have become commonplace in many classrooms. This is in sharp contrast to the traditional mathematics classroom, which was dominated by pen and paper.

Use of technology serves as a motivation for teachers due to the positive outcomes achieved. Technology leads to teaching that is more effective and this leads to better performance for the students. Teachers are therefore motivated in their work due to these good results. Some research on the attitude of teachers to teaching with technology found that most experienced teachers, with strong mathematics backgrounds were at first half-hearted about teaching with technology (Pierce & Ball 2009). This lack of enthusiasm for technology was the result of an assumption that using technology would not enhance student learning. However, this lack of enthusiasm is only temporal in nature.

The speed of doing calculations using technology also frees up time for deeper learning. A study by Safdar et al. (2011) on the effectiveness of teaching mathematics through technology as compared to using traditional teaching methods found that teaching mathematics with technology led to better academic achievements by the students. This suggests that technology use as a teaching strategy in mathematics leads to more effective teaching leading to an enhancement of students' academic achievements. Teaching mathematics with technology enhances the teacher's ability to teach students about problem solving. Technology assists teachers in the construction of realistic complex problems in the class setting. These problems are modelled after real world problems that the student might encounter in real life.

By this means, mathematics uses problem solving to create contexts that simulate real life. Problem solving is an integral part of all mathematics learning and teachers are required to help students develop the skills needed to solve problems through the subject of mathematics.

Innovative, pedagogically informed instructional design is instrumental in increasing student engagement and improving learning outcomes in digital learning environments. Interactive learning resources provide students with the opportunity to engage with content in a more personalized manner. H5P (HTML 5 Package) is a collaborative platform that allows developers to create interactive content and has been regularly used in education settings. Some evidence suggests using interactive H5P resources in online could lead to greater student engagement.

H5P is a free and open-sourced content collaboration framework that allows educators to create interactive content that can be embedded onto a variety of platforms. H5P includes 39 open sourced, editable content applications such as interactive presentations, quizzes, interactive timelines, audio recordings, and flashcards (H5P.org). Interactions can be embedded into videos in an adaptive manner. Interactive presentations, through prompts embedded by the educator, allow students to test their understanding of content throughout the video rather than passively listening to it.

In the first grade 18 students (Experimental Group) have been exposed with indigenous games and after completion of the project, it has been observed that the average performance of the group in Mathematics has been increased by **51.6%.** The performance of the learners have been improved respectively by 67%, 20%, 83%, 83%, 33%, 75%, 38%, 50%, 50, 83%, 44%, 38%, 60%, 71%, 20%, 33%, 31%, and 50%. Whereas, 6 students of first grade composed of the control group from other school (who have been not been exposed to indigenous games during the project time duration) and after completion of the project the post test results have been compared and the average performance of the group increased by **32.5%.** The performance of the learners has been improved respectively by 30%, 38%, 50%, 8%, 44%, and 25%.

In the second grade 5 students (Experimental Group) have been exposed with indigenous games and after completion of project, it has been observed that the average performance of the group in Mathematics has been increased by **57.8%.** The performance of the learners has been improved respectively by 33%, 60%, 38%, and 75%. Whereas, 6 students of second grade composed of the control group from other school (who have been not been

exposed to indigenous games during the project time duration) and after completion of the project the post test results have been compared and the average performance of the group increased by **25.8%.** The performance of the learners has been improved respectively by 8%, 25%, 22%, 33%, 40%, and 27%.

Technology is becoming more prevalent in our society today. In can be expected that technology will be incorporated in teaching and learning mathematics even more extensively in the coming years. Teachers need to be adequately prepared for the transition from a traditional mathematics classroom to one where technology is used as a core part of the teaching process. Jurdak (2004) notes that even with the most sophisticated technology in place, significant enhancement in teaching and learning cannot be realized if teachers are not adequately trained to utilize the technology for teaching purposes. The school administration can assist in providing additional training opportunities for teachers to enable them to learn how to utilize the technology in an effective manner. The developed e-content with the help of H5P is benefitting the learners as -

- ✔ Adding dynamic elements within the content fostering knowledge retention and strengthen 21st century skills among learners
- ✔ Content is mobile-friendly and accessible across all or most devices *with no extra cost or subscription*
- ✔ Learners are accessing the content at self-pace and self-test their comprehension while accessing the e-content
- ✔ The developed e-content has incorporated gamification elements which are attracting the learners to enjoy the content and simultaneously achieve the desired learning outcomes

02

रुचिपूर्ण बुनियादी शिक्षा में तकनीक का समावेश, खेल, स्वच्छता, स्वास्थ्य, पर्यावरण एवं जल संरक्षण जागरूकता ज्ञान के साथ

Holistic development of students at foundation level

Sheela Asopa

SUMMARY OF PROJECT REPORT

A) Genesis

Objective: -

1. FLN शिक्षा हेतु रुचिपूर्ण पाठ्य सामग्री का निर्माण एवं तकनीक के प्रयोग द्वारा बुनियादी शिक्षा का प्रसार
2. खेल खेल में FLN शिक्षा द्वारा शिक्षा को रुचिकर बनाकर शिक्षा के प्रति रूचि बढ़ाना
3. FLN शिक्षा में ICT का उपयोग – बुनियादी शिक्षा में तकनीक का समावेश
4. बुनियादी शिक्षा में स्वच्छता, स्वास्थ्य और जल संरक्षण जागरूकता ज्ञान के content का समावेश
5. बुनियादी शिक्षा में शिक्षा, खेल, स्वच्छता, स्वास्थ्य और जल संरक्षण जागरूकता एवं ज्ञान के साथ-

-Holistic Development of Students

B) Result & Outcomes Under Different Objectives:

A) बुनियादी शिक्षा में तकनीक का समावेश: के अंतर्गत बुनियादी शिक्षा में FLN शिक्षा हेत 500 से अधिक Digital E –Content का निर्माण के साथ साथ 9 QR Coded Books का निर्माण किया गया साथ ही उनका उपयोग अध्यापन के लिए लिया गया जो विद्यार्थियों के रुचिपूर्ण अध्यन में और विद्यालय में शिक्षक की अनुपस्थिति में सुचारू अध्यापन के लिए सहायक सिद्ध हुयी

शिक्षा में तकनीक के समावेश का उपयोग प्रोजेक्ट के जोधपुर जिले के समस्त राजकीय विद्यालयों में क्रियान्वयन हेतु किया गया इसके अंतर्गत तकनीक एवं Digital Platform की मदद से project का क्रियान्वयन जोधपुर जिले के सभी 22 ब्लॉक की 3600 राजकीय विद्यालयों में

किया गया जिसके द्वारा इन विद्यालयों के लगभग 3 लाख 75 हजार बच्चें इन Digital E-Content द्वारा रुचिपूर्ण अध्यापन से लाभान्वित हो सकेंगे

बुनियादी शिक्षा की पाठशाला You Tube Channel का निर्माण कर उस पर 540 Digital E-Content Videos Upload किये गये जिसके द्वारा 50 देशों के 1 लाख शिक्षार्थी लाभान्वित हुए बुनियादी शिक्षा में तकनीक के प्रयोग द्वारा Digital Games, Quiz & Google Form के उपयोग से test एवं विद्यार्थियों की समझ के आंकलन का नवाचारी प्रयोग किया गया

B) खेल खेल में रुचिपूर्ण तरीके से बुनियादी शिक्षा: के अंतर्गत FLN आधारित Educational Games Book का निर्माण किया गया साँप सीढ़ी, खजाने की खोज, रास्ता खोजें एवं क्रमानुसार बिन्दुओं के मिलान जैसे सामान्य खेल का उपयोग करते हुए वर्णमाला के वर्णों, Alphabet के Letters, संख्याओं के ज्ञान को खेल खेल में रुचिपूर्ण तरीके से अध्यापन एवं विद्यार्थी के विषय ज्ञान आंकलन का नवाचारी प्रयोग किया गया

कक्षा कक्ष के बाहर Educational Playing Mat द्वारा अध्यापन एवं आंकलन का नवाचार किया गया जो विद्यार्थियों की विषय के प्रति रूचि बढ़ाने एवं विषय के ज्ञान को खेल खेल में समझने में अत्यंत सहायक सिद्ध हुआ

C. बुनियादी शिक्षा में विद्यार्थियों का समग्र विकास "Holistic Development of Students at Foundation Level": के अंतर्गत विद्यार्थियों की शिक्षा, सामान्य ज्ञान के साथ-साथ स्वास्थ्य, स्वच्छता, Skill Development, मानसिक स्वास्थ्य, AI & Robotics ज्ञान, नृत्य, वादन, कला एवं क्राफ्ट प्रशिक्षण के साथ पर्यावरण एवं जल संरक्षण जागरूकता के सभी पहलुओं को सम्मलित करते हुए बुनियादी स्तर पर विद्यालय में विद्यार्थियों का समग्र विकास करवाया गया गया एवं विद्यार्थियों हेतु Holistic Development Progress Card "ज्ञानोदय एवं समग्र बाल विकास प्रगति दर्पण" का निर्माण किया गया

विद्यार्थियों के समग्र विकास के अंतर्गत विद्यालय में आयोजित कार्यक्रम ,प्रशिक्षण एवं गतिविधियाँ :

1) AI & Robotics कार्यशाला का आयोजन: - नयी तकनीक का बुनियादी स्तर पर विद्यार्थियों को Knowledge प्रदान करने के उदेश्य से INDEED FOUNDATION के सहयोग से विद्यालय में तीन दिन की कार्यशाला का आयोजन किया गया यह कार्यशाला विद्यार्थियों के AI & Robotics विषय की समझ में अत्यधिक सहायक सिद्ध हुई और कार्यशाला में प्राप्त ज्ञान द्वारा विद्यार्थियों ने AI & Robotics पर आधारित Models बनाकर उनका प्रदर्शन किया

2) मानसिक स्वास्थ्य पर कार्यशाला का आयोजन :- वर्तमान competitive environment में बुनियादी स्तर पर मानसिक स्वास्थ्य की जागरूकता एवं प्रशिक्षण अतिआवश्यक है जो उनके

समग्र विकास में महत्वपूर्ण भूमिका निभाती है इस हेतु All India Institute Of Medical Science Jodhpur के Department Of Community Medicine के सहयोग से तीन दिवसीय मानसिक स्वास्थ्य कार्यशाला का आयोजन विद्यालय प्रांगण में किया गया जो विद्यार्थियों के तनाव की स्थितियों को समझने और इन स्तिथियों में हमारे व्यवहार की जानकारी हेतु उपयोगी सिद्ध हुई

इसी सन्दर्भ में Project के अंतर्गत विद्यालय में wellbeing Team का गठन किया गया साथ ही तनाव को साझा करने की प्रवृति विकसित करने के उदेश्य से विद्यालय में " मेरी साथी – आनंदमयी पेटिका " का नवाचार किया गया

3) Skill Development प्रशिक्षण का आयोजन: - Project के अंतर्गत औद्योगिक प्रशिक्षण संस्थान उत्पादन केंद्र व जिला ग्रामीण व्यावसायिक प्रशिक्षण एवं उद्यम कर्ता विकास केंद्र जोधपुर द्वारा आयोजित 6 दिवसीय राष्ट्रीय युवा सप्ताह एवं कौशल प्रदर्शनी में विद्यालय के विद्यार्थियों ने भाग लिया एवं विभिन्न मॉडल्स का अवलोकन एवं विभिन्न व्यावसायिक एवं कौशल का प्रशिक्षण प्राप्त किया

4) स्वास्थ्य जांच एवं जागरूकता कार्यक्रमों का आयोजन: - स्वास्थ्य विद्यार्थियों के समग्र विकास में महत्वपूर्ण भूमिका निभाता है स्वस्थ्य शरीर हमारे शारीरिक एवं कौशल विकास में अतिआवश्यक है इसी के तहत All India Institute Of Medical Science Jodhpur के Department Of Community Medicine के सहयोग से विद्यालय में 15 दिवसीय Health Check Up Camp का आयोजन किया गया जिसमें विद्यार्थियों के शारीरिक और मानसिक स्वास्थ्य से जुड़े व्यापक परीक्षण किए गए। इस दौरान बच्चों के स्वास्थ्य कार्ड बनाए गए और उनके मानसिक विकास को प्रभावित करने वाले कारकों जैसे—पोषण, पालन-पोषण, शिक्षा तक पहुंच, प्रदूषण, बचपन की प्रतिकूलताएँ आदि का अध्ययन किया गया। विद्यालय में हैप्पीनेस हेल्थ कॉर्नर भी विकसित किया गया साथ ही विद्यालय में Health Awareness वार्ताओं का आयोजन कर विद्यार्थियों में स्वास्थ्य के प्रति जागरूकता को विकसित किया गया

5) स्वच्छता जागरूकता एवं प्रशिक्षण का आयोजन :- Project के अंतर्गत स्वच्छता के महत्त्व हेतु विद्यालय में LOW WATER FLOW HAND WASH POINT की स्थापना की गयी साथ ही बुनियादी स्तर पर विद्यार्थियों स्वच्छ हाथों की आदत विकसित करने के लिए हाथ धोने की सही प्रक्रिया का प्रशिक्षण प्रदान किया गया साथ ही माहवारी स्वच्छता हेतु बालिकाओं के लिए विद्यालय में Incinerator & Sanitary Pad Disposable मशीन लगाईं गयी साथ ही एक rest room विकसित किया गया इस प्रकार स्वच्छता की दिनचर्या अपनाने के साथ विद्यार्थियों में स्वच्छता की आदत एवं व्यवहार को बुनियादी स्तर पर विकसित किया गया

6) जल संरक्षण जागरूकता कार्यक्रमों का आयोजन :- बुनियादी स्तर पर जल संरक्षण की आदत विकसित करने के उदेश्य से विद्यालय में जल संरक्षण जागरूकता पखवाड़ा आयोजित किया

गया जिसके अंतर्गत जल संरक्षण विषय पर पोस्टर्स , कविता , लेख ,स्लोगन की प्रतियोगिताएँ आयोजित की गयी, साथ ही जल जागरूकता रैली का आयोजन किया गया, विद्यालय में विद्यार्थी जल संसद का गठन किया गया,जल सखी एवं जल प्रेरक एवं विद्यार्थियों द्वारा निर्मित जल संरक्षण posters द्वारा विद्यालय जल संरक्षण E कैलेंडर का निर्माण किया गया जिसका उपयोग DIGITAL माध्यमों द्वारा जल संरक्षण जागरूकता के लिए किया गया, जल संरक्षण जागरूकता हेतु 4 Cartoon Short Movie का निर्माण किया गया जिसे Digital माध्यमों से जोधपुर जिले की समस्त राजकीय विद्यालयों में प्रेषित कर Project के अंतर्गत जल संरक्षण जागरूकता अभियान को जिले में राजकीय विद्यालयों में अध्यनरत विद्यार्थियों तक पहुंचाया गया

7) पर्यावरण संरक्षण जागरूकता गतिविधियों का आयोजन :- Project के अंतर्गत बुनियादी स्तर पर विद्यार्थियों में पर्यावरण संरक्षण व्यवहार को विकसित करने के उदेश्य से विद्यालय में विद्यार्थियों द्वारा पौधारोपण करवाया गया एवं उसके संरक्षण की जिम्मेदारी प्रत्येक कक्षा के विद्यार्थियों को सौपी गयी, साथ ही पेड़ों की उपयोगिता एवं विभिन्न पेड़ों की जानकारी सम्बंधित QR Code युक्त पेम्पलेट का निर्माण कर पेड़ों पर लगाए गये जिससे विद्यार्थी उसे scan कर पेड़ सम्बंधित जानकारी प्राप्त कर सकें इस प्रकार बुनियादी स्तर पर विद्यालय के विद्यार्थियों में पर्यावरण संरक्षण व्यवहार को विकसित किया गया

8) कला ,नृत्य ,संगीत ,वाद्य प्रशिक्षण,भारतीय संस्कृति एवं लुप्त होती कलाओं हेतु जागरूकता :- विद्यार्थियों के समग्र विकास में संगीत, कला, नृत्य एवं सांस्कृतिक गतिविधियाँ महत्वपूर्ण भूमिका अदा करती है ये विद्यार्थियों के आत्मविश्वास को बढाने में सहायक होती है इसी उदेश्य से Project के अंतर्गत विद्यार्थियों की रूचि को पहचाना गया और उनकी रूचि के अनुसार कला का प्रशिक्षण करवाया गया, इस हेतु लुप्त होती कलाओं पर विशेष ध्यान दिया गया विद्यालय के विद्यार्थियों को कच्छी घोड़ी नृत्य ,रावण हत्था वाद्य, खिलौनों का निर्माण ,मिट्टी के खिलौने,मेहंदी कला जैसे कलाओं में प्रशिक्षण प्रदान कर उनकी रूचि सम्बंधित कला में निपुण बनाया गया और उन्हें विभिन्न सांस्कृतिक प्रतियोगिताओं एवं कार्यक्रमों में भाग लेने हेतु प्रोत्साहित एवं सहयोग किया गया जिसके परिणाम स्वरुप विद्यालय के विद्यार्थियों ने जिला ,संभाग एवं राज्य स्तर पर भागेदारी के साथ सफलता अर्जित की , साथ ही एक भारत श्रेष्ठ भारत के अंतर्गत भारतीय संस्कृति के ज्ञान की Audio Book, राजस्थानी नृत्यों की जानकारी एवं लुप्त होती नृत्य कलाओं सम्बंधित Video का निर्माण किया गया जिसे जिले के सभी राजकीय विद्यालयों में प्रेषित कर इन कलाओं के संरक्षण हेतु रूचि एवंजागरूकता एवं प्रसार का कार्य किया गया

C) Conclusion: -

Project के अंतर्गत शिक्षा में तकनीक का प्रयोग, खेल खेल में शिक्षा हेतु 500 से अधिक Digital E-Content ,9 QR Code युक्त Books का निर्माण एवं शिक्षा में तकनीक के उपयोग से बुनियादी शिक्षा को रुचिपूर्ण बनाया गया साथ ही बुनियादी स्तर पर स्वास्थ्य, स्वछता, पर्यावरण, जल, कला एवं संस्कृति के प्रशिक्षण एवं जागरूकता द्वारा विद्यार्थियों का समग्र विकास किया गया साथ ही विद्यार्थियों हेतु Holistic Development Progress Card "ज्ञानोदय एवं समग्र बाल विकास प्रगति दर्पण" का निर्माण किया गया

Project का क्रियान्वयन GGSSS श्याम सदन जोधपुर एवं तकनीक (Digital माध्यम) के उपयोग से जोधपुर जिले के 22 संभागों के समस्त राजकीय विद्यालयों में किया गया जिसके उपयोग से जोधपुर जिले के समस्त राजकीय विद्यालयों में अध्यनरत विद्यार्थी बुनियादी शिक्षा में रुचिपूर्ण तरीके से एवं खेल खेल में शिक्षा प्राप्त कर सकेंगे

यह Project तकनीक के प्रयोग द्वारा ग्रामीण स्तर तक शिक्षा के प्रसार एवं ग्रामीण विद्यालयों में शिक्षक की अनुपलब्धता एवं अनुपस्थिति में सुचारू अध्यापन के लिए सार्थक है

03

Advent of a Speech Modifier. A Post- Panoptic facilitator to rectify the conundrums in Speaking and Reading

Nikhil Tony

A BRIEF SUMMARY OF PROJECT REPORT

The project entitled **"Advent of a Speech Modifier. A Post- Panoptic facilitator to rectify the conundrums in Speaking and Reading"** is an authentic attempt and an innovative approach to promote effective learning among students and teachers in India. We survive in a post panoptic society where everything is being watched and observed under surveillance in a wider spectrum. The inevitable integration of technology has made an indelible mark among the humans in every aspect of life. In a post panoptic society, the surveillance mechanism have evolved beyond the physical constraints of the panopticon (all – seeing). The society is characterized by pervasive and often invisible forms of surveillance facilitated by advanced technologies such as the internet, social media, big data analytics, and artificial intelligence. The ubiquitous surveillance, data collection and analysis, self- surveillance, behavioral nudging, privacy concerns, power dynamics are associated with this aspect of post panoptic society. The introduction of a post panoptic facilitator or guide that can aid and provide unprecedented support for effective learning in education would be a tremendous discovery. Here lies the significance of a Speech Modifier in Indian classrooms.

Speaking and reading without errors has been a herculean task for the students and teachers from time immemorial especially in India. It may be due to multilingual environment, phonetic differences, limited exposure, teaching quality, cultural factors etc. Technology can play a pivotal role in addressing these challenges and enhancing the speaking and reading skills of Indian students. Interactive learning platforms, speech recognition and feedback, access to resources, virtual classrooms, gamification, AI tutors, translation and language tools, assessment and analytics are some of the advancements and discoveries in this realm of technology. Even though there are a plethora of discoveries in technology has been put forward to improve the reading and speaking but most of them culminated in futile. The project aims to implement a Speech Modifier- a device that can capture the students' and teachers' audios while speaking and reading in real time in the classroom and give feedback instantly wherever there are corrections required. This is applicable in reading and speaking so that the device

could highlight all sorts of errors and discrepancies in speaking and reading and could provide instant feedback and correction. The Speech modifier device is much more an advanced version of a Speech recognition tool which has some limitations like accents and dialects, background noise, homophones, speech variability, limited context understanding, technical limitations, language and vocabulary, privacy and security concerns, dependence on Internet connectivity, and resource intensive. On the other hand, the speech modifier aims to alter the characteristics of the spoken voice without necessarily converting it to text. These tools modify aspects of speech such as pitch, tone, speed, and volume. In summary, while both technologies involve processing spoken language, they serve different ends- one for understanding and transcribing speech, and the other for altering the sound of speech by rectifying the errors in speaking and reading in a more effective manner.

04

A comparative Study of Two Different Innovative Methods to Reduce Academic Stress in Science Students

Arti Sachdev

SUMMARY OF PROJECT REPORT

Introduction:

In today's fast-paced world, people are constantly adjusting to adversities, leading to stress. Stress is a normal feeling that arises when the combination of internal and external pressures exceeds an individual's resources to cope with situations. There are two main types of stress: acute stress, which is short-term and usually goes away quickly, and chronic stress, which lasts for a longer period and can cause health problems if not managed.

Academic stress is particularly concerning for students, especially those pursuing demanding fields like science. Chronic stress can lead to decreased motivation, deterioration of academic performance, and negative impacts on physical and mental health. Sources of academic stress include heavy workloads, high expectations, time management challenges, and pressure to succeed.

To manage academic stress, students should focus on effective time management, maintaining a healthy lifestyle, having support systems, and using stress-reduction techniques. By understanding the sources, types, and impacts of academic stress, students, educators, and parents can work together to create a supportive environment that promotes mental health and academic success.

Review of literature: Research on academic stress among DIET students has shown that it impacts their mental, emotional, and physical health. Studies have found that students with strong social support networks are better equipped to cope with stress and exhibit higher resilience. Regular exercise and healthy eating habits have been found to reduce stress and improve mental health. However, many students struggle to balance their academic responsibilities with personal obligations, leading to increased anxiety and stress. Gender differences in academic stress have also been examined. Effective time management and stress management interventions have been shown to improve academic performance. High levels of stress are associated with anxiety, depression, and other mental health issues.

Need of the study: Academic stress among science students is a growing concern, with traditional methods like counseling and time management workshops often insufficient. This study aims to explore innovative approaches to reduce stress, focusing on science students.

Statement of the problem:

A Comparative Study of Two Different Innovative Methods to Reduce Academic Stress in Science Students

Academic stress is a negative emotional response resulting from academic work demands, including assignments, exams, deadlines, and workload. The study aims to determine the significant difference in performance between male and female students when taught using gamification, project-based, or both methods. The hypothesis is that male students will experience more academic stress when taught using gamification, while female students will experience more stress when taught using project-based. The sample consisted of 30 science students, who were randomly divided into two groups. The gamification method, which incorporates game design elements, increases engagement and motivation, while the project-based method, which focuses on hands-on, real-world projects, fosters critical thinking, creativity, and collaboration. The results will be analyzed to determine the effectiveness of each teaching method in reducing academic stress among students.

Methods and Procedure:

A study was conducted to explore two methods: gamification and project-based learning. Gamification involved incorporating game elements into the learning process, such as role-playing games and quizzes, to make education more engaging and enjoyable. Project-based learning focused on hands-on, experiential learning through projects like plant cell structure, atom model construction, and human eye structure.

The study focused on 30 D. El. ED students from the science stream at DIET, Ferozepur, using teaching modules for gamification and project-based learning and an academic stress scale. Statistical techniques included descriptive statistics and a t-test to test hypotheses.

Analysis of Results:

The analysis and testing of the data involve two parts: descriptive statistics to check the normality of the data, and t-tests to test the significance of difference. Descriptive statistics involve summarizing and organizing the data to provide insights into the data's typical values, measures of dispersion, and graphic representations.

The results show that the academic stress scores for male students are slightly above the midpoint of the scale, with a mean score of 100.57 and a median score of 102 close to the mean. The standard deviation (SD) of 10.33 reflects moderate variation in academic stress levels among the male students. The skewness (SK) value of 0.040 indicates a slight positive skew, while the skewness value of 0.405 indicates a slight positive skew. The kurtosis value of 0.033 is very close to zero, suggesting that the academic stress data exhibits a level of peakedness and tail behavior similar to that of a normal distribution.

For female students taught using both Project-Based Learning (PBL) and Gamification methods, the pretest results indicate an average academic stress mean score of 102.25, with a median score of 103 and a standard deviation of 6.78. The skewness and kurtosis values are relatively close to zero, suggesting that the data does not significantly depart from normality.

Post-test scores for males and females taught through project-based learning reveal several key statistical insights. The average score is 39.80, suggesting that the overall performance of students is around this value. The median score is 39, suggesting that half of the students scored below 39 and half scored above. This is close to the mean, hinting at a fairly symmetrical distribution of scores.

Testing a hypothesis is a crucial step in scientific research, ensuring its validity and reliability. It involves designing experiments or observational studies to gather data and analyze it to

determine whether it supports or refutes the hypothesis. In this case, the study found no significant difference in academic stress between male and female students when taught using the gamification method. Therefore, the null hypothesis H0 (no significant difference) is accepted, and the alternate hypothesis H1 (male students experiencing more academic stress) is rejected.

The study tested two hypotheses: H1: Students taught using the gamification method will experience more academic stress than those taught using the project-based method, and H0: There will be no significant difference in academic stress between the two methods. The t-value of -0.731 indicates that there is no significant difference between the mean scores of the two teaching methods. The null hypothesis H0, which states that there will be no significant difference in academic stress between the two methods, is accepted, while the alternate hypothesis H1 that students taught using the gamification method will experience more academic stress is rejected.

Conclusion:

The combination of project-based learning and gamification offers a holistic learning experience, increased collaboration, enhanced motivation, reduced stress and anxiety, and continuous feedback and improvement. It also promotes teamwork, communication, and social interaction, fostering sustained student engagement and reducing stress.

05

EFFECTIVENESS OF FLN BASED INTERVENTION USING GRR MODEL OF SCAFFOLDING ON DEVELOPMENT OF PRONUNCIATION SKILLS OF CLASS–II STUDENTS IN ODIA LANGUAGE

RASMITA DASH

SUMMARY OF PROJECT REPORT

INTRODUCTION

The language first learned by a student after landing on the Earth following mother is known as mother tongue. It is also known as first language of the student. In Odisha the mother tongue is Odia. Every learner must be competent in their mother tongue. Learners must know the different form of grammar for better communication in first language (mother tongue). Once a learner understands the mother tongue clearly then he/she can be able to express his views in different events, able to write any type of question in different field.

For this a learner first need some confidence for his wordings. Yet in reality communication skill are not nearly as difficult as to acquire as the learners may think. If regular practice of speaking is introduced in an innovative way from an early stage then it is possible for students to become as comfortable with mother tongue as they are with written odia language.

Hence action research is required to know the difficulties in correct pronunciation in odia . Thus I undertake the problem entitled and try to discover the necessary solutions of these problems by using GRR model of scaffolding. In the present study attempt has been made to improve the speaking skill in odia of standard II students of NC Nodal High School, Bhadrak, Odisha.

OBJECTIVE OF THE STUDY

To improve pronunciation skill of standard-II students.

METHODOLOGY

DESIGN OF THE STUDY:

The present study is designed to collect data from teacher's student's and parent's using different tools and techniques.

SELECTION OF SAMPLE:

In present study, students of class- II (25) NC Nodal High School, Bhadrak, Odisha. 4 teachers i.e. Head teacher, class teacher, language teacher and project coordinator herself, parents of the concerned students were involved in data collection process.

TOOLS:

(|) Questionaries (||) Interview schedule (|||) Achievement test questions (|V) word cards (V)letter cards (VI)masks

DATA COLLECTION:

Using the above tools data was collected in different phases as indicated below. First Pre-test was conducted and then some remedial measure had been carried out. Different activities was adopted for pronunciation development of the students and activities completed by following GRR modules principle. Finally the Post test was conducted and result was recorded. It is found that student's performance is much better than their Pre-test results.

PROJECT OUTCOMES:

As a missionary zeal I have been creating a large scale impact at low cost. It is immense pleasure to inform you that the project has been bringing good results. The students have made good progress during the project implementation. The main objective of the project is to develop pronunciation skill of Odia language among the students. The implementation of this project has shown positive result in real filed i.e. in the standard II class. I have been conducting many activities like individual, pair and group work, create awareness among the parents. Now students have been speaking with right pronunciation of those hard words by regular practice of activities following GRR model of scaffolding.

CONCLUSION :

The project was excellent and found to be change maker (results oriented) in the class room. If this process continues and proper care will taken for each and every students, the student's performance will be enhanced much more than the present situation.

06

Fostering Innovation in Classroom Teaching Through Artificial Intelligence

Sandip Mondal & Didyendu Bagchi

SUMMARY OF PROJECT REPORT

Introduction

The digital transformation of education through Artificial Intelligence (AI) presents unprecedented opportunities to reimagine traditional pedagogy. At Durganagar Bipin Behari Vidyapith (H.S), we have pioneered a practical model that harnesses AI's potential to create dynamic, student-centered learning experiences while streamlining administrative processes. Our project, "Fostering Innovation in Classroom Teaching Through Artificial Intelligence," demonstrates how judicious integration of technology can revolutionize both teaching methodologies and school operations, even within resource-conscious environments.

Objectives

Our initiative was designed to achieve multiple transformative goals:

• Seamlessly incorporate AI-generated multimedia resources (images, videos, simulations) into daily lesson delivery

• Establish an efficient collaborative ecosystem through a dedicated WhatsApp platform for teacher resource-sharing

• Enhance student engagement and reduce dropout rates through interactive digital content

• Implement two innovative attendance systems:

1. A Digital Student Attendance Register enabling teachers to mark attendance via smartphones

2. An Attendance Checker Portal allowing guardians to verify student presence through QR codes

• Boost enrollment by demonstrating our technologically-advanced teaching approach **Implementation Strategy**

Capacity Building

We began with comprehensive teacher training covering:

• Practical applications of AI tools (text-to-image/video generators, MCQ creators) • Effective prompt engineering for educational content creation

• Operation of our digital attendance systems

Content Development & Distribution

• Created the "AI-TLM Resource Group" on WhatsApp for real-time resource sharing among faculty

• Implemented a streamlined USB drive system where our ICT instructor organizes content by subject and class

• Equipped classrooms with 55-inch Android TVs for displaying AI-enhanced instructional materials

Innovative Attendance Systems

1. **Digital Attendance Register**:

   o Teachers access a secure portal via smartphone using unique credentials o Attendance marking process reduced from 10-15 minutes to under 2 minutes o Real-time data synchronization to central administration dashboard

2. **Parental QR Portal**:

   o Each guardian receives unique QR code for their ward

   o Instant access to attendance records builds trust and engagement

Classroom Execution Teachers now routinely:

• Present complex concepts through AI-generated visualizations (e.g., 3D atomic structures, biological processes)

• Conduct formative assessments using AI-curated MCQs

• Facilitate interactive learning sessions with digital simulations

Measurable Outcomes

Academic Impact

• 20% increase in daily attendance post-implementation

• 100% growth in Grade VI enrollment following AI demonstration sessions

• Notable improvement in comprehension of abstract concepts (evidenced by 25% higher test scores)

• Significant reduction in dropout rates due to enhanced engagement

Operational Efficiency

• Saved approximately 45 instructional hours annually through digital attendance • Achieved 100% parent participation in attendance monitoring via QR system • Reduced TLM preparation time by 30% through reusable AI resources

Future Roadmap

Building on our success, we plan to:

• Introduce AI voice assistants for personalized student support

• Develop student-led AI projects to foster computational thinking

• Conduct parent workshops demonstrating our AI-integrated pedagogy • Create a scalable model for replication in similar educational settings

Conclusion

Our project stands as testament to the transformative power of strategically implemented educational technology. By combining AI-enhanced teaching methods with smart administrative systems, we have created a model that:

✓ Makes learning more engaging and effective

✓ Optimizes valuable classroom time

✓ Strengthens the school-parent partnership

✓ Delivers measurable improvements in key performance indicators

This initiative proves that innovation in education isn't about lavish spending, but rather about thoughtful integration of appropriate technologies. We believe our model offers NCERT a replicable framework for bringing 21st century education to schools across India, regardless of their resource constraints. The results demonstrate that when technology is implemented with pedagogical purpose, it can elevate both teaching quality and learning outcomes while making education more inclusive and accessible.

07

Enhancing Higher Order Thinking Skills Through Experiential Learning: The Panchakosiya Siksha Approach

Dr. Priyaranjan Dash

SUMMARY OF PROJECT REPORT

Introduction

The rationale for this integrated approach lies in the observed decline in science and EVS learning outcomes, particularly in higher grades, as highlighted by NAS 2017 and 2021. Traditional rote learning methods, lack of inquiry-based experiences and disconnection from learners' socio-cultural contexts have weakened the development of HOTS, especially in districts like Mayurbhanj. Reimagining science education through experiential, reflective and culturally resonant pedagogies is thus critical. This study had explored the integration of experiential learning and Panchakosiya Siksha in elementary education, aligning with NEP 2020's vision of fostering inquiry, lifelong learning and real-world readiness among learners.

Objectives

- To evaluate the effectiveness of the Panchakosiya Siksha approach in enhancing higher order thinking skills (HOTS) among students through experiential learning methods.
- To explore the integration of the Panchakosiya Siksha approach with contemporary educational practices and assess its impact on the holistic development of students, including cognitive, emotional, social and spiritual growth.

Procedure of the Innovation

The study explored the impact of the Panchakosiya Siksha Approach on enhancing higher-order thinking skills among Grade VIII students through a quasi-experimental design. Integrating experiential, culturally grounded lessons in science, the intervention targeted holistic development across five koshas—physical, vital, mental, intellectual, and blissful. Conducted in rural schools, the approach contrasted with traditional methods, emphasizing hands-on activities like experiments, storytelling, and mindful movement. A pre-intervention phase established baselines, while the post-test revealed cognitive gains in application, reasoning, and problem-solving. By linking science to language and social learning through daily activities, the study highlighted the effectiveness of a value-based, integrated pedagogy in nurturing not only academic achievement but also emotional and ethical awareness among learners.

Results and Outcomes

The collected data were analysed using descriptive and inferential statistics. Pre-test results showed no significant difference between the experimental ($M = 5.9$, $SD = 4.81$) and control ($M = 5.83$, $SD = 4.7$) groups ($t = 0.057$), confirming their equivalence at baseline. Post-test analysis revealed a significant improvement in the experimental group ($M = 15.3$, $SD = 3.1$) compared to the control group ($M = 10.6$, $SD = 3.9$) with a t-value of 5.16 ($p < 0.05$), indicating the positive impact of the Panchakosiya Siksha Approach. Learners exposed to experiential, inquiry-based activities demonstrated enhanced conceptual understanding, critical thinking, and emotional engagement. The intervention effectively activated learners' physical, intellectual, emotional, and cultural dimensions, supporting Dewey's and Vygotsky's theories of experiential and socio-cultural learning. Overall, the study validated that a holistic, culturally responsive pedagogy significantly strengthens academic achievement while promoting scientific inquiry and personal growth among learners.

Conclusion and Implications

The study confirms that the Panchakosiya Siksha Approach fosters inquiry-driven, experiential, and culturally rooted science learning, significantly enhancing engagement, critical thinking, and conceptual understanding. By holistically addressing physical, emotional, intellectual, and cultural dimensions, it affirms the need for dynamic, learner-centred pedagogies that integrate tradition and inquiry, offering a transformative model for holistic academic and personal development.

08

Pattern Discovery, An Immersive Interdisciplinary Instructional Strategy to Foster Mathematics Appreciation and Learning

Uttam Chandra Das

SUMMARY OF PROJECT REPORT

Introduction:

The concept of Pattern could be a tool to learn English and Social Science even though it is regarded as one of the core concepts of Mathematics in general. This study is aimed to develop and implement an instructional strategy to make the learning of Mathematics, English and Social Science easier with the help of pattern considering problem solving approach of teaching as one of the innovative methods of teaching to the students of Class 6 at PM Shri Loharghat Govt. MV. School.

Review of literature highlights that number of students aspiring to study Mathematics as a subject in higher education is less than the subjects of Humanities and Social Sciences as the students suffer from Maths-anxiety and find Mathematics difficult. If the students fail to receive the scope to develop the skills of critical thinking and problem solving joyfully at the age of 7 to 11 years, they might rely on memorization instead of understanding, leading to a gap between desired result and achieved result. This makes a ground of the problem statement of the study. Inevitably an innovative instructional strategy is a need of the hour.

Implementation procedure:

The study adopted problem solving approach to make a curricular framework incorporating 'pattern discovery' as a feature. This framework serves as an innovative instructional strategy translating them in to lesson plans to administer in the classroom. Students of Class 6 found to be consistent in class attendance that is 74 are considered as sample of the study. The sample is divided in to two groups. One is focus group where intervention is given with the innovative method of teaching. The other group is control group where students were taught in traditional method. An intelligence test was conducted to make average intelligence level of the groups same. A pre-test is given to both the groups to understand their initial hold of Mathematics, English and Social Science followed by intervention and post-test respectively.

Outcome:

The result of the pre test shows that both the groups have similar level of understanding with many students securing bellow 30% of marks. However, after the intervention the focus group achieved significant improvement. All students in the focus group achieved above 30% which

reflect the achievement of all levels of the learning outcomes of Blooms Taxonomy, as the curricular framework is specially designed to address the outcomes of Blooms Taxonomy.

Limitation and Future Scope:

The study has certain limitations, such as the time frame undertaken is insufficient for the number of variables considered. There is a scope to study each variable separately for a more in-depth understanding.

Conclusion:

The project suggests that schools and policy-makers should consider using the pattern discovery method in their curriculums as a practice for exploring pattern in different subjects. It also makes the students realize the interdisciplinary utilization of Mathematics. This approach can help students develop critical thinking and creative thinking skills aligned with the goals of the National Education Policy (NEP) 2020, which emphasizes these skills.

09

Designing innovative teaching learning materials based on gamification and use of ICT for selected lessons of English Textbook of class VI as prescribed by Secondary Education Board of Assam (SEBA)

Dr. Rashmi Rekha Devi

SUMMARY OF PROJECT REPORT

Innovation in education refers to the introduction of creative ideas, methods, and technologies in the teaching and learning process. They help teachers to develop creative approaches to instruction, as well as help students become independent learners. Innovative teachers understand the importance of creating an environment for holistic education. It also breaks the monotony of regular classroom teaching. Gamification is a recent innovative technique.

Gamification is a relatively new teaching approach that has gained popularity in recent years, especially in the field of education. It involves the use of game elements, such as points, badges, and leaderboards, to make learning more engaging and enjoyable. The idea behind gamification is to take the motivational elements of games and apply them to non-game contexts, such as education. By incorporating game elements into the learning process, gamification aims to increase student engagement and motivation, and ultimately improve learning outcomes.

1.TITLE OF THE RESEARCH:

Designing innovative teaching learning materials based on gamification and use of ICT for selected lessons of English textbook of class VI as prescribed by Secondary Education Board of Assam (SEBA)

2. FINDINGS OF THE OBJECTIVES:

Objective 1: To identify the specific lessons from the English textbook which have a scope for designing innovative materials based on gamification and game-based learning.

Findings: Lessons are identified based on the scope for designing innovative materials Five lessons are selected out of Eight lessons. Two games are selected for each lessons. Therefore ten games were selected for five lessons.

Objective 2: To relate the four-fold skills of English (LSRW) while designing the materials.
Findings : Each lessons have different language skills . Listening, speaking, reading and writings -all these four skills are inculcated during the use of gamification in the classroom. Each game is related to specific language skills.

Objective 3: To design various gamification tools with the help of ICT for selected lessons based on objectives of teaching English at middle level.

Findings :

I. Researcher has used four gamification techniques by using ICT for using game based learning. They are – Ninja Noun , Noun hunt, Vowel adventure , Phonics Bingo.

Objective 4: To design various gamification tools without the help of ICT for selected lessons based on objectives of teaching English at middle level.

Findings : Researcher has used six gamification techniques by not using ICT for using game based learning. They are – Adjective adventure, Describe and Guess, Poem Jigsaw, Rhyme time, Role play, The creator.

Objective 5:
To know the impact of the use of gamification in academic achievements in English language
Findings:

- There is a significant impact of using gamification technique in academic achievements in English language of middle level school students in Jorhat.

- The use of games and game-like elements to convey information, students are more likely to remember and retain the material they have learned.

- Gamification techniques provide instant feedback to students.

- By incorporating gamification techniques into education, student leads to improved learning outcomes and academic performance.

3. Other findings of the present research:

- Gamification technique Ninja noun increased interest in the learning process of the students and showed their active participation in the activity, made learning more fun and interactive, leading to increased student engagement and motivation.

- "Adjective Adventure" is a game that fosters vocabulary building, language skills, and creativity. By using this Gamification technique, the students got motivated to learn new vocabulary and built interest in the learning language.

- Vowel Adventure gamification technique provided a dynamic and entertaining way for players which enhanced their phonemic awareness and language skills.

- Rhyme time activity encouraged the students to build team spirit and also created competition among the students.

- Gamification created a sense of achievement and reward for students, leading to increased motivation to learn and succeed.

- "Describe & Guess" gamification technique encouraged students to think critically and develop problem solving skills.

- "Poem Jigsaw Game play" gamification technique helped to develop 21st century skill among the students by developing problem solving skills and building team spirit.

- Role play of the story "I love my country". The set rules for staying in character; respecting and following the storyline, encouraged creativity and improvisation among the students, help them interact with each other. Students acquired and practiced critical 21st-century skills such as problem-solving, decision-making, creativity, and adaptability.

- "The Creator" This activity motivated the students to imagine their own story and use their own creativity.

5. EDUCATIONAL IMPLICATION OF THE PRESENT RESEARCH:

The ultimate aim of any experimental research is to apply and execute the conclusion in the day to day life teaching. Researcher wants to highlight the educational implication of the present study in the following ways:

i. **INCREASED ENGAGEMENT:** Gamification can increase student engagement by introducing elements of competition, rewards, and feedback into the learning process. This can motivate students to participate more actively and consistently in their education.

ii. **IMPROVED RETENTION AND UNDERSTANDING:** By using game-based learning strategies, educators can create more interactive and immersive learning experiences that help students retain information and better understand complex concepts.

iii. **ENCOURAGES PROBLEM-SOLVING SKILLS:** Games often require players to think critically, solve puzzles, and make decisions in order to progress. By incorporating gamified elements into education, students can develop and hone their problem-solving skills in a fun and engaging way.

iv. **FOSTERS A GROWTH MINDSET:** Gamification can help promote a growth mindset among students by encouraging them to view challenges as opportunities for growth and learning by providing immediate feedback and opportunities for improvement.

v. **PROMOTES COLLABORATION AND TEAMWORK:** Many games require players to work together to achieve a common goal, fostering collaboration and teamwork skills

6. RECOMMENDATIONS FOR FUTURE RESEARCH:

i. Research could be done to investigate how gamification impacts student learning outcomes in various academic subjects, such as math, science, language arts, and social studies. Comparing the effectiveness of gamified learning across different subjects can help identify which areas benefit most from gamification and inform instructional design.

ii. Research could be done to explore how gamification can be used to support diverse student populations, including students with disabilities, English language learners, and students from low-income backgrounds. Understanding how gamification can be customized to meet the needs of diverse learners can inform inclusive educational practices.

iii. As this research is done in a traditional classroom, Research could be done to investigate the impact of gamification in other different educational settings, such as online learning environments, and informal learning spaces.

iv. Research could be done to examine how gamification can support the development of social-emotional skills, such as self-regulation, empathy, and collaboration. Investigating the role of gamification in promoting social-emotional learning can offer valuable insights into how gamification can support holistic student development.

v. Research could be done to explore the use of gamification to increase student motivation and engagement in higher education settings, such as colleges and universities. Understanding how gamification can enhance motivation among higher education students can inform strategies for improving student retention and success in postsecondary education.

6. CONCLUSION:

In conclusion, gamification in education has shown to be a promising approach in engaging and motivating students to enhance their learning experience. Through the integration of game elements, such as rewards, challenges, and competition, educators can create a more interactive and dynamic learning environment that fosters student participation and achievement. Research studies have demonstrated the positive impact of gamification on student engagement, motivation, and academic performance. However, it is important for educators to carefully design and implements gamified learning activities that align with learning objectives and cater to the diverse needs of students.

10

Multiplication of Integers on The Number Line

CH. Pradeep Kumar

SUMMARY OF PROJECT REPORT

In Integers the positive or negative signs represent the direction of move whether it should be right side of zero or left side of zero. The components of the multiplication are multiplicand, multiplier and product or result.

The multiplier represents multiplicand to jump number of times on number line. The multiplicand represents number of steps jump at a time. The product is result of the multiplication. The positive multiplier does not oppose the actual move of direction of the multiplicand on number line, but negative multiplier will oppose the actual move of direction of the multiplicand on number line. The positive multiplicand represents moves right side from the zero. The negative multiplicand represents moves left side from the zero.

Let us assume positive sign as a brother and negative sign as a brother-in-law, when we multiply a positive integer with positive integer, it represents that brother of brother. Brother of brother is brother so; positive integer of positive integer is also a positive integer.

When we multiply a positive integer with negative integer, it represents that brother of brother-in-law. Brother of brother-in-law is brother-in-law so, and positive integer of negative integer is a negative integer. When we multiply a negative integer with positive integer, it represents that brother-in-law of brother. Brother-in-law of brother is brother-in-law so; negative integer of positive integer is a negative integer. When we multiply with a negative integer with negative integer, it represents that brother-in-law of brother-in-law. Brother-in-law of brother-in-law is brother, so negative integer of negative integer is also a positive integer.

The direction of the move of the multiplicand depends on the sign of the multiplier. The sign of the product is depends on the sign of the multiplier.

11

INTERACTIVE STORYBOOKS: ENHANCING ENGLISH LEARNING THROUGH CREATIVITY AND TECHNOLOGY

N.Rajkumar

SUMMARY OF PROJECT REPORT

INTRODUCTION:

The "Interactive Storybooks" project aims to integrate art, craft, and technology to create engaging, interactive storybooks. Students will enhance their English reading, writing, and speaking skills while exploring their creativity through illustrations and digital tools. The final product will be interactive storybooks that can be shared digitally, incorporating elements such as audio narration, animations, and multimedia content.

RATIONALE:

To achieve sustainable development goals of NEP-2020 and 21st century, it is a must to develop and create a child centred and child friendly classrooms with the supplement of technology in schools. Thus, the researcher plans to enhance children English learning through developing artistic skills by combining traditional art techniques with digital enhancements s for the better learning and deeper understanding to develop 21st century skills in the children.

OBJECTIVES:

Educational

- Improve students English language skills, including reading comprehension, creative writing, and oral presentation.
- Foster digital literacy by teaching students to use various digital tools and software.
- Encourage collaboration and teamwork among students.

Creative

- Stimulate creativity through illustration and storytelling.
- Develop artistic skills by combining traditional art techniques with digital enhancements.

Technological

- **Book Creator** digital portfolio tool is familiarized to students.
- Integrate multimedia elements such as audio, video, and animations into storybooks.

METHODOLOGY:

The project is conducted for the children of class 3 from Jancy Rani Government Primary School, Ayyankuttipalayam, Puducherry State. The project is for 60 days. 24 Students from class 3 were engaged. The Students were grouped in four including the team leader and four units of **"NCERT Textbook Santoor for Class 3"** will be assigned for each group.

The following steps are followed in the project by the researcher.

Planning and Preparation (1-2 Weeks):

The researcher formed project teams and assign roles (e.g., writers, illustrators, editors, narrators) according to the children individuality and talents. Introduce the concept of interactive storybooks and showcase examples. Conduct brainstorming sessions to develop story ideas and characters. Provided training on digital portfolio tool **Book Creator -** interactive book software.

Story Development and Scriptwriting (2-3 Weeks):

Students developed story outlines and plot structures. Wrote the story scripts in English, focusing on grammar, vocabulary, and narrative flow. Review and refine scripts with feedback from peers and teachers.

Illustration and Crafting (3-4 Weeks):

Created illustrations for the story using traditional art supplies (e.g., drawing, painting, collage). Scan or photograph the illustrations to digitize them. Integrate illustrations into the digital storybook platform.

Audio Recording and Multimedia Integration (2-3 Weeks):

Recorded audio narrations of the story using clear and expressive English. Added sound effects and background music to enhance the storytelling experience. Integrated multimedia elements such as animations, interactive hotspots, and videos into the storybook.

Editing and Finalizing (1-2 Weeks):

Edited the digital storybook for coherence, clarity, and engagement. Ensured all multimedia elements are correctly integrated and functional. Conducted peer reviews and make final revisions based on feedback.

Publishing and Sharing (1-2 Weeks):

Published four interactive storybooks for **"Santoor- NCERT Textbook for class 3"** on digital platform Book Creator. Organized a virtual and physical showcase event to present the storybooks to the school community and parents. Promoted the storybooks through social media and online educational forums.

Evaluation and Reflection (1 Week):

Collected feedback from students, teachers, and parents through surveys and discussions. Reflect on the project's successes, challenges, and areas for improvement. Compiled a project report detailing the process, outcomes, and lessons learned.

OUTCOMES AND EDUCATIONAL IMPLICATIONS:

Created high-quality interactive storybooks that enhance English learning. Improved English language skills, including reading, writing, and speaking. Enhanced artistic and digital literacy skills among students. Increased student engagement and motivation through creative and technological integration.

12

LEARNING OF MATHS FOUR OPERATIONS IN A DAILY LIFE THROUGH JOYFUL ACTIVITIES

Dr. V. REX @ RADHAKRISHNAN

SUMMARY OF PROJECT REPORT

According to NEP, Joyful learning technique, creative methods etc. like Storytelling, Arts, Game, Sports, Examples etc. undertaken by the teacher for greater impact of his teaching on the students.

1. RATIONALE:

- The Children find four operations as a difficult because of rote method.
- Children learn Maths four operations without knowing the usage of the concepts they learn.
- They find difficult in applying the subject knowledge in their day-to-day life.

2. OBJECTIVES:

- To make them to understand Maths four operations in daily life.
- Connecting knowledge to life outside the school.
- Ensuring that learning in shifting away from rote method to joyful learning.

3. METHODOLOGY PROPOSED TO BE ADOPTED:

The study is to be conducted for 20 students of class VII from TVGHS, Kadirkamam, Puducherry - 605009. The age group is between 12 and 13. The school is located in urban area, Puducherry state. The medium of instruction is English. It is CBSE Board and Syllabus.

The students were divided into two groups, one will do the activity and the other group will learn in the usual classroom. Later the group learned through the activity will explain the same concept to their peers.

The groups will be shuffled after each lesson activities, so all the children will be participating in activities and their skills of sharing knowledge develops.

In each lesson an activity is planned and make the children do the activity and enriching the curriculum to provide for overall development of children rather than remain textbook centric.

i) GAME ACTIVITY

In the lesson “Integers, we teach four operations of Integers. Children were asked to memories the concepts but they were not explained where we will use these four operations.

Here is “Game Activity” for learning four operations of Integers through “Ladder and Snake Game”. In “Ladder Place” addition and multiplication are placed and in “Snake Place” subtraction and division are placed.

A cardboard is taken in square shape. A horizontal lines and vertical lines of 10 each has been drawn as shown in the figure below. 1 to 100 numbers are placed in each box orderly. Then, four operations are included in some boxes so that the children able to understand the four operations.

This game was prepared by the teacher and explained how to play the game. Now the students were given to play game using dice. Once they started rolling a dice, the children have to move the coin according to the number and place the coin in that place and do the operation what they found in box. Finally, which student overcome all the operations and reached the number 100. He/She is a winner.

Now the children will learn the mathematical four operations through game. The sheet will be given to playing students. While the children are playing if they came across the operation boxes they have to register in the sheet.

ii) TRADE ACTIVITY

The teacher prepared another game for effective learning of four operations for the Topic “Fractions”. This game activity was based on the “Trade Game”.

A square shaped cardboard was taken, all four sides small small boxes are placed. Each small boxes represented the shops like fruits, vegetables, dress, shoes, watches, etc. The price of the items are placed in the small boxes. The currency will be given to the students who are all playing. Once the children start playing this game, if they came to the particular shop they had to purchase the items with their currency. In same way all the students has to play.

Once group will learn the game and explain these game to other students. Now the children will learn the four operations in a daily life.

While playing this game, the sheet will be given.

iii) PLAY WAY METHOD:

The teacher asked the students to stand in the number line and the teacher explained the concepts of four operations to the students by demonstration. The teacher asked the students to move left side if its possible number and if its negative number then move to the right side.

The demonstration will be held in the playground by groups. Later the worksheets will be given to assess the knowledge. They will be able to solve the problems through the number line.

iv) STORY TELLING / DRAMA:

In the lesson "Data Handling" the teacher teach four operation through story telling and asked the students to act as drama. One group will act and other group will take hints from drama. Through this drama / story telling, they will learn the concepts of Range, Mean, Mode, Median.

Range = Highest value – Lowest value

Mean = Sum of all observations ÷ Total number of observations

Mode = Number of times occurs a number

Median = Middle value of a data

v) ART (BAR GRAPH)

The teacher asked the students to collect the details of income and expenditure of their family for the month of November 2024. The teacher asked the students to fill the sheet with respective column according to the expenditure of their family.

vi) QUIZ

The teacher conducted the Quize competition among the students of VII Std. 5 groups divided each group three members will be there. The teacher asked the students to prepare life oriented problems which considered of rounds.

vii) BANK ACTIVITY

Teachers divided the students into two groups. One group act as post office and another group act as Bank. The teacher asked the students to act as cashier and customers at post office and Bank. One group has to fill the challan and deposit cash at post office and another group has to fill the challan and deposit cash at Bank.

4. EXPECTED OUTCOMES AND EDUCATIONAL IMPLICATION:

Children will understand mathematics in daily life. They start to connect knowledge to life outside the school and apply mathematical four operations they learn in day-to-day life. They develops the sense of mathematical approach towards a problem.

13.

CHEERFUL CBSE – Enhancing CBSE Learning through Generative Artificial Intelligence

K.M. Ramyasri

SUMMARY OF PROJECT REPORT

Key Highlights

- Integrated **AI tools**: CBSE Chatbot, Quizbot, Math Bot, and Bhashini22 Multilingual Bot.
- Targets **Science, Social Science, and Math** for Classes 8, 9 and 10
- **Custom-built for CBSE** with data from:
    - 10 years' sample papers
    - Exemplar questions
    - Official CBSE PDFs
- AI provides **exam-focused**, simplified answers in point, table, or paragraph format.

Impact

- **20–30% increase in student performance** (Pre-test vs Post-test).
- **88% students** found it engaging; **90% teachers** reported workload reduction.
- Question papers developed were **published on official education websites**.
- Students from underprivileged backgrounds became **AI ambassadors** through exhibitions.

Special Features

- Unlike ChatGPT, this AI gives **precise, syllabus-aligned answers**.
- Teachers can auto-generate **custom worksheets and question papers**.
- Platform is **free and public** on Hugging Face:
  👉 *Search "**Hugging Face Ramyasri**" on Google*

Brief Overview of AI Tools Used:

- **CHEERFUL CBSE AI Chatbot**: Provides textbook-aligned answers. Students can request simplified explanations, bullet points, or tabular formats. Excellent for doubt-clearing.
- **CHEERFUL CBSE Quizbot**: Auto-generates topic-wise quizzes for self-assessment. Offers instant scores and solution feedback.
- **CHEERFUL CBSE Maths Chatbot**: Solves math problems using image uploads. Breaks down solutions step-by-step to aid understanding.
- **Bhashini22 MultilingualBot**: Translates answers and questions into 22 Indian languages. Empowers rural learners and first-generation students.

Step-by-Step Implementation Timeline:

1. **Baseline Testing**: Conducted with 10 science and social worksheets (pre-test).
2. **AI Tool Introduction**: Students trained to use all four AI tools.
3. **Inauguration Ceremony**: Official project launch with stakeholders.
4. **Daily Classroom Integration**: Students used bots regularly during class and self-study.
5. **Post-Testing**: Same worksheets retaken (post-test). Scores compared.
6. **Survey & Feedback**: Feedback from students and teachers collected.
7. **Exhibition**: Students demonstrated AI tool usage to visiting guests.

These tools were purposefully designed and phased to build digital fluency, improve learning, and foster student ownership over their progress.

14

HANDS-ON PHYSICS: EMPOWERING STUDENTS THROUGH PRACTICAL STEM EDUCATION

DR V. GURUNADHA RAO

SUMMARY OF PROJECT REPORT

Introduction

Physics is fundamental to technological advancement and understanding the natural world. However, traditional education often relies on textbooks, making abstract concepts difficult to grasp. The "Hands-on Physics" project addresses this challenge by integrating experiential learning into the physics curriculum for students in grades 8 to 10. Implemented at Zilla Parishad High School (ZPHS) Penugonda, Telangana, this initiative fosters engagement through direct experimentation, inquiry-based learning, and real-world applications using locally available resources.

Preparatory Work and Innovations

To ensure effective implementation, the project followed a structured approach:

Curriculum and Experimental Kits

- Essential topics such as mechanics, optics, electricity, and magnetism were identified.
- Affordable experimental kits were developed using locally sourced materials, allowing students to manipulate variables and analyze results.
- Lesson plans integrated theoretical instruction with guided experiments and project-based learning.

Teacher Training and Community Involvement

- Workshops trained educators in hands-on teaching methodologies.
- Collaborations with parents, local industries, and universities created a supportive learning ecosystem.
- Science fairs, guest lectures, and field trips provided real-world exposure.

Digital and Technological Integration

- Digital simulations and augmented reality tools were incorporated to enhance conceptual visualization.

- A robotics module introduced students to engineering principles through an autonomous robot, demonstrating physics concepts like Newton's Laws, friction, and renewable energy.

Execution of the Project

The project was executed in three phases:

Phase 1: Implementation

- **Teacher Workshops**: Educators were trained in experimental methodologies.
- **Student Practical Sessions**: Hands-on experiments encouraged exploration and inquiry.
- **Project-Based Learning**: Students applied physics to solve real-world problems.
- **Enrichment Activities**: Field trips, demonstrations, and guest lectures enhanced learning.

Phase 2: Assessment and Feedback

- **Formative Assessments**: Quizzes and lab reports evaluated comprehension.
- **Stakeholder Feedback**: Input from students and teachers refined instructional methods.

Phase 3: Community Engagement and Sustainability

- **Science Exhibitions**: Students presented projects, fostering enthusiasm for STEM.
- **Parental Involvement**: Interactive sessions reinforced learning beyond the classroom.
- **Teacher Support Networks**: Continuous professional development ensured sustainability.

Key Outcomes

1. **Enhanced Conceptual Understanding**: Hands-on learning bridged the gap between theory and practice.
2. **Increased STEM Engagement**: More students expressed interest in science careers.
3. **Critical Thinking Development**: Inquiry-based methods promoted problem-solving skills.
4. **Practical Skill Acquisition**: Students gained experience in scientific research and communication.
5. **Equitable STEM Access**: Affordable materials ensured inclusivity.
6. **Improved Academic Performance**: Hands-on learning boosted retention and assessment scores.
7. **Teacher Empowerment**: Educators adopted interactive, student-centered methodologies.
8. **Community Participation**: Strengthened school-community relationships.

Sustainability Plan

- Ongoing teacher training and curriculum integration.
- Industry and academic partnerships for continuous support.
- Affordable resource development for replication in other schools.

Conclusion

The "Hands-on Physics" project has transformed physics education by making it interactive and engaging. Through hands-on experiments, teacher training, and community collaboration, the initiative fosters critical thinking and scientific curiosity, setting a scalable model for STEM education reform.

15

EXPLORING THE 21ST CENTURY APPLICATIONS OF MATRIX CRYPTOGRAPHY WITH EDUCATION 4.0

Dr. THIRUMURUGAN K

SUMMARY OF PROJECT REPORT

Introduction

In an era marked by escalating cyber threats and rapid technological advancements, matrix cryptography—a mathematical discipline employing matrix operations for encryption—has emerged as a critical tool for securing modern digital infrastructures. Concurrently, **Education 4.0**, driven by the Fourth Industrial Revolution, redefines pedagogy through AI, IoT, and adaptive learning platforms. This study investigates the synergy between **matrix cryptography** and **Education 4.0**, evaluating whether Python-based instruction enhances learning outcomes compared to traditional methods. By bridging theoretical cryptography with hands-on programming, the project aims to cultivate a workforce proficient in cybersecurity and aligned with Industry 4.0 demands.

Literature Review

Matrix cryptography, rooted in the Hill Cipher (1929), has evolved to address post-quantum security challenges, with applications in blockchain and IoT (Al-Hamdan & Aboud, 2022; Thangavel et al., 2023). Education 4.0 frameworks leverage immersive tools like virtual labs and AI-driven platforms to contextualize abstract concepts (Singh et al., 2021; Doshi & Patel, 2022). Despite these advancements, gaps persist in translating cryptographic complexity into accessible educational content, particularly for underserved communities. This study addresses these gaps by integrating Python programming into cryptography education, fostering **computational thinking**, **collaboration**, and **real-world problem-solving**.

Objectives of the Study

1. To identify method to teach modern cryptography using matrix applications.
2. To design and develop (python program as) an instructional strategy to apply matrices in learning cryptography models.
3. To provide practice (on python programming) to generate a secret key using the Diffie-Hellman mechanism.
4. To determine the level of students' ability to apply matrix cryptography concepts to real-world, 21st-century applications.
5. To compare the academic performance in matrix cryptography between students taught using Python programming (experimental group) and those taught through traditional methods (control group) in both pre and post-test.
6. To evaluate the impact of Python-based learning on students' critical thinking, creativity, digital literacy and problem-solving skills in cryptographic scenarios.

7. To investigate how Python programming facilitates collaborative and personalised learning experiences aligned with Education 4.0 principles.
8. To find out difference between male and female in matrix cryptography knowledge at the Post-test.

Hypotheses of the Study

H_{01}: There will be no high-level academic performance in matrix cryptography and essential skills among the students taught using Python programming (Experimental group) at the post-test.

H_{02}: There will be no significant difference in academic performance in **matrix cryptography** between students taught using Python programming and those taught through traditional methods [a) pre-test, b) post-test]

H_{03}: There will be no significant difference in academic performance in **matrix cryptography** between pre-test and post-test scores of a) Control group students and b) Experimental group students

H_{04}: Python-based learning will have no statistically significant impact on students' critical thinking, creativity, computational, digital literacy and problem-solving skills in cryptographic tasks compared to traditional instruction (only post-test).

H_{05}: There will be no significant difference between the experimental and control groups in their ability to apply matrix cryptography concepts to real-world, 21st-century applications (generating a secret key skill using the Diffie-Hellman mechanism).

H_{06}: There will be no significant difference between male and female in matrix cryptography knowledge at the Post-test.

H_{07}: There will be no relationship between students' knowledge of matrix cryptography and their developed essential skills at the post-test.

H_{08}: Students in the experimental group will not perceive Python-based learning as more effective or relevant to Education 4.0 competencies than the control group perceives traditional methods.

Research Methodology

This research project is a pre-test and post-test experimental study (Fraenkel, Jack R., 2012) with a treatment duration of **2 months**. It is a **quasi-experimental design** to determine the effectiveness of Education 4.0 learning method (using Python programming) on enhancing the learning of matrix cryptography among XI standard students in contrast with traditional method of learning.

- **Experimental Group:** 20 students exposed to matrix cryptography instruction integrated with **Python programming** (Education 4.0-aligned pedagogy).
- **Control Group:** 20 participants taught using **traditional lecture-based methods** (e.g., textbook problems, manual calculations).

Data Collection

- **Pre-test/Post-test Assessments**:
    - *Knowledge of Matrix Cryptography*: 30 MCQs across fundamentals, algorithms, and applications.
    - *Essential Skills*: 15 open-ended questions evaluating critical thinking, creativity, computational literacy, and problem-solving.
    - *Secret Key Generation*: Qualitative task using the Diffie-Hellman mechanism.
- **Statistical Tools**: Descriptive/inferential statistics (t-tests, Pearson's correlation, Mann-Whitney U) via SPSS.

Key Findings

1. **Enhanced knowledge of Matrix Cryptography**:
    - The experimental group showed **significantly higher post-test scores** (Mean = 65.73 vs. 47.83; $p < 0.05$) despite equivalent pre-test levels.
    - **Python-based learning improved retention**, with 70% of experimental students achieving "high" performance vs. 5% in the control group.
2. **Essential Skills Development**:
    - Experimental students demonstrated **marked gains in critical thinking, creativity, and digital literacy** (Mean = 75.00 vs. 56.17; $p < 0.001$, Cohen's $d = 2.187$).
    - Strong correlation between cryptography knowledge and essential skills ($r = 0.951$, $p < 0.001$).
3. **Coding skill Application**:
    - Experimental students excelled in **Diffie-Hellman key generation** (Mean = 67.50 vs. 46.00; $p < 0.001$), showcasing practical competency.
4. **Gender-Neutral Outcomes**:
    - No significant difference in post-test performance between male and female students ($p > 0.05$).

5. **Experiment effectiveness**:
    - Experimental students rated Python-based learning as **more engaging and relevant to Education 4.0** (Mann-Whitney U = 28.00, $p < 0.001$, effect size $r = 0.74$).

Discussion

The study validates **Python-integrated Education 4.0** as a transformative pedagogical approach. Key outcomes include:

Students were assessed on their knowledge of matrix cryptography and essential skills, with the experimental group showing higher levels of knowledge and skills compared to the control group post-intervention. The intervention program had a positive impact on the experimental group's academic performance.

Correlational analysis indicated a strong relationship between students' knowledge of matrix cryptography and their essential skills. Non-parametric analyses showed that the experimental group perceived Python-based learning as more effective and relevant to Education 4.0 competencies. Overall, the results support the effectiveness of the intervention program in enhancing students' knowledge and skills in matrix cryptography and essential skills, as well as the perceived effectiveness of Python-based learning in developing Education 4.0 competencies.

The findings align with global trends emphasizing **computational literacy** and **adaptive learning** (World Economic Forum, 2020), while addressing pedagogical gaps identified by Kolesnikova (2020).

Recommendations

It is recommended to:

- Integrate Python programming into cryptography and mathematics curricula to enhance hands-on, application-based learning.
- Design modular courses combining matrix theory, cryptography, and computational tools to foster Industry 4.0 skills.
- Support teacher training programs in Python and algorithmic thinking to facilitate modern pedagogical shifts.
- Expand studies on AI-augmented cryptography education and scalable EdTech solutions for wider implementation.

Conclusion

This research demonstrates that **Python-based matrix cryptography instruction** effectively bridges theoretical knowledge and practical cybersecurity skills, fostering **Education 4.0 competencies**. By enhancing academic performance, critical thinking, and real-world application abilities, the approach prepares students for digital workforce challenges. Institutional adoption of such methodologies, supported by policy and training, is crucial for cultivating a **future-ready, inclusive workforce**.

16

ACADEMIC ACHIEVEMENT AND PROFICIENCY IN GRAMMAR AND DISCOURSES

Dr. Shankarabhaktula Satyam

SUMMARY OF PROJECT REPORT

INTRODUCTION:

Developing communication skills is the center of any country's curriculum today. English language teaching and learning is a challenging task in the class room. It is problematic because of in applicable and uncommon methods. Learning by doing a different way to teach English language can help the students by placing in the real-world situations. Activity-oriented teaching and learning has the advantage of getting the students to use skills at current level of understanding.

The main objective of my teaching English is that the remote area Government school students should acquire command over the language to meet the Global challenges and job perspectives.

When I started to begin this project I was unable to start as I found that mal cooperation from students side but the school Headmistress honestly extended the helping hands. I conducted Project Screening Test (PST) for students to know how I can execute this project after knowing their core competencies. I called down the target students (8th to 10th) for "Edu-Work Shop" and explained them how this project will fulfill the needs of the students. I trained some students to perform sample presentations viz., Storytelling, Speech, Interview etc., students got inspired from this project and decided to attend an additional classes regularly. I used to conduct this project classes at the last period of the school hours.

I chalked out this project plan in slating has mentioned below: I conducted classes weekly twice / thrice of the last period except during examinations and other holidays.

PREPARATORY WORK:

Slotting chain	Name of the month	Activities conducted
Slot – I	October	Edu-work shop, Project Screening Test, Activities for grammar, Excellences (Basic grammar bits)
Slot – II	November	Activities for listening skills Storytelling, Speeches, Drama, News Report, Dictations
Slot – III	December	Activities for (Presentation) Speaking skills Debates, Discussions, Interviews, Conversation, compeering
Slot – IV	January	Activities for Reading Skills, Notice, Messages, Invitation, Poster, News Reports
Slot – V	February	Activities for Writing Skills Biography, Essay writing, letter writing, choreography, reviews, description, profiles, Dairy
Slot – VI	March	Readiness Program for slow learns Audio visuals aids, assessment - test

EDU-WORK SHOP:

An Edu-work shop was organized for students to know more about this project which will cater the needs of the different learning students I chalked out a plan of action with various related activities and explained briefly with suitable headings.

PROJECT OUT COMES:

As a missionary zeal I have been creating a large scale impact at low cost. It is immense pleasure to inform you that this project has been bringing good results. The students have made good progress, during the project implementation. The main objective of this project is to develop four-fold skills, Grammar of the language, its discourses and communication skills among the students. The students have been Speaking, Writing stories. The implementation of this project has shown positive results in real filed i.e., in the class room. Before the adoption of the project the students in English was very poor. Gradually their performance in four-fold skills and discourse has been improved. I took utmost care for every stage by step by step to improve language abilities based on the objectives of the project. I have been conducting many activities like individual, Pair and group work. Now the students have been telling the stories, describing the incidents they come across, writing letters and communicating with each other with ease.

CONCLUSION:

This project was excellent and found to be change maker (result oriented) in improving communication skills among the students. Our students are displaying maximum progress during the period of the project. It's success under-scores the transformative potential of tailored educational interventions in rural Government school students empowering to motivate academic and professional challenges with confidence and proficiency.

17

Innovative Experimental Aspects in Sanskrit Learning: Enhancing Learning through ICT Integration

Dr JINESH SEKHAR J R

SUMMARY OF PROJECT REPORT

This project focused on the implementation and evaluation of ICT-enabled classes in the school. The primary objective was to enhance student's language skills, particularly listening, speaking, reading, and writing.

Objectives

1.Introducing innovative teaching methodologies in Sanskrit that leverage ICT tools

2.Utilize ICT tools to support personalized learning, real-time feedback, and assessment.

3.Enhancing student engagement and participation through interactive learning materials like OER, Augmented reality, Video lessons, smart boards etc.

4. Showcase the relevance and significance of Sanskrit in modern times, highlighting its cultural, historical, and philosophical importance.

5.Familiarisation of Open educational resources like Sanskrit Learning Websites and applications

6.Improving LSRW (Listening, Speaking, Reading, Writing) Skills and learning outcomes in Sanskrit using technology-enhanced methods.

Innovative Methodology:

Digital content development for LSRW Skills: Create interactive digital content, such as screen casted videos, open education resources, audio books, smart board writing practices, ppt, augmented reality videos to engage students and facilitate Sanskrit language learning.

Execution of the project: Before starting the project, we conducted pre assessment test and after the execution of project, conducted post assessment test. The analysis of both tests revealed that ICT-enabled classes have a profoundly positive impact on student's language skills. Interactive digital resources, multimedia content, and online platforms facilitated engaging and immersive learning experiences. Students demonstrated significant improvements in their language proficiency, particularly in reading and writing skills.

One of the major limitations of the project was the time constraint. It was challenging to execute the activities effectively. Additionally, students' examination schedules and curriculum requirements competed for their time, leaving limited scope for extra and remedial activities.

To ensure the sustainability of this innovation, a multi-faceted strategy was developed. This included institutionalizing ICT-enabled classes, providing ongoing teacher training and

development, upgrading and maintaining ICT infrastructure, engaging the community, and establishing monitoring and evaluation mechanisms.

Conclusion:

The integration of Information and Communication Technology (ICT) in Sanskrit classrooms has positive outcomes for students. Compared to traditional teaching methods, ICT-enabled classes have proven to be highly beneficial in enhancing student's language skills. By developing these high-quality educational resources, we took a significant step towards transforming Sanskrit education, making it more accessible, engaging, and effective for students.

Implications:

Policy recommendation**:** Suggesting that ensure the ICT enabled classes are started in the school's curriculum and academic plans. Establish a school ICT policy and guidelines for ICT integration.

Scalability and sustainability**:** Regularly upgrade and maintain ICT infrastructure, including hardware, software and internet connectivity. Share best practices and lessons learned with other teachers. Allocate a dedicated budget for ICT related expenses.

Teacher training and support**:** Provide ongoing training and professional development opportunities for teachers to enhance their ICT skills.

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ELEMENTS- Engaging Learning through Enhanced Methods and New Technological Systems

K.KARTHIKEYAN & P.SARANYA

SUMMARY OF PROJECT REPORT

At Government Higher Secondary School, Karayambuthur in Puducherry, many Class 9 students found chemistry daunting especially when it came to memorizing the periodic table. Traditional rote learning methods weren't working, and students were losing interest fast. That's when the **ELEMENTS project** was born, aiming to make chemistry engaging, meaningful, and fun through technology and interactive learning.

Instead of relying on textbooks alone, the project introduced several exciting tools an **LED display board** to showcase atomic details visually, a **custom MIT App** to explore elements interactively, a **PowerPoint-based interactive periodic table**, and even a **robotic car game** that challenged students to pronounce element names to control the car's movement. These tools transformed passive memorization into an immersive experience that sparked curiosity.

But it wasn't just about flashy tech. The teacher carefully aligned the project with the school's chemistry curriculum. Before launching, they reviewed lesson plans, created tailored digital resources, and ensured students were trained to use them. The goal was to empower the students. Hands-on sessions helped students become comfortable with the app, LED boards, and robotic cars. Soon, even the most hesitant learners were navigating digital tools confidently.

Over 75 days, the project unfolded in multiple phases. In the early weeks, students were introduced to elements through daily LED displays and fun weekly quizzes. They began recognizing atomic patterns and became more comfortable discussing chemical concepts. As the project progressed, group discussions, memory games, and oral recitations helped deepen their understanding.

By week seven, the MIT App came into full play. Students explored elements, created their own quizzes, and shared them with peers. Then came the robotic car phase, where learning met play. Students raced cars by answering chemistry questions or correctly pronouncing element names combining excitement with education. The final phase brought in hands-on activities like simulated flame tests, simple reactivity experiments using household items, and a safe electrolysis demo. These practical applications helped students connect what they learned to the real world.

The impact is remarkable. The average test score jumped from **45.56% in the pre-test to 95.56% in the post-test**. Some students, like Saravanan and Sandhosh, showed dramatic improvements of over 70%. Sandhosh, Ashwini, and Pooja even scored a perfect 100% Students who once dreaded chemistry was now eager to learn, discuss, and experiment.

More than just academic gains, the project boosted **confidence, teamwork, critical thinking, and digital literacy** skills that go beyond the classroom. It also proved that when technology is thoughtfully integrated, even the toughest subjects can become exciting.

In the future, the teacher hopes to expand the project to cover all 118 elements and even integrate **Augmented Reality (AR)** to let students explore atomic structures in 3D. The ELEMENTS project isn't just a success story, it's a **model for modern science education**, showing how curiosity, creativity, and innovation can truly transform learning.

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DEVELOPING OUT OF THE BOX THINKING AMONG EIGHTH STANDARD STUDENTS THROUGH OPEN ENDED QUESTIONING IN TEACHING SOCIAL SCIENCE

Dr. P. VEL MURUGAN

SUMMARY OF PROJECT REPORT

Introduction

Education, as a transformative and dynamic process, aims to foster the holistic development of individuals, encompassing cognitive, emotional and social development. According to John Dewey (1916), education is not merely the transmission of knowledge, but rather an experiential process that cultivates curiosity, creativity, and critical thinking. Thinking is an essential part of the learning process, as it enables us to process information, make connections and form new ideas. Education and thinking are intertwined, as education seeks to develop thinking skills and thinking enables learners to engage deeply with educational content.

Thinking

Thinking is the cognitive process that every human being uses to solve problems, make decisions, generate new ideas and create new knowledge. It involves the manipulation of information, ideas and concepts to achieve a specific goal or outcome. Effective thinking enables individuals to analyse situations, evaluate evidence and form sound judgements. Moreover, thinking is a dynamic and iterative process that can lead to new insights, innovations and discoveries. By cultivating critical thinking, creative thinking and reflective thinking, individuals can enhance their ability to navigate complex challenges and achieve their full potential.

Out of the Box Thinking

„Out of the Box" refers to thinking creatively, originally, or unconventionally, also known as thinking beyond the box or outside the square. This innovative approach involves thinking freely and creatively, approaching problems from innovative angles, and challenging traditional boundaries. It enables individuals to discard common problem-solving methods, challenge outdated assumptions, and foster innovation. It leads to novel ideas, solutions, and a deeper understanding of problems and ideas. Beyond traditional limits, out of the box thinking reveals new perspectives, embracing creative and unconventional solutions unfettered by rules or tradition. The strategies require personal attributes that include, a willingness to take new

perspectives on day-to day work, openness to doing different things and to doing things differently, focusing on the value of finding new ideas and acting on them, striving to create value in new ways, listening to others, and encouraging, supporting and respecting others when they come up with new ideas.

Open Ended Questioning

Open ended questioning is a technique used to encourage critical thinking, creativity and deeper understanding. Open ended questions are questions that cannot be answered with a simple „yes" or „no" or a multiple choice response. They require thought, reflection and often a more detailed response. Students have their own ways to get to the right answer.

Need and Significance of the Study

In today"s complex and rapidly changing world, out of the box thinking is crucial for students" success. It enables them to develop creative solutions, think critically and solve complex problems. For eighth standard students, cultivating out of the box thinking is essential to enhance creativity, innovation, problem solving and critical thinking skills, as well as foster curiosity, entrepreneurial skills and lifelong learning. Open ended questioning techniques can promote out of the box thinking by encouraging students to think creatively, explore different perspectives and develop innovative solutions to complex problems. By integrating out of the box thinking into Social Science education, students can navigate various issues, develop innovative solutions and achieve academic success. Furthermore, studying Social Science provides students with a deeper understanding of themselves, their communities and the world, preparing them to make a positive impact. This study investigates the impact of open ended questioning on developing out of the box thinking among eighth standard students in Social Science education.

Title of the Study

"Developing Out of the Box Thinking among Eighth Standard Students through Open Ended Questioning in Teaching Social Science"

Objectives of the Study

The study was conducted with the following objectives.

- To develop students" ability to think beyond conventional boundaries and explore alternative perspectives.
- To enhance students" capacity to question assumptions and challenge established knowledge.
- To improve students" skills in generating novel solutions from multiple viewpoints to complex social science problems.

▪ To promote higher-order thinking skills such as analysis, synthesis, and evaluation.
▪ To develop students‟ ability to distinguish between facts, opinions, and biases. ▪ To engage students in inquiry based learning and foster curiosity and critical thinking.

Design of the Study

This study employed a qualitative research design, specifically a case study approach, to explore the development of out of the box thinking among eighth standard students through open ended questioning in teaching social science. The sample consisted of Grade VIII students from Sri Ramakrishna Mission Vidyalaya Swami Shivananda Higher Secondary School (Girls Wing), Coimbatore, selected using purposive sampling technique. The data were collected using classroom observations, student interviews, teacher interviews and reflections, student written responses and impact assessments.

Phase I : Preparation of Open Ended Questions

A crucial aspect of the study was the preparation of open ended questions for all units of the eighth standard social science textbook. These questions aimed to encourage critical thinking, analytical thinking, creative thinking and problem solving ability among the students. The researcher reviewed the eighth standard social science textbook and prepared open ended questions to develop out of the box thinking in History, Geography, Civics and Economics.

Phase II : Development of Interview Questions

To assess the effectiveness of the study, interview questions were prepared and developed for students and teachers. Ten questions for students and ten questions for the subject teacher were prepared. These questions aimed to gather feedback on the study‟s impact on students‟ thinking skills and teachers‟ perceptions regarding out of the box thinking and open ended questions in the teaching learning process.

Phase III : Development of Attitude Scale

To measure attitude towards out of the box thinking among eighth standard students through open ended questioning in teaching Social Science, the researcher prepared a questionnaire based on out of the box thinking and open ended questioning. The researcher reviewed several reference books titled „Think Out of the Box‟ and prepared a draft tool consisting of 40 statements. To assess the suitability of the items, the draft tool was submitted to a jury council comprising two faculty members from
education colleges. Based on the jury council‟s feedback, some items were modified, others restructured, and some eliminated. Ultimately, 33 items were retained for data collection.

Phase IV : Implementation of Open Ended Questioning in the Classroom Following the

preparation of open ended questions related to Social Science, the researcher implemented them in the Grade VIII classroom at Sri Ramakrishna Mission Vidyalaya Swami Shivananda Higher Secondary School (Girls Wing), Coimbatore. The implementation was carried out in collaboration with the Social Science teacher, incorporating innovative approaches to teaching History, Geography, Civics and Economics.

Phase V : Conducting an Attitude Test to Assess Students' Interest Following the implementation of out of the box thinking classes through open ended questioning in teaching Social Science, the researcher administered the test to assess students‟ attitudes and interest in out of the box thinking through open ended questioning. The primary objective of this test was to determine the percentage levels of students who demonstrated an interest in this approach.

Phase VI: Conducting Interviews with the Teacher and the Students Based on the prepared interview questions, the researcher conducted interviews with the Social Science teacher and the students to assess the impact of out of the box thinking through open ended questioning in teaching Social Science. The interviews aimed to gather feedback from the teacher on the effectiveness of the out of the box thinking approach and understand students‟ perceptions and experiences with open ended questioning.

Outcomes of the Study

- Students developed deeper thinking skills, effective problem solving skills and demonstrated critical thinking skills. They became more curious and confident in responding to open ended questions and enhanced their communication skills.
- Students interacted with the class in novel ways, demonstrating creativity and uniqueness in their responses.
- Students developed more effective solutions to complex problems, adapting challenging assumptions, considering different perspectives, and identifying innovative solutions.
- Classroom observations by the subject teacher revealed that out of the box thinking and open ended questioning stimulated creativity, encouraged exploration of multiple perspectives and led to innovative solutions.
- The performance of students in assignments demonstrated a distinct shift in their thinking approach, and showcasing flexibility in thinking and originality in their answers.
- The findings revealed that 64.6% of the students exhibited a positive attitude towards out of the box thinking, 31.3% remained undecided and 04.1% disagreed. Similarly, regarding open ended questioning in teaching social science, 65.7% of students showed a positive attitude, 29.3% were undecided and 05.0% disagreed.

Educational Implications of the Study

Based on the findings, the following educational implications are made: ▪ Integration of out of

the box thinking and open ended questioning approaches into the curriculum would enhance students‟ critical thinking, problem solving skills and creativity.

- Provision of training and resources for teachers would enable them to effectively implement these strategies in the classroom.
- Development of assessment tools that recognise and reward creativity and critical thinking would encourage students to think more deeply.
- Encouragement of student centered learning environments would foster active engagement, curiosity, and independent exploration.
- Fostering an institutional culture that values innovation, creativity, and risk-taking would create a more dynamic and forward thinking educational setting. . ▪ Promotion of collaborative learning through peer discussions, debates and teamwork would strengthen students‟ interpersonal and communication skills. ▪ Enhancement of student engagement in interactive and inquiry based learning would cultivate a deeper understanding of complex concepts.
- Encouraging interdisciplinary connections between social science and other subjects would promote a more holistic understanding of learning.
- Educating parents about the importance of out of the box thinking and open ended questioning can help them support their children‟s cognitive development and encourage critical thinking at home.
- By incorporating out of the box thinking and open ended questioning into education, students can develop innovative solutions to real world problems, benefiting society as a whole.

Conclusion

The study‟s findings highlight significant improvements in students‟ critical thinking, creativity and problem solving skills. The educational implications emphasise the need to integrate out of the box thinking and open ended questioning into the curriculum, provide teacher training and fostering a supportive institutional culture. To ensure sustainability, regular monitoring, teacher support, student feedback, and institutional commitment are crucial. By embracing these approaches, educators can empower students to approach complex social science issues with creativity, critical thinking and confidence. This research has important implications for educational stakeholders, offering valuable insights for educators, policymakers and institutions seeking to promote innovative and effective teaching practices.

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Enabling active engagement in the concept of metric measurements using interactive multimedia system among the upper primary children

Dr. S. Prabu

SUMMARY OF PROJECT REPORT

Introduction

Mathematics, particularly metric measurements, is fundamental in daily life and scientific applications. However, many upper primary students struggle with understanding unit conversions, especially through traditional teaching methods. In Indian classrooms, metric measurements are often taught using textbooks and blackboard demonstrations, which may not fully capture student's interest in learning.

This project was designed to integrate the metric measurement Learning Software in interactive multimedia system into metric measurement education. Implemented at Panchayat Union Middle School, Ambasamudram, Theni, the software aimed to improve student engagement, comprehension, and application of metric concepts. By incorporating interactive exercises, gamified elements, and quizzes, the software provided a structured and engaging digital learning environment. The project was conducted over 30 days, during which students underwent pre-tests and post-tests to measure their progress and learning outcomes.

Objectives

The primary objectives of the software were:

1. Understand Metric Units – Enable students to learn fundamental metric units and prefixes (milli-, centi-, kilo-).
2. Apply Measurements Practically – Improve student's skills in converting metric units accurately.
3. Enhance Engagement – Increase motivation and interest through gamified elements.
4. Develop Critical Thinking – Encourage analytical thinking by solving metric-based problems.
5. Encourage Collaboration – Facilitate peer discussions and group learning.
6. Support Independent Learning – Provide self-paced learning activities and progress tracking.

Need for the Study

Mathematics is often seen as an abstract subject, making it difficult for many students to visualize and understand concepts such as metric conversions. Traditional methods rely heavily on rote memorization rather than hands-on experience, resulting in difficulties in grasping real-world applications.

Observations at Panchayat Union Middle School revealed that students struggled with unit conversions due to a lack of interactive learning tools. The absence of digital resources in rural schools further limited student's opportunities for active learning. This project addressed

these challenges by providing a technology-driven approach to teaching metric measurements, making learning more engaging and effective.

Software Design and Features

The software was designed with a simple and user-friendly interface to assist students in metric unit conversions. It includes the following components:

1. Basic Conversion Assistance – Helps students convert metric units from one form to another.
2. Step-by-Step Guidance – Provides structured instructions to help students understand conversions.
3. Simple User Interface – Ensures easy navigation and usability for students.
4. Error Feedback System – Identifies incorrect entries and helps students learn from mistakes.

Methodology and Implementation

The study followed a quasi-experimental research design with 21 upper primary students. The research was divided into three phases:

1. Pre-Assessment Phase:
    - o A pre-test was conducted to evaluate student's prior knowledge of metric measurements.
    - o Classroom observations were made to assess engagement levels.
2. Intervention Phase:
    - o The software was introduced as a supplementary tool for metric conversions.
    - o Students used the software to practice converting metric units with guided assistance.
    - o Teachers monitored student progress and provided additional explanations where needed.

3. Post-Assessment Phase:
    - o A post-test was conducted to measure student's progress after using the Software.
    - o Student and teacher feedback was collected to assess the effectiveness of the Tool.
    - o Data was analyzed to determine the impact of the software on learning outcomes.

Results and Data Analysis

The comparison of pre-test and post-test scores indicated a significant improvement in student understanding of metric measurements. The key findings included:

1. Higher Test Scores:
    - o The average pre-test score was 38.10%, while the average post-test score increased to 86.43%.
    - o The gain in scores demonstrated a 48.33% improvement in student comprehension.
2. Improved Concept Retention:
    - o The software provided a structured way for students to practice conversions,

reinforcing learning.

o Students demonstrated a clearer understanding of unit conversions after repeated practice.

3. Increased Student Confidence:

o Using the software reduced confusion about metric conversions and helped students practice at their own pace.

o Students reported feeling more comfortable performing metric conversions after the intervention.

4. Teacher Observations:

o Teachers noted that students were more confident in solving metric-related Problems.

o The software served as a helpful supplementary tool but required teacher guidance for deeper conceptual understanding.

Educational Benefits

1. Improved Conceptual Understanding – The structured approach helped students grasp metric conversions more effectively.
2. Increased Confidence – Students gained confidence in metric unit conversions through repeated practice.
3. Self-Paced Learning – The software allowed students to practice at their own pace without time pressure.
4. Support for Traditional Teaching – The tool complemented classroom instruction by providing additional practice opportunities.
5. Technology-Driven Learning – The project demonstrated the benefits of integrating digital tools into mathematics education.

Future Enhancements

1. Introducing Gamification – To make learning more engaging through rewards and progression levels.
2. Developing a Mobile Version – Increasing accessibility for students outside the Classroom.

Conclusion

The metric conversion software proved to be a useful supplementary tool for improving student's understanding of metric measurements. The pre-test and post-test results demonstrated significant learning gains, confirming that the structured guidance of the software helped students grasp metric conversions more effectively. The software, successfully provided essential assistance in unit conversions, helping students develop confidence in their mathematical abilities.

This project highlights the potential of digital tools in mathematics education. Future improvements, such as adding quizzes and real-world applications, could further enhance its impact. The study provides valuable insights for educators in integrating technology into primary education, creating a more effective and engaging learning environment for students.

Enhancing Pre-Service Teacher Education Through Virtual Reality Integration

Not Submitted

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Tribal Talk for EngliShine

(Oriental & Occidental Collage-Fun and Engaging English Learning for Tribal Communities)

Dr S. Devika & Dr P. Sheela

SUMMARY OF PROJECT REPORT

We have implemented the project in standard 6 at GOVERNMENT TRIBAL RESIDENTIAL HIGHER SECONDARY SCHOOL, PECHIPARAI. For this we conducted a pretest and post test in both the divisions of standard 6 in the school. Totally there are only two divisions in Standard VI of the School, 21 students in A division and 15 students in the B division. The written test was conducted on 25 marks. On conducting the test we have found out that the school is very much backward in educational standards since the class average comes to **5.38/25 (21.52%)** only **in A division** and **5/25 (20%) only in B division**. Hence VI B having lower class average is taken as the experimental group and VI A having slightly higher class average is taken as the control group. The two divisions stand close to each other in the mean of the marks. Hence we think that the divisions are adoptable for the experimentation.

We have found out that many of the children in standard VI do not know how to read and write and many of them do not know even letters in the alphabet. However, we have started from there by giving remedial measures to solve the crisis of the backwardness of the classes.

After conducting the classes on the innovative strategy a post test was conducted.Descriptive statistics (means and standard deviations) and inferential statistics (t-test) were utilized to compare post test scores between the two groups.The experimental group achieved a notably higher average post test score compared to the control group. A t-test revealed that the difference in scores between the experimental and control groups was statistically significant ($p < 0.01$). This confirms the effectiveness of the innovative module.

DISCUSSION

The results indicate that students exposed to innovative module-based instruction outperformed their peers in the control group. This superior performance can be attributed to several factors inherent in inovative learning module -environments, including increased engagement, enhanced motivation, and immediate feedback. The innovative module appears to have provided a more interactive and stimulating learning experience, thereby facilitating better understanding and retention of course material.

CONCLUSION

The post test analysis strongly supports the effectiveness of innovative module as a learning strategy. The experimental group's excelled performance suggests that integrating innovative elements in educational settings can significantly enhance learning outcomes. These findings advocate for further integration of innovative techniques in teaching practices to foster improved academic achievement and engagement.

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EMPOWERING YOUNG WOMEN: THE ROLE OF STEM EDUCATION AND LAB PRACTICES IN IMPROVING FEMALE PARTICIPATION

RAJESH KUMAR N

SUMMARY OF PROJECT REPORT

1. Introduction

The project "Empowering Young Women: The Role of STEM Education and Lab Practices in Improving Female Participation" aimed to enhance STEM learning among female students in Grades VI to IX through structured interventions. Gender disparities in STEM fields persist due to various socio-cultural and institutional barriers, limiting women's engagement in science and technology. By integrating hands-on laboratory activities, inquiry-driven teaching, and mentorship programs, this initiative sought to create a gender-inclusive learning environment that fosters confidence, interest, and competency in STEM disciplines.

2. Scope of the Study

The study was conducted at Sri Ramakrishna Mission Vidyalaya Swami Shivananda Hr. Sec. School, Coimbatore, within the Ramakrishna Mission Vidyalaya campus. It involved 219 female students from Grades VI to IX, providing them with hands-on STEM exposure through structured lab activities and interactive learning methods.

3. Objectives of the Study

- To improve female participation in STEM education through interactive lab practices.
- To integrate competency-based and inquiry-driven learning strategies into STEM teaching.
- To enhance students' problem-solving, critical thinking, and technical skills.
- To assess changes in students' attitudes, confidence, and aspirations toward STEM careers.
- To create a model framework for gender-inclusive STEM education.

4. Implementation and Execution

4.1 Preparatory Phase

- Needs Assessment & Literature Review: Analyzed gender disparities in STEM education and effective pedagogical strategies.
- Stakeholder Consultation: Engaged teachers, STEM experts, and educationists to develop a structured intervention model.

- Resource Mobilization: Procured lab materials, digital tools, and designed curriculum-aligned STEM activities.
- Teacher Training: Conducted professional development workshops on gender-inclusive teaching and inquiry-based learning.

4.2 Human Resource Mobilization

To ensure high-quality training and engagement, a diverse team of professionals was involved in the STEM education initiative.

- **Teacher Educators:** Served as project coordinators, designed curricula, conducted training sessions, and mentored students, ensuring the overall effectiveness and quality of the program.
- **STEM Experts:** Professionals from science and engineering fields conducted hands-on practical sessions to enrich student learning.
- **Science Teachers:** School teachers were trained to facilitate STEM learning beyond the classroom, fostering inquiry-based learning.
- **Lab Assistants:** Technical staff played a crucial role in managing lab materials and ensuring safety protocols.

4.3 Curriculum Integration and STEM Lab Implementation

- A dedicated STEM lab framework was developed, incorporating hands-on experiments, problem-solving activities, and technology integration.
- Weekly STEM lab sessions were scheduled, covering fundamental electronics, coding, and engineering design thinking.
- Learning modules were customized to align with students' cognitive levels and national curriculum standards.

4.4 Assessment and Continuous Monitoring

- **Pre-test and Post-test Evaluations:** Baseline and outcome assessments measured students' knowledge gains, skill development, and confidence in STEM.
- **Continuous Feedback Mechanisms:** Teachers provided periodic evaluations, and student surveys captured shifts in attitudes toward STEM learning.
- **Performance Tracking:** Data analytics tools were used to monitor progress and optimize instructional strategies.

5. Key Findings & Results

5.1 Improvement in STEM Knowledge and Skills

- Mean post-test scores showed a significant increase across all grades, with the highest improvement in Class 6 (+34.47%).
- Hands-on learning promoted better retention, conceptual clarity, and application of theoretical knowledge.
- Practical engagement in experiments and STEM projects enhanced students' analytical reasoning and problem-solving skills.

5.2 Increased Female Participation and Engagement

- Female student participation in lab activities rose from 35% to 78%.
- Confidence in handling lab equipment increased from 40% to 82%.
- Perception of STEM careers improved significantly, with interest levels rising from 30% to 70%.
- Female students exhibited higher engagement in team-based projects, fostering peer learning and collaborative skills.

5.3 Final Implementation & Outcome Assessment

To measure the overall impact of the project, a comprehensive evaluation was carried out. A comparison of pre-test and post-test results provided clear evidence of knowledge gains and skill improvements. Lab performance assessments were conducted to track students' ability to conduct scientific experiments independently, demonstrating their progress in applying scientific principles. Shifts in students' attitudes toward STEM, particularly among female participants, were also evaluated to determine the program's effectiveness in fostering long-term interest. Additionally, key challenges, best practices, and recommendations were identified to support the sustainability and potential scaling of the program. This structured execution ensured that students consistently engaged with STEM applications, enhancing their confidence and deepening their interest in pursuing STEM careers, especially among young women. The tool designed for this study is a comprehensive assessment instrument that evaluates students' STEM knowledge.

6. Limitations and Challenges in the Execution of the Study

Resource Constraints – Availability of lab equipment, microcontrollers, and 3D printing tools may have been limited, affecting the uniformity of hands-on learning experiences.

Technical Challenges – Students faced difficulties in handling technology-driven projects, such as coding and circuit designing, requiring additional support and troubleshooting.

Time Constraints – Conducting structured STEM sessions alongside the regular curriculum may have created scheduling challenges, limiting students' participation in extended projects.

Assessment Limitations – While pre-tests and post-tests were conducted, relying on Google Forms for evaluation may have limited deeper qualitative insights into students' conceptual understanding.

Variability in Student Engagement – Differences in students' prior knowledge and learning pace may have affected their ability to keep up with hands-on experiments and activities.

Scalability and Sustainability – The study required a well-equipped lab and trained instructors, making long-term sustainability and expansion to other schools a potential challenge.

6. Conclusion & Recommendations

The findings of this project affirm that integrating structured STEM education with hands-on lab practices significantly improves female students' participation, competency, and career aspirations in science and technology. The initiative fostered an engaging, inquiry-based learning environment, equipping students with essential STEM skills and confidence for future academic and professional success.

Key Recommendations:

- **Expansion of STEM Lab Integration:** Extend structured STEM interventions to other schools, ensuring sustained engagement in hands-on learning.
- **Institutionalizing Gender-Inclusive Teaching:** Train educators in gender-sensitive STEM pedagogies to promote equitable learning environments.
- **Incorporation of Emerging Technologies:** Leverage virtual labs, AR/VR tools, and AI-driven learning modules to enhance experiential learning.
- **Mentorship and Career Guidance Programs**: Establish industry-academic partnerships to provide exposure to female STEM role models and career pathways.
- **Policy Advocacy for STEM Education:** Advocate for the inclusion of structured STEM laboratory curricula in mainstream education policy frameworks.

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EASY SOCIAL SCIENCE BY GAMIFICATION

Vandanaben kishorbhai Balbhadra

SUMMARY OF PROJECT REPORT

INTRODUCTION (પારંચય):

ગુજરાતના સુરેન્દ્રનગર જિલ્લાના વઢવાણ તાલુકામાં આવેલી શ્રી વાડલા પ્રાથમિક શાળાના શિક્ષક તરીકે ગ્રામીણ બાળકોમાં સામાજિક વિજ્ઞાન પ્રત્યે રુચિ કેળવવાના વિવિધ પ્રયાસો કર્યા. નબળી આર્થિક સ્થિતિ અને કામના ભારણને કારણે બાળકો અને વાલીઓમાં શિક્ષણ પ્રત્યે ઉદાસીનતા જોવા મળતી હતી. મોટાભાગના બાળકો મજૂરી અથવા ઘરકામમાં વ્યસ્ત રહેતા હતા. તેઓ શાળામાં અનિયમિત અને ગૃહકાર્ય પ્રત્યે પણ નિરસ હતા. સામાજિક વિજ્ઞાનનો માહિતીપ્રદ અભ્યાસક્રમ તેમને આકર્ષતો ન હતો. આ પડકારોને પહોંચી વળવા અને શિક્ષણને આનંદપ્રદ બનાવવા માટે સૌથી વધુ અસરકારક રમતો આધારિત શિક્ષણ પદ્ધતિ અપનાવવામાં આવી.

રમતોના ઉદ્દેશ્યો:

- રમતા રમતા સમયરેખા સમજવી, નકશામાં સ્થાન જાણવું.
- સંકલ્પનાઓનું જ્ઞાન વિકસાવવું, વિવિધ રીતે વર્ગીકરણ કરવું.
- આત્મવિશ્વાસ કેળવવો.,શીખવાનો ઉત્સાહ વધારવો અને ગોખણપટ્ટી દૂર કરવી.
- તર્કશક્તિ, સર્જનાત્મક ખ્યાલ અને લેખનશૈલી વિકસાવવી.
- મહાવરો અને મૂલ્યાંકન બંનેમાં ઉપયોગી બનવું.

IMPLEMENTATION PROCEDURE OF THE INNOVATION:

પાઠ્યપુસ્તકના વિષયવસ્તુ અને અધ્યયન નિષ્પત્તિઓને અનુરૂપ રમતો બનાવવાનું શરૂ કર્યું. શરૂઆતમાં, વન્યજીવ અને દરિયાઈ જીવસૃષ્ટિની "***JIGSAW***" પઝલ ગેમ બનાવવામાં આવી, જેને બાળકો તરફથી સારો પ્રતિસાદ મળ્યો. રમતો બનાવવાનો સફર શરૂ થયો.બોલપેનના રેપર, વધારાના બેલ્ટ, જૂની નોટબુકના પૂંઠા, બોક્સ, બોટલ, વપરાઈ ગયેલા સ્કેચપેન, ફેવિકોલની ખાલી બોટલો, રંગીન કાગળ, પુઠ્ઠા, સ્વરચિત જિગ્સૉ પઝલ, જૂની પુસ્તકોમાંથી કટિંગ, ટૂથપિક, ફુલ્ફી સ્ટીક, પ્લાસ્ટિક બેગ, ઊન, જૂના કેલેન્ડર વગેરે જેવી નકામી વસ્તુઓનો ઉપયોગ કરીને રમતો બનાવવામાં આવી.બાળકોને રમતો બનાવવામાં પ્રોત્સાહિત કર્યા. સામાજિક વિજ્ઞાન પ્રત્યે સકારાત્મક વલણ વિકસ્યું. દરેક પાઠના અંતે એકમ અંતર્ગત પરિક્ષાના માનસિક ભારણને બદલે હવે રમતના આનંદ સાથે મૂલ્યાંકન શક્ય બનતા બાળકોને સફળતા મળવા લાગી.

વિવિધ નાવિન્યપૂર્ણ શૈક્ષણિક રમતો:

JIGSAW PUZZLE

HOUSEY

TIK TOK TASK

TRUTH AND DARE

MAGNATIC MAP

CLOUD RAINBOW "મેઘધનુષ્યના સંગે આભમાં સજીએ, વાદળ વાદળ નીચે વરસીએ..."

SLIDE AND LADDER

BIRD HELICOPTER

STAND AT PROPER PLACE

MAGICAL WATER

LET'S TRAVEL TO THE SOLAR SYSTEM

MIND BLOWING MAZE "સ્વયં સાથે સ્પર્ધા"

FIRE ESTINGUSHAR AND LADDER

FIND YOUR SAFE WAY MAZE

IDENTIFICATION

ATTACH AND ARRANGE "મોહનથી મહાત્મા સુધી"

MATCH THE BLOCKS

CUSTOMER IS THE KING

BE AMAZING ARCHITECTURE "સ્થાપત્યની સફરે... ભારત ભમીએ... "

IMPROVE YOUR INDUSTRIAL KNOWLEDGE

TRUE FALSE LIGHT BOX

મારી આ રમતો **GCERT** ગાંધીનગર દ્વારા રાજ્યકક્ષાના ઇનોવેશનમાં પસંદ કરવામાં આવી હતી અને અન્ય શાળાઓમાં પણ બાળકોએ ખૂબ જ આનંદ માણ્યો હતો. GCERT GAS SURVEY અંતર્ગત નબળી આવેલી અધ્યન નિષ્પતિઓના સંદર્ભે થયેલા લેક્ચર દરમિયાન DIET LECTURERS સમક્ષ તેમજ RESOURCE PERSON તરીકે આ રમતો MASTER TRAINERS ને પણ રમાડી હતી.

OUTCOMES (પરિણામો):

પરિણામે, વાડલા પ્રાથમિક શાળાના ધોરણ 6 થી 8 ના બાળકો સરળતાથી લર્નિંગ આઉટકમ સિદ્ધ કરતા જોવા મળ્યા. વિદ્યાર્થીઓના શૈક્ષણિક પરિણામ, સ્વભાવ અને વર્તનમાં સુધારા જોવા મળ્યા. બાળકોમાં સહકાર, સમાનતા, ન્યાય અને

વિદ્યાર્થીઓના શૈક્ષણિક પરિણામ, સ્વભાવ અને વર્તનમાં સુધારા જોવા મળ્યા. બાળકોમાં સહકાર, સમાનતા, ન્યાય અને જવાબદારી જેવા મૂલ્યોનો, ખેલદિલીની ભાવનાનો વિકાસ થયો. તેઓ રમતોને એક પડકાર તરીકે લઈ તેને પૂર્ણ કરવા માટે મહેનત કરવા લાગ્યા.

નાની જીતને પણ પ્રોત્સાહન આપવા પેન્સિલ,પેન,રબર, સ્ટાર સ્ટીક અથવા પેપર ટ્રોફી જેવી ભેટો આપી. રમતો દ્વારા શિક્ષણ માત્ર મનોરંજક જ નહીં, પરંતુ અત્યંત અસરકારક પણ છે. આ પ્રોજેક્ટ માટે એક વર્ષનો સમય જરૂરી છે.મોટાભાગની રમતો લેમિનેશન કરેલી હોવાથી પુન:ઉપયોગી અને દીર્ઘકાલીન છે.

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Use of Supplementary Educational Games and Tools for development of Language Skills of Children in Foundation Stage

पायाभूत टप्प्यातील मुलांची भाषिक क्षमता विकसित करण्यासाठी पूरक खेळ आणि साधनांचा वापर

Mrs. Shweta Sachin Phadke & Mrs. Rati Bhosekar

SUMMARY OF PROJECT REPORT

प्रकल्प पार्श्वभूमी –मुलांमधील भाषाविकास ही नैसर्गिक क्षमता आहे. मुलांचा भाषाविकासाचा सर्वांत महत्त्वाचा कालावधी हा शून्य ते सहा वर्षांपर्यंतचा असतो. मुले परिसरात सतत कानावर पडणाऱ्या भाषा आत्मसात करतात. मेंदूतले वेर्निक क्षेत्र आणि ब्रोका या क्षेत्रांमुळे भाषेची समज आणि ती तयार करण्याची क्षमता मुलांमध्ये येते. मुलांची भाषाविकसित होण्याकरता माणसांचा सहवास मिळालाच पाहिजे. तीन ते चार वर्षांची मुले ऐकलेले शब्दांचा वापर लगेच करतात. याच कालावधीत अर्थपूर्ण शब्द वापरातून अर्थपुर्ण वाक्य वापराकडे मूले आपसूक वळतात. म्हणून या कालावधीत मुलांच्या भाषा शिक्षणावर लक्ष केंद्रित करणे आवश्यक असते. पायाक्षूत टप्पा म्हणजेच तीन ते आठ वयोगट हा भाषविकासासाठी सर्वोत्तम काळ मानला जातो. मुलांनी नैसर्गिकपणे आत्मसात केलेल्या भाषेच्या ज्ञानाचा उपयोग करून त्यांना भाषासाक्षरतेचे वेगवेगळे अध्ययन अनुभव या पायाभूत टप्प्यात देऊन त्यांच्या भाषा साक्षरतेचा प्रवास किंबहुना भाषा संवर्धनाचा हा प्रवास पुढपर्यंत नेणे आवश्यक आहे. प्रौढांनी जाणीवपूर्वक केलेल्या मेंदू आधारित अशा भाषा शिक्षण अनुभवांची त्याला जोड मिळायला हवी. निपुण भारत अभियानामध्ये मुलांच्या पायाभूत भाषा साक्षरतेवर काम करणे अपेभित आहे. त्यासाठी संतुलित दृष्टीकोन संकल्पना माडण्यात आली आहे. या दृष्टीकोनामध्ये मुलांचा भाषाविकास हा समग्रपद्धतीने होणे अपेक्षित आहे. तसेच या दृष्टीकोनानुसार प्रत्येक मूलाचे आनंददायी आणि तणावमुक्त पधद्तीने शिकणे अपेक्षित आहे. यासाठी विविध पूरक खेळ व साधनांचा वापर उपयुक्त ठरतो.

प्रकल्प उद्दिष्ट – निपुण भारत अभियानला अपेक्षित मुलांचे पायाभूत भाषा साक्षरता घटक साध्य करण्यासाठी तीन ते आठ वयोगटातल्या मुलांसाठी विविध भाषाविकास पूरक खेळ व साहित्याचा वापर करणे. त्याचा मुलांच्या भाषा अध्ययन क्षमतेवर परिणाम तपासणे.

प्रकल्प राबविण्याची कारणे –

1. आमच्या शाळेत मुलांच्या भाषाविकासाचा विचार हा श्रवण, संभाषण, वाचन, लेखन हे पारंपारिक टप्पे विचारात घेऊन केला जात होता. पायाभूत टप्प्यातील भाषाविकासासाठी संतुलित दृष्टिकोनाचा निपुण भारत अभियानला अपेक्षित असलेला विचार केला जात नसे.
2. वय वर्षे तीन ते सहा असा टप्पा विचार करून कृतींचे नियोजन करत होतो.

3. भाषाविकासासाठी जरी काही शैक्षणिक खेळांचा वापर होत असला तरी, पायाभूत भाषा साक्षरतेचे निपुण भारत अभियानानुसारच्या नऊ घटकांतर्गत तीन ते आठसाठी विविध पूरक खेळ आणि साधनांची अध्ययन निष्पत्तींनुसार तयार करून मुलांच्या पायाभूत साक्षरतेवर सखोल काम करणे आवश्यक वाटले.

प्रकल्प कल्पनेचा उगम -निपुण अभियानचे ध्येय क्र २ मुले उत्तम संवादक व्हावीत असे म्हणते. त्यामुळे त्या अंतर्गत समाविष्ट होणा-या कौशल्यांच्या आणि त्यांच्या क्षमतांचा विचार करणे आवश्यक वाटले. निपुण अभियानाला अपेक्षित पायाभूत साक्षरतेच्या नऊ कौशल्य घटकांवर, अनुक्रमे १. मौखिक भाषा विकास, २. भाषेच्या लेखी रुपाची जाणीव, ३. भाषेतील ध्वनींची जाण, ४. विसांकेतिकरण, ५. आकनलयुक्त वाचन, ६. ओघवते वाचन, ७. शब्दसंग्रह, ८. लेखन आणि ९. वाचनसंस्कृतीकडे कल, पायाभूत टप्प्यात काम करावे लागणार होते. तसेच पायाभूत टप्प्यातील मुलांची पायाभूत साक्षरता, विविध भाषिक खेळांमार्फत संतुलित दृष्टिकोन लक्षात घेऊन करणे आवश्यक वाटले. त्याअनुषंगाने विविध भाषिक खेळ व पूरक साधने विकसित करायचे अशी आखणी करायची ठरवली.

कल्पनेचे प्रकल्पात रुपांतर –उपरोक्त कल्पनेचे रुपांतर प्रत्यक्ष राबविता येऊ शकेल अशा प्रकल्पात करून पायाभूत टप्प्यांतील म्हणजेच तीन ते आठ वयोगटातील मुलांसाठी भाषिक खेळ व पूरक साहित्य तयार करुन त्याचा वापर करायचा होता.

प्रकल्प कार्यवाही – प्रकल्प कार्यवाही खालीलप्रमाणे झाली.

- पायाभूत भाषा साक्षरतेच्या नऊ भाषा कौशल्य घटकांचा विस्तारित स्वरूपातला आराखडा तयार केला.
- त्या प्रत्येक घटक कौशल्यांच्या क्षमता आणि त्या क्षमता साध्य झाल्या आहेत का हे तपासण्यासाठीच्या वयानुसारच्या अध्ययन निष्पत्ती यांची मांडणी केली.
- त्या भाषेच्या क्षमता विकसित होण्यासाठी विविध पूरक खेळ व साहित्याचा वापर करून पाठ घेतले.
- पाठांनंतर मुलांमध्ये अपेक्षित अध्ययन निष्पत्ती दिसत आहेत का याच्या नोंदी केल्या.
- पूरक खेळ व साधनांच्या आधारे पायाभूत भाषा क्षमता विकासाच्या नऊ कौशल्य घटकांवर काम केल्यावर त्यातील विविध क्षमता कशाप्रकारे विकसित झाल्या आहेत याचे मूल्यांकन केले. ते अशाप्रकारे

1 सा - प्रगत – हे विद्यार्थ्यी अध्ययन निष्पत्ती पूर्ण प्राप्त केलेले आहेत.

2 रे - प्रवीण - या विद्यार्थ्यांनी अध्ययन निष्पत्ती ब-याच प्रमाणात प्राप्त केलेल्या आहेत, कमीतकमी मार्गदर्शन लागते.

3 प्रगतशील – या विद्यार्थ्यांनी अध्ययन निष्पत्तींनुसार किमान ज्ञान प्राप्त झाले आहे. अध्ययनाच्या अनेक पातळ्यांवर त्यांना मार्गदर्शनाची आवश्यकता असते.

4 प्रारंभिक - अध्ययनाच्या प्रत्येक टप्प्यावर खूप मार्गदर्शनाची आवश्यकता असते.

- प्रकल्प राबवण्याआधीची मुलांची भाषा साक्षरता घटकांनुसारची भाषिक कोशल्य क्षमता आणि प्रकल्प राबवल्यानंतर त्या क्षमतांमध्ये पडलेला फरक तपासला आणि त्याच्या नोंदी केल्या.
- प्रकल्पासाठी विविध उपक्रमांचे नियोजन केले.

प्रकल्प परिणाम – सदर प्रकल्पाचा परिणाम पाहण्यासाठी खालीलप्रमाणे कार्यवाही केली-

१ वयोगटानुसार मुलांची प्रकल्प सुरु करण्यापूर्वी व प्रकल्पानंतर प्रत्येक कौशल्यांची मूल्यांकने करून प्रकल्पपूर्व आणि प्रकल्पनंतर मुलांमधले कौशल्यविकसन दाखवणारे आलेख तयार केले.

2 नऊ कौशल्यांचा एकत्रित प्रकल्प पूर्व व प्रकल्पनंतर तक्ते व आलेख तयार केले.

3 पूरक खेळ आणि साधने यांच्या वापरामुळे मुलांमधील संपूर्ण पायाभूत साक्षरतेमध्ये झालेला परिणाम पडताळला.

एकूण परिणामांचा गोषवारा असा –

प्रकल्प पूर्व मुलांमधील भाषाविकासाचे मूल्यांकने –

यानुसार – पायाभूत टप्पा भाषाविकास पूरक खेळ आणि साधने प्रकल्प राबवण्याआधी ३ ते ८ वयोगटातील मुलांची, नऊ भाषा कौशल्यांमधल्या क्षमतांची एकत्रित, मूल्यांकने खालीलप्रमाणे -
एकूण ११८ मुलांपैकी –
सा – प्रगत - २९ मुले, रे प्रवीण – ३२ मुले, ग – प्रगतशील – ३३ मुले आणि म – प्रारंभिक – २४ मुले अशी होती.
टक्केवारीनुसार -
सा (प्रगत) – २५% मुले, रे(प्रवीण) – २७%, ग(प्रगतशील) - २८% आणिम(प्रारंभिक) – २०% असे होते.

प्रकल्पानंतर मुलांमधील भाषाविकासाचे मूल्यांकन –

यानुसार – पायाभूत टप्पा भाषाविकास पूरक खेळ आणि साधने प्रकल्प राबवल्यानंतर ३ ते ८ वयोगटातल्या मुलांची, नऊ भाषा कौशल्यांमधल्या क्षमतांची एकत्रित मूल्यांकने, खालीलप्रमाणे

एकूण ११८ मुलांपैकी –

सा – प्रगत - ६२ मुले, रे प्रवीण – ३० मुले, ग – प्रगतशील – २२ मुले आणि म – प्रारंभिक – ४ मुले अशी झाली.

टक्केवारीनुसार

सा – ५३% मुले, रे – २५ %, ग – १९% आणि म – ३ % असे झाले.

प्रकल्पाचा एकूण परिणाम म्हणून

सा – प्रगत पातळीवरील मुलांमध्ये ११८ पैकी २९या संख्येवरून ११८ पैकी **६२** मुले अशी वाढ झाली म्हणजेच एकूण २८% अशी वाढ झाली तर

म - प्रारंभिक पातळीवर असलेल्या मुलांमध्ये ११८ पैकी २४ मुलांवरून ११८ मध्ये **४** मुले अशी घट झाली. म्हणजेच एकूण १७ % अशी घट झाली.

प्रकल्प परिणामांचा गोषवारा –

मुलांसाठी -मुलांच्या विविध भाषा क्षमता विकसित झाल्या. त्या अनुषंगाने निपुण भारत अभियानला अपेक्षित मुलांच्या पायाभूत साक्षरता विकसित करण्यासाठी अपेभित नऊ भाषिक कौशल्यांचा मुलांमध्ये विकास झाला. मुले उत्तम संवादक व्हावीत हे निपुण ध्येय क्र २ साध्य झाले. मुलांच्या भाषा विकासासाठी संतुलित दृष्टीकोन साध्य झाला.

शिक्षकांसाठी आणि पालकांसाठी -शिक्षकांचा पायाभूत भाषा साक्षरता विकसित करण्याचा सखोल अभ्यास झाला. नवीन भाषा खेळांचे मार्गदर्शन मिळाले व त्याचा वयोगटानुसार उपयोग कसा करायचा हे समजले. मुलांच्या भाषाविकासावर सखोल काम केल्यामुळे प्रत्येक मुलांची भाषा कौशल्याचा अंदाज आला. मुलांच्या खेळातून आणि पूरक साहित्यातून तो भाषिक घटक मुलांमध्ये विकसित झाला नसेल तर त्याप्रमाणे परत कृती घेता आल्या. प्राथमिक शिक्षक आणि पालकांनाही भाषा खेळांविषयी मार्गदर्शन मिळाले.

प्रकल्प सूचना –

पूरक खेळ व साहित्याचा सात्यतपूर्ण वापर करणे.

प्रकल्पानंतरही जी मूले निम्नपातळीवर आहेत त्यांच्यावर काम करणे.

प्राथमिक आणि पबर्व प्राथमिक शिक्षकांनी एकत्र काम करणे.

प्रकल्प सातत्य –

प्रकल्प सात्यतासाठी संस्थापातळीवर आर्थिक नियोजन

प्राथमिक आणि पूर्व प्राथमिक सात्यतपूर्ण शिक्षक प्रशिक्षण

शिक्षक पालक मिळून भाषिक खेळ व साहित्याची सातत्यपूर्णरित्या निर्मिती

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Art with Narratives: Effectiveness of Illustration to Enable Active Learning through Art Integration.

Dr. Deepak Mahakul

SUMMARY OF PROJECT REPORT

"Painting is poetry that is seen rather than felt and poetry is painting that is felt rather than seen." – *Leonardo da Vinci*

"Art with Narratives" is an educational innovation that explores the integration of visual storytelling into language instruction. Rooted in the idea that images and illustrations can enrich literary comprehension and expression, the project uses art as a pedagogical bridge between textual content and student understanding. Inspired by traditional Indian narrative art forms like *pattachitra*, as well as contemporary visual mediums, the initiative aims to transform passive reading into active, multisensory engagement.

The project was implemented with Std. IX and X students at Navrachana Higher Secondary School, Vadodara, during the 2024–2025 academic year. Students were introduced to illustration, such as sequencing, composition, color and texture. The instrustion guided to visually interpret selected chapters from their English textbooks. Std. IX students worked on the prose *The Beggar*, while Std. X students interpreted the poem *Trees*. Each student illustrated a different paragraph, working independently to ensure unique perspectives while collectively contributing to a coherent visual narrative.

The core objectives included enhancing comprehension, fostering critical and creative thinking, and promoting 21st-century skills such as collaboration, reflection, and communication. The project adopted a single-group experimental design using qualitative research tools such as classroom observation, visual analysis, interviews, and reflective discussions. Students were
encouraged to use any art medium of their choice, which stimulated excitement, autonomy and personal expression.

Results were striking. Over 95% of students reported increased interest in literature when art activities were integrated. Peer discussion, group critique and public display of the artwork further deepened engagement and emotional investment.

The project also revealed that students felt more confident expressing their ideas visually and verbally. Their portfolios showed experimentation with different media, and collaborative sessions fostered empathy and communication. Teachers observed a 40% increase in sustained classroom focus during art-integrated sessions.

Key implications highlight the scalability of this model across subjects from history to science and its adaptability to different learning styles. It supports differentiated instruction and encourages inclusive, reflective classroom practices. The project also underscores the importance of teacher training in art-based facilitation and assessment methods.

"Art with Narratives" affirms that when students illustrate what they read, they don’t just decode language and they engage with it, reimagine it and make it their own. This transformative approach positions art not as an extracurricular activity but as a central mode of learning that brings literature to life and cultivates lifelong learners.

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TECHNO-BASED ACTIVE LEARNING (TBAL)

Dr. Pallavi Sameer Talekar

SUMMARY OF PROJECT REPORT

Introduction

The development of the nation depends on a sound education system. Education should help children throughout their lives. Traditional education system isolates learners from all social interactions in the classroom. The teacher holds power and all the responsibilities of students' learning. The Active learning helps in developing higher-order thinking skills and deeper understanding of the content.

The new generation of digital natives processes information differently, making traditional passive learning methods ineffective. The Active learning helps in developing higher-order thinking skills and deeper understanding of the content. When students become aware of their own learning and eventually control their learning process which leads to better performance.

Techno-Based Active Learning (TBAL) integrates technology with active learning strategies, enhancing student engagement, critical thinking, creativity, and collaboration. The COVID-19 pandemic accelerated the adoption of digital tools in education, reinforcing the necessity of technology-enhanced active learning. In today's rapidly developing educational field, technology plays a transformative role in enhancing teaching.

This project explores how TBAL can accelerate learning for digital natives, improve critical thinking, enhance retention, and increase motivation. Future teachers must be proficient in using technology, making TBAL an essential pedagogical approach for teacher education program.

Objectives:

The following objectives are envisaged for the proposed Innovation:

➢ To increase the participation of student-teachers in learning activities.

➢ To use web-based tools in active learning process to develop thinking process.

➢ To encourage teamwork and communication through online apps among the students.

➢ To make teaching-learning more enjoyable.

➢ To increase the technology preparedness of student-teachers.

➢ To train student teachers in preparing technology-based learning resources for active learning.

Methodology:

For the present project was a Qualitative study. The TBAL was utilized in the classroom to teach various topics. The impact of TBAL strategies on the student-teachers of First Year B.Ed. Program in Hansraj Jivandas College of Education was studied.

Before the start of the project, need analysis was done to understand the context of each student-teacher along with their techno abilities and usage. The project coordinator has selected specific techno based active learning strategies suitable to teach content selected. The tools which are very effective and available freely were chosen for delivering content and conducting activities.

For the present project 48 student-teachers of First Year B.Ed. Program from Hansraj Jivandas College of Education were selected. These students are doing B.Ed. Program in English medium.

TBAL Activities

• Gamification:

In the present project gamification Narrative-driven lessons were used in which students progress through a storyline. The objectives of this activity were to help students to understand the concept, to develop the skill of analyzing and interpreting, to help in self -learning. The online tool Quizizz was used to conduct the game.

• D2 Strategy (Discovery & Discussion):

It also encouraged learners to actively seek out information (discovery phase) and then engage in discussion (discussion phase) to deepen their understanding of the topic. Each student became an active participant in the learning process. Student-teachers browsed the websites of NGOs to know the activities conducted by the NGO. The group members used mindmeister.com to prepare the concept map.

• My Opinion:

This provides an opportunity to an individual student or a group of students to share the opinion with other classmates. It allowed students to share viewpoints and organize information creatively. Student-teachers contributed data in an information web on a digital whiteboard. It improved their critical analysis and communication skills.

• Digital Treasure Hunt:

The Digital Treasure Hunt (DTH) activity provided the opportunity to do the treasure hunt digitally to gather information about the topic. This activity requires participants to follow clues, and complete challenges.Interactive Case Studies:

• Interactive Case studies:

Case studies provided using interactive media makes the process more effective as the cases do include images or even news broadcasts. This motivates Student-teachers to share their views and participate in discussion with others.

• Song Creation:

The teacher trained students-teachers how to generate songs using AI based tools. The students generated songs related to the topic taught.

• Social Inquiry Method:

This method is rooted in inquiry-based learning, where students ask questions, gather data, evaluate information, and draw conclusions about real-world social matters using technology.

• Engage360:

This method is rooted in inquiry-based learning, where students ask questions, gather data, evaluate information, and draw conclusions about real-world social matters.

• Flipping Book in Flipped Classroom:

Teacher delivered instructional content outside the classroom, focusing on active learning during in-class time. Used digital books combining text, videos, images, and audio to support pre-session learning.

Data Collection & Analysis

Data was collected through a questionnaire assessing student-teachers' awareness of technology-based teaching tools. After each activity, student reflections on learning outcomes and engagement were recorded using a 'What and How Have I Learned' sheet. A qualitative analysis was conducted to interpret responses, highlighting TBAL's impact.

Increased Student Participation: TBAL strategies engaged all student-teachers, including those hesitant to participate in traditional discussions. Student-teachers reported feeling less judged and more motivated due to interactive elements.

Development of Critical Thinking through Web-Based Tools: Activities like 'My Opinion' and 'Social Inquiry Method' fostered independent analysis and deeper understanding. Students acknowledged that TBAL strategies encouraged them to think critically about societal issues.

Encouraged Teamwork & Communication via Online Apps: Group-based activities using online platforms enhanced teamwork and communication skills. Student-teachers found digital collaboration tools beneficial for sharing and discussing ideas in real-time.

Enhanced Enjoyment in Teaching-Learning: Digital tools and gamification made learning more engaging. Student-teachers expressed enthusiasm for technology-enhanced activities, preferring them over traditional lectures.

Increased Technology Preparedness of Student Teachers: Initial surveys showed limited awareness of tech tools beyond PowerPoint and YouTube. Post-project assessments revealed improved proficiency in creating digital learning materials, including e-books, interactive quizzes, and mind maps.

Trained Student Teachers in Technology-Based Learning Resource Creation: Hands-on experience enabled student-teachers to create educational games, digital books, augmented reality content, and interactive activities.

Conclusion

The Techno-Based Active Learning (TBAL) project successfully demonstrated the integration of technology with active learning strategies in teacher education. The study underscored the effectiveness of TBAL in increasing student engagement, fostering critical thinking, and enhancing digital preparedness among future educators. TBAL transformed learning into an interactive and enjoyable experience.

By embracing innovative pedagogical approaches, teacher education can prepare digital natives to thrive in modern educational environments. The project's findings advocate for a technology-driven shift in teaching methodologies, ensuring that future educators are well-equipped to meet the needs of 21st-century learners.