

शिक्षा में नवाचार पद्धतियों और प्रयोगों पर विद्यालयों और
अध्यापक शिक्षा संस्थानों के लिए अखिल भारतीय प्रतियोगिता

All India Competition on Innovative Practices and
Experiments in Education for Schools and
Teacher Education Institutions

विद्यालय एवं अध्यापक शिक्षा में नवाचार
Innovations in School and Teacher Education
(*Few among the awarded during 2008-09 to 2013-14*)

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अध्यापक शिक्षा विभाग
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
श्री अरविन्द मार्ग, नई दिल्ली-110016

Department of Teacher Education
National Council of Educational Research and Training
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All India Competition on Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions

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Department of Teacher Education

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

All India Competition on Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions

Backdrop

In early sixties, the then Department of Extension Programmes for Secondary Education of the NCERT launched a scheme entitled “Seminar Reading Programme for teachers and heads of secondary schools.” The scheme provided an opportunity to develop detailed papers in English and in any other modern Indian languages on teaching strategies and techniques, which they found to be the most effective. The papers were submitted to the Extension Service Department. From time to time modifications were made in the scheme regarding its scope, nomenclature, nature of participants, eligibility criteria, specification of themes, short-listing of papers, number of awards, amount of cash prize, procedure of submission of papers, eligibility, cash prize etc.

The scheme was launched on the premise that top-down model of educational reform has failed to deliver the desired dividends. This is because this model involves teachers as conduits for implementing ideas and some externally generated research based solution to school problem(s). This model has not been successful to address problems faced a teacher in his/her context. This is because each teaching context is unique.

It was felt earlier that teacher does not have innovative ideas and requisite skills to create knowledge for educational reform. It is now felt that a wealth of expertise resides in the practices of classroom practitioners. What is needed is to encourage them to implement these ideas systemically in their work situation and to document them.

Review of the Scheme

Till 2004-05 the scheme was known as “All India Competition on Innovative Practices and Experiments for School Teachers and Teacher Educators “with a provision of 100 cash prize of Rs. 2000/- each (70 for school teachers - 50 for elementary level & 20 for secondary level and 30 for teacher educators - 20 for elementary teacher educators & 10 for secondary teacher educators). The Scheme has been revised by the department from time to time. To make it more effective and functional, a review of the scheme was undertaken by the department during 2005-06. The department organized an in-house meeting and suggestions were also invited from the RIEs. Two expert group meetings were also convened by the department.

National Curriculum Framework - 2005 under the heading *Encouraging Innovations* in Chapter 5 entitled *Systemic Reforms* made the following observations: “Individual teachers often explore new ways of transacting the curriculum in addressing the needs of students within their specific classroom context (constraints of space, large numbers of students, absence of teaching aids, diversity in the students body, compulsion of examination, and so on). These efforts, often pragmatic but also creative and ingenious, by and large remain invisible to the school and the larger teaching communities, and are usually not valued by teachers themselves. The sharing of teaching experiences and diverse classroom practices can provide opportunities for an academic discourse to develop within school as teachers interact with and learn from each other. This will also encourage new ideas and facilitate innovation and experimentation. How can innovative and creative ways of teaching and learning be encouraged and supported by the system so that they can become a body of practice that can be brought to a stage when they can be built back into the system? For a start, there is a need to create structured spaces within schools, and at the level of the cluster and block where teachers are encouraged to share and discuss classroom practices and experiences. If seen as worthwhile, some of these ideas and practices can be systemically followed up. It is also important to bring together groups of teachers within and across schools and provide support to them in terms of resources as well as time to work together. There is also, a need for documentation and research of identified ‘good practices’ (5.5.2).

In view of the above, the existing scheme of awarding prize to individual teachers/teacher educators was replaced by a new scheme in which the award is given to schools/teachers education institutions wherein the innovations are practiced by teachers, head teachers/principals and management as partners with an idea to sustain innovation(s) in the system. The title of the existing scheme was reformulated as “All India Competition on Innovative Practices and Experiments in Education for Schools and Teacher Education Institutions” from 2008-09.

Objectives

The main objectives of the scheme are to:

- sensitise teachers about the potential of innovative practices and experiments for improvement of teaching-learning;
- encourage schools and teacher education institutions to try out novel ideas and practices for improvement of different areas of school education and teacher education;
- encourage schools and teacher education institutions to identify problems they face and adopt a realistic approach to find solutions, thereof;
- create an environment in schools and teacher education institution by encouraging team work and total involvement of the players in the execution of the innovations so as to ensure their sustainability; and
- provide a forum to teachers and teacher educators to share their innovative ideas with all the stakeholders.

Number of Awards

Under the revised Scheme, it has been decided that the total number of awards to schools/Teacher Education Institutions will be 30. The number of awards will be equally divided among the five regions as per the jurisdiction of each Regional Institute of Education located at Ajmer, Bhopal, Mysore, Bhubaneswar, and Shillong. The suggested break-up of the total number of awards would be as follows:

Distribution of Awards		
I. For Schools:		20
<i>a.</i>	<i>ECCE/Primary/Elementary schools</i>	<i>10</i>
<i>b.</i>	<i>Secondary/Senior Secondary Schools</i>	<i>10</i>
II. For Teacher Education Institutions:		10
<i>a.</i>	<i>Teacher Education Institutions at ECCE/Primary/Elementary levels</i>	<i>05</i>
<i>b.</i>	<i>Teacher Education Institutions at Secondary level</i>	<i>05</i>
Total Number of Awards		30

The printed information bulletin is disseminated to different institutes such as RIEs, IASEs, CTEs, DIETs, KVS, NVS, individuals etc. with a request for further dissemination. Advertisement inviting project proposals to carry out innovations from schools/teachers education institutions are published in the leading national as well as

local dailies of the country. Bi-lingual information bulletin giving details about the scheme is also available on NCERT Website

Under the present scheme, project proposals are invited from schools/teacher education institutions. Received project proposals are evaluated at two levels - RIE and NCERT level. The schools and teacher education institutions whose project proposals are considered to be innovative in nature are informed to carry out the innovations along with the suggestions given by the experts.

Team leader and project coordinator are invited by the department to the NIE Campus to present their report in the national seminar. Based on the combined rating of project report and its presentation in the national seminar, schools/institutes are selected for award. The cash award of Rs. 20,000/- along with a certificate is presented to each selected school/institute.

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List of the Schools/Institutions: Awarded in 2013-14

S. No.	Title of the Project	Name of School/Teacher Education Institution	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- 124 001 (Haryana)	Mr. Baljeet Singh <i>Principal & Team Leader</i> Mr. Yashpal Singh Lecturer <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Dr. Amardeep Kaur Associate Professor <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Mrs. Maninder Kour <i>Project Co-ordinator</i>
4.	A study of Impact of induction programmes upon the professional development of teachers and quality in education	District Institute of Education and Training, 20 th Mile, Sonapat - 131029 (Haryana)	<i>Principal & Team Leader</i> Dr. Naresh Kumar Sachdeva <i>Project Co-ordinator</i>
5.	Oratory Training for Student Teachers for Enhancing Communication Skills	Mount Tabor Training College Pathanapuram, Kollam - 689 695 (Kerala)	Dr. Sunny Skariah <i>Principal & Team Leader</i> Dr. Rosamma Phillip <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Dr. N Sethumadhavan Sr. Lecturer <i>Project Co-ordinator</i>
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 Dindigul Distt. - 624619 (Tamil Nadu)	Mr. Thiru S. Natrajan <i>Principal & Team Leader</i> Dr. A. Prabhakar Devaraj Sr. Lecturer <i>Project Co-ordinator</i>

8.	Beyond the Black Board	Excel Public School 1-C,Hootagalli Industrial Area, Belavadi Post, Mysore - 570 018 (Karnataka)	Mr. Mathew K G <i>Principal & Team Leader</i> Ms. Nagashree T. R. <i>Project Co-ordinator</i>
9.	Integrating Cultural Formats and Artistic Expression in the Academic Life— Experiment and education Initiatives	Sri Tarachand Galada Jain Matriculation School 44, Madley, 1 st Street, T Nagar, Chennai - 600 017 (Tamil Nadu)	Dr. (Smt.) Sita Ranjit <i>Principal & Team Leader</i> Shri S. Sabrinathan <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Sri Kakali Majumdar <i>Project Co-ordinator</i>

List of the Schools/Institutions: Awarded in 2012-13

S. No.	Title of the project	Name of School/Teacher Education Institution	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 <i>Principal & Team Leader</i> Smt.Seema Singh <i>Project Co-ordinator</i>
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 Uttarakhand	Shri H.R. Arya <i>Principal & Team Leader</i> Shri Himanshu Pandey Mitr <i>Project Co-ordinator</i>
3.	Heritage Studies: Transforming Integrated Pedagogy	GD Salwan Public School Rajinder Nagar, New Delhi-110060	Mrs. Vijaylaxmi Singh <i>Principal & Team Leader</i> Mrs. Seema Goyal <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Sh. Raj Kumar Sharma <i>Project Co-ordinator</i>

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 <i>Vice-Principal & Team Leader</i> Mr. Minhaj Arastu <i>Project Co-ordinator</i>
6.	Inculcating values through Game and Discussion (GAD) Strategy	St. Thomas College of Teacher Education, Mylacompu, Thodupuzha Idukki (Distt.) Kerala- 685608	Dr. Johnson Mathew <i>Vice-Principal & Team Leader</i> Dr. C. C. Kurian <i>Project Co-ordinator</i>
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 <i>Dean, School of Education & Team Leader</i> Dr. K. Chellamani <i>Project Co-ordinator</i>
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 <i>Headmistress & Team Leader</i> Dr. Duryodhan Dash <i>District Inspector of Schools & Project Co-ordinator</i>
9.	Leverage to Success	Kerala Public School, Burmamines (Mills and Godown area, Near Lakdi Taal) , Jamshedpur- Jharkhand -831007	Mrs. Sreekala Karunakarn <i>Principal & Team Leader</i> Mrs. Sheela Satish <i>Project Co-ordinator & Junior School Co-ordinator</i>
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 (20 th) Mile, Badh Malik, Sonapat Hayana	<i>Principal & Team Leader</i> Dr. Naresh Kumar Sachdeva <i>Project Co-ordinator</i>

List of the Schools/Institutions: Awarded in 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 <i>Principal & Team Leader</i> Mrs. Sangeeta Arora <i>PRT & Project Co-ordinator</i>
2.	CMP कार्यक्रम के अनुप्रयोगों द्वारा शैक्षिक उत्कर्ष और समुन्नयन	Kendriya Vidyalaya, Eklinggarh Cantt. GordhanVillas, Udaipur- 313001 (Rajasthan)	Shri S.P. Agrawal <i>Principal & Team Leader</i> Mrs. Bindu Gupta <i>PGT Hindi & Project Co-ordinator</i>
3.	Development of Safest Sixth Sense	Kendriya Vidyalaya, Tagore Garden, New Delhi-110027	Mrs. Seema Srivastava <i>Principal & Team Leader</i> Mrs. Krishna Purohit <i>H. M. & Project Co-ordinator</i>
4.	Believe in Yourself	Kendriya Vidyalaya, NFC Vigyan Vihar Delhi-110092	Shri M.L. Agrawal <i>Principal & Team Leader</i> Mrs. Rachana Jain <i>PRT & Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Dr. Kirandeep Kaur Brar <i>Lecturer Chemistry & Project Co-ordinator</i>
6.	bfrgkl f'k{k.k&dqN u;s vk;ke	Kendriya Vidyalaya No.01, Navy Nagar, Colaba, Mumbai-400005, Maharashtra	Sh. P. Salvaraj <i>Principal & Team Leader</i> Mrs. Neelam Awasthi <i>PGT History & Project Co-ordinator</i>
7.	शिक्षा में नवाचार पद्धतियों को बढ़ावा देने के लिए सामुदायिक सहभागिता एवं संसाधनों का प्रबंधन से सम्बन्धित नवाचार परियोजना	District Institute of Education & Training Pendra, P. O. Pendra, Dist. Bilaspur, Chhattisgarh	Mrs. Meeta Mukherjee <i>Principal & Team Leader</i> Shri. Kaushal Prasad Rao <i>Project Co-ordinator</i>

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 <i>Principal & Team Leader</i> Mr. Agnes R. D' Costa <i>Assistant Professor & Project Co-ordinator</i>
9.	Challenges for transfer 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 <i>Principal & Team Leader</i> Dr. Ram Kumar Singh <i>PGT Hindi & Project Co-ordinator</i>

List of the Schools/Institutions: Awarded in 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 <i>Principal & Team Leader</i> Dr. Ashok Kumar Sidana <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Ms. Ratinder Kaur <i>Project Co-ordinator</i>
3.	Open-ended approach for Learning History at Senior Secondary Level	Govt. Model Senior Secondary School, Sector-32, Chandigarh	Mr. Darshanjit Singh <i>Principal & Team Leader</i> Mr. Arun Kumar Sharma <i>Project Co-ordinator</i>
4.	Classroom Management Techniques for Primary Classes	Kendriya Vidyalaya Sector-VIII, R K Puram Delhi-110022	Dr. S.P. Thakur <i>Principal & Team Leader</i> Ms. Sunita Mishra <i>Project Co-ordinator</i>
5.	Free and Open Source Softwares: A tool for Learning Language & Mathematics	Mayoor School, Ranade Marg, Alwar Gate, Ajmer-305008	Mr. Neeraj. K. Bedhotiya <i>Principal & Team Leader</i> Ms. Sindhu Chaturvedi <i>Project Co-ordinator</i>
6.	Dynamic Integration for the Generation of English	District Centre for English, Neyyattinkara,	Dr. B. Sreejith <i>Chief Tutor & Team</i>

	Language	Thiruvananthapuram, Kerala	<i>Leader</i> Sri Manoj C. <i>Project Co-ordinator</i>
7.	Reflective process enhances instructional competency among student teachers at primary level	Govt. DIET, Bheemunipatnam, Visakhapatnam, AP, 531163	Sri M. Suryanarayana <i>Principal & Team Leader</i> Dr. M. S. Sarma <i>Project Co-ordinator</i>
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 <i>HM & Team Leader</i> Mr. V. George Fernandez <i>Project Co-ordinator</i>
9.	Library Junction: Development of an online academic social Network	Kendriya Vidyalaya, Pattom, Thiruvananthapuram, Kerala, 695004	Mr. C. P. Kumaran <i>Principal & Team Leader</i> Mr. Fiasal S. L. <i>Project Co-ordinator</i>
10.	Developing Skills in Solving Mathematical word problems through innovative approach at elementary level	DIET, Dhenkanal, Orissa 759001	Dr. Susandhya Mohanty <i>Principal I/C & Team Leader</i> Mr. Tapas Kumar Nayak <i>Project Co-ordinator</i>
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	Mr. Santosh Kumar Roy <i>Head Teacher & Team Leader</i> Ms. Supriya Ranjan Paul <i>Project Co-ordinator</i>

List of the Schools/Institutions: Awarded in 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 <i>Principal & Team Leader</i> Dr. C. C. Kurian <i>Senior Lecturer</i> Mr. K. G. Vijaya Babu <i>Project Co-ordinators</i>
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 <i>Principal & Team Leader</i> Shri Bhupen Kumar Das <i>Project Co-ordinator</i>
3.	Effect of Story Centred approach for overall development during early childhood	Salwan Montessori School Sector-5, Gurgoan- 122001 Haryana	Dr. Indu Khetarpal <i>Principal & Team Leader</i> Ms. Moushumi <i>Project Co-ordinator</i>
4.	Strategies for Inculcating Human Values in School Education	Vyasa International School, No. 101/2, Doddabommasandra B.E.L.North Gate Vidyananyapura, Bangalore-560092	Mrs. Sunita Phadnis <i>Principal & Team Leader</i> Shri Vivekanandda J <i>Project Co-ordinator</i>
5.	For Green Scene - Stay Green	Bhartiya Vidya Bhavan's Public School (Vidyashram), Jubilee Hills, Hyderabad-500096	Mrs. C. Rama Devi <i>Principal & Team Leader</i> Mrs. Survarni Rao <i>Project Co-ordinator</i>
6.	Creativity Unleashed through Fun Science	Sri Vani Education Centre School, 16 th & 17 th km off Magadi Road, Bangalore- 91	Mrs. Karthiayani Bhat <i>Vice-Principal & Team Leader</i> Mrs. Shalini Bhat <i>Project Co-ordinator</i>

List of the Schools/Institutions: Awarded in 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 <i>Principal & Team Leader</i> Ms. Pradnya Gokhale <i>Project Co-ordinator</i>
2.	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 <i>Principal & Team Leader</i> Dr. S. K. Jain <i>Project Co-ordinator</i>
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 <i>Principal & Team Leader</i> Mr. Siva Prasad P. <i>Project Co-ordinator</i>
4.	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 <i>Principal & Team Leader</i> Mr. Satish Chand Sharma <i>Project Co-ordinator</i>

(1)

Free and Open Source Software - A Tool for Learning Language and Mathematics

Introduction

This research paper shows how Free and Open Source Software (FOSS) can be used as an important tool for effective Language and Mathematics learning. Unlike the licensed software, which most of the schools in India use, FOSS allows the users to customize the software according to their own need and desire. Besides providing greater flexibility in its usage FOSS, can also be used in learning Languages and Mathematics. Hence it contributes to mutual and collaborative learning in an educational environment. An action research was conducted on a group of students of the primary classes of Mayoor School, Ajmer, where English and Mathematics teachers taught various topics in their classes using FOSS. A comparative study was done and the results obtained. This paper throws light on the need of changing our teaching methodology according to the interest of the students as students learn differently.

Execution of the Project

“Our project investigates the impact of using Free and Open Source Software as a tool for learning Language and Mathematics.”

Six teachers from the primary Section formed the core team for the execution of the project. These teachers were from the English, Mathematics and IT department of Mayoor School. An action plan was drawn up by the six teachers. We thoroughly discussed our action plan before going ahead with the plan.

We planned to conduct an action research on the impact the use of FOSS as a tool in languages and Mathematics would have, on student engagement and learning.

The plan included carrying out the action research on students of selected classes. One section of class IV would be taught English spellings and story writing skills using the standard method and the other two sections would be taught the same topic using FOSS as a tool.

Similarly in Mathematics one section of Class III would be taught Billing and Smart Charts or Pictographs using the standard 'Chalk & Talk' method and the other three sections would do the same topic using FOSS as a tool.

Objectives

This study aimed to determine the effectiveness of implementing an integrated approach to the teaching of English and Mathematics. It also aimed to find out the effect of 'FOSS - as a tool for learning' on student engagement. Our project investigates the impact of using Free and Open Source Software as a tool for learning Language and Mathematics.

Methodology

The researchers wanted to compare the performance of two similar groups to evaluate the impact of 'FOSS as a tool' on student learning English and Mathematics.

Two sections were identified from Class IV for a 'control' group and for a 'test' group.

The control group of Class IV was taught English spellings and story writing skills using the standard method. Lessons for the test group involve activities using FOSS as a tool. Due to the planned use of FOSS as a tool, classroom management was an additional factor considered when selecting the test and control groups.

The researchers provided students with opportunities to use their conceptual knowledge to play computer (FOSS) games and to improve their skills by trying to improve their scores.

Assessment to gauge the students' level of learning was carried out at the end of the lesson. The researchers also obtained feedback from the students regarding the entire process.

The Tools used for evaluation of learning outcomes were:

- Assessment Worksheets
- Classroom observation/recording
- Computer assignments
- Class and home assignments
- Students' feedback through questionnaire

Findings

English lessons that relied primarily on FOSS as a tool appeared to be the best method of increasing students' creativity, language and spellings.

A key learning from this project was that FOSS enhanced the students' understanding of a topic in Mathematics

The students were very candid in their feedback. Most of them found learning English and Mathematics through computers interesting, as they do not have to write and also they can play games. They also felt that it made their work easy and enabled them to do their work fast. Some students felt that it helped them improve their skills in addition, subtraction and multiplication. Some found it great fun while others felt that they could use their imagination also while preparing grids and bills . They felt that their learning was enhanced and memory was also sharpened.

The researchers noticed that the level of student engagement was very high; in fact they did not want to return to their classroom at the end of the lesson.

Another interesting observation the researchers made was that a lot of peer learning was taking place when students were working on the computers. If anyone were facing any difficulty then the student sitting nearby would immediately help.

- This research paper shows how Free and Open Source Software (FOSS) can be used as an important tool to bring about greater involvement of the students in learning languages and Mathematics.

- Unlike the licensed software, FOSS allows the users to customize the software according to their own need and desire. Besides providing greater flexibility in its usage FOSS can also enhance learning abilities in languages & Mathematics.
- This action research also highlights the need of changing our teaching methodology according to the interest of the students as each student learns differently.
- The findings also emphasize the need to reorganize the school timetable to provide students with better access to computers even during their core subject lessons.
- FOSS is less costly and at the same time the maintenance cost of such a system is also less.
- FOSS also plays a great role in bringing about social change as it reduces software piracy. At the same time the student community is also benefited in the development and design process of FOSS.

Educational Implications

The information Technology (IT) department identified three main potential areas for analysis.

1. **Syllabus:** We consulted the National Curriculum Framework (NCF)-2005. syllabi of ICSE, CBSE, IGCSE, IB and syllabi offered in some other parts of the world. All the syllabi laid stress on the achievement of certain skills by the end of each academic year. It did not lay stress on the software covered. This gave us the vision that it doesn't matter which software we are using ; the important fact is the learning objectives and outcome.
2. **Books:** The books available in the market of different publishers were studied for classes 1-8. Almost all had the same topics, same approach. Only the presentation, formatting, colour schemes of the books were different. The software covered were the same in all the books. There was no choice and variety for learners.

3. Teaching Methodology: We observed that a number of seminars were conducted for Science, Mathematics and language teachers but despite our extensive search we could not find seminars exclusively held for Information Technology (IT) or Computer Science teachers. Once in a while there would be a seminar for computer science teachers but that also usually involved how to bring computers to classrooms, smart classrooms, IT in classrooms and so on. They did not provide any guidance on how the subject should be dealt with in the laboratories. Our Information Technology (IT) department then searched international journals, research papers, shared experiences (online) with teachers of schools abroad. They studied the work done by children in different parts of the world in the age group of 5-14 in computer science, which is freely available on Internet and searched for viable options in terms of cost-costing and maintenance. They also looked at the possibilities of linking information Technology with other subjects like language and Mathematics.

(2)

HUGS - Unified Holistic and Graphophonic Strategy to Enhance Reading Skills in English

Introduction

Helping the Disadvantaged Learners in English Language

Children in Primary classes of government schools who are unable to read English effectively and efficiently at the early stages due to faulty strategies or non- introduction of age appropriate reading materials lag behind. They are deprived of the skills which paves way for knowledge and enriched imagination. They often become disinterested and the factors related to their immediate environment in which they live start resurfacing. Teachers tend to complain about the home background of the child not being sufficiently supportive and parents are critical of the 'burden of incomprehension' on the child. This tussle often results in the child being withdrawn or being occasionally present in school on the pretext that nothing worthwhile is being taught.

In the recent past an effort was made to set up "Reading Cell" and 'provision of extra Books' in Government Schools of Chandigarh. Unfortunately, due to pressure of examination in schools, lack of space and time, and urgency to complete the prescribed Text Book has put these reading programmes on the backburner.

It is against this background that 'HUGS' has risen to the occasion.

'HUGS' is an evolutionary idea. It has been derived from the existing reading programmes running in India and abroad. Objectives, methods and materials used in these programmes were investigated and a critical perspective was gained. Comparative study to know the strengths and weaknesses of these programmes was done to know why some reading programmes were more successful than others. This study further helped in understanding how children learn to read.

Role of meaningful language exposure as an input for mind to work on is acknowledged by all cognitive theories of languages and language learning.

Planning, designing and preparation of input rich print material i.e. manipulative, creation of input of rich communicational environmental as delivery system, streamlining key features of process of HUGS help to concretize the idea of HUGS in the form of an implementable project.

The strategy considers comprehensible inputs, a balanced approach that is not exclusive but is mutually supportive within broad range of cognitive philosophy (incorporating Vygostskian, Chomskyan and Piagetian Principles) essential for creating interesting and meaningful language exposure or input for children to work on.

Objectives

Following are the short term objective for developing intensive reading habit in children:

- To make children read English through a process of Unified Holistic and Graph phonic Strategy i.e. starting from similar whole to parts and from parts to new different whole.
- To make reading of English language a key activity within the existing curriculum and school system.
- To promote reading skills in English and to support young readers through use of ICT.
- To use ICT so as to provide equity, access and quality.
- Promoting Reading from various sources.

Methodology

Execution of the Project

HUGS-Unified Holistic and Graph phonic strategy to enhance reading skills in English Language

Phase	Activities	Limitations	Difficulties	Solutions
Phase-I	Illustrations, Designing of input rich print material	Time, Funds Manpower		Planning ahead with Manpower (Selected) and Budget
Time Line	November 2009 to June 2010			
Phase-II	<ul style="list-style-type: none"> • Setting up of Infrastructure • Adjustment in Time Table • Request for Acquisition of Infrastructure 		Starting the Project in time	
Time Line	2 Months November, December 2010	Time limited to teach Class I		
Phase-III	<ul style="list-style-type: none"> • Sensitizing Staff/ Team Building for HUGS • Capacity Building 	Proficiency Knowledge about language acquisition Experience		<ul style="list-style-type: none"> • Participation • Discussion • Sharing of experiences • Training
Time Line	1 Week, 1-12 December 2010			
Phase-IV	<ul style="list-style-type: none"> • Scheduling for the Process of HUGS • Transacting the Process • Assessment of 40 Students 	<ul style="list-style-type: none"> • Unschedule Holidays Examination • Power Supply 	<ul style="list-style-type: none"> • On-site intervention • Handling 40 students for Assessment 	No Examination for Class I
Time Line	January 18 to Feb 28,2011			

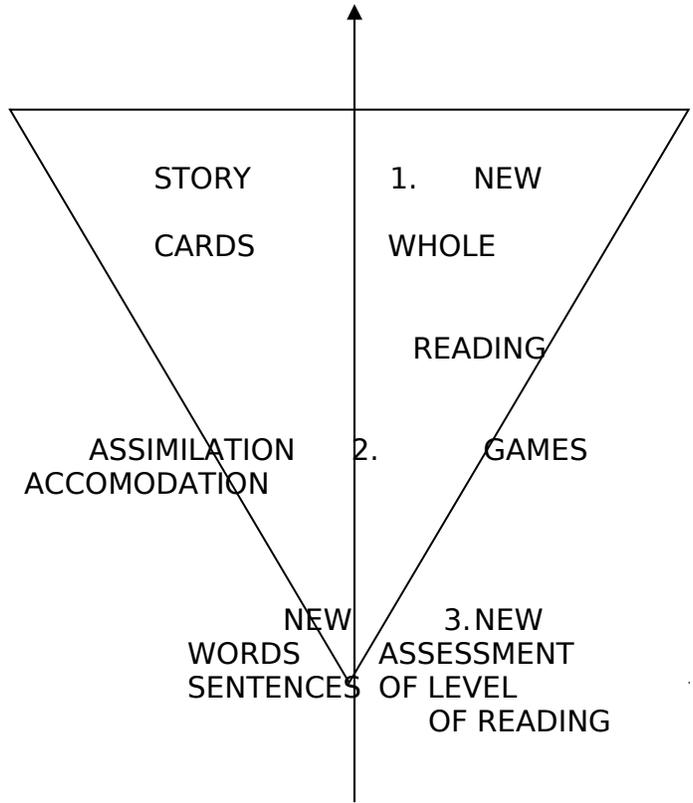
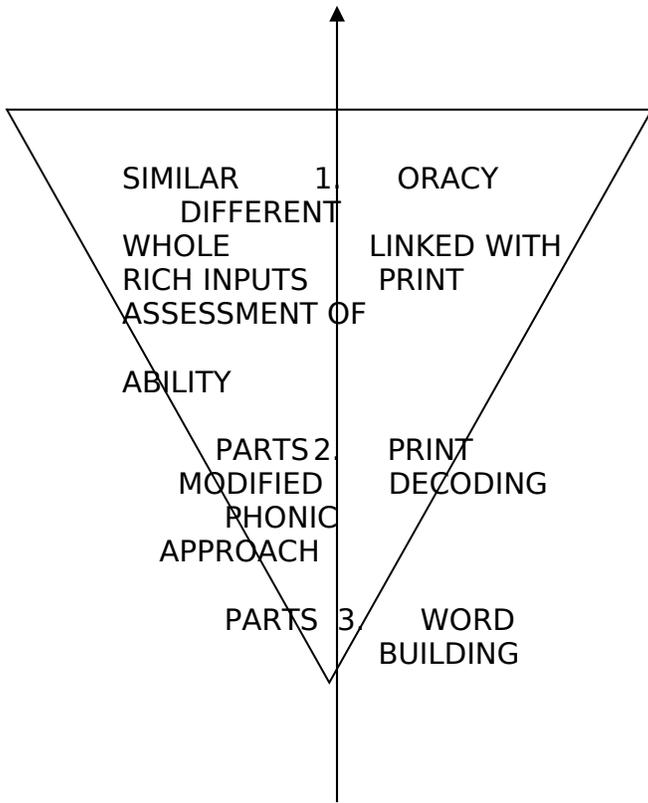
In Phase I, preparation of material adopted from Marigold, text book in English for Class, I (NCERT) was done. Manipulative strategies were developed. Five stories were selected which covered 220 sight words, 44 sounds and 3000 words, 50 levels of reading sheets were designed, 20 Reading Cards, 100 Phonic Cards were developed. 10 Games related to stories were prepared. Assessment Criteria were formulated. All the five stories were scanned. Power Point presentation for each unit was made and saved on CD's.

In Phase II, infrastructure for input, rich communicational environment (multi media room) was created. Adjustments were made in the Time Table. Teachers involved in the project were sensitized to the process of HUGS in Phase III.

Prior to Phase IV, children of class I were assessed for level of reading, reading ability. Unit I, Three little Pigs. In Phase IV, children were exposed to acquisition of literacy skills through input rich environment. Unit I was transacted for 1 month according to schedule through Process of HUGS.

During the execution of the project, the main limiting factor was time and the main difficulty was encountered in overcoming the loss of time due to unscheduled holidays. On site intervention consumed time and energy especially when children had to be reoriented to process after changes.

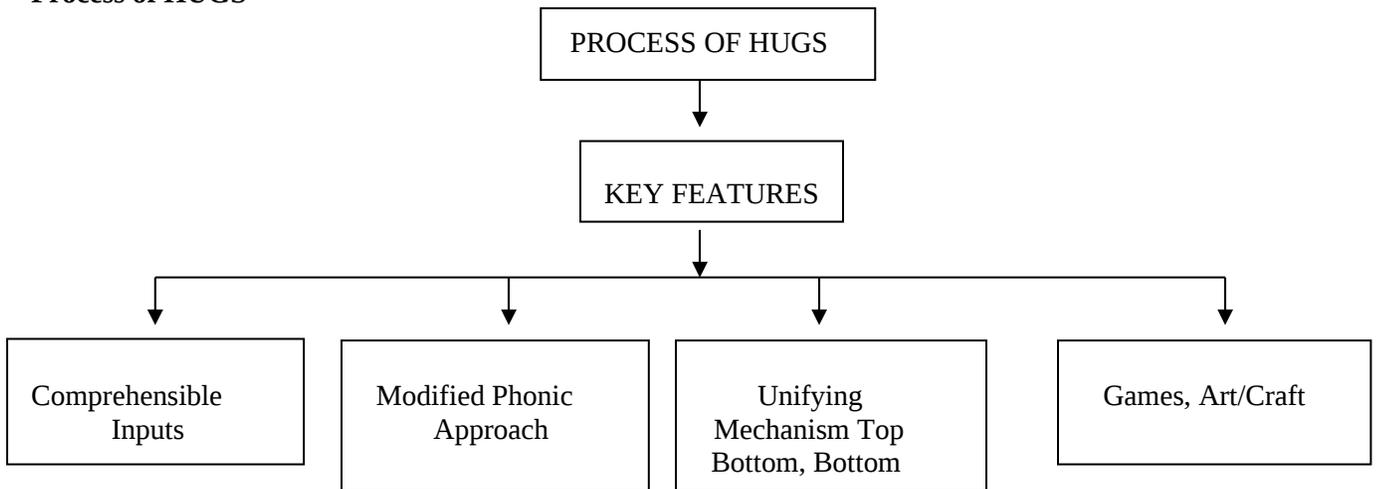
Results

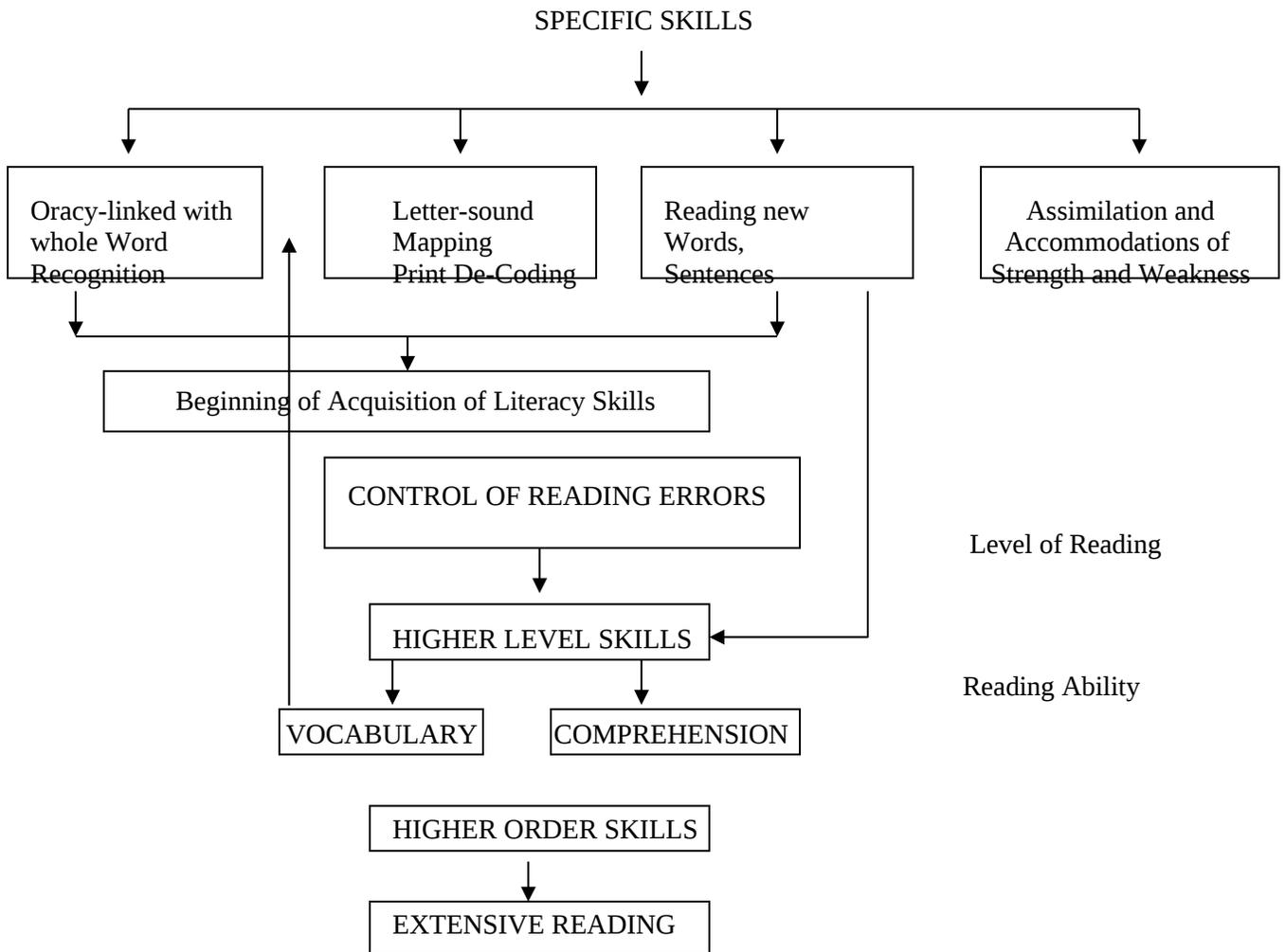


H

GS

Tools Used
Rating Scale
Process of HUGS





Transaction of Process of HUGS

Children of Class I were exposed to process of 'HUGS' for one month to build specific skills necessary for Reading.

Target instruction was given through comprehensible inputs and modified phonic approach through the Process of 'HUGS'.

Children were exposed to process of HUGS and when they acquired specific skills, they were introduced to unifying mechanism. In unifying mechanism, children made use of acquired specific skills to read unfamiliar words and sentences. They made selective choice of decoding print. Children traced words from initial letter and read aloud.

Findings

Considering the conditions under which the Project was implemented, the **Process of HUGS** with its Key Features; **Comprehensible Inputs, Modified Phonic Approach, Unifying Force and Games**, has effectively controlled Reading Errors. It has established **Specific Skills and High Level Skills** i.e. Basic Literacy Skills necessary for Reading English Language. The attainment of Level of Reading and Reading Ability due to establishment of **Specific Skills and High Level Skills** has been studied and the following results have been achieved:

- **Level of Reading at Post-Test**

Children read Booklet I, with Level 1-10. At post-testing, 37 children were evaluated through proper assessment criteria. Compilation of the data revealed that 25 children improved gradually. 5 children struggled to read and 7 children needed intervention.

After the 'Process of HUGS' there has been significant improvement in attainment of level of reading of class I children. There is sharp decrease in number of struggling readers.

From these findings, it is evident that majority of children gained through target instruction. Comprehensible Inputs and modified phonic approach established Specific Skills. Reading Errors like guessing words, letter confusion, and reversing letters was controlled. Pre-determined words, direct Instruction through phonetics, systematic introduction of selected sounds in modified phonic approach was the strongest feature observed in the process which helped in making the result more credible.

With enhancement of specific skills i.e. linking oracy to print, letter-sound mapping and Print-decoding through process of HUGS, significant improvement in Level of Reading has been attained.

After the Process of HUGS there has been significant improvement in reading ability of class I children. There is increase in number of children attempting to read independently. There are few choral readers. It is evident that unifying mechanism established higher level skills i.e. vocabulary and comprehension and with establishment of higher level skills

through Process of HUGS, significant improvement in reading ability has been achieved.

A strong co-relation between level of reading and reading ability was observed through CCTV recording during reading session.

5 Struggling readers and 5 children who needed intervention gained through strength of rapid readers during games Session.

The results of the experiment validate the following points:

1. Pre-literacy activities trigger acquisition of reading.
2. Reading errors indicate deficiency in literacy skills.
3. Oracy linked to print, letter-sound mapping, print decoding, word buildings are specific skills of reading established through (comprehensible) inputs and modified phonic approach and have an impact on level of reading.
4. Unifying mechanism unifies known words to new words and to new sentences. higher level skills i.e. vocabulary and comprehension skills are established through unifying mechanism and have an impact on reading ability.
5. There is strong co-relation between level of reading and reading ability.
6. Attainment of level of reading and reading level evaluates children's acquisition of literacy skills in English.
7. 70% children gained literacy skills through the process of HUGS i.e. majority of disadvantaged readers benefited.
8. Process of HUGS has effective target instruction to overcome deficiencies. It provides a pathway for reading successfully.
9. Process of HUGS helps children to read effectively and makes reading a key activity within existing curriculum. It prepares children to read intensively at an Early Stage through usage of ICT.

Educational Implications

The above results achieved are dependent on conditions under which the project was implemented. Condition of the children, teachers, school culture, and input in primary schools might vary slightly at places but the result on the whole is likely to be same as above.

Comprehensible Inputs help in establishing oracy with whole word recognition. exposure to print rich input and communicational environment-input may create interest among children. Technology helps in creating meaningful environment and in acquisition of second language.

Modified phonic approach helps in establishing letter sound mapping and print decoding. Phonic cards with illustration help in self-correction. It increases participation in playing Scrabble. Children brought books to schools and shared words. Expressive vocabulary improves. Children get motivated to formulate text.

Unifying Mechanism helps children to use acquired specific skills and establish higher level skills i.e. vocabulary and comprehension.

The unifying mechanism helps to build skills for comprehension.

Games in particular help children to work in teams. Children get motivated. Struggling readers can be assessed, as they prefer to participate in games.

1. HUGS and Teacher Educators, Pre-Service and In-service Teachers.

- Process of HUGS has identified teacher proficiency, understanding of Learning, knowledge about language acquisition and evaluation as thrust areas to be taken up by teacher education programmes.
- Sensitivity to language learning can be cultivated in pre-service teachers through video recording of HUGS during skill in teaching.
- In-service teachers can update their knowledge on cognitive revolution occurring in language and integrate workable ideas of process of HUGS into their daily practice during workshops and seminars.

2. HUGS and Improvement in National Standardized Examination and General Reading.

- Government school students failure rate in national standardized English examination is twice that of their urban counterparts due to less proficiency in English. Children can start early and become proficient and meet the desired standards.
- Reading is a transferable skill. Improvement in reading one subject can improve reading in general.
- Equity, access and quality to all children can be ensured.

3. HUGS and Access to Quality in Government schools, lessening 'burden of incomprehension'.

- Parents who cannot afford private English medium schools can have an access to Quality Education. The Process can lessen the 'burden of incomprehension'.

4. HUGS and removing illiteracy, channelizing constructive energy of youth, building life-skills, enriched language, creation of multi-lingual, improved economy.

- The programme of HUGS can be taken up by NGO's to educate illiterates and parents of Government school children with reading disability. It will channelize energy of youth. Students can work for social cause i.e. removing illiteracy. Skilful children can enrich languages and become multi-lingual. With a greater pool of children with literacy skills in English, economy of India will get a boost.

(3)

Identification of Dyslexic Students in English & Mathematics and Giving them Adequate Remedial Measures with the Help of Training and Scientific Technology

Introduction

Dyslexia is a learning disorder that manifests itself primarily as a difficulty with reading and spelling. According to World Federation of Neurology, "Specific development dyslexia is a disorder manifested by difficulty learning to read despite conventional instruction, adequate intelligence, and adequate socio cultural opportunity. It is dependent upon fundamental cognitive disabilities that are frequently of constitutional origin".

A teacher can make use of a battery of test in order to identify the students with dyslexia. Helping these students is very important as far as the equity in education is concerned. The training given by Education Department during the year 2008-2009 for the teachers on "Dyslexia" was acted as a motivating factor for undertaking this project. During the correction of note books we found many students committed mistakes on letters b and d. When we traced the reason for this we found that these mistakes may be symptoms of Dyslexia. The life history of some of the famous personalities also shows that they were dyslexic during their childhood. This was also one of the reasons for undertaking the project.

Methodology

1. Identification of Dyslexic students

Pre test was conducted for the students of III, IV, and V standard. Pre test comprises of comprehensive test and sensory organ test. Apart from these tests sustained observation by the teachers play a vital role to identify the dyslexic students. Based on the tests and observations 12 students - 4 from class III, 6 from class IV and 2 from Class V - were identified as suffering from dyslexia.

2. Training and Activities imparted to the students

Team leader, Coordinator and teachers were assigned specific work for the execution of the project. Work was shared by the participant teachers. The

teachers prepared several innovative activities to help the dyslexic students. The following techniques were used in the project for helping these students.

Training Activities

1. Training the students using water balloons and water pistols to read, write and discriminate the letters
2. Training the students to write letters on rice, sand, sandpaper, cello tape, coloured clays, etc.
3. Eating letter biscuit and chocolate
4. Preparing alphabet bags
5. Drawing with brushes and colours
6. Training students with the help of Science and Technology
7. Motivating by History of famous dyslexic personalities
8. Training the sensory motor organ skills by physical exercises
9. Training through Music
10. Learning Mathematical operation with the help of Carton boxes

3. Post Test

After imparting training to the dyslexic students post test was conducted to find out improvement of the students.

We conducted pre test and post test in academics as well as in sensory motor organs. During pre test we found many students were good in answering the questions. Some of the students committed many mistakes. These paved the way to identify the dyslexic students. Question paper was set up for all the students of class III, IV and V. The students who committed more mistakes were identified as dyslexic students. Apart from academic test, sensory motor organ test was also conducted for all the students to identify and rectify the mistakes. Table 1 shows the pre and post-test numbers of mistakes by Dyslexic Students.

Table 1: Pre and Post test Number of mistakes by Dyslexic Students

			Pre-test mistakes	
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S. No.	Name of the Students	Classes	No. of mistakes in Identification of letters b and d	No. of mistakes in Identification of letters with pictures	No. of spelling mistakes while copying	No. of mistakes with inappropriate smaller and upper case	No. of mistakes made because of reading disability	Total mistakes	Post-test mistakes Total
1.	Manikandan V	III	6	0	5	5	5	21	0
2.	Saravanan R	III	0	2	1	7	0	10	0
3.	Boomika Marchelt C	III	1	2	0	7	0	10	0
4.	Thenmozi	III	5	7	2	3	0	17	0
5.	Balanchandiran B	IV	5	3	3	3	0	14	0
6.	Baskar B	IV	3	4	5	5	5	22	0
7.	Kaif M	IV	3	2	4	1	2	12	0
8.	Prakash V	IV	2	1	5	3	3	14	0
9.	Raju K	IV	6	3	5	4	4	22	0
10.	Sanjai R	IV	2	2	4	2	0	10	0
11.	Chilambarasan M	V	10	0	1	1	0	12	0
12.	Nagaiyan S	V	3	3	3	2	0	11	0

After conducting pre test, enough training was imparted to the dyslexic students. A post test was conducted to only dyslexic students. We found that the dyslexic students did not make any mistake in post test. This shows that the training was quite efficient and it could be implemented as one of the tool for rectifying the mistakes committed by dyslexic students.

Educational Implications

The socio economic status of the students of our school is very poor. Many of the student's studying in our school do not have father, mother, or both. Nearly 38 students (36 Boys + 2 Girls) out of 135 students did not have formal education at the beginning. The Headmaster Mr. K. Poyadhamourthy made a great effort and brought the students from hostels like Udavi Karangal, Ariyankuppam, Pondicherry and Santhosh Nanmban, Pondicherry for formal education. These students were brought up by social welfare organization. But they were not given formal education. We made efforts to bring these students back to school and gave formal education by getting permission from Education Department. Even the street boys (6 Boys) from

Kalki Welfare society were brought to our school for formal education. Our school is located in the heart of the city surrounded by large number of private schools with excellent infrastructure. We also want to compete with these giant prestigious schools. Our school is blessed with hardworking teachers, dynamic headmaster, well maintained campus and surroundings. Our department has also given us computers, internet facility and free materials to be supplied to the students. However, we and the students lack in the moral support of the parents. We strive hard for bringing our school as a model school in the State of Pondicherry.

National Council of Educational Research and Training gave us an excellent opportunity to show our efforts by All India Competition on innovative practices and experiments in education for schools and teacher education institutions. The project "Identification of dyslexic Students and giving them adequate remedial measures with the help of training and scientific technology" has been a boon to the students of dyslexia. The dyslexic students of our school were trained with utmost care and they were rejuvenated by this project. We found from our project that dyslexic students are active but their cognitive level does not match with their physical activities. The trainings imparted to them were useful for the concentration of dyslexic students. There was a change in their learning ability and attitude. The academics of these students improved after the training given to them. Hence the project undertaken for dyslexic student was a huge success in our school history. We also suggest that such projects for dyslexic students should be periodically done in all the schools for the development of student's career.

(4)

Heritage Studies: Transforming Integrated Pedagogy

Background of the Project

Heritage has grown as a field of academic inquiry. Heritage was once primarily the concern of architects, historians, art historians, archaeologists and material scientists, but now also involves the disciplines as diverse as planning, cultural geography, horticulture anthropology, museum studies and indigenous studies. The study of heritage has moved beyond the documentation of places and the formulation of processes and practices for conservation and management, to consider why people want to conserve the past, how people make meaning from the past and how heritage contributes to the formation of national, local and individual identities. Heritage has conventionally been regarded as the material legacy of the past but has been re-defined as a complex and contested notion that is both a commodity and a cultural practice. Cultural landscape, shared histories, contested ownership, intangible heritage, indigenous knowledge systems and community participation are all elements of the way we examine Heritage.

Designing the Innovative Pedagogy

Heritage the world over, has taken a prominent place in the cultural sphere while viewing the past & its relevance for the present and future. The three concepts Natural, Cultural and Digital heritage has been taken care of while using heritage as a Transforming Pedagogy. Since the adopted Monument Bhuli Bhatiyari Ka Mahal was a hunting lodge hence the Natural Heritage –“Forest” issue is involved.

The entire Curriculum revolved around Forest as the theme and related issues. Methodology is the key to interdisciplinary success, not the domain of subject material or textbooks alone. Integration enhances both the teaching and learning of the disciplines throughout a lifetime. While there are many statistical reports which conclude that students of interdisciplinary techniques have higher test scores in both core knowledge and critical thinking problems, there is also a need for interdisciplinary techniques to better remember basic discipline lessons later in life.

Exemplary Heritage Education Programme

G. D. Salwan Public School GDSPS, is committed to education of the youth about the importance of knowing, valuing, and preserving its heritage. The program designed here is interdisciplinary, using multiple perspectives to explore and understand the interrelationships of history, culture and geography in distinctive regions. The concept of adopted monument was central to the heritage studies – through case study of the hunting lodge- "*Bhuli Bhatiyari Ka Maha*".

An interdisciplinary approach was adopted to the study of Indian history and culture. The research work done by the students was exhibited at the Heritage Mela-Jashn-E Dharohar thus incorporating heritage study's methodology into their work and used adopted monument as their laboratory.

Heritage education programme moved the students beyond the pages of textbooks and worksheets to interpretation of evidence from various sources: documents, artifacts, and various objects of the built environment. Video programs, (wildlife adventures), creating a heritage blog, drawings and photographs (slide shows and bulletin board displays) were especially effective means of bringing examples from the built environment into the classroom.

Heritage Education: A Core Component of Curriculum in Schools

Heritage Education Program is designed for bringing in heritage studies to schools by CBSE. Heritage education is compatible with proposals for a core curriculum and common learning advanced by CBSE, because it includes "consequential ideas, experiences, and traditions common to all of us"-- achievements and values tangibly represented by our built environment and artifacts.

As part of a core curriculum in schools, heritage education would support the unity of India, a force for cohesion in a society marked by pluralism. Heritage education, properly conceived, also emphasizes the rich diversity of the Indian people, which is reflected in the built environment. Thus, teaching and learning about the built environment enhance learning of a fundamental paradox of our nation -- unity with diversity.

Knowledge and appreciation of national unity with social diversity are requirements of cultural literacy and citizenship in our country. Tension between

preservation of common values and acceptance of new cultural influences and experiences is an inseparable part of our heritage. So is a workable blending of continuity and change, of preservation of a common heritage and integration of new ideas and experiences into it, thereby recreating a sense of cultural coherence and commonality from the fresh contributions of newcomers?

The content of heritage education fits easily into established subject of the NCERT curriculum, such as Science, Math, History and Geography. Consider five main themes of education in geography: (1) location, (2) place, (3) human-environment interactions, (4) movement of people, ideas, goods, (5) formation and change of regions. Teaching and learning about each of these five themes are greatly enriched through use of the built environment.

Educational Implications of the Innovation

- Heritage Education Program offered children many opportunities to discuss what they are doing and to interact and bond with their peers/relatives/friends.
- It developed in students a sense of teamwork, social emotional awareness about our traditional values and the habit of taking responsibility.
- Involvement of parents at every step provided was very valuable.
- It developed the skills of creativity.
- This innovative approach aimed at building capacities of teachers through student centered and participatory methodologies.
- Project based learning was the main teaching strategy used in the heritage education program. This helped the students to provide with knowledge and critical thinking skills to understand the complexities and realities of their lives and acquire solutions.
- The children understood and appreciated the rich “environmental heritage” by observing the diversity of flora.
- Students and Parents learnt the need and importance of plants and trees in our life and how the heritage sites play an important role in conserving them.
- It developed new and effective educational approaching methods to introduce/reinforce Heritage Education Program in the curricula.
- It created a new synergy among educators. Children, heritage experts and other stake holders in the promotion of heritage education on a national.
- It has become easy for students to correlate heritage with the curricula.

(5)

Portfolio Writing: An Innovative Instructional Strategy for Student-teachers in Teacher Education

As teacher professionals, we have to address ourselves seriously to examine the issues related to the preparation of teachers. The researcher - the coordinator of the programme - has been practicing portfolio writing in her classroom. The intent was to develop portfolio writing practice and shape the attitude of student-teachers towards professionalism. Although the overall framework is the same for all the batches of student-teachers depending upon their level, the researcher designed the reflective approach. With this set framework, the researcher consistently interacted with the student-teachers, maintained their attitude towards portfolio writing and reflected their growth and development. The portfolio implementation was done with the student-teachers of Vivekanandha College of Education, Lawspet, Pudhucherry.

The objective of the programme was to enable student-teachers to observe and reflect upon cognitive inputs and to develop writing competency towards achievement. The core subjects were selected for portfolio implementation. This was done for bringing up commonness in the administration. The overall framework of portfolio practice followed the following steps- Identifying program outcomes, Need analysis, Defining the framework, Analyzing performances, and Reflections of students' experiences on portfolio writing. The stereotyped nature of B.Ed students was sensitized and the instructional programme was designed in a meta-cognitive way. On the basis of SWOT analysis, the programme was segmented into three phases.

1. Reflective learning on learning,
2. Comprehension monitoring, and
3. Reflective evaluation

In Phase 1 the reflections were on students' learning process. It involved collection of meaningful artifacts and products reflecting students' educational experiences and goals. The everyday record of events and understanding was revised periodically. In this exercise, they were made aware of their understanding of the concept being taught in the class. These reflections -in-action were continued

throughout in their classroom instruction. It helped the teachers to assess the student-teachers comprehension on the concept being taught.

Table 1: Reflection-in-Action

Sample: 1

What I know	What I understand	What I like to know	Objectives	Attainment
I didn't know the exact idea of social change	By social change I understand that changes that take place in society over the years	To know about the various agents of social change	To know the types and agents of changes	Yet to be attained unit 5 in responses and challenges to education

In Phase 2 students' understanding was assessed through achievement tests. Soon after the test, students came out with many questions which reflected their interpretative skill, inferential skill and the inquiry mind which was the outcome of portfolio writing. Then answer scripts were distributed and students were asked to assess their performance. They were directed to reflect their critical assessment in a specific way. Student teachers analyzed their responses to the questions given in the test. They were able to reason out the gained score. They monitored their comprehension of new knowledge and skills. This reflective journal of student-teachers helped them to improve and refine the strategies for learning.

Table 2: Reflection-on-Action

Sample: 1

Given score-2	5	15
Maximum allotted 1.5 out of 2	Maximum allotted 4 out of 5	Maximum allotted 13 out of 15
Gained score: 1.5	Gained score: 4	Gained score: 13
The question was about the relationship between intelligence and creativity. When madam taught the concept , I paid my full attention.	This was about the techniques of improving memory. During the eve of my exam, I realized that I do not have enough notes. I tried to recall it from my memory and only half of the things I could do.	I am satisfied with the score. I had studied this question many times and was thorough. That is the reason why I could score good. I will continue the same in future too.

In Phase 3 in order to strengthen their self-assessment, a self-evaluation scale was designed. This reflection-on-action and reflection -in- action were for evaluating the plan of action. This summative evaluation stands as a SWOT analysis of the student-teachers after the end of the programme. To ascertain students' improvement in learning concepts, their performance was compared. The treatment programme comprised of pre-test and a post-test. The impact is presented in the table given below-

Table 3: Responses to Challenges in Education (Course Paper-1)

N= 76	Mea n	SD	t- value
Pre- test	39.1 0	15.1 7	7.27*
Post- test	51.7 4	15.1 5	

* Significant at 0.01 level

Table 4: Learning for Human Development (Course Paper-2)

N= 76	Mea n	SD	t- value
Pre- test	36.3 9	19.7 1	3.92*
Post- test	47.6 7	15.6 1	

* Significant at 0.01 level

Table 5: Educational Management and Supervision (Course Paper-3)

N= 76	Mea n	SD	t- value
Pre- test	38.6 5	16.8 8	3.88*
Post- test	48.1 7	13.2 0	

* Significant at 0.01 level

The above tables reflect that there is a significant difference between the pre-test and post-test scores of all the course papers cited above at 0.01 level. It shows the effectiveness of portfolio writing. In addition to the empirical analysis on establishing the veracity of the experiment, students' experience on learning was reflected in their paper presentations in the seminars. Thus the teachers were able to develop meta cognitive thinking and help the student-teachers to move towards improvement with confidence.

Conclusions

Before implementation student-teachers were given need analysis test where they reflected lack of clarity in their thought process. In phase I student-teachers expressions in portfolio writing reflected their desire to know and their comprehension over the concepts. In Phase 2, their monitoring over their

comprehension from the analysis of their test papers reflected the developed meaning making ability. There was rethinking ie. Reflection-on-action. They focused on their task. The considerable improvement shown in their test performances revealed the improvement in reading comprehension and writing competency. The innovative reflective exercise enabled them to observe and reflect upon their learning and respond to the test questions appropriately.

(6)

Leverage to Success

Background

After the implementation of RTE act, all the private schools are trying to implement the norm of compulsory promotion to all the students up to Std VIII. When a very weak student get promoted to the next class his base becomes weaker and weaker and he is unable to perform well and the achievement gap becomes wider. To tackle this problem it was decided to come up with an innovative approach which will ensure that the students get promoted but at the same time will ensure that a strong foundation is laid in the students to help them improve their academic performance.

The project ‘Leverage to Success” aims to help academically weak students to improve their academic performance through a special class designed with special syllabus in three basic subjects - English, Hindi and Math for them.

Effective Strategies used in the Project

- i. Small class size of 25 students.
- ii. Special syllabus designed in three basic subjects.
- iii. Special attention to improve reading and comprehension skill of the students.
- iv. Individual attention to students.
- v. Orientation and Counseling session to parents.
- vi. Counseling sessions to students.
- vii. Periodic testing of the students to see their level of improvement.
- viii. Mainstreaming them back to their regular classes after a period of 4 months.
- ix. Close monitoring and help for them from their mentor teachers.
- x. Peer help in their regular classes.
- xi. Award and recognition to these students and celebrating each and every success of the students to boost their self esteem.

Specific goals and targets of the project

- i. 100% pass for the special class students.
- ii. Average marks of the students in each of the subjects English, Hindi and Math to be not less than 40%
- iii. Reading and Comprehension grades of all the students to be not less than C grade.

Results

We had 26 students in Level I and 23 students in Level II. Eighteen out of 26 students of Level I got a clear pass promotion to the next class in the Annual examination 2012 -13. Fourteen students out of 23 students of Level II got a clear pass promotion to the next class in the Annual examination 2012 -13.

- i. Although we could not achieve our Targets of 100% pass percentage, 71% of level I got a clear pass in all the subjects and 63% students of level II got a clear pass in all the subjects.
- ii. Only 5% of the students fell in the grade D in both the levels in the reading and comprehension skill. All the other students had shown improvement in their reading skills.
- iii. Average performance of the students also was as per the target set.

Tangible benefits

1. Improvement in the academic results of the students.
2. Improvement in the reading and comprehension skills of the students.

Intangible benefits

1. Students showed regularity in completion of both home work and class work.
2. Increase in the confidence levels of the students.
3. Increase in self esteem of the students.
4. Sense of achievement and satisfaction amongst the faculty.
5. Sense of gratitude and appreciation from the parents.

The project is repeatable by any organization to get desired results in their poor performers there by proactively bridging any gap that may arise due to compulsory promotion policy.

(7)

To make Mathematics Teaching Learning Joyful through the activities of ECO Club as per NCF-2005

The Main idea behind this Innovative project was to make mathematics joyful and to reduce the fear of Mathematics and to achieve the follow up of the basic recommendation given in NCF 2005. It was a surprising thing that students preferred to join the eco club rather than Maths club. But It was a supporting and inspiring event for us to combine both things together. We tried to inculcate the psychomotor activities and to engage students by developing their own way of learning.

Mathematics teaching learning by the help of Eco Club activities is itself an appealing and innovative effort undertaken so far by us. The outcomes of this project can easily be ratified in terms of mathematical enhancement or in terms of environmental concerns.

The project was implemented in the Government Inter college, Simalkha, Nainital, Uttarakhand during the session 2012-13.

The activities undertaken through this project are focused on the theme of practical work. Eco Club runs a lot of activities in routine way, which is carried out without any correlation of subjects. The main task was to systematize all tasks in view of Mathematical aspects.

The tasks of Eco Club which were undertaken as a learning tool for mathematics were broadly as follows. It was a general task of eco club to prepare and maintain the Kitchen-Garden in and around the school premises. The same work was carried out by systematic measurement of Length and Breadth, with the measurement of height or depth as per the situation and place. The Process helped to learn how formulas can be created and used with the help of simple field work. Also some typical mathematical problems were easily solved with the help of field work such as area of a Circle, and the area of the parts of the Circle/Arc. To solve the questions of Area with the help of angle was a bit difficult, but students prepared circular plots and developed very nice flower patch as well as learned

mathematics also. In three dimensional areas and questions involving volume were again solved by doing practical work dovetailing with the ECO Club.

Though all these works could be done specially by saying that it's the Mathematics Practical, but it might not be helpful to remove the fear of mathematics. Also just saying bookish practical does not create interest and enthusiasm among students. This is the reason why mathematics is being treated as a boring or rather a tough subject.

The present project provided an insight that mathematics teaching can be dovetailed with the real life situations for making it valuable and interesting.

In spite of the limitation of time and other constraints as the disturbance of other classes or other subject teachers, outcome of the project shows a clear landmark in the form of greenery in and around the school. Other than the enhancement of the environmental balance a clear distinction has been achieved in terms of the attitudinal change among students towards the mathematics subject and towards the other activities regarding mathematics club. It was surprising to notice that in the last session it was forced to form the Mathematics Club, but it was observed that even before the starting of new session many students showed their interest to take a lead in the Mathematics Club activity. Moreover to develop the interest of students, they were encouraged to make their own projects related to their content. As a result students could produce many innovative ideas for the forthcoming session. Also students presented a good project work in their practical exams also.

Thus it was a grand success to bring a paradigm shift in the traditional approach. This helped students to correlate the education with their life skills also, which fulfills the ultimate goal of NCF-2005 and provides the opportunities to correlate students from the external world. Not only for students, but for us also the present project work is working as a guiding force to think something innovative to make Mathematics interesting and joyful.

(8)

Development of Reusable Learning Contents and Interactive Student Response System with Optimal Information Technology

The immediate objective of the project was to make learning fun - not just for the best performers but also for the weak students in the class.

To give a quick context on 'Dighalgram Netaji Vidyapith High School' (DNVHS), it is a rural school in West Bengal with an average teacher-student ratio of 1:61, almost all the classes are over crowded and more than two-thirds of the students are first generation learners. The school is working with 'Future Society' as a non-profit organization on trial and institutionalizing of technologies that can address the above mentioned challenges.

As a part of the project, two key changes were made to the way a teacher conducts her class.

- 1.** Create digital lessons that can support individual students' pace of learning. Subsequently making the digital lessons available for revision at any future point of time, this includes materials (Hardware/Software) like-
 - i.** Laptop/ PC
 - ii.** Pen Tab with stylus pen
 - iii.** Software required
 - a.** Active Presenter - for recoding (screen capturing) the pen strokes and voice and subsequently converting it into .mp4 file
 - b.** MS PowerPoint for creating the lecture slides (Optional; Free tools like open office can also be used)
 - c.** Free make for converting the .mp4 digital lesson in other formats
 - iv.** LCD Projector (optional - for projection in class only)
- 2.** Use of an improvised Student Response System (SRS) named qCard to assess understanding of students in real time and facilitate relevant discussions for effective learning e.g. By making students' aggregated responses to feedback

questions visible to all and by systematically making them interact with one another for better grasp of the concepts. The qCard includes materials (Hardware/Software) like-

- i.** A desktop or laptop running Windows XP or above
- ii.** qCard application
- iii.** Printed qCards on plain A4 paper
- iv.** A web HD camera 3MP or above resolution. USB extension cord might be required to mount the camera at a height so that it has view of the complete classroom.
- v.** LCD Projector optional for projecting the questions and responses from students and playing the digital lessons.

Extremely satisfactory results were received using digital lessons and qCard SRS. Sharing some our findings

In order to evaluate overall student satisfaction, 78 students from the pilot project were asked to indicate how satisfied they were with the learning methodology on a five-point scale from 1 (Very satisfied) to 5 (Very unsatisfied).

In order to examine the students' perceptions in depth, they were asked the following open-ended questions:

- 1. What do you like about this method?*
- 2. What do you not like about this method?*
- 3. How does this method help you learn?*
- 4. What was the best thing about this method?*

Students' responses to each of these questions were as follows:

1. What students liked

Students enjoyed the digital lessons very much. During discussion many a times we had to replay the lectures for better clarity on some topic. When we told them that they can carry the digital lessons home they were very excited and wanted to know how. The prompt Multiple Choice Questions (MCQ) response collection and sharing results of MCQ was very interesting for them.

2. What students did not like

Though large number of parents have mobile phones students does not have access. So they were not really sure if they will be able to access digital contents at

home. They wanted the computer center loaded with digital lessons to be open for longer hours after regular school timing.

3. How helped in their learning

Audio visual contents in local dialect helped the students in their learning. They were involved in discussion within group and coming up with a group response using qCard. If the answers of the groups were incorrect it was discussed among the groups under teacher's facilitation.

4. What is the best in student's opinion

What students liked most is the interactive environment, where response from every group is heard and shared with other teams. They were excited that the short digital lessons can be replayed as many times as needed and specially at students' own wish and convenience.

The changes also complemented Continuous and Comprehensive Evaluation (CCE) framework through formative assessment. It raised student interest in the class and they were also excited at the prospect of taking the digital lessons home with them to revise as per their convenience.

A longitudinal study would allow us to better evaluate the longer term learning outcome and impact of this project. The school is working to improve different aspects of the project over time including a digital library in the school, designing better teaching materials and appropriate feedback questions, making the technology easier to use.

The school is working with other schools and cross pollinating the knowledge to expand this to district, and state and at national level. Development of digital lessons in vernacular languages which would be virtually free may be great contribution for enhancement of learning in various curricular areas. This would also result in development of a nationwide learning network.

(9)

Developing a Model of Peer Tutoring for the Effective Implementation of Individualized Education Programme (IEP) in Inclusive Schools

Special education facilities for children with special needs emerged as an attempt to provide quality education to all and to improve educational status of the children belonging to disadvantaged group.

Later it was observed that seclusion of children with different abilities and confining them to special schools inflicts serious handicaps in their social and cope-up skills. Inclusive classroom was considered as the remedy to address the problem.

But it is a proven fact that children with different abilities have to be provided individual attention, appropriate adaptations in the learning exposures according to their needs and challenges etc. Individualized Education Programme (IEP) for each child with different ability along with inclusive education was developed to address the problem.

Motivation to Undertake the Project

DIETs were established with a motive of formulating and implementing academic initiatives for improving the quality of education including the education of the underprivileged. As a part of this, we have developed many educational initiatives for the benefit of children with special needs which were implemented by a team of resource teachers specially recruited for this purpose.. These resource teachers have been regularly visiting schools for providing onsite support to teachers and handling children with different abilities. Resource teachers focusing on the education of children with intellectual challenges have repeatedly reported in their review meetings that --.

- 1) In spite of all trainings and advocacies, IEP is not taking place in inclusive schools. Teachers are not making any significant learning adaptations in terms of methodology, TLM and learning environment so as to cater to the needs of the children with intellectual challenges;
- 2) This is not because of less commitment on the part of the teachers but they are under many constraints - i) overcrowding classrooms and burden of the

overloaded curriculum. This prevents them from the effective implementation of the programme even with their sincere efforts as they have to be engaged with the other children too ii) The teachers fear that devoting a lot of time for paying individual attention to children with challenges would result into less time for other children which will adversely affect the overall performance of the school; and

- 3) There were instances that the children with intellectual challenges were ignored, and made fun of them. Such ill-treatment leads to a kind of 'loneliness' on impart of these children.

In the light of the situation, we thought about an effective alternative to ensure learning assistance to these children. Peer tutoring was the alternative we thought out to address the issue. We felt that following would be benefits of peer tutoring.

- a) Children with intellectual challenges would be getting learning assistance from a competent peer rather than the teacher; and
- b) Interacting with a peer may be beneficial to develop social skills rather than mere academic achievement.

A Unique Model Developed For Peer-Tutoring

Peer support in learning is not a new concept. In ancient India, it was prevalent. The old saying "*acharya padamadate, padam shishya swamedaya, padam sa bhramacharyabyha*" (complete learning takes place through teacher, peer, and self) indicates this. Vygotsky, the Russian educationist who was an expert in 'defectology' - an old term for special education was the profounder of collaborative learning. He advocated that a competent peer can help a less competent child to achieve his/her potential.

Peer tutoring also is not an innovative idea. But our attempt was to develop a different model considering the uniqueness of the situation

- 1) The learner is having intellectual disabilities and cannot expect whole hearted co-operation from peer tutor;
- 2) The programme in any way should not affect the tutor badly. His ambitions, aspirations, and learning needs have to be taken care of; and
- 3) The programme was expected to be running along with routine classroom hours without interrupting regular classroom activities and affecting the learning of the tutor.

Implementation of Programme Activities

The project was planned at the district under the leadership of DIET. The activities were the following-

- A particular learning package including specially designed teaching learning materials transforming the learning tasks into simple worksheets was developed so that the children with intellectual challenges can attempt the task;
- The peer tutors were selected and oriented to undertake the task. They were expected to provide essential assistance to the intellectually challenged child. The tutor-learner collaboration was limited to interval hours but without interrupting their recreation and other comforts; and
- Strategies for maintaining a cordial and healthy relationship between the tutor and the learner and also for motivating both of them were also formulated.

All these were done in consultation with experts in the field.

Forty schools were selected to implement the project and teachers of these schools were oriented. Sixty Resource teachers of the district led the programme with regular monitoring, on-site support and periodical assessment.

Project Evaluation

After a period of one year, the project was subjected to comprehensive evaluation using the following tools.

- Questionnaire for teachers
- Focus group discussion among resource teachers
- Reflective Journal for peer tutors - An innovative method for monitoring and assessment was developed by collecting the experiences of the tutors through a reflective journal. The tutors expressed their independent thoughts, feelings and creative suggestions in the journal.

Major findings

1. The observations were highly encouraging. Analysis of the data showed that all learners showed improvement at various levels in the subjects selected;
2. Out of the 40 students, 17.5% showed very high progress, 40% showed normal progress and 42.5% showed slight progress in the subject selected;
3. Hundred percent of the teachers reported that significant positive changes were observed in certain other areas i.e. interest in learning, attention in the classroom, doing homework, and overt behavior of the learner.
4. Remarkable achievement was also noted in the learning achievement of the tutors;
5. Parental involvement could also be enhanced as a result of the program; and
6. In most cases, an emotional attachment was developed between the learner and the tutor who provided support and encouragement to the learner and feeling of social responsibility to the tutor.

The way Forward

Peer tutoring can be developed into an effective strategy for addressing learning difficulties. We are attempting to disseminate our experiences to all the schools of the district.

(10)

Beyond The Black Board

Background

The role of education, apart from imparting knowledge, is to shape a person into a socially responsible, culturally enlightened, morally upright and spiritually enriched being. The present educational system focuses more on teaching how to make a living rather than how to live in society. The uniqueness of education system lies in the belief of a system of education that is capable of engaging the cognitive abilities, emotional life and social inclination of future citizens of the world. It needs to focus on building skills through all levels of intelligence, based on the theory of 'Multiple Intelligence'.

Although innovative practices are a regular feature in public schools, but it is also needed to organize the activities according to the skills and level of the learners. It is thus necessary to have a clear view of the underlying objectives and learning outcomes of the activities carried out.

It was equally important to streamline the planned activities and steer them towards achieving skills necessary for the 21st century. Hence, a framework was developed for the project titled '**Beyond the Blackboard**' which included learning strategies and effective methods for language learning.

The National Curriculum Framework (NCERT) provides guidelines that served as a motivating factor at EPS towards designing and executing this project. The time frame was three months and targeted class V, VI, VII & VIII, ranging over 42 hours.

Following strategies were involved in the execution of the Project-

- Blended learning
- Collaborative learning
- Integrated and fun- filled activities
- Use of newspapers in language learning
- Professional publishing

Blended learning

Technology cannot be a substitute to the classical method of language teaching, yet it supplements the basic system. Since technology has transformed communication around the world, it is natural that it plays a pivotal role. Classrooms are the arenas of interactive and experiential learning. Teachers need to focus on helping students to 'think' and 'learn' than 'what to think' and 'what to learn'.

Collaborative learning

We use the collaborative method which allows students to actively participate in the learning process by talking to each other and listening to other's point of view. We believe that collaboration establishes a personal connection between students and the topic of study. It helps students think and communicate in a less biased way. Group projects and discussions help teachers to assess student's abilities to work as a team, leadership skills and presentation abilities.

Integrated and fun-filled activities

Games which are task based and have a purpose beyond the articulation of speech serve as excellent communicative activities. This method offers students an enjoyable and creative learning atmosphere.

Use of newspapers in language learning

The use of newspaper text in the classroom aims to encourage it as a language learning resource. Grammar cannot be taught as a standalone aspect of a language. It isn't the sole focus of lessons but rather an integral part of learning to communicate effectively in the target language. Printed matter from newspapers may be used as an excellent source of resource material for activities that involves grammar.

Professional publishing

One effective way of valuing children's work as well as provide incentive towards bigger dreams, was to plan for a range of ways to publish their writing which acted as a social awareness medium. Ultimately, students have to be able to interpret and express themselves in the language.

'Beyond the Black Board', is an effort to transform the way in which students at EPS learn English by bringing about a paradigm shift from the conventional teaching-learning methods to a more contemporary, child-friendly, participative, interactive and experiential approach.

The project aims at sensitizing and empowering the learners to communicate confidently and effectively in any given situation. It provides students an opportunity to develop their self esteem and feel that they belong to a positive peer group that values academic success. It also provides students the opportunity to develop leadership skills, become advocates and agents of desired change.

It provides teachers with professional autonomy, a unique, positive teaching and personal experience that would impact their broader classroom experience. It also enables parents acquire better inputs, needed for a deeper involvement in their child's development and education.

Outcomes of the Project

The project helped students articulate their own interpretations of a given activity in an intelligent manner combined with curiosity and awareness. It also assisted them in making inferences and judgments. Initiative towards playing an active role and a sense of responsibility was developed.

It further facilitated students to write in appropriate style and format and read a variety of printed texts. Exhibiting skills of making oral presentations were nurtured. The project encouraged students to apply the concepts of grammar taught in the skill areas of Reading, Writing, Listening and Speaking.

Following activities were organized-

- Puppet Theatricals
- Tit-Bit-Gags
- Bioscope Bubble
- The Unknown
- The Humour Cannon
- News Scanner
- Grammar Euphoria
- Portrait of the Diary
- "Digi Tale" (Animation)

- The activity on **Puppet Theatricals** stimulated children's imagination and encouraged creativity, helping them discover a wonderful interactive method to introduce narrative.
- **Tit-Bit-Gags**, besides being a blend of curiosity and creativity also developed dialogue writing ability and high-order thinking.
- **Bioscope Bubble** shed the bygone conventional methodology of the 'teaching-learning' process through visual stimulus, providing an effective means for teachers to deliver the required curriculum content.
- **The Unknown** prepared the learners to enter into the real world scenario. It helped students deliver a coherent presentation using information and diction suitable for the subject, purpose and audience.
- **News Scanner (Editorial)** exercised and strengthened the creativity of the students.
- **The Humour Cannon (Limericks)** empowered the learners to visualize and verbalize their imagination.
- **Grammar Euphoria** provided an intrinsic motivation toward language acquisition and a natural approach to language learning.
- **Portrait of the Diary** provided the aural input that served as the basis for language acquisition and enabled students to interact.
- **"Digi Tale" (Animation)** elicited high order thinking, catered to individual differences and promoted learner autonomy.

Implications

Thus, the project, '**Beyond the Black Board**', incorporates innovative learning methodologies that are relevant, flexible and meaningful. It is a model that meets the needs of our ever growing global society where communication skills play a critical role. The Project is intended to enable learners to make positive contributions through a collaborative and multi-level approach to learning of English and focuses on developing language skills through self-directed learning strategies and teamwork.