



## (An In-House Journal of Kendriya Vidyalaya Sangathan) (केन्द्रीय विद्यालय संगठन की आन्तरिक पत्रिका)

सम्पादक

#### श्री शेख मौहम्मद सलीम

निदेशक, के. वि. सं. आ. शै. प्र. संस्थान, मैसूर

सहायक सम्पादक श्री ई. टी. अरासू शिक्षाधिकारी, के. वि. सं., हैदराबाद

प्रकाशक

#### **EDITOR**

#### Sri Shaik Mohammad Saleem

Director, KVS, ZIET, Mysore

ASSOCIATE EDITOR
Sri E.T. Arasu

Education Officer, K.V.S. Hyderabad

#### PUBLISHED BY



#### केन्द्रीय विद्यालय संगठन

18, शहीद जीत सिंह मार्ग नई दिल्ली - 110 016

#### प्रकाशन स्थल

आ. शै. प्र.संस्थान जी. आई. टी. बी. प्रेस कैम्पस सिद्धार्थ नगर मैसूर - 570 011

#### KENDRIYA VIDYALAYA SANGATHAN

18, Shaheed Jeet Singh Marg, New Delhi - 110 016

#### **PUBLISHED AT**

#### **Zonal Institute of Education & Training**

GITB Press Campus Siddhartha Nagar Mysore - 570 011

Visit our website: www.zietmysore.org

Cover design by - Sri Umesh Prasad. Art Teacher K.V. Sector 4. R.K. Puram, New Delhi



## Contents

	1.	From the Editor's Desk		3
	2.	Development of Problem Solvng Skills in Children	Dr. R.S. Mani	5
	<i>3.</i>	Improving Teacher's Performance through their	Prof.S. Kumar	15
		Student's Ratings		
/	4.	Kaprekar Numbers	Dr.K.P. Chamola	20
	5.	How to promote the skill of public speaking among the KV children	Mr. J.M.Rawat	25
	6.	Need Based teaching in the Kendriya Vidyalayas	Mr. H.K.Sanhotra	29
		without the dilution of basic objectives		
	7.	Whole Class Teaching	Mr. E.T. Erasu	33
	8.	Mobile teacher Empowerment team approach	Dr.V.K. Agrawal	37
	9.	Supplementary Practices	Mr. M.P. Mahajan	42
	10.	The Art of Questioning in the Pedagogy of Science	Mr. J.S. Murthy	44
		to Inculcate Proper Scientific Temper		
	11.	Development of Spoken English Proficiency in the	Mr. P.R.L. Gupta	49
		teachers		
	12.	Project Based Learning	V. Meenakshi	55
	13.	Infocus		59
	14.	Book Review		60
	15.	In Box		61
	<i>16.</i>	Important Notice to Contributors		62

### हिन्दी विभाग

1.	मूत्यपरख शिक्षाः आदर्श जीवन की आधारशिला	ऋषि कुमार त्रिवेदी	63
2.	मूत्यों से जीवन सशक्त व सार्थक बनता है ।	सविता शमा	66
3.	केन्द्रीय विद्यालयों में विषय समिति की बैठक का उद्देश्य,	जालिम प्रसाद	69
	विषय, महत्त्व एवं वार्षिक योजना		
4.	वालक का समग्र विकास एवं शिक्षा	कु. मंजुला देवी मिश्र	75
5.	शिक्षा उद्देश्य पूर्ण बने !	एस. एस. डाकुआ	79
6.	विद्यार्थियों में 'स्व' प्रबन्धन	मनोज कुमार सिंह	81
7.	एच. आई. वी./ एड्स	आर.ए.एस. यादव	83
8.	मेरे प्रेरणा स्त्रोत, महात्मा गाँधीजी	श्रीकान्त कुलश्रेष्ठ	86
9.	बदलते परिवेश में शिक्षण की चुनौतियाँ	डॉ. हृदय नारायण उपाध्याय	92
10.	पन्द्रह दिवसीय 'हस्तलेखन प्रयोजन कार्य'	पा.सी.शमा	94
	उद्देश्य : छात्रों में सुन्दर हस्त		
	लेखन कोशल विकसित करना ।		



## Dear Readers,

### Happy New Year!!

The bygone year 2007 has been indeed an eventful period for the world in general and KVS in particular. Besides rejoicing on the achievements made and laurels won, it is also a time to take stock of the past and proactively plan for the future.

No doubt, Kendriya Vidyalayas are truly surging forward in every sphere of school based activities. Many new Kendriya Vidyalayas have been opened and they have started functioning in full swing. Efforts are on to develop the required infrastructural facilities in these new Vidyalayas and provide a set of teachers who are capable of imparting quality instruction to their clientele.

By the turn of January, it is but natural that the exam fever will start gripping our teachers and students, not to mention, the parents. Our Vidyalayas have a number of programmes already in place to ensure good results in the impending Board Examinations.

In fact, more than the teachers and students, it is the parents who seem to be all the more tensed up and anxious as the Board examinations draw nearer. In their desperate bid to make their wards excel in the examinations, the parents keep pestering their children to study all the time, which sometimes borders on virtual harassment of the youngsters.

In this scenario, it is the bounden duty of the school, not only to prepare the students for the examinations, but also to educate the parents as to how to play their role constructively. Though KVS has the age-old practice of holding parent-teacher meetings periodically, it is high time that we take a re-look at the nature and content of these meetings. It is very crucial to collect the parents of the students appearing for the Board Examinations in the ensuing months and counsel them about the positive parenting practices. The Manual of School Guidance Programme which is a KVS publication that was prepared and sent to all Kendriya Vidyalayas by KVS, ZIET, Mysore sometime back deals elaborately with the various aspects of conducting a meaningful Parent Education Programme (Part-I, Chapter-7). In the Manual, a number of suggestions have been made, including providing a model letter to parents (Annexure-9, Page-128). The



thoughtfully worded letter is only suggestive and much more can be added by an imaginative and creative teacher which is sure to entice the parents. Once they are brought to the discussion table, a strong message needs to be conveyed to them that **examinations** are only a means to an end and not an end in itself. They have to be told in unequivocal terms that they should not add to the tension of their wards by perpetually nagging them but should play a supportive role at this crucial hour and do all that is possible to ease their anxieties.

It is the height of ignorance and avarice on the part of the parents to expect that every child should be a topper in academics. The multiple intelligence concept very emphatically advocates the fact that every child is intelligent in his/her own way. The onus of discovering the kind of intelligence lying hidden in the child wrests with the teachers and parents. A child who is not academically brilliant may blossom into an illustrious personality in the post schooling period. History abounds with countless examples wherein one can see a clear mismatch between academic brilliance and achievements in life. Albert Einstein and Pablo Picasso are some of the glaring examples that come to our mind and the parents need to be given such inputs during the parent meetings. What is required at this juncture to achieve best results is to educate the parents against pelting out advices and delivering sermons to their youngsters day in day out. What the child needs is a lot of emotional support, encouragement, generous measure of appreciation, and empathy. A parent should be made to accept this reality however bitter it is, and work out reasonable and realistic strategies to help the child to gain self-esteem and self-confidence to tide over such stressful situations in life. Such an approach is sure to succeed not only in securing reasonably good results, but will remain a life long education for the child and will go a long way in building a strong basement for the future life of the youngster. Let us not forget that this Nation is looking forward for such an enlightened and empowered citizens.

JAI HIND

SHAIK MOHAMMAD SALEEM

#### Acknowledgement

Shri D.K. Mishra, P.G.T. (Hindi), Kendriya Vidyalaya, Mysore for assisting in editing the Hindi section of the current issue





Dr. R.S. Mani

Reader in Education, CASE, Department of Education, Faculty of Education and Psychology, The Maharaja Sayajirao University of Boroda, Vadodara

# Development of Problem Solving Skills in Children

#### Introduction:

The Science and technology is progressing at a faster pace. The society is undergoing transformation due to the new changes. The facilities have increased due to the introduction of new technologies. The children

in the present society are faced with two types of problems. They are (i) How to organize the enormous amount of knowledge in a more systematic way? (cognitive skills) (ii) How to develop skills to use the knowledge for solving problems? (Meta cognitive skills). The alternatives available for solving certain problems are many. Do children explore all the alternatives of solving the problem?

Our schools have been focusing on the acquisition of knowledge and skills. The numbers of new subjects to study have been increasing such as environmental science, computer education, health education etc. There is a gradual acceptance of subjects such as computer education, health education or health psychology and environmental science in the past one decade. The other trend seen in the past decade is the need for more integration of knowledge for better understanding. An illustration is the integration of science and technology. The

National Curriculum Framework (2005) emphasizes problem solving skills in children. It also highlights the need for developing knowledge in integrated way. The learning of science and technology need to be more integral to develop understanding. The National Curriculum

In this paper an attempt has been made to present the experiments and programmes in the previous ten years in science at school level. Some view points are presented such as constructivist, developmental approach (Jean Piaget), medical, psychological (K. Fisher). A few activities are proposed for teaching and learning for students and teachers as a joint endeavour. These activies may be useful for teacher training in science education. Problems of activity teaching and problem solving are many. A few ideas are presented for developing problem solving skills in children.

Education Docum e m p the description of the description of the description of teacher more into methodo advocate training in science education. Problems of activity teaching solving in solving in solving in the previous ten years in science at school the description of the description of

Framework for Teacher Education Discussion Document (2006) e m p h a s i z e s the development of components of science teacher education in a more integrated way. The methodology that is being advocated is interactive. The child becomes active, functional, more responsive and problem solving in nature.

The need for molecular understanding

has increased the more integral approach and functional in solving the problem. The problem needs to be understood in a gestalt. There is an increased understanding for the molecular approach to psychological problems of children.

#### **Experiment and Programme**

1. Ekalavya, Hoshangabad tried to experiment with elementary children in learning of science by doing experiments. The experiential learning was



found effective. Children have learnt to solve problems and apply knowledge to understand a situation.

2. Banasthali Vidyapith, Banasthali tried a teacher education model namely Anveshana. The focus of learning is problem solving. The dialogue approach was used to train teachers and learners. The essence of the approach is interactive learning leading on to the conceptual understanding of the problem in a holistic perspective.

The collective thinking in a systematic way leads on to better conceptualization of the concepts and facilitates understanding. This approach was successful in increasing understanding in including context into problem and appreciating the alternative ways of solving problems.

- 3. The Anveshika, a voluntary body, tried to develop science curriculum for upper primary stage in Gujarat that emphasizes learning through experiments. The teacher training institution, Lok Bharathi, Sonosra provided the required thrust and support for the project. The Gujarat Education Board is likely to change the curriculum in the near future.
- 4. The Classroom 2000+ Project of UNESCO for teaching scientific and technological literacy is being debated and implemented in different parts of the world. CASTME, HBCSE and UNESCO jointly had organized an international conference on Science and Technology and Mathematics Education for

Human Development at Goa, India from February 20 to 23, 2001.

Many countries that are developed as well as under

developed represented in the conference. One of the main themes discussed in the conference was developing scientific and technological literacy. It was recommended that scientific and technological literacy needs to be promoted worldwide with emphasis on understanding and appreciation of environment.

5. ICASE has a programme of Accelerated Science and Mathematics education. The programme started as a sequel to the UNESCO project Classroom 2000+. The accelerated science and mathematics education has produced materials (instructional materials such as resource books, video records, exercises etc) for training teachers and experiments for learning science and mathematics at different levels. The project has been effective in implementation.

Vaidya, N et.al. At Regional college of Education, Ajmer India tried to experiment with the accelerated science teaching and learning. This project was successful in implementation. The project emphasized problem solving. Dave, P.N. has identified cognitive strategies in different levels for learning and teaching science (Physics) at the Regional College of Education, Mysore, India.

6. The Centre for Environmental Education (CEE), Thaltej Tekra, and Ahmedabad is trying to develop curriculum for children in the Environmental education. CEE has successfully tried in field based in-service teacher training for teachers in environmental education.



UNESCO 2006 Global Monitoring Report for elementary education says that the increase in elementary education, scientific and technological literacy will lead the girl child to become more conscious about the reproductive aspects of human development. They tend to delay the pregnancy at an earlier age (Gopalan, K 2006).

CASE, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda, Vadodara proposes to include problem solving in science teacher education and children learning science on an experimental basis.

- 7. Prof. Yashpal developed a T.V. programme in India for children to interact with him through questions over phone and discussion of experiences leading on to clear concept formation in science. This programme was accepted widely by many viewers and participants. The feedback through telephone was clear and responsive.
- 8. Ekalavya, a primary teacher training institute run by a private trust at Ahmedabad, India tried to develop standardized tests for elementary level.

Ed. CIL, India has developed several tests at primary level for different subjects. These tests were used by many institutions in India. Many students at M.Ed level at CASE, Faculty of Education and Psychology, The Maharaja Sayajirao Universtity of Baroda, Vadodara used these tests in their research work to find effectiveness of primary education. CASE, MSU also organized a national conference to discuss the problems of evaluation at primary in India and abroad.

Conceptual Scheme : View points

Problems solving skills has several contexts. The purpose and objective of the problem decides mostly the type of skills needed in a given context. The experience of the problem solver facilitates in understanding the problem better.

The Constructivist Approach: The constructivist approach gives freedom to the learner to explore and solve problems. The problem solving includes understanding the situation and the different variables operating on the context. The learner gets involved and solves the problem to gain experience and satisfaction. The problem solving may raise questions in the mind of students to explore further or to look into more details of the given problem.

# **Piaget's Cognitive Development Theory:** Piaget proposed that individual interests with the environment to learn. The active interaction results in certain questions that may need answer.

Learners are given problems in the form of development tasks: Learner's try to solve them through active interaction and inquiry. The problem solving skills show difference in individual attainment. The pace with which the problem is solved also varies from individual to individual. The ability or competency that develops to understand the problem and find the probable solution is the cognitive development of the individual.

#### Problem solving in Health or Therapy:

Problem solving has definite meaning. Problem gets defined through systematic observation, examination and testing. The consistency of the problem will help in determining the

course of treatment. The manipulation is carefully, gradually carried out to look for improvement in health.



The solution of the problem does not guarantee its reoccurrence. The problem solving skills develop with more clinical experience and research. The problem solving skills gets developed progressively with experience. The hierarchy of the problems gets determined by professional classification of problems. The practical experience provided in the institution gets strengthened by field experience.

#### Problem solving skills in Competition:

There are several opportunities provided to children to demonstrate their problem solving skills. Some of the opportunities in India are presented as follows:

- Education (HBCSE), tifr, Mankhurd, Mumbai has been entrusted with the conduct of Science Olympiad. The HBCSE conducts a test every year for the students interested in subjects such as Physics, Chemistry, Mathematics, Computer Science and Astro Physics. The selected students are provided one month training in problem solving skills by the staff of HBCSE (Scholars), tifr, Mumabi. This training facilitates them to compete for selection for International Science Olympiad in their respective domains (subjects). The students from India have been doing well in the successive years.
- The Science and IT Olympiad is organized every year in Central schools from 3<sup>rd</sup> standard to 12<sup>th</sup> standard. These tests facilitate students to think and solve problems in science and IT areas. The performance of

students are encouraging in the successive years of conduct of Science and IT Olympiad.

• The Science Parishad,

Rajkot conducts tests every year for students at school level. Each of the examination is named after a famous scientist. Schools in Gujarat state that are following the Gujarat Secondary and Higher Secondary Board syllabi and examination participate every year and the performances of schools are encouraging. This prepares students to think and develop problem solving skills in science.

• The Kishore Vigyan Puraskar is an opportunity for students to show their talent in science by developing projects, making observations and drawing inferences. Problems chosen by students are relevant and practical in nature.

Kishore Vaigyanic Protsahan Yojana (KVPY) is a scheme sponsored by the Deprtment of Science and Technology (DST) to attract young talented students to science, which has been in operation since 1999. It is administered by the Indian Institute of Science (IISc), Bangalore. Students are selected after classes X and XII and given scholarships. They are also invited for a summer school, and the summer school for fresh awardees every year is held at IISc. In earlier years, the programme consisted of lectures and visits to various departments and institutes. Summer school 2002 Joshi, A.W. Raybagkar, VH and Surve, F.I reported that in May 2002 for the first time, an experimental laboratory component was given to the KVPY scholars. There were 46 students who had come after their class XI and 7 after their First year of B.Sc examinations. Our team laid out ten experiments in a laboratory, which the students performed in groups of 4 to 6. A short handout was given to the students, which described the experiment and the activity in one page each. The students were able to do 6 to 8 experiments in the time slot that was available. They took readings,



changed parameters, made calculations and drew inferences. Since the experiments were open ended, the students got to see something beyond their prescribed syllabus. They soon started asking questions such as what will happen if this is done that way, etc. A few experiments that were tried are listed as follows: Experiment 1. Head — on Collision of Bodies with Different mass Ratios, Experiment, 2. Study of Projectile Motion Using a Pistol, Experiment 3. Study of Friction using a Record Player, Experiment 4. Study of Interference of Sound using Quinke's Tube, Experiment 5. Transparency of Materials using a Photodiode and OPAMP.

It appears from the students' feedback that they highly appreciated this component (Resonance, 8 (7), July 2003).

• The National Talent Search Examination is conducted by NCERT, New Delhi every year for students of 10<sup>th</sup> and 12<sup>th</sup> standard. They need to write an examination and do a project work to prove them for the scholarship. Students who are successful in this examination are offered scholarship to study science in their interest area up to the master's level provided that they show good progress in their studies every year in their studies. The response for this examination is also highly encouraging and students have performed well over the years of conduct of examinations.

#### **Activity Centres**

Science through Melas and Exhibitions

Many schools in the different parts of the country have organized science exhibition. This provides opportunity for students to involve in projects of relevance and think to exhibit scientific initiative.

 The Indian Science Congress is one such big mela that meets every year in the month of January 3<sup>rd</sup> to 7<sup>th</sup>.

The Indian science congress meets in a chosen place to deliberate on various issues and problems of the country and science. The children are allowed to exhibit their project or study in a systematic way. This enriches them and facilitates interaction with illustrious scientists and technologies in India and abroad.

- Children's Science Congress also meets in select place to discuss, exhibit and reflect on problems and issues, projects in science and technology. The exhibits and scientific work are examined by a committee of scholars and an award is given to the best presentation.
   Prof. Passi B.K. as UNESCO chair, IGNOU, and New Delhi developed certain criteria for evaluation of scientific work of children for award.
- The Sarabhai Community Science Centre, Ahmedabad regularly organizes science exhibitions for children going to school. Talks are organized by scientists for children to participate, to question and reflect on science. Networks of science and mathematics teachers are identified in terms of their interest and participation in science club as regular members through activities and interaction in various modes. Teachers meet children to deliberate on programmes.
- The Astro Science Centre, Pune was initiated and developed by Prof. Jayanth Narlikar. He interacts with teachers and children with equal enthusiasm on topics of Astro

science and develops ideas for further exploration. It has provided



opportunities for children to visit, see exhibits, discuss with scientists, and reflect on issues and problems of science. This center also has facilities for research in Astronomical sciences. This center has provided a forum for discussion and a platform to launch their ideas.

- Sardar Patel Planetarium, Sayajibaug, and Vadodara: A group of students interested in Astro Physics and a few working scientists have developed interest in viewing regularly stellar phenomena. This group has bagged a project from NASA, USA for such activities.
- Nehru Science Centre, Worli and Mumbai: This centre has many experiments in science and exhibits for those children and adults interested in science visit. The project 'Vidya' is also carried out in this centre successfully in a well developed computer laboratory. The instruments such as telescopes are sold at a reasonable price for the budding astronomers.

How does a problem solving skills develop in children?

In the previous sections an attempt has been made a describe the experiments and programmes, viewpoints, activity centers that are operational and creating scientific awareness. In the following paragraph an attempt is made to describe the various ways in which the problem solving skills can be developed in children:

#### Motivation

 Motivate the child by introducing science with experiment and fun.

2. Facilitate children to observe experiments and phenomena to ask questions,

- to ponder and reflect with wonder and excitement.
- 3. Make children into small groups or pair them to discuss on scientific topics of interest and problems, issues and experiments. Teacher need to facilitate the discussion.
- 4. Show C.Ds on scientific topics such as Encyclopedia Britannica, Microsoft Encarta, Bio-Diversity C.D. developed by Indian Science Congress, Bangalore, etc, photographs (for example, of Moon, Saturn, Uranus and Pluto), to children to visualize their size, composition, angular movement and velocity. Discuss the problems associated with the planets in the solar system.
- 5. Arrange visit to Botanical garden, Zoo and Taxidermy section for children to see and observe features of animals that are becoming rare such as Lion, Tiger etc.

#### **Activities**

- 6. Provide Small working kits of science for children to do experiments at home and school. This would facilitate them to develop manipulative skills and encourage experimentation. Project for such experimentation may be testing quality of water in the near by area or institution or home, experiments on partial combustion, complete combustion etc.
- 7. Palm size computers of lower version could be loaded with scientific experiments for children to manipulate and learn on their own. Each experiment needs to have some explanation about the experiment, the instructions and procedure.
- 8. Mathematics laboratory that has already been introduced in the central schools need to be



promoted in all the schools. Some infrastructural facilities need to be created. The funds available under the SSA (Sarva Shiksha Abhiyan) to develope the Teaching Learning Material could be used for the Mathematics Laboratory development at primary level. There needs to be a separate grant created for secondary and higher secondary level for innovative experiments.

- Microscale experiments need to be introduced at higher secondary level. Parikh S has successfully tried out the effectiveness of the Micro scale experiments at higher secondary level in Jeevan Sadhana School at Vadodara.
- Model Building: Model building in Physics, Mathematics, Chemistry and Biology need to be encouraged to develop three dimensional concept of the matter.

#### **Innovative Ideas**

11. **Mapping interaction sites:** Students could choose some chemical reaction and try to map the interaction site in an organic reaction using the IR spectroscopic data for example, the comparative position of Alkane, Alkenes, and Alkynes. A question as to the delta charge that gets developed in Ortho, Meta and Para position of the molecule and the possibility of the most electronegative radical getting attached to the likely position.

#### 12. Molecular signaling and communication:

This is a fertile area that is being explored. The question such as how proteins act as the signaling agents to start and continue the biochemical cycle such as Krebs cycle. Students could study the mechanism and the actual medium in which the molecular communication takes place and the

appropriate signal medium in which the molecular communication takes place and the appropriate signal that needs to reach the molecular site for the biochemical reaction. DNAase protein acts as the catalyst for the transcription of the DNA. The actual signal that makes the transcription to start is an interesting topic of investigation. How the rate of fermentation could be controlled is a question that has more economic importance. The study of molecular signaling and communication in this process of fermentation is of significance.

#### 13. Molecular Lock and key mechanisms:

The essential control process and chanellisation takes place through the lock and key mechanisms. The study of the molecular lock and key mechanism is a key factor in understanding the bio-chemical reaction and different path ways. Students could collect literature on this topic and study the details taking a specific question at a time.

- 14. **Describing the Molecule of the month:**Students and teachers could surf and select a molecule to describe for the month and study its role in the various domains such as Chemistry, Biological sciences, Physics, Geology etc,
- 15. **Problems of Enthalpy:** This may include the energy transformation (vibrational energy, translational energy etc) in a given medium (such as Solid, semi-crystalline, liquid, gas).
- 16. Preparing Structure of DNA, RNA.

17. Preparing model showing structure of AIDS virus.

18. Preparing models of



structure of macromolecule such as Hemoglobin.

- 19. Zeolite and its applications
- 20. Describing crystals, its problems and applications
- 21. Solvolysiss
- 22. Nanotubes and its applications for example, carbon nanotubes in water micro filtration.
- 23. Molecualr morphology and its description.
- 24. Computer graphics, plotting graphs, histogram, pie chart, and ogive curve.
- 25. Gentically modified food and its applications
- 26. Artificial food and its description.
- 27. Measures of Population control general awareness
- 28. Mapping origin and spread of disease such as Malaria, AIDS, Dengue, Hepatitis A and Hepatitis B.
- 29. Preventive measures against diseases such as Malaria, Flu, Dysentery, AIDS, Dengue and Hepatitis.
- 30. Nutrition table-energy requirements, nutrition deficiencies Vitamin A, B, C, D, E, K mineral supplements such as Iron foliate requirements.
- 31. Mapping nutrition levels in different age groups.
- 32. Problems of Bio rhythms biological periods of rest, scheduling, food intake, activity eg: work and play.

33. Studying advantages of types of meditation and yogasanas.

- 34. Puzzles and games.
- 35. Pollution problems air, water, soil, in mountain ranges, space.
- 36. Problems of knots.
- 37. Problems of use of different shades of colours and forms.
- 38. Accelerated learning in Science and Mathematics.
- 39. Counting in different forms and methods, methods of quick results and its verification.
- 40. Manipulation of natural numbers in different forms, making sets, sequence, memory cueing.

Fisher, K gives a framework of process of learning that is active for the learner to learn science in an activity mode. Fisher believes that the learner is an active explorer and the learning activity is essentially a problem solving process. The problem solving takes place progressively and slowly. Fisher identifies four stages in which learning takes place. They are Zero Phase, Phase one, Phase two, Phase three and Phase four.

In the Zero phase learner has no idea of the task to be learnt and shows no response for example, how respiration takes place. In phase one the learner tries to observe and state the problem. The child observes that the intake of air is needed for respiration and some air comes out of the organism. The child also observes that certain structures are involved in respiration. In the phase two the child describes the outline of the problem. The child is able to analyze the problem and identify respiration is a life process that is needed by every organism. In the process the structures associated with respiration have to work continuously all the time to supply the required



amount of oxygen. The child tries to study the nature of the structures that facilitate respiration. In Phase Three, the child is able to show or construct a working model to demonstrate how the lungs function for example; the child takes a bottle with a cork. Makes two holes and introduces a glass tube with two connectors that are tied to the glass tubes are allowed to freely hang. It was observed that there is no change in the size of the balloon. When the gas was blown through a tube the balloon inflates and gradually becomes small with the exit of the gas in the balloon.

However, the child is not able to tell the cause for the respiration

Observe the following figure:

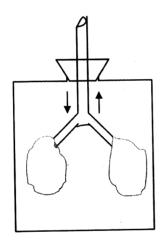


Diagram showing the lungs

In the Phase Four the child is able to reason that the respiration is a continuous process taking place in the entire organism. The lungs is a structure which takes in the air (Oxygen) and gives out (pumps out) the carbon di-oxide and other wastes. The lungs perform the task as the requirement is needed by the organism. In the day time the organism is active and needs more oxygen to work and the lungs work fast to pump more air.

The alveoli facilitate more exchange of gases. In the night the respiration becomes slow for the metabolic activities become rather slowly.

#### References:

Clark, J.V. 1996 Redirecting science education: reform for a culturally diverse classroom, CA: Thousand Oaks, Corwin Press Inc.

Delors, J 1996 Learning Treasure Within, Report of the International Commission on Education for Twenty – first century, Paris: UNESCO

Dunlap, J 2005 problem based learning and self efficacy: how a capstone course prepares students for a profession, Educational Technology Research and Development, 53 (1), 2005, p.p 65-85.

Gosh , S 2001 Knowledge management –an overview, Everyman's Science, XXXVI (3), October –December 2001, p.p 124 – 132.

Gopalan, K 2006 Gobal monitoring report, UNESCO

Joshi, A.W. Raybagkar, V.H. and Surve, F.1 2002 Simple, Concept – centered, Innovative Open-ended experiments in Physics – 1 Resonance, 8 (7), July 2003, p.p. 76-84.

Joyce VanTassel – Baska, George bass, Roger Ries, Donna Poland and Linda D Avery, 2004 A national study of science curriculum effectiveness with high ability students, In Joyce van Tassel – Baska 2004 Curriculum for Gifted and Talented students, Thousand Oaks, California; Corwin Press, p.p 147-166.

Kamble, V.B. 2005 Non – formal Science Education:
Utilizing Space Based Resources, In Sudhakar Agakar,
Sanjay Limaye, Rosalyn Pertzborn, 2006 Proceedings
of Indo-US Workshop on Utilization of Space – based
Resources to Enhance Science Education in India,
sponsored by Indo-Us Science and Technology Forum,
New Delhi, India, 2006

Lipman 2003 Thinking skills, Thinking in Education, 2<sup>nd</sup> ed. Cambridge: Cambridge University Press, p.p. 162-194.

Mani, R.S., Application of Gestalt
Principles in Teaching of
Science, Science, Technology
and Mathematics Education for
Human Development,



Proceedings of the CASTME – UNESCO –HBCSE International Conference, Goa, India, February 20-23, 2001.

Mani, R.S. 2005-2006 Application of software in education, Quality Concerns in Education, Vadodara: CASE, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda.

Mani, R.S. 2005-2006 Contemporary issues in teacher education, Quality Concerns in Education, Vadodara: CASE, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda.

Mani, R.S. 2005-2006 Quality Concern in teacher education, Quality Concerns in Teacher Education, Vadodara: CASE, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda. Mani, R.S. 2006 Capacity building in science and integrating technology into education, Educational Herald, 35(3), July-Sept 2006 Jodhpur: Shah Goverdhanlal Kabra Teachers college, (CTE).

Mani, R.S. 2007 Emerging teacher education in the twenty first century, national seminar on emerging scenario in teacher education, March 22-23, 2007, Vadodara: CASE, Faculty of Education and Psychology, The Maharaja Sayajirao University of Baroda.

NCERT 2005 National Curriculum Framework, 2005, New Delhi: NCERT.

NCTE 2006 Curriculum Framework for Teacher Education Discussion Document, New Delhi: National Council for Teacher Education.



## We can't Solve problems by using the same kind of thinking we used when we created them.

- Albert Einstein

Learning and Innovation go in hand. The arrogance of success is to think that what you did will be sufficient for tommorrow

- William Pollard





## Improving Teacher's Performance through their Student's Ratings

Prof. S. Kumar
Dr. R.C. Patel
Dr. A. Ramachary
Centre for Advanced Study in Education
M.S. University of Boroda,
Vadodara 390 002, Gujarat

#### **Introduction:**

ndian society placed the teacher at a very high level. It is the teacher who comes after mother and father in the life of a student and thus epitomized as 'Acharya devo bhava". Commanding such a respectable position in the society by a teacher was possible through sheer dedication and hard work done by the teacher, for the best development of their student. This view of the students towards their teacher placed through at par with the ultimate God, as 'Guru Devo Maheshwara". The role of teacher, in essence, remained as high as mentioned above, in terms of the expectations from the teachers. However, the changes in society do not permit ancient conditions to continue to exist. Every aspect of life, when changed drastically, expecting ancient standards of dedication and methods of grooming the students remains unrealistic. Yet, teachers being the important influencers and designers of student's personality and destiny, in a broader sense, are expected to be more and more vigilant of their professional responsibilities. This is more significant at school level, owing to the formative and foundational action that occurs at this stage. Further, the multi-tasking function of today's teacher also calls for multi-ability enhancement from time to time. This augments for identification of professional needs, which necessitates the teacher's performance evaluation.

Teacher, who is cognizant of his or her key responsibilities always aim to be aware of their own efficiencies and deficiencies. Teacher, accordingly, attempts to enrich and enhance professional efficiencies and also makes effort to decrease and overcome the deficiencies, from time to time, for a better quality. As John Ruskin puts it, quality is never an accident; it is always the result of intelligent effort. It is the will to produce a superior thing. This process of making effort for better quality obviously remains continuous and non-terminating. In fact summer courses, refresher courses, in –service courses of teachers are efforts in this direction. It remains a pertinent question, how to identify the true areas of enrichment programs for school teacher? Correct identification of relevant training needs of school teachers, from time to time, naturally becomes a very important professional requirement for teachers, educational administrators, policy makers and training institution etc. Laying out the relevant criteria for teacher evaluation and opting for effective evaluators become subsequent and pertinent questions. Considering the notion that the users are the best judges, one may prefer to seek the rating of teacher's performance by their students. They being the immediate and continuous respondents involved in the teaching -learning process, are likely to offer more relevant and useful rating response about their teachers. Teachers can make use of the feedback received from their own students for improving their teaching performance.

This requires a scientifically developed scale through which valid information about teacher's performance could be obtained from the students. It was for this purpose, that, the Centre

Advanced Study in



Education (CASE) took up a research study, entitled, "Development of a Scale for performance Appraisal of School Teachers by their Students". The objectives of the study are stated subsequently.

#### Objectives of the Study:

- 1. To develop the rating scale for appraising classroom teaching performance of the school teachers, by their students.
- 2. To establish the reliability of the scale developed for Performance Appraisal of School teachers by their Students (PASTBTS).
- 3. To develop the norms for teacher's performance appraisal, in terms of percentiles for the following categories.
  - (a) Subject-wise and total performance of CBSE teachers.
  - (b) Subject-wise and total performance of State Board teachers.
  - (c) Subject-wise and total performance of all the teachers.
- 4. To develop norms for the teacher's performance for different aspects, i.e. on different (1-20), in terms of average performance of the teachers.

#### Research Methodology:

In order to achieve the objectives, the job analysis was done of the school teachers teaching job. Initially twenty five statements were developed for rating the teacher's performance. These statements were given to experts and based on their suggestions some statements were modified and

some were discarded. Final rating scale contained twenty statements. Each statement on the scale has to be rated on a

10 point scale which is a continuum ranging from 1 to 10 (very poor to Excellent), where 1 indicates very poor, 5 and 6 indicates average and 10 indicates excellent. The developed scale was tried out on school students and further refined.

#### Reliability:

The reliability of the scale was established through Test-Retest method. For this purpose, the scale was administered to 14 students of Kendriya Vidyalaya, EME, Vadodara (Gujarat). Students rated performance of two teachers. The scale was found to be highly reliable, in case on one teacher reliability coefficient was found to be 0.94 whereas in case of the other teacher it was found to be 0.98.

#### Development of Norms:

In order to develop the norms the scale was administered to 5370 school teachers. Out of these, 3639 were from State Board schools and 1731 teachers were from the CBSE schools. Norms were developed in terms of percentiles for state Board teaches, CBSE teachers and also for combined (State Board + CBSE).+ CBSE). Percentiles were calculated subject-wise. Item wise norms were developed in terms of average performance of teachers. In this paper norms are given only for CBSE school teachers. The subject-wise norms for the teachers of CBSE are being developed and would be published later on. The scale, its procedure of scoring and interpretation of scores is given in the following.

### Scoring and Qualitative Interpretation of the scores:

This scale measures teacher's ability to teach in the classroom and not his/her performance as a school teacher on the whole. As a school teacher, one also does certain administrative activities and



conducts several co-curricular and extra-curricular activities inside and outside the school. However, classroom teaching is the most important function of a school teacher. Teacher's own student's ratings will provide him/her precious feedback which

certainly will help any teacher in improving his/ her classroom teaching and this in turn will improve quality of education in the schools.

## Kumar, Patel and Ramachary's School Teachers Performance

#### **Appraisal Scale**

#### The Centre of Advanced Study in Education Baroda

Dear Students,

You have been regularly observing the teaching of your teachers. You are the best judge to appraise their teaching. Below are given some statements regarding teacher's performance in the school. Read each statement and rate your teacher's performance on 10 point scale ranging from 1 to 10 (very poor to excellent). Here, 1 indicates very poor, 5 is average and 10 is excellent. Please rate the performance as per your own judgment.

Name of the teacher:	Subject :	: Cl	lass:
Name of the school:	Board:	State:	

S. No.	Attribute	Very Poor Avera			era	ge Excellent					
1	Teacher's knowledge of the subject	1	2	3	4	5	6	7	8	9	10
2	Teacher's ability to explain	1	2	3	4	5	6	7	8	9	10
3	Teacher's clarity of objectives or knowing what student should learn through his teaching	1	2	3	4	5	6	7	8	9	10
4	Clarity and simplicity of language	1	2	3	4	5	6	7	8	9	10
5	Understanding student's ability and teaching accordingly			3	4	5	6	7	8	9	10
6	In giving relevant, simple and interesting examples	1	2	3	4	5	6	7	8	9	10
7	In doing clear, systematic and adequate black board work	1 2 3 4		5	6	7	8	9	10		
8	Making full efforts to make students understand	1	1 2 3 4		5	6	7	8	9	10	
9	Sequential and logical presentation of content		2	3	4	5	6	7	8	9	10
10	Regularity and Punctuality in teaching		2	3	4	5	6	7	8	9	10
11	Conduct and Personality of Teacher		2	3	4	5	6	7	8	9	10
12	In giving home work regularly		2	3	4	5	6	7	8	9	10
13	In checking home work regularly		2	3	4	5	6	7	8	9	10
14	In examining/evaluating students continuously		2	3	4	5	6	7	8	9	10
15	In covering entire course while evaluating /examining		2	3	4	5	6	7	8	9	10
16	Objectivity and honesty in examining /evaluating students	1	2	3	4	5	6	7	8	9	10
17	Timely declaration of results	1	2	3	4 -	5	6	7	8	9	10
18	In correcting or justifying the mistake pointed out by student in examination work	1	2	3	4	5	6	7	8	9	10
19	Using teaching aids like pictures, maps, charts, slides, transparencies, CDs, etc.	1	2	3	4	5	6	7	8	9	10
20	In motivating and guiding students with love and affection	1	2	3	4	5	6	7	8	9	10

Total Score:





#### Administration and Scoring:

Administer the scale to your students with the following instruction:

- 1. Tell students to give their judgment freely without any fear.
- 2. Tell them to put a circle on the number and rate teacher's performance on all the 20 statements.

After the students ratings, teachers performance on all the 20 statements, remember total score of the teacher on the basis of one student's rating can range from 20 to 200. After that, all the students' total sores should be added to find the sum total score of the teacher. Then find out average performance of the teacher by dividing the sum total score of the teacher by the number of students rated the teacher.

For example, if 5 students have rated a teacher's performance and their total scores are: 170, 180, 180, 190 and 180.

Sum Total score of the Teacher = 170 + 80 + 180 + 190 + 180 = 900

Average score = 900/5 = 180

#### Interpretation of the Scores:

As a Teacher, if you are interested in knowing where you stand in the eyes of your students, then put your score on the continuum ranging from 20 to 200. Her 20 represents very poor, 100 represent average and 200 is the highest score of an excellent teacher. You can examine whether you are average teacher or above average or excellent or below average etc. in the opinion of your students.

If you want to know your performance in comparison of other teachers in the central

schools then check in which percentile your performance score falls in the table of percentiles (Table:1). Then, examine your own percentile and find out your grade in Table-2. The grade in which you are placed is the indicator of your performance as a CBSE school teacher.

For example, if your average score in 180, then see in Table : 1 it comes in 75<sup>th</sup> percentile. Now see in Table :2, 75<sup>th</sup> percentile places the teacher in Grade II, which means that, your performance as a CBSE school teacher is very good.

After knowing your performance, you can try to improve upon those aspects of your teaching where you have rated lower by your students. Next year again you can appraise your performance and

Table\_1: Percentiles and Scores Required

Sr. No.	Percentile	Scores Required
1	95	197.0
2	90	192.0
3	85	188.0
4	80	184.0
5	75	180.0
6	70	177.0
7	65	172.0
8	60	168.0
9	55	164.0
10	50	158.0
11	45	154.0
12	40	149.0
13	35	144.1
14	30	138.0
15	25	131.0
16	20	120.0





Table 2: Percentiles, Grades and Their Qualitative Interpretation

Sr. No.	Percentile	Grade	Category
l	90 and above	I	Excellent
2	70 and above	II	Very Good
3	50 and above	III	Good
4	30 and above	IV	Average
5	20 and above	V	Satisfactory
6	Less than 20	VI	Poor

know the improvement.

#### **Conclusion:**

The Kumar, Patel and Ramachary's School Teachers Performance Appraisal scale has been developed through a scientific research study by CASE. This rating scale can help the teachers in knowing their professional position at any given time as assessed by their own students. Norm based ready reckoner developed in this study offers due help for relative professional positioning of teacher s by their students. Such a rating scale when used judiciously can help the teachers to upgrade, update their professional competencies, assuring quality and ensuring respect. Further educational administrators, policy makers, managers may derive the benefit from this educational endeavor of CASE.



Teaching is the only major occupation of man for which we have not yet developed tools that make an average person capable of competence & peformance. In teaching we rely on "naturals" - the ones who some how know how to teach

- Peter Drucker





### Kaprekar Numbers

**Dr. K.P. Chamola** Asstt. Commissioner KVS (RO) Jaipur.

attatreya Ramachandra Kaprekar was born on 17th Jan., 1905 A.D. at Dahanu near Mumbai. He completed his school education from Thane and then joined Fergusson College in Poona; where he received the Wrangler R.P. Paranjape Mathematical Prize for his brilliant mathematical work. From the very early age itself he was introduced to the world of numbers by his father, who himself was an expert astrologer and had some fascination for the numbers and their beauty in different settings, patterns and arrangements. Later on, he completed his bachelor degree from University of Bombay and thereafter worked as a school teacher through out his period of service till his retirement from service in the year 1962. Kaprekar had deep affinity with numbers and investigated number of interesting and peculiar properties which developed his own recreational number theory. He also got published number of his papers in the topics related to recurring decimals, magic squares and integers. He analyzed various properties of numbers and on the basis of that analysis introduced different kind of numbers like Kaprekar numbers, Dattatreya numbers, Monkey numbers, Vijaya numbers, Harshad numbers, Gapful and multigapful numbers, Oscillating numbers, Self numbers, Function numbers, Palindromic numbers, Demlo numbers, Dissectible numbers etc. After his retirement from

> in recognizing the beauty of number and discovering different patterns, processes

and properties of numbers. His work got recognition worldwide when Martin Gardner incorporated some of his puzzles, patterns, games and other new findings in his book Mathematical games. Kaprekar was deeply entrenched in Indian culture and its heritage, and due to such strong influences only he named some of his specific type of numbers like Dattatreya Numbers, Vijay Number, Harshas numbers and so on. Kaprekar passed away in 1988 and till his last breath he remained engulfed in delineating number behaviour in mathematics. He was such a brilliant number maniac whose investigations one way or other stirred the imagination of all by seeing such a fascinating beauty of numbers, their movements, correspondences, interconnectedness and pantomimes. Some of his results are presented here to experience same enjoyment, though of varying degree as he had.

#### i) Kaprekar process

(a) Two digit number

Step 1: take any digit number say 96

Step 2: reverse the digit i.e. 69

Step 3 : subtract 96-69 = 27

Step 4: repeat the process as done at step 2.

72-27 = 45

54-45 = 09

90-09 = 81

81-18 = 63

63-36 = 27

72-27 = 45



$$54-45 = 09$$

This calculation gets repeated endlessly.

- (b) Three digit number
  - Step 1: take any three digit number says 167
  - Step 2: arrange its digits in ascending order And in descending order i.e. 167 and 761
  - Step 3: subtract smaller from the bigger i.e. 761 167 = 594
  - Step 4: repeat the same process as done at step 2

i.e. 
$$954 - 459 = 495$$
  
again,  $954 - 459 = 495$ 

the same number 495 gets repeated, due to such repeated occurrence of 495, this number is named as Kaprekar's constant for three digit number.

- C) Four digit number
- Take any four digit number say 4672
- Arrange digits in descending order i.e. 7642
- Arrange digits in ascending order i.e. 2567
- 7642 2467 = 5175 repeat the process again and get the difference
- $\bullet$  7551 1557 = 5894
- $\bullet$  9854 4589 = 5265
- $\bullet$  6552 2556 = 3996
- $\bullet$  9963 3699 = 6264
- $\bullet$  6642 2466 = 4176
- $\bullet$  7641 1467 = 6174

Here 6174 repeats, so for four digit numbers 6174 is considered as Kaprekar;s constant.

<u>ii) Kaprekar's Numbers</u>: to identify Kaprekar **KVS Quarterly Journal** 

number, take a number of p digits, square it, split squared value into two halves with right half containing p digits and left half containing p or p-1 digits, if both the halves together by adding give original number, then it is called Kaprekar number e.g.

- (a)  $55^2 = 3025$ , left half -> 30right half 25; 30 + 25 = 5555 is Kaprekar number
- (b)  $703^2 = 494209$ right half 209, left half 494 494 + 209 = 703703 is Kaprekar number.
- iii) Dattatreya Numbers: To identify Dattatreya numbers, take any natural number, take square of it, split squared value into block of digits, if in each block the value is gain square in itself, then given natural number is Dattatreya Number i.e.

$$13^2 = 169$$
, here  $16 = 4^2$ ,  $9 = 3^2$   
 $35^2 = 1225$ , here  $1 = 1^2$ ,  $225 = 15^2$ 

iv) Monkey Numbers: To identify these numbers, take a natural number, find squares/cubes etc. of that number, check whether the squared/cube value has a block of digits in the same manner as in given natural number, if yes, then given natural number is Monkey number e.g.

$$25^{2} = 6 \ \underline{25}$$

$$49^{3} = 1176 \ \underline{49}$$

$$49^{7} = 6782230728 \ \underline{49}$$

$$107^{4} = 131079 \ 601$$

These numbers are Monkey Numbers.





v) Vijaya Numbers: these numbers are identified by taking cubes of natural numbers. In cubes of some numbers it is seen that sum of the digits in cube remain equal to its corresponding roots e.g.

$$8^{3} = 512$$
  
or  $5 + 1 + 2 = 8$   
or  $(5+1+2)^{3} = 512$   
 $18^{3} = 58 \ 3 \ 2$   
 $5 + 8 + 3 + 2 = 18$   
or  $(5+8+3+2)^{3} = 5832$ 

In general it can be said that if (pqr = loop + 10q + r) is a three digit number and  $(pqr)^{n} = (p+q+r)^{n}$ , then pqr is a Vijaya Number.

vi) Harshad Numbers: These numbers are identified by the factors of given natural number. If a natural number is divisible by the sum of its digits, then it is called Harshad number e.g.

Let 72 be a number and 6 is digit multiplier then.  $2 \times 6 = 12$ ; 7 + 12 = 19.

$$6 \times 9 = 54 ; 54 + 1 = 55$$

$$6 \times 5 = 30 : 30 + 5 = 35$$

$$6 \times 5 = 30 ; 30 + 3 = 33$$

$$6 \times 3 = 18 ; 18 + 3 = 21$$

$$6 \times 1 = 6$$
;  $6 + 2 = 8$ 

$$6 \times 8 = 48 ; 48 + 0 = 48$$

$$6 \times 8 = 48 ; 48 + 4 = 52$$

$$6 \times 2 = 12 ; 12 + 5 = 17$$

then oscillating terms are 72, 19, 55, 35, 33, 21, 08, 48, 52, 17 ......

vii) Self Numbers: A number with no generator is called self number.

3 has no generator, so it is self number.

viii) Palindromic Numbers: as it is known that palindromes is English spell and sound same her from left to right or right to left e.g. DAD, MADAM. In the similar way, a palindromic number is a number of the form:

e.g. 11, 121, 1331, 14641, 549945 etc. are palindromic numbers.

numbers, it is said that on a day of the year 1923 Kaprekar was waiting for a local train at the Railway Station, Dombivilli, suddenly a peculiar type of number came to his mind which he named as demlo number. These demlo numbers consists of three blocks L, the left, R, the right and M, the middle where L + R = M, the digit or digits in M can repeat upto several times. In general, left and right blocks have equal number of digits, if we do not affix zero before the left block to equalize them. It is also observed that in some cases left and right parts remain absent e.g.

$$237754$$
; here  $23 + 54 = 77$ 

$$18333315$$
; here  $18 + 15 = 33$ 

$$7222215$$
; here  $07 + 15 = 22$ 

Kaprekar also established following



identities.

For the number 4204234125, the reverse is 5214324024

Kaprekar's identity for this number is

$$4^{3} + 20^{3} + 42^{3} + 41^{3} + 25^{3} = 5^{3} + 21^{2} + 43^{3} + 2^{3} + 40^{3} + 24^{3}$$
 similarly for higher powers,e.g. for a number,

4 50 45 6 41 55 6 41 55 6 41 55 6 52 47 6 52 47 6 52 47 8 43 57

the reversed number is

and Kaprekars identity for it is

$$4^{5} + 50^{5} + 45^{5} + 6^{5} + 41^{5} + 55^{5} + 6^{5} + 41^{5} + 55^{5} + 6^{5} + 41^{5} + 55^{5} + 6^{5} + 52^{5}$$

$$47^{5} + 6^{5} + 52^{5} + 47^{5} + 6^{5} + 52^{5} + 47^{5} + 8^{5} + 43^{5} + 57^{5}$$
 equal to  $7^{5} + 53^{5} + 48^{5} + 7^{5}$ 

$$42^{5} + 56^{5} + 7^{5} + 42^{5} + 56^{5} + 7^{5} + 42^{5} + 56^{5} + 5^{5} + 51^{5} + 46^{5} + 5^{5} + 51^{5} + 46^{5} + 5^{5} + 40^{5} + 56^{5}$$

Kaprekar's few more general identities for any for numbers p, q, r,s, which satisfy the condition pq = rs are

a) 
$$p + q + (r + s)^2 = r + s + (p+q)^2$$

b) 
$$p^2 + q^2 + (r + s)^2 = r^2 + s^2 + (p + q)^2$$

c) 
$$(q-p)^2 + (p+r+s)^2 + (q+r+s)^2$$
  
=  $(s-r)^2 + (r+p+q)^2 + (s+p+q)^2$ 

d) 
$$(q-p)^4 + (p+r+s)^4 + (q+r+s)^4$$
  
=  $(s-r)^4 + (r+p+q)^4 + (s+p+q)^4$ 

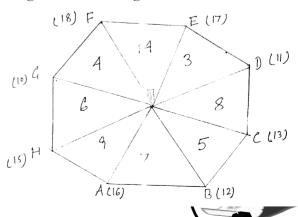
x) Amicable harshad Numbers : Kaprekar also found that there are certain pair of numbers which satisfy the conditions of both Harshad numbers and amicable numbes. Such numbers he named as Amicable Harshad Numbers e.g. 2620 and 2924 are Amicable Harshad numbers because 2620 is divisible by sum of its digits i.e. 2 + 6 + 2 + 1 = 10, and 2924 is also divisible by sum of its digits 2 + 9 + 10 and each of them remains equal to the sum of their divisor of other number, excluding the number itself.

Karprekar has designed number of magic figures like Magic squares. Magic Haxegons, Magic Octogons, Magic stars etc. We give below the Copernicus Magic square and a magic octagon for getting some knowledge about its.

Copernicus magic square : On 19.2.73 the 500<sup>th</sup> birthday anniversary of Copernicus was celebrated. Using 19,2,73 and 500 Kaprekar constructed a Magic square, where the sum is 594 and these numbers can be arranged in the magic square in 22 different ways:

19	2	73	500
501	72	5	16
3	18	499	74
71	502	17	4

Kaprekar constructed a magic octagon by taking consecutive digits from 3 to 18 for all





eight triangular cells and eight corners.

Kaprekar also made several conjectures related to numbers, some of them are given below:

- a) There can not be more than four primes occurring consecutively in digit addition series.
- b) An integer which ends in 00 and the sum of whose digits is 4, 15, 26 or 37 is a self number.

- (Later on this conjecture was found true for number less than  $10^{11}$ )
- c) If a number ends with zero, then the number itself and sum of the digits in its plus 9 will always be a self number (Later on it was found that if a number ends with two zero then this conjecture does not hold)
- d) The chain of numbers got by cross jumping with 45113 and increment 2 will begin to recur after 99999 steps.



# Mathematics is the only Science where one never knows what one is talking about nor whether what is said is true

- Bertrand Russell

For the things of this world cannot be made known without a knowledge of Mathematics

- Roger Bacon





## How to promote the skill of public speaking among the KV children

J.M. Rawat Assistant Commissioner KVS (RO), Dehradun

In order to lead a successful human life an individual needs various human skills. Public speaking is one of the most important human skills which satisfies the social needs and the need of self respect and esteem of an individual human being. It also improves his/her career, confidence and personal relations in his/her group.

The studies made on human behaviour confirm that 'Public Speaking' is among our greatest fears. It appears in the human brain not from a real assessment of risks but from our own feelings of insecurity while speaking in public. The fear of public speaking is one of the negative feelings which tries to protect us from harm of public humiliation. It lets us know if something is not well as it should be and pushes us to take decesive action to get out of the situation to avoid the harmful circumstances. It is n fact of a normal and natural fearful emotion of each individual human-being. Most of the fears among human beings are learnt through experiences and are not pre-programmed into the brain of human being and are vital to their survival. The fear of public speaking is also observed among the adult because they experience it during their school days but never tried to get rid of this fear during their childhood. In-fact speaking in public is a skill that can be developed through sincere and sustainable efforts specially during formal schooling. The role of teachers is very important in promoting the skill of public speaking among their students.

India has a democratic system based on egalitarian values. Every citizen has all opportunities to grow up-to fullest of his potential by acquiring knowledge skills and wisdom through education. The skill of public speaking plays a vital role in the growth and development of an individual in this system. The vision statement of KVS is - "KVS believes in imparting knowledge /values and develop to nurture system, talent, enthusiasm and creativity of its students for seeking excellence and innovation through high quality educational endeavours". Therefore it is very essential for Kendriya Vidyalaya to adopt all possible strategic plans for promoting the skill of public speaking among the students. The students in Kendriya Vidyalayas are given ample, opportunities to speak in public during morning assembly and during various in house and interhouse competitions through co-curricular activities throughout the academic system. Mass participation is the general policy of KVS to ensure that each individual student of Kendriya Vidyalaya gets the opportunity for the development of knowledge, skill and attitude in the field of his/ her choice. The competitions in debate, quiz elocution during Social Science and Science Exhibition at Cluster level, Regional level and National level and Youth parliament competition at various levels, brush up the skill of Public Speaking among the Kendriya Vidyalaya students. This skill can further be improved through definite programme at Primary, Secondary and Senior Secondary level and

implementation by the teachers wholeheartedly.

At Primary Level: The



children in the early year of schooling are eager to perform and imaginative in nature. The experiences in language is fun and meaningful for the children during formative years. The students at Primary level can acquire.

Confidence in the communication skill through structured experience. The following activities should be stressed upon by the teachers at Primary level.

- i) Each small kid should be given opportunity to read a paragraph aloud in front of all the remaining students from his/her text book. The teacher should also sit among the students (audience) to provide appropriate environment of Public Speaking. Let the child feel leading the group as a speaker.
- ii) Appreciate the child while performing before the small group a section of a class) and encourage to read in a better way from the book.
- iii) Recitation is the best way to form public speaking habit among small children. The process of memorizing and reciting the writing of established writers (specially written for children) ensure the learning of proper language structure.
- iv) Story telling is the first level independent speech for the students of primary classes. The story may also be the real experience of the child with his/her family members, friends or pets.
- v) The small children should be allowed to use their own language while speaking. There should be free and natural flow of expression.
  - vi) Ensure that each member of the audience is familiar and

- friendly to the speaker child. Small children need verbal and emotional support from the audience to perform well in the stage.
- 2 At middle and secondary level: The students after passing class V acquire sufficient vocabulary and maturity in thinking about Physical and social environment around them. They can now be educated for independent public speaking without using notes or handouts. The students at Secondary level should acquire confidence in speaking in front of whole strength of the Vidyalaya. The teachers can help the children in the following manner.
- (i) Tell the child that everyone in the audience wants him/her to succeed through a good speech. The nervousness is natural while our mind and body get ready to perform in front of a big crowd.
- (ii) The child should see at a distant spot while speaking from the stage. He/she should not concentrate on the face of some individual in the audience. The speaker should avoid to observe the activities of the persons in audience.
- (iii) The students can be encouraged o make practice of speaking in front of the mirror before actual performance. Winston Churchill to great orator used to make mirror practice for hours before speaking in public. Besides verbal expression, the children can improve their body language through mirror practice.
- (iv) The skill of public speaking can be continuously improved among the students by recording the speech of the child and make him to listen repeatedly and to improve by avoiding the filler words (such as I mean, you know etc.)



- (v) Group discussion inside the classroom is a good exercise to improve the language, gesture, motion of body parts and facial expression which play vital role while performing on the stage. The students learn very fast each other in their peer group.
- (vi) The teachers should nurture the confidence of the child through a planned strategy given below.
- (a) Positive Reinforcement: Appreciate the performance of the student on the stage. Support him/her by making him/her realized that failure is the ladder to success.
- (b) Providing Opportunity: In some of the school students are given a chance to speak in public. It is against the policy of mass participation and development of each individual through education. The education should fulfill the national goal of equity, parity, Social justices and excellence. Hence all the students should have the opportunity to deliver the speech in public.
- (c) Not lebelling the Child: One of the worst thing a teacher can do is to label a student as 'slow learner' or 'low performer'. The performance of a child can be improved by providing appropriate environment, proper guidance and motivation.
- (d) Give ear to his/her voice: Let the students know that you care for their verbal and nonverbal expressions. The students should not feel that their opinions and feelings are not valued by their teachers/ listen to him/her carefully and say that you are proud of him/her.
- **3. At Senior Secondary Level :** The Students at this level acquire firmness in their thoughts

- and expression. They are very sensitive to their ideals and philosophy. Many students of Senior Secondary standard can deliver outstanding speech in front of public. The students who hesitate to speak in public can be helped y the teachers to promote the skill of public speaking in the following manner:
- (i) Encourage the students to get rid of fear and anxieties. Let them feel that the audience is co-operative. They should focus their attention on the message and the audience only.
- (ii) The mirror practice is helpful at this stage also and even at a later stage to improve the verbal and non-verbal expression of an individual.
- (iii) Debates on different topics are the effective means to promote the public speaking among the students specially at senior secondary level.
- (iv) Inspire the students to learn the quotations and saying of the great speakers. It can make their speech effective and powerful. They should also study the communication style of great orators.
- (v) The students who have acquired good command and confidence in public speaking can be encouraged to integrate humor into their speech to make it effective and interesting.
- (vi) A programme of Youth leadership may be designed to enhance the communication skill and leadership qualities among senior secondary students in a supportive environment.
- (vii) The students of senior secondary classes should



make optimum use of the Vidyalaya library to enhance their knowledge on various topics of public speaking. They should collect reliable and relevant data to present their speech effectively.

Thus we can promote the skill of public speaking among the Kendriya Vidayalaya children at different level and ensure to produce knowledgeable youth leaders and thoughtful future citizens.



## Public speaking is the art of diluting a two minute idea with a two-hour Vocabulary

- John F. Kennedy

According to most studies, peoples number one fear is public speaking. Number two is death. This means to the average person, if you go to a funeral, you are better off in the casket than doing the Eulogy

- Jering Seinfeld





# Need Based teaching in the Kendriya Vidyalayas without the dilution of basic objectives. H.D. Assistant Co.

H.K. Sanhotra Assistant Commissioner KVS R.O. Mumbai

"It is on the sound education of the people that the security and destiny of every nation chiefly rests"

- Kossuth

ur nation represents a rich and varied history, extraordinarily complex cultural diversity and commitment to democratic values and general well-being. It is this spirit, the spirit of Indianess that reflects in the functioning of our Kendriya Vidyalayas.

As teachers in Kendriya Vidyalaya we have, therefore, a very challenging task set before us.

- An assigned curriculum to be completed within the given time frame and also prepare children to face formal board examination.
- 2. Meet the targets of the KVS for academic excellence by producing 100% results with quality.
- Keeping a balance to ensure smooth conduct of all acrivites as per the KVS calendar of activites.
- 4. Ensure the all round development of the students entrusted to our care ensuring that they become worthy citizens.

Our students face still greater challenges, due to which they are constantly under stress and strain. Factors contributing to this stress are;

- 1. Family atmosphere
- 2. Economic crisis

- 3. Casteism, favouritism & nepotism
- 4. Differences between haves & have nots
- 5. Wide gap between practice & preaching
- 6. Cut-throat competition in every sphere with lack of justice, fairness and objectivity due to corrupt practices.
- 7. Degradation of society (erosion of values)
- 8. Materialistic approach to life
- 9. More significantly, lack of guidance & counseling resulting in failure to make right choices (informed choices) many a time leading to dire consequences.
- 10. Self centered, narrow out look towards life, centered around earning a livelihood through any means.
- 11. Children are addicted to taking flight into a virtual world that takes them away from realities of life making them more robotic, ruthless and apathetic towards society which has resulted in a spate of violence. It is really painful to learn how this valuable human resource is wasted resulting in demolition of society and human values.

What we need today is a power force;

(i) Equipped

with



KVS Quarterly Journal



knowledge, skills & competencies and the right attitude.

- (ii) Empowered citizesn who are physically, mentally & socially healthy.
- (iii) Aware of one's duty & obligation to the family, society and the Nation at large.
- (iv) Possessing a balanced personality, well equipped to tackle life's challenges
- (v) Charged with life skills to ameliorate the suffering of the masses.

A person tall with virtues and wisdom will always stand above the rest, no matter where he is placed. Such a person would exhibit completely balanced mind set, peace and harmony within self and also likewise, successfully influence the environment.

#### Objectives of teaching:

Education thus needs to be a process of self discovery of learning the truth about oneself with a holistic approach to development.

- The objectives of teaching extend far beyond the subject matter being taught. It aims at developing well-integrated people who are capable of undertaking a responsible, independent and active role in society. Teaching objectives extend from intellectual abilities and cognition to psychomotor learning (learning practical skills) and affective learning (development of emotions, attitudes, morals & values).
- There is a need for creating vital links between the child's experiences at home and what the

to bring home the fact that a life of virtue is far superior to a life of vice & wickedness.

- Values & virtues should be an integral part of teaching /learning.
- Teaching must promote intercultural relationships so that children learn to tolerate and respect other religions & cultures.
- It must promote & nurture a wide range of skills & competencies that inculcate appreciation for nature.
- It must be free from the shackles of all kinds of exploitation & injustice eg. – poverty, gender discrimination, caste & communal bias. It should be a liberating process.
- It must encompass care, concern, creativity, seeking knowledge through laboratory pursuits or deductive reasoning aimed at seeking truth.
- It must take place in an aesthetically pleasing environment.
- It should foster the need to instill pride of our nation in every child.

## National Curriculum Frame work for schools 2005 recognizes – that;

- The child is a natural learner
- Knowledge should be the outcome of the child's own activity.
- Childhood is a period of growth and change.
- Curiosity, inventiveness, observing, constant querying, exploring and working things out themselves are the natural traits of children.
- Each new generation inherits the storehouse of culture and knowledge in society by integrating it into one's own web of activities and understanding.

Therefore, the stress is on child-centered



#### education. Pedagogy must

- Draw upon resources of creativity & exploration.
- Establish connections between apparently discrete events & things

In the light of the above, it is evident that the role of the teacher is very crucial. He/she has to be the embodiment of knowledge, skills and virtues to play the role effectively. Teaching in a conversational mode will develop self confidence & self awareness because while learning, discipline is an important part of education. Externally imposed discipline should merge into the orderliness that children perceive as an essential part of their well-being. The spirit of NCF is reducing the burden on the child making learning exciting. Teaching should emphasize on ways of acquiring knowledge rather than on conveying knowledge.

#### Implementation/Transaction

Keeping in view the basic objectives of teaching and the compelling needs, pedagogy demands effective planning of strategies to be adopted for teaching; where teacher competency comes into play. The following could be borne in mind.

- Evoke motivation for hard work and sincerity which are the basic tenets of character
- Through insightful teaching and learning situations of various kinds, bring home the importance of self discovery &self –learning.
- Relate teaching content to real life situations.
- Plan activities to ensure understanding of the basic concepts, comprehension, develop the ability of abstract thinking, reasoning ability, application & creativity (this could

include – experience, making & doing things, experimentation, reading, discussion, asking, listening, thinking and reflecting, expression-written, verbal or creative; enquiry; exploration; debates, creation of new ideas etc.

- Plan strategies keeping in view the potentials of the children
- Take learning beyond the classroom
- Stress on interactive learning, encouraging students to ask question.
- Adopt a holistic and integrated approach to learning
- Despite limitation of the system, devise innovative techniques
- Provide variety and challenge to ensure curiosity, enthusiasm and joyful learning experience.
- An inclusive environment should be created in the class room to cater to the needs of diverse groups of students including children with learning disabilities. Differences could be viewed as resources to support learning.
- Promote collaborative & participatory learning.
- Promote self expression and 'intelligent guessing'.
- Activities could enable teachers to give individualized attention.
- Plan effective remediation, keeping in view the learner's strengths and weaknesses.
- Inculcate in the students sense of time management.



 Teaching of life skills and adolescent education should be taken up by every teacher as & when the need arises, in fact it can be integrated into the very teaching/ learning process & not be taken up as a separate subject.

#### Instructional techniques:

#### I Teaching styles:

- i) Direct instruction
- ii) Indirect instruction
- iii) Discussion
- iv) Co-operative learning
- v) Self-directed instruction

#### II Teaching methods:

- i) Rote learning
- ii) Guided problem solving
- iii) Diagnostic teaching

#### III Teaching techniques:

- i) Lecture/discussions
- ii) Grouping
- iii) Tutoring
- iv) Games/simulations

- v) Instructional media
- vi) Computer assisted learning
- vii) Speaking listening (audio)media
- viii) Visual & Observational media
- ix) Reading- writing media

### To carry out this magnificent task, the teachers should be

- A wonderful human being
- A good and effective communicator
- A great motivator
- A role model
- Replete with currency of knowledge
- Able to take learning beyond the classroom
- Able to develop self esteem among the students
- Able to encourage enterprise among the students
- A good counselor
- Replete with a sense of empathy

Let us fulfill our duty to give the blessings of his healthy orientation both for their heads and for their hearts.



## Teaching is useless, unless you can learn from your students

- Martin Dansky





### Whole Class Teaching

**E.T. Arasu** Education Officer KVS. R.O. Hyderabad

#### Introduction:

Teachers often resort to whole class teaching as a teaching strategy. This is done owing to various reasons. When the teacher confronts a big class size with 60 or 70 students, it is not possible to follow small group instruction or pair group work or individualized instructional strategies. The strategies other than whole class teaching may require change of seating arrangement, more classroom space, and above all more of teacher preparation in terms of worksheets, hand out, instructions to students to carry out their work in a systematic manner etc. These reasons shy them away from selecting the teaching methodology other than whole class teaching.

#### The lecture method:

Whole class teaching is generally done by following the lecture method. It is the easier of all the teaching methods. The number of students running into 70 or 80 or more is no deterrent to this method of teaching. The teacher is to have the simple requirement of a passive audience. If that is taken care of, he can go on and on with his discourse. Teacher preparation is minimal here. He has to have the ability of presenting the textual material in a sequential order. Students' listening to the lecture is not ensured here. Yet, if there is no hindrance from the students' side in the form of shouting, catcalling etc., the teacher can go on with his business and at the end of the period leave the classroom with the feeling of having completed his mission. Lectures are one sided. There is no guarantee that the students are with the teacher

when he lecture is on. There is also no guarantee that the students listen to what the teacher teaches. There is no compulsion on their part to take down notes. They need to simply keep quiet and 'facilitate' the teacher having a go at his discourse.

#### The purpose of teaching:

Teaching is a goal directed activity. Therefore it is imperative that the efforts of teachers bear fruit, whatever is the teaching methodology. The students sitting in the classes need to learn the subject matter taught, acquire skills, and change their attitude towards the positive. The human recourse hours spent in classes, the appointment of teachers, the payment of salary to them, the establishment cost of school/college and the entire purpose of running the system are for the whole and sole purpose of making students learn. If that is not taking place there's no point in having any methodology of teaching. In view of this, modification of lecture method to suit the requirement of teaching-learning situation is a must. Let us see the methodologies available, which would benefit the entire class.

#### The modified form of lectures:

The modified form of lectures are illustrated lectures, lecture-cum-demonstration, lecture-cum-buzz sessions, lecture interposed with questions, seminar, and symposium, panel discussion, team teaching, project approach and workshops. There is an erroneous notion that only science subjects require variety in

teaching where as teaching humanities can be best carried out by using lecture method.



In fact the very nature of science makes it interesting learning. This can't be said of all humanities subjects. Presenting that subject matter in an interesting format, and in an easy to take in format is the responsibility of the teacher. Therefore, teacher need to know the procedures involved in the modified methodologies of teaching using lecture method.

#### Illustrated lectures:

This type of lecture involves the use of illustrations which are projected using OHP, or LCD projector, of film projector. Besides transparencies, CDs/floppies, and films, filmstrips, maps, charts, slides, BB drawn diagrams can also be used. Teacher resorting to this teaching strategy be careful about the material they use in the classroom. If it is a teacher-made material, he should know exactly the time and purpose of introducing the material and the learning outcomes associated with it. If the material is a ready-made one, before using it in the class the teacher should go through it and understand the use of it properly.

#### Lecture -cum-demonstration:

This teaching strategy can be used profitably where students need to understand and acquire certain skills. This can be done either by staging live demonstration (for example speaking skills, delivery of dialogue, role plays etc.) Where observation of working of a machine, observation of a skill, functioning of a system are involved this method can be used. Here too the teacher should have a thorough practice in doing the demonstration effectively.

#### Lecture-cum-buzz sessions:



This involves a combination of lecture and buzz sessions. Usually, lecture

is followed by buzz sessions among small groups on a particular aspect of the lecture or a problem. The leaders of small groups will report back to the entire class which may be followed by rounding up by the teacher himself.

#### Lecture interposed with questions:

The formal lecture can be modified by the introduction of teacher's and student's questions in order to test the learning that has taken place. Questioning is an art and every teacher should learn the skill of questioning. In a formula lecture, the teacher is the master of the situation and it is his responsibility to pose questions with specific purposes during the lecture. The questions are so framed that students not only answer the questions but also raise questions. The teacher, during the preparatory stage of the lecture, should give some thought to the questions he is going to rise during the lecture. These must be planned well in advance and correctly employed. There could be several purposes for which questions are asked. Teacher's questions could motivate students and stimulate the thought process. They could clarify and expand concept and give specific direction to thinking. Assessment of the student's progress at different stages of the lecture can be made by means of responses to questions so the teacher could judge whether he is moving towards the specific objectives of the lesson. Responses to teacher's questions and students' questions enable the teacher to reiterate difficult portion, recall, and drill certain material and change the style of lecturing where needed. Student's questions generally give a good feedback on the teaching performance.

#### Seminar:

Seminar is a structured group discussion that may precede or follow a formal lecture, in the form of an essay or paper presentation. This method

KVS Quarterly Journal



can be used when the students are willing for presenting the topic on hand as a research paper with a view o having an in depth discussion following the presentation. The major advantage of the seminar as a mode of instruction is its stimulation and testing of student's power of comprehension and evaluation.

#### Symposium:

Symposium is a discussion by different specialists or speakers on the same topic, emphasizing or dealing with different aspects of the same topic. Selected speakers present prepared speeches. Generally the chairperson and the speakers discuss the various aspects of a theme before the symposium and allot to each one a particular aspect so that each speaker limits his presentation to that aspect or area. The chairperson co-ordinates the in different speakers' presentation. The total number of speakers might not exceed five excluding the chairperson. The audience very seldom participate and the speakers anticipate possible questions and doubts to be cleared and incorporate these in their presentation. It is in this aspect that a symposium differs mainly from a panel discussion or a seminar. However, the tendency among the educators and India is to use the terms symposium and seminar synonymously.

#### Panel discussion:

A panel discussion is yet another method of instruction where by two or more speakers discuss various aspects of a single topic and present it to a group of students or teachers. A panel raises issues, provides facts, and stimulates interest in the selected topic . The panel members interact with each other with a good deal of spontaneity. They anticipate the questions that may arise from the audience and include these in an informal manner in their discussions. In formal panel discussions,

the audience do not interact with the panelists unless a separate time is allotted for an interaction and exchange of ideas between the panel members and the audience.

In order to arrange a panel discussion, a small group of students is identified by the teacher to serve on the panel. One of them can act as a chairperson to monitor the discussions. A selected topic is viewed in parts for distribution among the panelists. The teacher assigns responsibilities to the members according to their ability so that they could do the reference work and get a clear understanding of the aspect of the topic allotted to them. A time schedule is drawn up for the collection of material and preparing for the panel, in discussion with the class teacher. When the panel is ready to hold discussions, the chairperson can follow one on two different approaches to conduct the panel. He may give a brief introduction to the topic to be discussed and introduce each of the panel members and the sub-topic that they will be discussing, giving about five to seven minutes to each member. The chairperson or the moderator them summarizes the discussions and closes the panel discussion. However in college class situation, he can call for questions and ask the members as per their interest, to answer the questions or he himself can answer some of them. Another approach is for the chairperson to explain the topic briefly and introduce each panel member and indicate his or her special areas of interest. The, he could call for questions from the class and discussion on these can be carried out by the panel members. In these approaches, the chairperson



allotted for the final summation. The teacher is behind the scene, motivating, encouraging, preparing and guiding the panel member and other students to make this approach useful and profitable to them. Being a group activity in which the students are directly involved, panel discussion enables them to study deeply an area of interest.

#### Team teaching:

Warwick defines team teaching as 'a form of organization in which individual teachers decide to pool resources, interests, and expertise in order to devise and implement a scheme of work suitable to the needs of their students and the facilities of instruction'. In this strategy, a team of teachers take part in activities such as a co-operative planning, interchange of teachers, combined meeting for lectures, film shows, projects and other joint ventures for reinforcement of instruction. In team teaching ,instructional methods may be of three types, namely, teaching large groups, teaching small groups, and independence study. Team teaching is much more than a pattern of organization in terms of making efficient use of staff, space, and equipment. It is a learning process designed to develop more competent and efficient teachers, revitalize the curriculum and individualize instruction. Further, the attitude, understandings and working relationships that exist among the members of the team is very significant for the success of team teaching.

#### Project work:

Project work as a teaching strategy involves helping students take up assigned work in order to complete the

same with the help of their teacher. It is an extended learning activity assigned with a view to helping pupil gain a measure of confidence in self learning. Good, 1973 defines a project as 'a significant, practical unit of activity having educational value and aimed at one or more definite goals of understanding, involves investigation and solution of problems and frequently the use and manipulation of physical materials, planned and carried to completion by pupils and teachers in a natural 'real-life' manner'.

#### Workshop:

Educational workshop is a get-together for some creative educational activity. While discussion demands much talk, work shop is a shop for work, where work is done and it is not a shop-talk. It is an activity oriented technique. The group consisting of teachers and students may initiate the workshop in a general session and frame guidelines for the conduct of the workshop. Then, the group breaks into smaller groups and meets for longer time to work on a specified task or particular theme guided by an expert or resource person in that field.

#### **Conclusion:**

The above strategies of whole class teaching can be used profitably if the teacher knows the process involved in them. Also, he should select the strategy suitable to his tasks, and purposes. A good deal of planning is required if the teaching objectives are to be realized using any of the strategies mentioned above.





# Mobile teacher Empowerment team approach

**Dr. V.K. Agrawal** Education Officer, KVS (Hqrs). New Delhi

The KVS has a large band of teachers to take care of about one million children studying in 980 Kendriya Vidyalayas located throughout the country and 03 abroad. The teachers come from a varied socio-economic and cultural profile. They also differ in terms of their qualifications and experiences and naturally have differential capabilities. Fresh teachers are also added every year through a process of written test and personal interview. Some of them are vibrant, result oriented and have flair for innovation and excellence. Others are slow, conventional, demotivated, and routine oriented without, rather opposed to novelty and change.

KVS as its commitment, strives for excellence in school education competence, commitment, and performance of the practicing teachers is crucial in its efforts to achieve excellence. The KVS has a system of 21 –day in- service education and training programme for every teacher in a cycle of six years, which may turnout to be 12 years in some cases. A teacher who attended a course in the year 2000 may avoid attending another course till the year 2011 while fulfilling mandatory requirement of one course in a cycle of six years and can also claim to be eligible for senior scale/ selection scale.

In-service education should be an integral part of the teacher education process. It is therefore essential that in-services courses are arranged on regular basis for all categories of teachers rather for all educational personnel. The procedure however, should be as flexible as possible and adaptable to teacher's individual needs and requirements. In order to make in-service education more effective and to reach in the remote areas extensive use of radio, TV and correspondence courses is recommended by the specialists. The methods, however, so recommended have limitations of being general in nature. They hardly cater to the specific needs and requirements of individual teachers. Long and short courses, seminars, workshops etc. also suffer from similar deficiencies. Organisation of these courses is often offsite and is devoid of actual classroom situations.

Feminization of teaching profession also posing problems in organization of regular inservice courses, particularly during breaks and/or vacations. Women employees in general have less free time than men. It has been pointed out that attendance of women employees at in-service education programmes is lower then there overall proportion in the teaching population.

It is also being voiced that workload of teachers (both male and female) has been increasing and that their in-service education is being carried out at the cost of their leisure time, when by its nature it should be a

professional matter. As a result only a minority of teachers



show a high and permanent interest in in-service programmes; the majority show no spontaneous interest.

It is therefore, necessary to search alternative form of in-service education to sustain the interest of the teachers.

Comparisons of teachers' interest in different forms of in-service education showed that they had a significant preference for programmes oriented directly towards everyday educational activity, practical exercises and demonstrations in actual classrooms. Interest of teachers increases if they expect that the courses would lessen their burden and improve their actual classroom practices. Motivated teachers are their own educators. In course of teaching practice the teachers acquire educational experiences which they analyse and generalize, often unknowingly, to improve their pedagogical procedures. Inservice education should strengthen the tendency or self-analysis for continual refinement. The essence of in-service education of the teachers is their own education and everything else is to assist teachers in their self education.

Teachers are continually confronted with all kinds of changes in education system. It is therefore, not possible to restrict the in-service education of teachers simply to updating their knowledge. The in-service education should have three components- the general component, the subject component and the pedagogical

theoretical and practical aspects. The basic content of the in-service education, thus,

conforms to the structure of their initial training, though in varying degrees. The structure of off-site in-service courses lay heavy emphasis on second component i.e. subject matter and also to some extent on first i.e. general component. The third and most crucial is totally ignored because such courses are generally organized away from school settings during breaks and vocations when students are not available for teaching practice. It is neither possible nor desirable to depute teachers for in-service programmes during working days at the cost of studies of the students. The financial aspect of deputing large number of teachers from one place to another also calls for serious consideration.

It is therefore, essential to devise in-service programmes which are sensitive to the emerging demands of the teachers particularly the programmes having direct impact on teachers' classroom practices. The NCF – 05 has rightly observed that 'in-service training, in particular, must be situated within the context of classroom experiences of teachers'. It further states 'In order that teaching time is not unduly affected, and teacher trainees are able to make link between theory and practice, the mandatory days for training could be split up over the course of year to include on-site work in their own classroom as well'.

The KVS has recently divided the mandatory 21-day in-service training for teachers into four parts of 12-days and three programmes of 03 days each. The 12-day programme would normally be organized at one of the Zonal Training Institutes and the other three programmes at school level



for the teachers of the school or for the teachers of a cluster of schools under the supervision/directorship of Principal of the venue concerned. It is also presumed that the 12-day programme would be theoretical in nature and the school level programme would be practical in nature. The scheme has been formulated on the premise that all the Principals are equipped enough to direct the courses in different subjects and are well versed with the latest pedagogical development.

In-service education of teachers is a specialized, dynamic and never-ending process. It is so dynamic in its context that it requires a continuous flow of new ideas, knowledge and methods. The teachers expect 'authentic' and relevant information on problems with which they are, or will be confronted in their everyday teaching work. The Principals' capabilities and skills in their roles as directors of in-service courses, are limiting factors of the whole scheme in vogue. The demands already placed on them are very great and require extraordinary exertion.

It would therefore, be advisable to relieve the Principals of the jobs of organizing in-service programmes and to build teams of experienced and successful teacher facilitators to take care of onsite teacher empowerment. Under the proposed scheme the team members will attend teachers onsite for assessing and improving their actual classroom performance in real school environment. This would enable the teachers to discuss with facilitators their contextual academic problems and to workout viable solutions. The scheme will have following strengths:

- 1. Facilitators/experts at the door steps of the schools.
- 2. Face to face interaction between the teachers and the experts.
- 3. Likely to be cost effective.
- 4. Individual need based interventions to each teacher.
- 5. Actual classroom situations.
- 6. Viable unique solution to problems in the given situations.
- It will help teachers gain confidence by engaging them with their practices and reaffirming their experiences.
- 8. No loss of studies of the children as the teachers would not be dislodged from their working places.
- 9. Follow up at the local level by the immediate supervisors.
- 10. Teachers will not be deprived of their leisure time.
- 11. It will promote a training culture in the schools.
- 12. It would stimulate sustainable interest among teachers.
- 13. This could serve as feedback for teacher educators for strengthening training programmes.
- 14. Can help documenting best classroom practices.
- 15. Can help building positive attitude of the teachers.
- 16. It will supplement the 12-day in-service courses.



# The proposed scheme of teacher empowerment will consist of two components:

- 1. Self-instructional material on identified teacher needs and desired competencies.
- 2. Face to face interaction with teacher facilitators at the work place of the teachers (Kendriya Vidyalayas).

#### Tasks involved in launching the scheme:

- 1. Identification of teacher facilitators for the mobile team and their training
- 2. Preparation of self-instructional material based on identified needs and competencies.
  - 3. Preparation of time schedule for each task.
  - 4. Implementation of the scheme.
  - 5. Evaluation of the scheme.

To begin with the scheme/approach could be initiated for Primary Teachers serving Kendriya Vidyalayas. The detail tasks would be as under:

Task –I : Preparation of blue print for Mobile

Teacher Empowerment Team

Approach and sharing with the regional Offices.

**Task–II**: Identification of professional competencies and general needs of the primary teachers in collaboration with NCERT/NCTE/DIETs

**Task-III**: Preparation of self-instructional material on the identified needs in the light of

National Curriculum Framework – 2005 in the following areas:

- 1. Teaching of languages
- 2. Teaching of Mathematics
- 3. Teaching of Environmental studies
- 4. Continuous and Comprehensive Evaluation tools and techniques.
- 5. Classroom Management
- 6. Action Research
- 7. Teacher support material and Instructional Technology
- 8. Community Resources its relevance to teaching

(Some modules are already available with NCERT and may need to be revised to conform to the constructivist approach of teaching as recommended by the NCF – 05)

- **Task IV**: Identification of Teacher facilitatorsteam consisting of 05 facilitators, on each for
  - i. Teaching of languages
  - ii. Teaching of Mathematics and teaching of Environmental studies
  - iii. Evaluation
  - iv. Classroom management and instructional technology
  - v. Action research and community resources

#### **Composition:**

- Chief Co-ordinator –Director ZIET (for the region concerned)
- 2. Co-ordinator Education Officer
- 3. Convenor Principal

KVS Quarterly Journal



4. Facilitators (05) – Vice-Principals

**Task –V**: Training of the teacher facilitators – in-collaboration with the NCERT/RIEs

**Task – VI**: Preparation of programme schedule

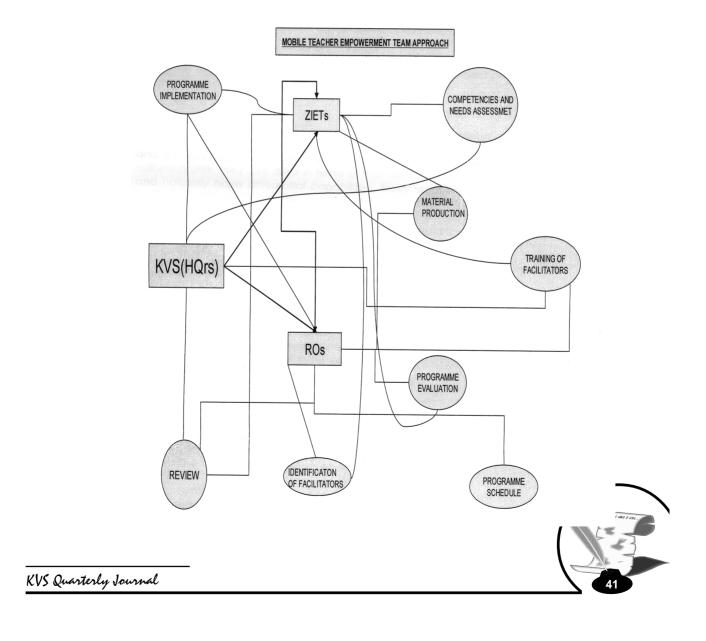
**Task – VII:** Actual onsite implementation

**Task – VIII:** Evaluation of the scheme (Through feedbacks from the teachers, Principals/HMs)

Task - IX: Periodical reviews

#### RISKS:

- 1. The mobile team members should be meritorious and enthusiastic otherwise the experience may be boring.
- 2. The self-instructional material should be properly prepared otherwise the teachers may not show the desired interest.





### Supplementary Practices

**Mr. M.P. Mahajan** Education Officer KVS (RO) , Jaipur

ach Vidyalaya normally concentrates on the following activities.

- Curriculum content
- Classroom- Environment
- Teaching learning process methods and strategies used.
- Resources used/unused.
- Assessment and evaluation of the programme.

To supplement above activities, every school needs few innovative techniques. The basic purpose of any innovative practice is to enhance the capabilities of teachers and students and to achieve the desired pre-determined objectives. Following practices are suggested to be under taken to supplement the normal teaching learning process in a Vidyalaya.

- a) Revision with quizzing
- b) Presentation system
- c) Arrangement periods by Bright students.
- d) Question Banks
- e) Introduction of Mathematical garden.
- **a) Revision with quizzing :-** Every subject can be revised by quiz techniques. Class is divided into groups. Section-wise quiz can also be organized.
  - Organize the revision quiz on the school stage /Class.
  - To give it serious touch, the setting should look like Inter house quiz.

- The subject teacher/A bright child may act as quiz master.
- One day may be devoted to one subject.
- This practice is best suited for Class X & XII revision before Pre-boards. This technique was successfully experimented in KV Sector 47 Chandigarh.
- This technique brings in confidence among students before final examination.
- **b) Presentation System :-** This practice can be introduced effectively for revision purpose.
  - Divide the class/section in groups of three students each group.
  - Whole syllabus of each subject to be divided in to sub units (equal to number of groups)
  - Each sub unit may be allotted to each group for preparation to present the same in the class.
  - On allotted day, the group will present the topic in front of whole class for 20 minutes and the remaining time of the period will be devoted to discussion through questionanswering.
  - This will revise the whole syllabus of every subject within few days only.
  - The subject teacher will act as facilitator and evaluator.
  - Students get the sense of confidence and leadership.



- c) Arrangement period by Bright Students:
  - This practice can be used to arrange the periods for teachers on leave. Bright students can be asked to revise the important topic/concepts in presence of arrangement teachers in the class. This will create the sense of leadership, confidence and recognition among the bright students.
- d) Preparation of Question Bank: Subject teachers are asked to prepare question banks in their respective subjects for each class with answering keys. If possible, separate sets for bright students, low achievers and for commoners may be prepared. Question Bank sets may be distributed among students for revising the syllabus. For classes X and XII, Question Bank is prepared as per the board examination requirements (Multiple choice, V. short, Short and long answer question). This practice is best suited to last leg

- preparation of students before final examination/session ending exams.
- e) Introduction of Mathematical garden:
  This technique is taken as teaching aid for teaching mathematical concepts specifically in primary section. Any corner in a Vidyalaya can be developed as mathematical garden. This will include all kinds of figures, shapes, formulas. It can have beautiful plants/trees alongwith mathematical figures in between.

This concept has been successfully introduced in Vidyalayas of Chandigarh Region. However the garden is not taken as replacement of mathematics lab or room.

The above mentioned innovative techniques and practices nay be tried to better the teaching – learning process in any Vidyalaya. If taken and introduced seriously these can work as supplements to normal teaching in classes.

\* \* \* \*

One Mark of a great Educator is the ability to lead students out to new places where even the Educator has never been

- Thomas Groome





# The Art of Questioning in the Pedagogy of Science to Inculcate Proper Scientific Temper

**J.S. Murthy** Education Officer

KVS, RO, Bhubaneswar

'Socrates taught his disciples nothing. But they learnt every thing from him only". It was possible because Socrates used to put apt and suitable counter questions to answer the questions of his disciples. These counter questions stormed the brain of the students, generated the ripples of thinking and they were left with no other option except to come out with correct answer.

#### Preamble:

The Pedagogical approaches for making better learning by the students have been changing continuously right from the primitive idealistic society where teacher centered education prevailed, to the present pragmatic society where education is student centred and activity oriented. Modern educationists of the opinion that self experience and self expression of the student provided by well planned activities are the chief characteristic features of good teaching. A good teacher is one who involves the students in the learning activity setting their brain in the thinking process, enabling them to interact with the situation and arrive at self found conclusions. Apart from use of hardware- apparatus, equipment, charts, slides, models, audio & visual CDs, there should be adequate verbal communication between the teacher and the taught for effective learning. The verbal transmission is to be properly articulated and put in a cogent manner to set the brain of the students in the active participation.



# Meaning of Scientific Temper and its role

The spirit of teaching

science does not lie in only passing information, telling rudiments, facts, theories etc., but making the students to imbibe scientific temper. What one understands by scientific temper is to make the child explorative, innovative, inventive and experimentative. In fact these are the essential qualities required to become a good scientist.

When a student acquires scientific temper he becomes more rational and inquisitive. His analytical power gets sharpened. He adopts systematic work. His power of cogent reasoning and arguing increases. He will have better clarity and perception. He gets sound ability to collect facts and data. He absolves himself from the strong clutches of superstitions. He will be acquainted with the recent and modern methods of experimentation. He acquires mastery in his subject. He will exhibit accurate skills. He will forecast the future scientific happenings. The child becomes more and more activity oriented.

What, Why and how – Three magic words in the pedagogy of science to develop scientific temper:

In fact the mankind owes a lot to the three magic words for the magnificent scientific and

KVS Quarterly Journal



technological progress achieved with them. They are What, Why and How. Man's innovation and exploration of nature began when he started putting the questions What, Why and How? Our civilization took stride right from the moment when the cave man in the distant past put the first question 'How to kill the animals easily to satisfy the appetite?" From then onwards his struggle to understand nature and amass knowledge is nothing but his endeavor to find solutions to the questions 'Why should it happen? How can it function? What is this new thing?" It is not out of place to mention that the question 'Why is the apple falling down"! Put by Newton to himself was responsible for the discovery of the great theory of gravitation. Sir CV Raman would not have got Noble prize if he had not put the question "What is responsible for the blue colour of the sea". Therefore, it is needless to stress that a student does not acquire scientific temper unless he is trained to use the magic words Why, What and How in the study of science. Our pedagogical approaches in the teaching of science should be designed in this direction.

#### Role of Questioning in the Pedagogy:

No amount of words will be adequate to completely depict the importance of well framed questions in the class room teaching particularly in the subject science.

- 1. They relieve the students from the brunt and boredom of passive explanation by the teacher making the teaching one side flow of knowledge. Student's rapt attention can be drawn only when he is put a question. When the student's brain is not tickled, he either drowns fast into yawing slumber or engages himself in destructive and unwanted activities.
- They involve the students in reflexive thinking and active participation. They sharpen the

mental faculties dormant in the child. The student becomes innovative by imbibing qualities like keen observation of phenomenon, cogent analysis of facts, sound perception of concepts etc. They develop scientific temper and motivate the students to quest.

- 3. They help as a handy evaluation tool to gauge the scholastic achievement of the child and to give immediate remedial help to further reinforce the concepts.
- 4. They make the students to acquire knowledge by themselves. This knowledge as it has been gained by self efforts, will be indelible, everlasting and hence can be easily recapitulated in future whenever required.

# Practical Hints in Questioning in the teaching process:

- 1. "Yes or No" type questions are to avoided as they give the students a chance to guess and toss. As there are two distracters either 'Yes or No" the chance factor raises to 50%. Instead of asking 'Is the sun a star or not?" one can ask "What type of astronomical object is the sun?".
- 2. Question should not be ambiguous and confusing. If a teacher asks 'What is the most useful part of a plant?" the students linger in confusion and indecision, as in each individual plant, its important part differs sometimes the answer given by the students confuses the teacher also.
- 3. Questions should be direct, simple and without verbosity. Sometimes, teachers in order to exhibit verbal exuberance and display pedantry in knowledge puts questions couched in



intricate words and long chained sentences. It is unwise to ask a question like "what best omnibus definition do you give depicting all the characteristics of wave motion?" instead of putting in simple language like "what are the characteristics of wave motion?". The question should be put in such a way that the student can easily comprehend its meaning.

- 4. Questions should not be that leading. They should neither suggest nor carry with them any answer. An inexperienced teacher will ask a question like "The biggest planet in the Solar system starts with letter J. What is it?" In this situation one can wisely ask "What is the biggest planet in the solar system?".
- 5. Questions should be framed in interrogative form but not in assertive form. If a teacher asks 'There are 07 colours in the solar light they are?" the student will be definitely caught in dilemma whether the teacher is asking a question or making a statement. The correct way of asking is "What are the seven colour in the solar light?".
- 6. Question should be asked with proper modulation of voice. It should be heard like a question.
- 7. Question should elicit the desired answer. In one situation, the teacher drew a triangle on the black board and tapping on the figure on

- the black board, he asked 'What is this?" expecting that the student would answer 'triangle". But a funny and unexpected answer came out "black board". The teacher would have asked "What do you call the figure I drew on the black board".
- 8. Questions not related to the context should not be asked as it amounts to wastage of time.
- The questions should be framed in such a way that its expected answer should not exceed 3 to 4 sentences.
- 10. A lengthy question may be divided into small questions and each student be put one small question. This will encourage larger involvement. Also the burden of giving long answer would not rest on a single student.

#### An Illustration

For giving practical example, a picture of the model demonstration class taken by the author for class VII students using the above cited techniques is given hereunder:

The competency developed in the students is to formulate the Archimedes principle by the students themselves.

In the previous session, the students were trained to use the spring balance, the electronic weighing machine to find out the weights of various objects.



The test of a good teacher is not how many questions he can ask his pupils, but how many questions he inspires

them to ask

- Alice Wellington Rollins



Teacher activity (only asking question)	Student expected behaviour (interacting replying)
1. (Showing the spring balance) What is the name of the instrument I am showing to you?	Spring balance
2. Do you know how to use the spring balance	Yes
to find the weight of the objects?	
3. (Attaching a stone to the spring balance) What is the object attached to the spring balance?	Stone
4. (Involving the students) What is the weight of the stone?	The student finds
5. (Showing the Eureka can to the students) Do you know the name of the object?	No
6. (Writes 'EUREKA CAN' on the black boards) read the word, it is the name of the object.	Reads loudly. If the student goes wrong, the teacher corrects the pronunciation
7. Can you describe its shape?	Cylindrical. (If the students do not come out with correct answer, alternatives with correct answer may be suggested. Giving correct answer at the end).
8. Is it hollow or solid?	Hollow
9. What is its peculiarity? Is it like any other can?	It has got a side tube at its top.
10. (Taking an empty beaker in to his hand) What is the name of this object?	Beaker
11. Find out its weight with the electronic balance?	Students find out its weight
12. (Filling the can up to the brim., after water over flowing, adjusting the beaker at the end of the side tube, dips the stone attached to the spring balance into the water of the can) What is the reading in the spring balance?	The students find out
13. When the stone is dipped is any water over flowing into the beaker?	Yes



14. What is happening to the weight of the stone when it is dipped in water?					Weight decreases	
15. How much of weight decreases? or what is the loss of weight?						Weight of the stone in the air minus weight of the stone in the water.
16. Find out the weight of the beaker with the over flowing water/displaced?						The students find
17. What is the weight of the over flowing/displaced water?					The students find	
18. Draws the following table on the black board and fills the columns with data by the help of the students.						
Weight of the stone in air	Weight of the stone in water	Loss of weight of the stone in the water	Weight of the empty beaker	Weight of the beaker and displaced water	Weight of the displaced water alone	
A	В	С	D	Е	F	
						They are equal.
What is the relation between the column C and F?						
19. This is Archimedes principle. Please describe in words						When an object is immersed in water of the body in water is equal to weight of the displaced water.
20. States that this law is true with any body and with any liquid.						

#### **Conclusion:**

It is seen from the above that the teacher did not teach the concept of Archimedes Principle directly but the students were made to formulate the concept. The teacher's role is confined to the background, only asking questions. This method

thoroughly satisfies the activity method of learning, student

involvement and creating scientific temper in the students as they are able to observe, interpret, experiment, formulate etc.

If, inculcating scientific temper is the main aim of teaching the subject science, proper questioning by the teacher with activities will guide the students as beacon light for acquiring scientific temper.





# Development of Spoken English Proficiency in the teachers

P.R.L.Gupta Assistant Commissioner, KVS Lucknow

**Case 1:** A teacher started the lesson with full enthusiasm, students grasping the content and everything seemed fine. When the teacher announced that every student should bring a chart on the topic that is just completed, the whole class burst into laughter.

'Chart' was pronounced as 'shirt' by the teacher due to mother tongue influence(MTI)

Case 2: A teacher has asked if anybody has 'atlas', in a primary class. One student said that there is one at home, but used by dad always. On inquired further, it turned out to be 'atlas' bicycle. Funny. The teacher intended something, student understood something else.

Case 3: A parent has come to the Principal of a school for shifting the child from one section to another section because the teachers in the section are not using English at all even in the subjects where medium is compulsorily English

The days of emphasis on employability in the youth are here to stay. With rapid globalization of products and services, the needs of education have also seen rapid changes. The job openings due to BPO or call centers have spread to even to non-metros and further to smaller cities. The demand for foreign language skilled personnel is growing at a rapid pace. When the consumer is the King, school education can't escape from it.

For the sake of quality education, parents are enhancing their affordability towards the cost of educating their child. It is not just the knowledge bank in the brain that matters, but the expression, delivery also play a very vital role. Our teachers in the schools are no doubt knowledgeable, qualified. But then why the children are dissatisfied with some teachers? Why do some teachers fall short of expectations of the system? It is the lack of awareness that they need to know more in terms of skills in the class-room situation. The roles played by verbal and non-verbal means of communication have to be exposed to our teachers. Now when English is recognized as 'International Link Language', English speaking ability is seen as a pre-requisite for many lucrative jobs. No doubt, around 80% of all the publications are written in a language which is spoken by hardly around 10% of the world population. If we want to keep KVS above the rest in school education, two areas need immediate attention. They are:

# Spoken English Ability Communication Skills Distorted perception about KVS:

Even though KV has provision for teaching in both media like Maths and Science taught in English and Social to some extent in Hindi, the general perception about KV



is 'Hindi school' in many places. Coupled to this is the fact that many teachers and even principals tend to use Hindi in their daily use leaving less scope for general English ambience in the schools. Moreover, KVs had not readied themselves for the dynamic changes that have taken place in the society. The idea behind this article is not identification of pitfalls but to introspect ourselves and possible measures to correct.

#### A Look at the Background of the teachers in

**KVs**: More than 90% of our teachers barring Hindi teachers are technically competent to handle in both languages. They have English in most cases upto secondary level or even Graduation level. If basic skills of reading and writing are considered, there is no deficiency in them, though vocabulary and grammar are casualties in some cases.

#### Loss of practice:

Somehow in the system of KV functioning, the usage of English has been relegated to background. The real problem is not much about the knowledge of the language but the usage part. The practice of local language has affected the usage of English in the schools.

#### Why don't they speak in English?

Many a time, teachers themselves do not know that they need to enhance their English skills. This awareness is lacking even in many who teach the subject in English medium. They generally feel that using even 50% English is equal to English medium. In the guise of explaining

the concept well in mother tongue, some teachers resort to this 50% concept.

Fear of Ridicule: Even native speakers take years to master their language, so it's no surprise a foreign language learner has to make a lot of mistakes before even managing to produce anything near to good English. The spontaneous nature of speaking means you're likely to make more mistakes than you would otherwise. Fear of ridicule is one of the major impediments in English speaking in our teachers.

Lack of Motivation: If you ask a teacher why do they think they should speak in English in class or outside, what's the most likely answer? 'because KVS asks them to speak'? They're following orders - and for what? Not only is the motive external, but the end goal is not understood by many. The importance of the ability in themselves to transfer it to the students is not clear to many.

Lack of support: There are two kinds of support: Classroom atmosphere and outside class room support. Teachers need to support each other, for example by working in teams.

#### **Strategies:**

Improvement can not be forced upon or thrust. The efforts should be at individual level, school level, and organizational level.

#### INDIVIDUAL

It basically depends on the factors at individual's end. They can be

- \* Awareness (Made aware of the ground reality and future)
- ❖ Felt need (Should feel the need of speaking in English)
  - Motivation (Internal motivated)



#### **SCHOOL LEVEL**

- Leader, ie. Principal (supportive, guiding, role model etc.,)
- ❖ Teaching community (involvement and support of colleagues)
- Subject Committees (for group strategies)
- ❖ Students background (much variation is seen in KVs)
- ❖ Staff Room climate (again it depends on colleagues)
- \* Reaching out efforts (special efforts made by the school)

#### **ORGANISATION LEVEL**

- Selection (screening strategies)
- Trainings (periodical workshops)
- Supervision (inspection strategies)
- Rewards (both positive and negative)

Strategies to improve English speaking ability in teachers of KV should be aimed at all the three above areas. The areas of English that need efforts are Listening, Writing and Speaking as Reading is not a general weakness even in the weakest one in English.

#### **CHANGE MANAGEMENT**

Since we are trying to talk of a sort of drastic change in the basic approach of the teachers in many cases, I feel we should follow the basic guidelines of Change Management. The present article talks about strategies that revolve around Change management.

#### What is Change Management?

People like status quo or we have a tendency of inertia. Whenever a change is thought of or brought out, resistance occurs like, why now? Or why this or that etc. There are many reasons for the resistance like fear of failure, feeling of insecurity, fear of loss of importance, fear of dispensability, not aware of the need, future scenario etc, Basically people have a tendency not to notice the initial signals emanating from change. The rule of Change is "If you don't change, change will change you". One best example of this is: "feeling of incompleteness in elderly employees when confronted with new technological need, be it internet, e mail or looking at the photos of the dear and near in a computer. When they look at the youngsters, they normally say "we never had such gadgets" failing to realize that they never looked for the signals of change. They never looked at the sequence of changes like Radio  $\longrightarrow$  Transistor  $\longrightarrow$  Tape recorder  $\rightarrow$  Colour TV  $\rightarrow$  Plasma TV

PC cum TV. Hence, we need to look at the change management of attitude in our teachers.

The three stages of Change management are 'unfreezing', 'change' and 'refreeze' (Kurt Lewin's model).

#### **UNFREEZING**

This basically involves awareness of the needs, its implications if not attempted, what is the organizational interest, stakeholders' interest and the benefits of introducing change to self, KVS, students etc.



Unless the teachers are aware of the meaning and need of the change, they won't listen to our circulars, warnings, reprimands. Hence our strategies have to attempt this unfreezing or a sort of unlearning the old learning.

#### **CHANGE**

Only after the first stage of unfreezing, the change has to be introduced. It is the second stage of the change management. These are the efforts on the ground level which will receive acceptance as the people are ready to receive due to unfreezing.

#### REFREEZING

The new strategies are reinforced to see that the new and changed approach becomes part of working life. It becomes the integral part of the system.

Hence, keeping the above in mind, the following strategies are recommended or that can be thought of:

Awareness of English Speaking Ability and Needs

This should be the first phase. Here teachers are exposed to the present day requirement of the economy, industry, profession etc., Certain data, research survey findings, market demand etc., must be given to the teachers. Data that has to be provided to the teachers: List of New and emerging industries like:

❖ BPO(Business Process Outsourcing)

KPO (Knowledge Process Outsourcing)

LPO(Legal
Process Outsourcing)

- Medical transcription
- data mining
- Event management
- Online tuitions
- Expanding tourism industry
- Impact of gloablisation
- ❖ Biometrics etc.,

Even the facts and figures of service industry and its contribution to GDP that is growing at an amazing rate of 9% p.a should be given. The number of employees preferring a private job to Govt. job should be brought to the notice of the teachers. One significant aspect of today is less dependence on Govt. jobs by many youngsters in many pockets of the country. In order to prepare for that, teachers must know if we don't change ourselves, the students including their own children will be at a tremendous loss.

#### Awareness campaign:

Pamphlets containing data, power point presentations containing vital information should be provided in the staff meetings by the principal with any young and energetic teacher. A regional level briefing may have to be given to the principals. There should be atleast 2 meetings of the teachers with the information. The content of presentations may be vetted by a screening committee.

#### **ACTIVITIES AT SCHOOL LEVEL**

Activities that can be conducted at the school level for improvement of English speaking ability are listed below with a brief idea of each activity.



In my opinion, a scrupulous implementation by the principals will bring in a lot of positive change in the desired direction.

#### 1. School Level Group Discussions

Every school will organize group discussion on some relevant social issues (barring caste or religion based). PGT (English) or a competent teacher should facilitate the program for around 30 minutes. Every teacher has to express his or her view for not more than 1 minute each. Of course, the medium should be English.

#### 2. Prayer level Talk by Teachers

Long back, there was a circular from KVS that every day in the prayer, there should be atleast one teacher to talk on a social issue (not necessarily moral) in the assembly. The instruction should be revived. Principals should ensure that teachers speak in the assembly for a brief period of not more than 3 minutes in English.

#### 3. School Level Extempore speech

Teachers be arranged in groups and in each group of around 8 people, every teacher will be given a topic on the spot and the teacher will have to speak after an initial preparation time of around 3minutes. He/She should speak for atleast 3 minutes in English on the given topic.

#### 4. Story writing using pictures

Teachers be arranged in groups and in each group of around 8 people, every teacher will be given 3 or 4 photos collected from magazines or newspapers and give time for thinking of a story and each teacher should narrate the created story in English. The story making can be social, funny

or even absurd happening. The story should be of 3 to 5 minutes.

#### 5. Listening sessions:

Play the situational conversation of CIEFL cassette or CD in front of the group and ask questions. This should be done by a facilitator at the school level.

#### 6. Sentence generation sessions:

Provide 3 word groups in sequence WG1, WG2 and WG3 ask the teachers in the group to speak sentences taking one cue from each word group. The total sentence should have one set from each of the three word groups. Example:

Word Group 1	Word Group 2	Word Group 3
Ram/Laxman/Sita/He/	Is/are/was/were/seems/	History Teacher
She/They/Both	appears/Seemed/appear	Doctor/Tailor/Dentist/
	ed/looks/looked	Scientist

Example of the sentence formation is:

#### They appear to be scientists.

The above table is different from the normal one given in students work books. In this table there is some scope for variation or addition.

Such sentence generation sessions would help teachers create different expressions for different situations or even different expressions for a similar situations.

#### 7. Listening Skill Activity:

Use a small town area map with bus station, railway station, school, college, hotel, prominent roads in it. Facilitator will explain one shortest route from railway station to hotel with directions to take turns etc., Provide another map to the participants and they will



write directions and also read the directions, of course, in English.

#### 8. Conversation Skills

It is a group activity. Arrange the people in groups of 5 to 8. give them some situations like at a railway station, at a bus station, at sea beach, while traveling in a crowded bus, while traveling in a local train etc. People in the group should converse in English on any of the situations and continue with real or imaginary experiences.

#### 9. Comprehension exercises:

Provide simple passages and ask the teachers to write answers at the end of it. Proceed from simpler ones to a little difficult ones. They help in improving comprehension ability.

#### 10. Role Plays:

Provide a situation, give the roles and the group has to assign the roles to every members for the situation, prepare an idea and perform or enact, e.g., Topics: advertisement is a nuisance (roles are: manufacturer, housewife, media person, student and a doctor)

#### 11. Role Reversal

People in the group will be given a role that is reverse of them like: demanding son or daughter and stubborn parent; two students discuss about their mental state of exam stress etc.,

The above are only suggestive. The principals as leaders with their intuition ad attitude can plan and arrange them to see that speaking ability with a better body language can be improved in the teachers.

#### **ACKNOWLEDGEMENT:**

The ideas and activities are drawn from "Manual for Training on Communication Skills and Spoken English" developed by me at ZIET Mumbai along with Mrs. Mitali Rudra, Principal, Mr. M.R.K.Raju, PGT, Mrs. Devyani Bose, PGT and Mrs. Vineeta Narula, PGT.







### Project Based Learning

V. Meenakshi, Principal, K.V. Mysore

"The illiterate of the twenty-first century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

—Alvin Toffler

The world has changed. What does lit eracy look like today? It certainly means being able to read and write, understand mathematics and science, and apply this knowledge to real-world issues.

But literacy also means understanding that our world is complex. It is a world driven by new ideas, knowledge, and technology. It is made up of different people, cultures, and perspectives. If we are to rise to the challenges and opportunities in this new global age, it means embracing a new vision for teaching and learning.

The National Curriculum Framework (NCF) developed by National Council of Educational Research and Training in 2005, recommends a paradigm shift from rote memory to learning by understanding. It suggests that curriculum should help students to develop their own thinking and ideas through experience, action and reflection. School should facilitate the process of knowledge construction and help them to become independent thinkers capable of solving their everyday problems. Project based learning places students in a practical setting where they learn to collaborate, think critically, communicate and understand the values of the work ethics.

Therefore, it is necessary to make teachers understand the need for a change and how changes in teaching-learning process can bring about the desired shift. To reduce the stress caused by the existing system on students, school should find a method to make learning meaningful to students. NCF, 2005 makes an attempt to shift teaching —learning to practice based on 'construtivism'

Constructivism is a philosophy founded on the belief that we construct our own understanding of the world by reflecting on our experiences. Each of us generate our own 'rules' and 'mental models', which we use to make sense of our experiences.

'Project based learning' is a method supporting constructivism to inspire students to 'think,connect,create and share' .Project learning makes an attempt to connect knowledge and skills with personal experience in collaborative manner resulting in life skill learning. Project based learning bridges the gap between learning core knowledge and applied skills-the gap between knowing and doing. This offers the students to become critical thinkers, problem solvers, and effective communicators.

Effective project learning is open-ended and deals with curriculum based problems, issues and challenges. The learning paths are unpredictable, but the result is often a more in-depth of understanding the content, 21st century thinking and

learning.



### KEY FEATURES OF PROJECT BASED LEARNING

- Essential questions: Teacher has to create an authentic, engaging, open-ended question that poses a problem or situation that has meaning and relevance for students.
- Project design: Teacher has to identify standards based activities that support the essential question and involve the students in the project design, causing them to develop a sense of project ownership.
- Work plan: The teacher prepares tasks, subtasks, milestones, timeline for completing each component, other activities related to the project.
- Project Management: The teacher guides the students in working collaboratively; monitors students' activity and provides structure and feedback.
- Culminating products: They are presentation, exhibition etc.
- Assessment: PBL requires variety of assessment tied to the content standards, higher order thinking skills, attitude and application. Teacher has to use multiple indicators of performance to give students with different strengths and opportunities to make a successful project.
- Evaluation: At the end of the project, students discuss, analyse, and reflect about outcome of the project. The teacher prepares rubrics to evaluate the outcome of the project

#### Project learning cycle



#### Define phase overview:

- The 'Define' phase includes Project topics, outcomes, scope, and links to curricula, strategies and assessment approaches.
- The overview of the Define phase in the project learning cycle includes a number of approaches and techniques.
- "Begin with the end in mind" is helpful to expand the techniques into something more practical.
- A balanced assessment approach is very useful to make students to work confidently.

#### Plan phase overview:

- In 'Plan' phase the project is broken down in manageable pieces. Project roles are assigned and a timeline is planned for the project.
- The information on building a work plan is very useful which will help the students to work on the right direction with proper time management.
- Breaking the projects into sub topics is to make the task easier
- Use of resources will make students to collect information without wasting time.

#### • Do phase overview:

The learning project is launched and conducted with students. The products resulting from students' work are collected for assessment. It ends with a celebration of the successful completion of the project.





#### Review phase overview:

In 'Review' phase, Teachers and students reflect on the outcome/products of the recently completed learning project. Reflection and evaluation are critical in assessing the success of the project and the improvements that can be made in future. It includes assessment and grading.

#### Manage phase overview:

It is central to all other phases. Most activities in this phase span the duration of the project. It includes process management, preperation prior to launch, facilitation, progress monitoring, re-planning, conflict management and monitoring milestones and checkpoints

Based on the above mentioned 5 phases 'Think plan' and Work plan' are prepared (Annexure I). It includes Survey, Surfing, Interaction through message boards, Guest lectures, group work with peers and presentation.

#### Role of a Teacher in PBL:

- PBL requires that teacher to move around the classroom for discussion with students' where he / she will act as a learning guide and facilitator.
- Teacher participates as a mentor.

- Arranges field trips, guest lecture and provides infrastructure.
- Supervises students' activity and provide structure, guidance and feedback.
- Supports and encourages students' thinking as they work on project, and challenges them to go beyond textbook.
- Avoids making decision for students.
- Highlighting the problems to solve instead of solving it.
- Maintain ultimate control in conflict management

In project learning, students work in teams to explore real-world problems and create presentations to share what they have learnt. Compared with learning solely from textbooks, this approach has many benefits for students, including-

- Deeper knowledge of subject matter.
- Increased self-direction and motivation.
- Improved research and problem-solving skills.
- Understanding how academics connect to jobs and careers
- Using Technology

#### **REFERENCE LINKS**

#### i-EARN

http://www.iearn.org

Global SchoolNet

http://www.globalschoolnet.org/GSH index.html

**European Schoolnet** 

http://www.europeanschoolnet.org

3-I Project Learning

http://www.3iproject.net

World Links

http://www.world-links.org

#### George Lucas Educational Foundation

http://www.edutopia.org/foundation/foundation.php

Partnership for 21st Century Skills

http:/www.21stcenturyskills.org

Intel's Teach to the Future Program

http://www97.intel.com education/teach

Project Management Institute Education Foundation

http://www.pmi.org/pmief/default.asp



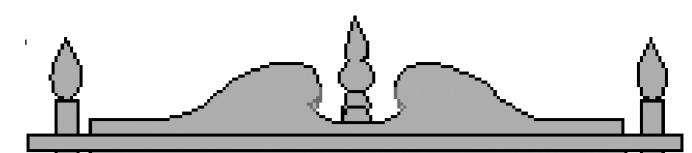


### Work plan

TASK	SUBTASK	ROLE	START DATE	END DATE	PRODUCT
Launch project			20.11.07	20.11.07	Project launched
Deliver classroom instruction	Areas to be covered. 1.Define the project 2.Culminating products	Teacher	21.11.07	22.11.07	Initial classroom instruction is completed
Group selection	1.Anjali 2.Chaithanya Sai 3.Aarathi 4.Priyanka 5.Supreeth	Teacher	23.11.07	23.11.07	Group selection is completed
Conduct research	Collection of Content on 1.Dental care. 2.Common ailments(Curricular units)	Student	24.11.07	30.11.07	Students recorded in Think.com
Perform survey	Create survey questions, survey, prepare survey report	Student	01.12.07	07.12.07	Collected report
Programme sheet activity	Prepared based on curricular units and problem areas in daily life affecting health	Student and teacher	08.12.07	22.12.07	Prepared
Advice meeting	Team prepare briefs	All team members	05.01.08	05.01.08	A meeting was held
Programme sheet presentation	Presentation	,,	15.01.08.	22.01.08	Presented
Preparation of questionnaire	Eliciting from peer group and self analysis	Each member	24.01.08	29.01.08	Prepared questions
Lecture by Medical specialist	Dr.Muralidhar	Teacher	30.01.08	30.01.08	Completed
Exhibition	Practice presentation by inviting parents	All members	01.02.08	04.02.08	Completed
Project presentation	Posting in think.com pages	All	05.02.08	09.02.08	Completed
Assessment and grading	Prepare rubrics and assessment	Teacher	10.02.08	10.02.08	Completed
Refection and evaluation	Student reflection and evaluation, Teacher refection and evaluation	Students and teacher	11.02.08	11.02.08	Completed.The work is posted in think.com pages
Project closed	Submitting to OEF with feedback	Teacher	12.02.08		Closed







Woun

#### HELP LINE PROGRAMME

CBSE started student help line in 1998 in order to providing counseling to students before the examination and also during the declaration of results. This is a voluntary service provided by Principals and trained counselors during interactive sessions over telephone. The experts are drawn from eminent schools affiliated with CBSE in India and abroad. The feed back received so far shows that there has been a perceptible reduction of stress and anxiety amongst students as a result of this service. Each year new features have been added to make CBSE counseling more and more useful. CBSE is in the process of broad basing the existing network. This help line will begin functioning from 1st February to 31st March 2008. The time slots given below:

- (i) 8.00 a.m. 12.00 noon
- (ii) 12.00 noon 4.00 p.m.
- (iii) 4.00 p.m. 8.00 p.m.
- (iv) 8.00 p.m. 12.00 a.m.



### **Book Review**



Title : 2000 tips for teachers

Author : Nick Packard and Phil race

Publisher : Vinod Vasishtha for Kogan Page India Private Limited,

2/13, Ansari Road, Daryagani, New Delhi – 110 002

Price : Rs. 395.00/-

Teaching is complex task involving thousands of micro skills. The repertoire of skills apart, the understanding that a teacher needs to have is that teaching is a science. While mastering teaching skills requires commitment and interest, application of them warrants scientific outlook and approach. The theory and practice aspects of teaching taught in teacher's training colleges constitute at the most the barest minimum required for aspiring teachers. That is only a beginning. The teacher's ingenuity, interest, and involvement determine how effective he is in the classroom.

Often personal experiences the teacher gains in dealing with his students and critical reflection on those experiences would help him prepare well for classroom teaching. The keenness with which he observes other teachers' classes and deliberate upon the finer aspects of acquiring subject expertise, effective transaction of subject matter and the communication skills required for such transaction, and evaluation skills would help the teacher develop into a professional.

2000 Tips for Teachers is a compendium of sound, practical, tried and tested advice for teaches which aims at supporting teachers in helping their pupils learn. As teaching is nothing but a task of making pupil learn, the teacher of the 21st century should be thorough with the knowledge and skills in the areas of effective teaching process, designing and implementing learning, supporting pupil's learning, using ICT, aiding pupils with special needs, using resources effectively and coping with the demands placed by truant and delinquent pupils.

2000 Tips for Teachers is essential reading for all teachers, providing access to wide-ranging and practical advice and ideas, presented in a unique, easy-to-use format. The book deals with a range of practical issues from honing their skills relating to curriculum planning, supporting learning and effective assessment, through to getting to grips with the latest technology and working with difficult pupils and classes.

The book would be of immense help to both new and experienced teachers. Internalizing the best of the tips given in the book and implementing them in the class would no doubt be a rewarding experience for a teacher.

E.T. Arasu

Associate Editor

KVS Quarterly Journal

### **IN BOX**

I am a regular reader of KVS Quarterly Journal. I take this opportunity to appreciate your good self for the good self for the good efforts.

Ms. Kamala KV No.2, AFS, Tambaravu

R R R

Received Quqrterly Journalfrom KVS ZIET Mysore. I appreciate the design, articles and the quotations. Waiting eagerly for the next issue.

Ms. Tajunder Palkaur KV No.2, Hussianpur, RCF.

R R R

### Disclaimer

Views expressed in the articles herein are those of the writers and do not necessarily reflect the policy of Kendriya Vidyalaya Sangathan

### IMPORTANT NOTICE TO CONTRIBUTORS

KVS Officials sending articles / research reports / research notes for publication may keep in mind the following points.

- (i) Articles neatly typed / Computer typed in double space with wide margins on both sides should be sent in duplicate.
- (ii) The Articles should be accompanied by a soft copy (preferably a re- writable CD) with the matter as given in the hard copies.
- (iii) Contributors desirous of getting back the articles may send a self addressed stamped envelope so that suggestions for improvement, if any, could be communicated.
- (iv) Re-written articles based on (iii) above shall be considered for publication.
- (v) The note of references and web sources used for writing the articles should be invariably mentioned at the end of the article.
- (vi) The contributor should make it sure that the source he/she used / quoted are legitimate and he/ she knows / understands copy right laws, and the articles is in no way violate the copy right of the sources / references.
- (vii) A recent passport size photograph may be attached with the article.
- (viii) The contribution of the authors following the above guidelines only shall be considered for publication hence forth.
- (ix) The contributors may send a certificate along with soft and hard copies as given below.
- (x) Details of the author containing his full official address along with the name of the nearest Canara Bank (Place) should be mentioned without fail (to facilitate dispatch of honorarium in the form of DD).

# Certificate

I certify that the enclosed articles / write-up is an Original and unpublished work of the undersigned which has not been sent to any other publication for consideration. It is further certified that the references quoted from other sources do not violate the copy right laws.

Date :		:
	Address	:



## मूल्यपरख शिक्षाः आदर्श जीवन की आधारशिला

ऋषि कुमार त्रिवेदी पुस्तकालयाध्यक्ष केन्द्रीय विद्यालय जावर माईन्स - 313901 जिला-उदयपुर (राजस्थान) मोबाइल - 09460106008

मूल्यपरख शिक्षण की आज जितनी आवश्यकता जरूरी समझी जा रही है उतनी पहले कभी नहीं थी, क्योंकि आज पूरा विश्व समुदाय संक्रमण काल में जी रहा है। मानव ने विज्ञान के माध्यम से विकास एवं प्रगति की अनेकानेक ऊँचाइयों को छुआ है मानव द्वारा प्राप्त उपलब्धियों का लेखाजोखा ऊँचाइयों को छू रहा है, मगर दूसरी ओर हमारे प्राचीन परम्परागत मूल्यों में लगातार गिरावट हो रही है। अतः इस युग में मानवीय मूल्यों की गिरावट को रोकने के लिए सत्य, सदाचरण, अहिंसा, प्रेम एवं शान्ति जैसे शाश्वत परम्परागत मूल्यों के पुनः प्रतिष्ठापन की महती आवश्यकता महसूस की जा रही है, ये मूल्य न केवल व्यक्तिगत अत्थान के लिए अपितु सामाजिक, राष्ट्रीय प्रगति एवं शान्ति के लिए भी परम आवश्यक हैं।

विश्व समुदाय के विकास क्रम को तेजी से आगे की ओर बढ़ रहे कदमों के बीच मानव के आचरण में आती हुई नैतिक गिरावट सभी को चिन्तित कर रही है, इसी गिरावट को लेकर हमारी शिक्षानीति के मूल्य आधारित शिक्षण के पुनः प्रतिष्ठापन के कार्य के लिए सभी शिक्षण संस्थानों को उत्तरदायित्व दिया है। हमारे प्राचीन परम्परागत, संस्कृति से परिपोषित वैयत्किक अस्मिता एवं विभिन्न सामाजिक सांस्कृतिक परिस्थितियों से नियंत्रित जीवन मूल्यों की पुनः प्रतिष्ठा में शिक्षण संस्थानों की भूमिका महत्वपूर्ण होगी।

किसी भी समाज की आदर्श व्यवस्था को चलानेके लिए मूल्यों एवं आदर्शों की रचना की जाती है। समाज का हर व्यक्ति इन आदर्शों व मूल्यों को ईश्वर का कथन मान कर एक आदर्श समाज की स्थापना कर सकता है। सामाजिक मूल्यों एवं आदर्शों की व्यवस्था ही मानव व पशु में विभेद करती है।

मानव मूल्य एक ऐसी आचरण संहिता या सद्गुण समूह हैं जिसे अपने संस्कारों में अपनाकर मानव अपने निश्चित लक्ष्यों की प्राप्ति हेतु अपनी जीवन पद्धित का निर्माण करता है, अपने व्यक्तित्व का विकास करता है। ये मानव मूल्य व्यक्ति के अन्तः करण द्वारा नियन्त्रित होते हैं तो दूसरी ओर उसकी संस्कृति एवं परम्परा द्वारा क्रमशः निस्मृत एवं परिपोषित होते हैं। बहुजनहित या सार्वजनहित इन जीवन मूल्यों की कसौटी कही जाती है। मूल्यों के प्रमुख स्त्रोत संस्कृति, संस्कार एवं वंशानुक्रम है। मूल्य और आदर्श, ये दोनों ही चरित्र - निर्माण एवं व्यतित्व विकास की दृष्टि से अत्यन्त महत्वपूर्ण हैं।

अंगीकृत या आत्मसात किये गये मूल्य ही जीवन के आदर्श बनते हैं, मूल्य एक प्रकार का मानक है, मनुष्य किसी वस्तु, क्रिया, विचार को अपनाने के पूर्व यह निर्णय करता है कि वह उसे अपनाए या त्याग दे। जब ऐसा विचार - भाव व्यक्ति के मन में

निर्णयात्मक ढंग से आता है, तो वह मूल्य कहलाता है।



हमारे विविध सामाजिक एवं आध्यात्मिक मूल्यों का प्रमुख शक्तिशाली स्त्रोत हमारी सामाजिक संस्कृति रही है, संस्कृति हमारे प्राचीन मूल्यों का सम्पोषण एवं नियन्त्रण करती आई है । मूल्यों के वर्गीकरण करने पर मुख्य रूप से मूल्यों को सदाचरण सम्बन्धी मूल्य, सत्य सम्बन्धी मूल्य, शान्ति सम्बन्धी मूल्य, प्रेम सम्बन्धी मूल्य, अहिंसा सम्बन्धी सामाजिक एवं मनोवैज्ञानिक मूल्य में बांट सकते हैं । इन मुख्य मानव मूल्यों का व्यापक वर्गीकरण करने पर इनमें लगभग एक सौ मूल्यों का समावेश हो जाता है । ये मूल्य एक दूसरे से किसी न किसी प्रकार, प्रत्यक्ष अथवा परोक्ष रूप से जुड़े पाये जाते है, इन मुख्य मानव मूल्यों में सदाचरण, आरोग्यता, शारीरिक श्रम का महत्व, समय का सदुपयोग, नियमितता, समय की पाबन्दी, स्वावलम्बन, आत्मनिर्भरता को प्रारम्भिक मूल्य मान सकते हैं ।

आज्ञापालन, कर्तव्य के प्रति निष्ठा, सादाजीवन, ईमानदारी, दूरदर्शिता, दूसरों का मान, वृद्धावस्था के प्रति मान, दूसरों की सेवा, साहस, नेतृत्व, विश्वास, न्याय, आत्मत्याग एवं समानता जैसे मानव मूल्यों को विकसित मूल्यों की श्रेणी में रखा जा सकता है । प्रारम्भिक व विकसित मूल्यों को सदाचरण मूल्यों के मुख्य वर्ग में रखा जा सकता है ।

सचाई, जिज्ञास, ज्ञानकी खोज, जाँच करने की भावना, आत्मविवेचन, सत्य और सत्य का विवेक, धर्मिनरपेक्षता, सर्वधर्म समभाव एवं सभी धर्मों का आदर जैसे मानव मूल्यों को सत्य सम्बन्धी मूल्यों के वर्ग में रखा जा सकता है।

संयम, अनुशासन, सहनशक्ति, धैर्य, इमानदारी, आत्मानुशासन, आत्मसम्मान, ध्यानशक्ति, समाधि एवं शान्ति जैसे मानव मूल्यों को शान्ति सम्बन्धी मूल्यों के वर्ग में रखा जा सकता हैं।

निष्कपटता, सहानुभूति, देशभिक्त, मैत्री, भिक्त, सहनशीलता, दयालुता जैसे मानव मूल्यों को प्रेम सम्बन्धी मूल्यों के वर्ग में रखा जा सकता हैं।

भाईचारा, नम्नता, सहायता करने की भावना, दूसरों के लिए आदर, दूसरों को सहयोग देने की तत्परता, दूसरों के सांस्कृति मूल्यों के प्रति आदर, करुणा, विश्वव्यापी प्रेम, सब की भलाई करने की तत्परता, सिक्रय राष्ट्रीय जागरूकता, राष्ट्रीय एकता के लिए प्रेम, छुआछूत का विष्कार, नागरिक एवं राष्ट्रीय सम्पति के प्रति जागृति, समाजसेवा की भावना, सर्विहतकारी कार्य करने की तत्परता, लोकतान्त्रिक निर्णयों से सहमति, समाजवाद और मानव एकता की भावना जैसे मानव मूल्यों को अहिंसा सम्बन्धी सामाजिक एवं मनोवैज्ञानिक मूल्यों के वर्ग में रख सकते हैं।

विद्यालय स्तर पर विद्यार्थियों के लिए मुख्य रूप से इन नैतिक मानव मूल्यों की आवश्यकता महसूस की गयी है । इन मूल्यों में स्वतन्त्रता, सच्चाई, ईमानदारी, कठोर परिश्रम, आत्म अनुशासन, समय की पाबन्दी, कर्तव्य के प्रति निष्ठा, उत्तरदायित्व, स्वदेश प्रेम, न्याय, अहिंसा, धर्म निरपेक्षता, सार्वजनिक सम्पति की देखभाल, वैज्ञानिक मनोवृति, समूह में कार्य करने की भावना, स्वच्छता, विनम्रभाव, सहयोग की भावना एवं सेवाभाव आदि मानव मूल्यों की शिक्षा परम आवश्यक है ।

मानव मूल्यों की शिक्षा - दीक्षा पुस्तक आधारित न होकर विचार व भाव आधारित हैं, मानव मूल्यों की शिक्षा विद्यार्थी को किसी भी पुस्तक से सीधे सीखने को नहीं मिल सकती है । इन मूल्यों को अपने जीवन में





विचार कर लगातार प्रयास करते रहने से प्राप्त की जा सकती है ।

विद्यालय स्तर पर विद्यार्थी प्रातःकालीन प्रार्थनासभा, योग, खेलकूद, पाठ्य सहगामी क्रियाओं, पर्यावरण शिक्षा, स्काउट में अपनी रुचि को विकसित कर इन कार्यक्रमों के माध्यम से अनेकानेक मानव मूल्यों का विकास अपने जीवन में कर सकता है, प्रारम्भ से ही जीन विद्यार्थियों की रुचि इन मानवीय मूल्यों को जीवन में अपनाने की उतारने की हो जाती है वे फिर इन मानव मूल्यों को रक्षा जीवन पर्यन्त करने का प्रयास व प्रयत्न करते रहते हैं । जिस प्रकार शिक्षण एक सतत् प्रक्रिया है जो आजीवन चलती रहती है इसी प्रकार मूल्यों का विकास - उसका स्पष्टीकरण - उनकी प्रतिष्ठा यह भी एक सतत् प्रक्रिया है ।

विज्ञान व तकनीकी के बढ़ते कदमों ने अंतरिक्ष को भी छू लिया है, विज्ञान के तीव्र एवं सतत् विकास ने जीवन के हर क्षेत्र को प्रभावित किया है, मोबाइल, इंटरनेट व कम्प्यूटर के बढ़ते प्रभावों ने मानव मूल्यों को भी प्रभावित किया है अतः आज विज्ञान एवं मानव मूल्यों में समुचित सामंजस्य की महती आवश्यकता महसूस की जा रही हैं श्रेष्ठ व्यक्तित्व के निर्माण एवं श्रेष्ठ समाज के निर्माण के लिए मूल्य आधारित शिक्षण परम आवश्यक है, विश्व समुदाय को भयभीत करने वाले अनेकानेक कारकों यथा युद्ध, बढ़ते अपराध, आतंकवाद, नस्लभेद, वर्गभेद, आदि भस्मासुरों से मुकाबला हम मानव मूल्यों की शिक्षा का प्रचार प्रसार करके सुगमता से कर सकते हैं।

मूल्य आधारित शिक्षण के माध्यम से ही हम परिवार, समाज व राष्ट्र को गौरवपूर्ण स्थान प्रदान करवा सकते है । मानव मूल्यों के आत्मसातीकरण से ही हम परिष्कृत, सुसंस्कारित एवं योग्य आदर्श समाज की नींव रख पायेंगे ।

साभार संदर्भ : मूल्य परक शिक्षाः श्रद्धेय डॉ. नात्थू लाल गुप्त, कृष्णा ब्रदर्स , अजमेर ।



जिसने शिष्टता और नम्रता नहीं सीखी, उसका बहुत सीखना भी व्यर्थ है ।





## मूल्यों से जीवन सशक्त व सार्थक बनता है।

सविता शर्मा प्राथमिक अध्यापिका के.वि.न.1,चंडीमंदिर,चंडीगढ संभाग

मूल्य उत्तम जीवन एवं अबाध रूप से ठीक तरह संचालित होनेवाले जनजीवन के लिए पेसे आदर्श होते हैं, जो व्यक्ति का, परिवार का, समाज का, देश का और सारी मानवता का मार्गदर्शन करते हैं । उन्हें अनुशासित, संवेदनशील, ऊर्जावान इंसानियत के प्रति सजग, विनम्र तथा व्यक्तिगत एवं सामाजिक आचरण, व्यवहार, आपसी संवाद, आपसी रिश्तों के प्रति प्रतिबद्ध करते हैं । जीवन के सारे आचार - विचार - व्यवहार में नैतिकता और स्वस्थ माहौल बनाए रखने के लिए आपसी सदाशयता और निष्ठा को मज मजबूती देते हैं। इससे व्यक्ति और समाज सतत् गतिशील तथा विकासशील रहते हैं।

मूल्यों के आचरण से एवं नैतिकता के पालन से व्यक्ति को यह भेद करने में मदद मिलती है कि क्या सही है और क्या गलत । क्या आवश्यक है और क्या अनावश्यक । कब, क्या उचित है और क्या अनुचित। कब क्या करना चाहिए, किस प्रकार करना चाहिए और कैसे शब्द प्रयोग, व्यवहार एवं आचरण करना और कैसे व्यवहार से बचना चाहिए, ताकि जीवन को सार्थक ढंग से जीया जा सके । सभी जगह स्वस्थ, शालीन एवं सुखद वातावरण बनाए रखा जा सके । इससे प्रगति एवं विकास को गति मिल सकती है । आपसी ईर्ष्या, द्वेष, नफरत, अंधे स्वार्थ, लालच, मोह

और स्वार्थ - साधने के लिए घटिया, अमानवीय, दुष्टतापूर्ण, गैर कानूनी तौरतरीकों से बचा जा सकता है। यदि जीवन के मूल्यों की व्यक्तिगत, सामाजिक एवं राष्ट्रीय जीवन में सही भावना से स्थापना हो जाए, तो देश सर्वांगीण तरक्की कर सकता है । परस्पर सौहार्द के माहौल को बल मिलता है । इससे सभी ओर सुव्यवस्था आ सकती है । तरक्की के साथ -साथ परस्पर विश्वास, शांति एवं विश्वशांति मजबूत हो सकते हैं ।

मूल्यों को सामान्यतया चार भागों में बांट सकते हैं:

- 1. व्यक्तिगत मूल्य
- 2. सांस्कृतिक मूल्य
- 3. सामाजिक मूल्य
- 4. कार्य के मूल्य

व्यक्तिगत मूल्य वे मूल तत्व या सिद्धान्त हैं, जो व्यक्ति को व्यक्ति के बतौर परिभाषित करते हैं। व्यक्तिगत जीवन में वह कितना ईमानदार, कर्मठ, भरोसेमंद, निष्ठावान, प्रतिबद्ध, स्नेहशील, आत्मविश्वास से पूर्ण, व्यवहार कुशल। ऊर्जावान, साहसी, सिद्धान्तवादी और अपने व्यक्तिगत एवं राष्ट्रीय चरित्र के प्रति सजग है। वह दूसरे व्यक्तियों, सामज और दुनिया के साथ कैसे पेश आएगा। कैसे सबसे संबंध बनाएगा और निबाहेगा। कितना आस्थावान्, कितना धर्माचरण करने वाला, कितना आध्यात्मिक, कितना सृजनशील, कितना सभ्य, मैत्रीपूर्ण और दूसरों का सम्मान करने वाला होगा। अन्य पुरुषों, महिलाओं, बुजुर्गों और बच्चों के साथ गरिमामय, आदरयुक्त और स्नेहपूर्ण व्यवहार करना भी जीवन के आवश्यक मूल्यों का अंग



है । इससे समाज मजबूत होता है । वातावरण शुद्ध बनता है । सब सुख व शांति से जी सकते हैं ।

सांस्कृतिक मूल्यों का संबंध व्यक्ति के अपने विश्वास, ध्येय, निष्ठा, रीति - रिवाजों के पालन से है । इससे उसकी सांस्कृतिक जड़ों का पता चलता है । इससे वह बड़ी संख्या में लोगों से जुड़ता है, उनसे निकटता बना पाता है और उनका विश्वास, स्नेह एवं आदर प्राप्त करता है । ये संबंध संस्कृति, सभ्यता, संस्कार भाषा, अस्मिता, क्षेत्र एवं रिश्तों से जुड़े होते हैं । सांस्कृतिक मूल्यों में कला, संगीत, नृत्य, नाट्य, साहित्य, लोकजीवन, स्वस्थ परम्पराएं एवं सभ्यता के गुण शामिल हैं । इनसे जीवन में रस आता है । जीवन आनन्ददायी बनता है रूखापन दूर होता है ।

सामाजिक मूल्य वे सिद्धान्त हैं, जिनसे यह आभास मिलता है कि व्यक्ति सामाजिक व्यवहार में दूसरों के साथ कितना सार्थक तरीके से जुड़ता है । इसमें परिवार, मित्रमंडली, मोहल्ला, नगर तथा साथ काम करने वाले सहकर्मियों से संबंध एवं समाझदारी भी आते हैं । ऐसे व्यवहारों में वह कितना सजग, भरोसेमंद, उदार, रहमदिल, दुःखी एवं मुसीबत में फैसे को मददगार, स्नेहशील, न्याय एवं औचित्य के प्रति सावधान, निकटता या आत्मीयता से भरा हुआ, बराबरी का पक्षपाती, निष्पक्ष, संतुलित और किसी तरह का भेदभाव नहीं करने की भावना से ओतप्रोत है । विषमता एवं शोषण, दूसरे के अधिकारों के हनन या दूसरे के अधिकारों के हनन या दूसरे की भावना को ठेस पहचाने से जो सख्त परहेज करता है । ऐसे आचरण से ही समाज सशक्त एवं गतिशील रहता है ।

कार्य के मूल्य से मतलब उन सिद्धान्तों से है जो काम - धंधे या व्यवसाय (नौकरी - व्यापार) के संदर्भ में व्यक्ति के व्यवहार को संचालित करते हैं । वे जाहिर करते हैं कि व्यक्ति किस प्रकार निष्ठापूर्वक अपना काम या ड्यूटी करता है और अपने सहयोगियों से, अपने से वरिष्ठ से या अपने से जूनियर, सीनियर या कार्यस्थल के प्रधान (Boss) और व्यापारी है तो ग्राहकों एवं जनता, वकील है तो मुवक्किलों, डाक्टर है तो मरीजों के साथ कैसा व्यवहार करता है । शासक - प्रशासक है तो जनता एवं मुसीबत से घिरे को किस तरह राहत देता है। इससे व्यक्ति की क्षमता और आगे बढने का उसका माद्दा भी जाहिर होता है । उसके विचारों की उच्चता एवं सेवा भावना जाहिर होती है । ऐसी मिशनरी भावना से ही व्यक्ति, समाज व राष्ट्र महान बनते हैं। काम में उसकी आत्मनिर्भता. प्रतिस्पर्धा की क्षमता. वफादारी, नैतिकता, प्रतिबद्धता, समर्पण भावना, जागरूकता, चैतन्यता, सजगता, धैर्य, सहनशीलता, व्यावसायिकता, समय की पाबंदी, टीम भावना, कार्य में लाभकारी होने की योग्यता कितनी व कैसी है। ध्येय प्राप्ति के प्रति वह कितना सजग, कर्मठ एवं परिश्रमशील है । ये सब महत्वपूर्ण तत्व हैं ।

मूल्यों के प्रति सजग व्यक्ति के लिए यह ध्यान सखना भी जरूरी है कि अपने केरियर के रास्ते में वह मूल्यों के प्रति कितना प्रतिबद्ध रहता है ।

उपरोक्त सारी बातों के लिए यह भी महत्वपूर्ण है कि व्यक्ति बाहरी संबंधों में कितना कुशल एवं काबिल है। ये सारे मूल्य व्यक्तिगत जीवन, पारिवारिक जीवन, सामाजिक जीवन, और राष्ट्रीय जीवन को प्रभावित एवं संचालित करते हैं। मूल्यों के पालन से व्यक्ति का व्यक्तित्व उभरता है। उसे मजबूती एवं पहाचन

मिलती है । परिवार मजबूत होता है । समाज और राष्ट्र मजबूत, प्रभावी एवं विकसित बनते हैं ।



यश एवं समृद्धि प्राप्त करते हैं । मूल्यों से चरित्र बनता है, जो व्यक्ति, परिवार, समाज, राष्ट्र एवं मानवता को शक्ति व सामर्थ्य देता है । उनका संवर्धन करता है । उनके विश्वास को ऊर्जा देता हैं ।

जीवन मूल्य सामाजिक, पारिवारिक, धार्मिक, आध्यात्मिक, सांस्कृतिक, कला जगत्, आर्थिक, शैक्षणिक, प्रशासनिक, राजनीतिक, प्रशासनिक न्यायक्षेत्रों में भी जरूरी होते हैं । इनसे ये सभी क्षेत्र स्वस्थ तरीके से संचालित होते हैं और अव्यवस्था, अस्वस्थ प्रतिस्पर्धा, कटुता, अशांति, अपराध, खींचतान, रक्तपात की संभावनाओं को कम करते हैं । सद्भावना से जनजीवन चलने में मदद मिलती है ।

ऐतिहासिक और पारंपरिक परिप्रेक्ष्य में भी मूल्य महत्वपूर्ण होते हैं । मूल्यों के परिचालन से व्यक्ति समाज, राष्ट्र एवं ब्हद संस्थानों का सही संचालन होता हैं । वे सार्थक एवं रचनात्मक ढंग से कार्य करते हैं । इससे न्याय, सामाजिक न्याय, स्वस्थ माहौल, परस्पर सौहार्द और विश्वशांति को मजबूती मिलती है । मूल्यों के पालने से सभी का व्यवहार ठीक रहता है । तात्कालिक लाभ या स्वार्थ, लोभ अथवा आकर्षण में मूल्यों से समझौते की मनोवृत्ति से अनेक संकट पैदा होते हैं । इससे नकारात्मक सोच को बल मिलता है और जीवन या जनजीवन अशांत एवं अस्थिरता से युक्त हो जाता है । व्यक्तिगत, सामाजिक राष्ट्रीय और अंतर्राष्ट्रीय जीवन में तथा जनजीवन में इससे आपाधापी पैदा होती है । इससे अनेक समस्याएं उपजती हैं और जीवन दुःखपूर्ण बनता है । ऐसा दुष्चक्र चल पड़ता है कि फिर

अशांति एवं अव्यवस्था सभी ओर छा जाती है । प्रगति एवं विकास को विराम लगकर अधोगति का दौर चलने लगता है ।

मूल्यों में समय के अनुसार कुछ बदलाव भी आते हैं । जैसे राजनीतिक क्षेत्र में पहले अत्यधिक शिक्षित ध्येयनिष्ठ. निष्ठावान. समर्पित एवं योग्य लोग होते थे । आज स्थिति कैसी है ? ऐसी ही स्थिति एवं दुरावस्था अन्य कई क्षेत्रों में भी दिखायी देती है । इसलिए मूल्यों के निष्ठापूर्वक पालन से ही सारी व्यवस्थाएं ठीक चल सकती हैं । व्यक्तिगत, सामाजिक, राष्ट्रीय जीवन में तभी आदर्श स्थापित हो सकते हैं । यह सिलसिला पीढ़ी-दर-पीढ़ी चलता रहे, यह जरूरी है। तभी जीवन, जनजीवन, राष्ट्र - जीवन एवं मानवता सुखी, समृद्ध, सामर्थ्यवान और विकासशील बनेंगे तथा बने रहेंगे । जीवन-मूल्यों का पालन सतत् चलने वाली आवश्यक प्रक्रिया है । इनके बिना जीवन शुष्क, दुःखमय एवं पतनोन्मुख हो जाएगा । इससे ही विश्व में समाज, राष्ट्र या व्यक्ति स्वाभिमानपूर्वक मजबूती से टिक सकते हैं । मूल्यों की उपेक्षा आत्मधाती है । यह पतन एवं दुःखों की ओर ले जाती है । अतः जागरूक व्यक्ति एवं समाज के सदैव मूल्यों के प्रति प्रतिबद्ध रहना और साहसपूर्वक उन पर कायम रहना जरूरी है। शिक्षा जगत की जिम्मेदारी बनती है कि वह नयी पीढी को मूल्यों के प्रति सजग करती रहे और उनके दिल -दिमाग एवं प्रत्यक्ष आचरण में इसे मजबूती से स्थापित करती रहे ।









जीवन के चार स्तम्भ-साधना, स्वाध्याय,

संयम और सेवा ।



### केन्द्रीय विद्यालयों में विषय समिति की बैठक का उद्देश्य, विषय, महत्त्व एवं वार्षिक योजना

जालिम प्रसाद पी.जी.टी. हिन्दी के.वि.आई.टी. कैंम्पस, चेन्नै - 36

प्रत्येक उच्चस्तरीय संस्थाओं को सुचारु रूप से चलाने के लिए विभिन्न प्रकार की समितियाँ गठित की जाती हैं। केन्द्रीय विद्यालय भी एक उच्चस्तरीय शैक्षणिक संस्था है, जहाँ कार्य को सुचारु रूप से चलाने के लिए अनेक समितियाँ गठित की जाती हैं। इनमें से सबसे महत्वपूर्ण शैक्षणिक समिति विषय समिति है।

इस समिति में वे सभी शिक्षक आते हैं जो एक विषय से संबंधित होते हैं । इनमें से पदानुसार वरिष्ठ शिक्षक विषय समिति का प्रभारी होता है । ये सभी शिक्षक केविसं के निर्देशानुसार योजना बनाते है और उसका पालन करते हैं । विषय समिति की बैठक प्रायः माह के अन्त में होती है, परन्तु आवश्यकतानुसार माह के बीच में भी किया जाता है ।

### विषय समिति की बैठक का उद्देश्य Aim of the subject committee meeting

विषय समिति का गठन एक सोची समझी रणनीति है । इसके विभिन्न उद्देश्यों में से मुख्य उद्देश्य निम्नलिखित हैं -

- 1 विषय की समस्याओं का अध्ययन करना एवं
   उन्हें दूर करना ।
- विषय समिति के शिक्षकों में पारस्परिक सदभावना
   के द्वारा सामुदायिक भावना का विकास करना ।
- 3 नई नई शिक्षण पद्धितयों पर चर्चा करना एवंप्रयोग में लाना ।

- 4 विद्यालय में क्रिया अनुसंधान के लिए वातावरण बनाना ।
- 5 मंदग्राही विद्यार्थियों का पिछली कक्षा के आधार पर अप्रैल माह में चयन करना, उनकी मजबूत बिन्दु, कमजोरी वाले क्षेत्रों एवं कारणों की पहचान करना तथा उनकी उन्नति के लिए योजना बनाना।
- 6 प्रतिभावान विद्यार्थियों का चयन करना एवं उन्हें सामाजिक एवं शैक्षणिक क्रियाकलापों, नेतृत्व करने की क्षमता, शैक्षणिक भ्रमण एवं विभिन्न मचों आदि से जोडने की योजना बनाना ।
- त समस्यात्मक विद्यार्थियों का चयन करना एवं
   उनके क्रियाकलापों को सृजनात्मकता की तरफ
   मोड़ना ।
- मासानुसार पाठ्यक्रम निर्धारण करना एवं हर हालत में उसका पालन करना । यदि व्यक्तिगत या कार्यलयी कारणों से पाठ्यक्रम अधूरा रह जाता है तो विद्यालय समय में ही या अतिरिक्त समय में सामान्य या विकत्य कक्षाओं के द्वारा उसे पूरा करने की योजना बनाना ।
- समस्त शिक्षकों को एक मंच पर लाना एवं एक दूसरे के अनुभवों को बाँटना ।
- 10 केविसं के निर्देशानुसार विषय समिति के द्वारा लिए गए निर्णयों का पालन एवं समीक्षा करना।



- 11 विद्यालय में शैक्षणिक वातावरण के लिए प्राचार्य को सहयोग देना ।
- 12 मंदग्राही एवं समस्यात्मक विद्यार्थियों के लिए मार्गदर्शन एवं निर्देशन की व्यवस्था करना ।
- 13 कमजोर कक्षा का चयन करना एवं उसका दियत्व परिश्रमी शिक्षक को सौंपना ।
- 14 कम्यूटर, ओ.एच.पी. एवं अन्य शिक्षण सामग्री की सहायता से शिक्षण की योजना बनाना ।
- 15 आदर्श प्रश्नपत्र तथा उत्तर पर चर्चा करना एवं इकाई जांच / परीक्षा आदि के लिए उच्चस्तर का प्रश्नपत्र अंक योजना के साथ तैयार करना, साथ ही प्रश्न पत्र के उद्देश्य पर चर्चा करना ।
- 16 केविसं के निर्देशानुसार गृहकार्य देना एवं उसी के अनुसार जाँच की योजना बनाना ।
- 17 इकाई जाँच / परीक्षा के आधार पर वार्षिकप्रायोजना कार्य तैयार करना ।
- 18 शिक्षक डायरी लेखन एवं अन्य पंजिकाओं को सुरक्षित एवं सुसज्जित रख रखाव पर चर्चा करना ।
- 19 आदर्श शिक्षणविधि को क्रियाकलाप द्वारा प्रदर्शितकरना ।
- 20 बोर्ड की कक्षाओं तथा अन्य कक्षाओं के लिए शतप्रतिशत संख्यात्मक एवं गुणात्मक परिणाम प्राप्ति के लिए योजना बनाना ।
- 21 केविसं के दिशा निर्देशों एवं विद्यालय के वार्षिक निरीक्षण के समय प्राचार्यों तथा अधिकारियों द्वारा समय - समय पर दिए गए

सुझाओं को अमल में लाने के लिए पृष्ठभूमि तैयार करना ।

- 22 10 वीं एवं 12 वीं के विद्यार्थियों का जीवनवृत तैयार करना ।
- 23 वर्ग कक्षा एवं शिक्षकों के अनुसार परीक्षा परिणाम का विश्लेषण करना ।
- 24 पुस्तकालय का सदुपयोग निर्धारित करना ।
- 25 प्रत्येक पाठ के शीर्षक को मूल्यपरक शिक्षा एवं जीवन कौशल से जोड़ना ।
- 26 शिक्षण सहगामी क्रियाओं के लिए योजना बनाना।
- 27 उत्तरपुस्तिकाओं की स्वच्छता, सुलेख एवं रखरखाव पर चर्चा करना ।
- 28 किशोरों की समस्याओं एवं शिक्षा पर चर्चा करना।

### विषय समिति की बैठक में चर्चा का विषय Subject of Subject Committee Meeting

विषय समिति की बैठक में चर्चा का निम्नलिखित प्रमुख विषय हो सकते हैं -

- विषय की समस्या
   (Subject problems)
- क्रिया अनुसंधान एवं नवाचार विधि
   (Action research & Innovation)
- मंदग्राही, प्रतिभावान एवं समस्यात्मक विद्यार्थी (Slow learners, Gifted & Problematic students)
- 4. पाठ्यक्रम का निर्धारण एवं पूर्णता (Split of syllabus & Coverage)
- 5 मार्गदर्शन एवं निर्देशन (Guidance & Counselling)
- 6 कम्पूटर एवं तकनीक पर आधारित शिक्षा । (CAL & TAL Education)



- अंकयोजना के साथ प्रश्नपत्र निर्माण, उद्देश्य एवं आदर्श उत्तर लेखन ।
   (Question paper with blue print, model answer & Aim of Question paper)
- 8 गृहकार्य एवं कक्षा कार्य(Homework & Class work)
- 9 शिक्षक डायरी लेखन एवं रख रखाव
   (Writing of teachers diary & Maintenance)
- 10 प्रायोजना कार्य (Project work)
- 11 आदर्श शिक्षण का प्रस्तुतीकरण (Presentation of model teaching)
- 12 परीक्षा परिणाम का विश्लेषण (Analysis of test & Exam)
- 13 विद्यार्थियों का जीवनवृत (Profiles of students)
- 14 पुस्तकालय का सदुपयोग(Utility of library)
- 15 मूल्यपरक शिक्षा एवं मूल्यांकन (Value aided education & evaluation)
- 16 उत्तर पुस्तिका की स्वच्छता, सुलेख एवं रख रखाव (Clines, calligraphy & Maintenance of notebooks)
- 17 सामुदायिक भावना का विकास (Development of community)
- 18 योजनाओं एवं निर्णयों का दृढ़ता से पालन एवं परिणाम की समीक्षा

- (Coverage of plan, judgment & result of analysis)
- 19 कक्षाओं एवं उत्तरपुस्तिकाओं का निरीक्षण (Inspections of classes and notebooks)
- 20 मुख्यालय द्वारा दिए गए दिशा निर्देशों का अनुपालन (Obeying instruction and direction given by H. Q.)
- 21 उत्तरपुस्तिकाओं की जॉच में एकरुपता
  (Checking with Equality of answers sheets)
- 22 तदर्थ शिक्षकों को सहयोग (Help of Ad hock teachers)
- 23 शिक्षकों का विषय समिति में योगदान (Contribution of teachers in subject committee)
- 24 विज्ञान एवं सामाजिक विज्ञान प्रदर्शनी (Science & Social Science Exhibitions)
- 25 गणित एवं विज्ञान ओलम्पियाड (Maths & Science Olympiad)
- 26 सहगामी क्रियाएँ (Co-curricular activity)
- 27 महत्वपूर्ण दिन / समारोह (Important day / week celebration)
- 28 शैक्षिक भ्रमण (Educational excursion)



#### विषय समिति की बैठक का महत्व

Importance of subject committee meeting

विषय समिति शिक्षण संस्थाओं की धूरी है। इसके महत्व को प्रत्यक्ष एवं अप्रत्यक्ष दोनो रूपों में रेखांकित किया जा सकता है। इस समिति के अभाव में विद्यार्थियों की उन्नति असंभव नहीं तो कठिन जरूर है यह समिति प्राचार्यों का दाहिना हाथ है। यदि विद्यालय की विभिन्न समितियाँ अपना कार्य सुचारू रूप से करती रहे तो प्राचार्यों की एक बहुत बड़ी समस्या हल हो जाएगी। विषय समिति के महत्व को निम्नलिखित रूपों में दर्शाया जा सकता है -

- विषय समिति की बैठक में पठन-पाठन के समय
   आनेवाली समस्याओं, उलझानों, संकाओं आदि
   का समाधान हो जाता है ।
- 2 -प्रत्येक शिक्षक एक दूसरे के अनुभवों से लाभ उठाते हैं जिससे शिक्षण कला में सुधार होता है।
- इसमें मंदग्राही एवं मेधावी विद्यार्थियों पर चर्चा होती है जिससे उनमें सुधार लाने में सरलता आती है।
- 4 शिक्षण साम्ग्री के निर्माण एवं प्रयोग में सहुलियत
   मिलती है ।
- 5 समस्त कक्षाओं में निर्धारित पाठ्यक्रम का अनुपालन एक साथ चलता रहता है ।
- किविसं के दिशा-निर्देशों के पालन में सुविधा होती है।

7 - वर्ग एवं कक्षानुसार परिणाम
 विक्लेषण से विद्यार्थियों एवं शिक्षकों
 की स्थिति का पता चलता रहता है

जिससे शिक्षकों में प्रतिस्पर्धा बनी रहती है ।

- प्रश्नपत्र निर्माण एवं सुधारीकरण में सरलता
   रहती है जिससे प्रश्नपत्र की गुणवत्ता बनी रहती
   है ।
- 9 गृहकार्यों एवं कक्षाकार्यों की संख्या तथा उनके
   निरीक्षण में आनेवाली कठिनाइयों का निराकरण होता रहता है ।
- 10 प्रायोजना कार्य एवं उत्तरपुस्तिका के जाँच में गुणवत्ता एवं एकरूपता रहती है ।
- 11 पुस्तकालय का सदुपयोग सामान्य रूप से होता रहता है ।
- 12 प्राचार्यों को स्वतः योगदान मिलता रहता है ।
- 13 मंद्रग्राही विद्यार्थियों का मार्गदर्शन एवं निर्देशन सुचारू रूप से चलता रहता है ।
- 14 मूल्यपरक शिक्षा के विकास में सरलता रहती है।
- 15 क्रिया अनुसंधान का वातावरण तैयार होता है ।

### विषय समिति की बैठक का मासिक, त्रैमासिक एवं वार्षिक योजना

Monthly, Quarterly & Annual plan for subject committee meeting

- (क) विषय समिती की बैठक का मासिक योजना

  Monthly plan for subject committee meeting

  कुछ बिन्दुओं पर प्रत्येक माह में विचार विमर्श करना

  अनिवार्य होता है । जैसे -
- 1 10 वीं एवं 12 वीं कक्षा के लिए मासिक उपलब्धि परीक्षा के पाठ्यक्रम का अनुपालन, प्रश्नपत्र निर्माण एवं परीक्षा परिणाम की समीक्षा की योजना ।

KVS Quarterly Journal



- समस्त कक्षाओं के लिए निर्धारित मासिक पाठ्यक्रम
   का अनुपालन पर चर्चा ।
- 3 साप्ताहिक कक्षाकार्य एवं गृहकार्यों की संख्या तथा
   उनके निरीक्षण पर विचार-विमर्ष ।
- 4 मंदग्राही विद्यार्थियों की प्रगति की समीक्षा ।

#### (ख) विषय समिति की बैठक का त्रैमासिक योजना

Quarterly plan for subject committee meeting

कुछ बिन्दुओं पर प्रत्येक माह में विचार-विमर्ष न कर के तीन महीने में करना जरूरी होता है । जैसे -

- पाठ, उद्देश्य, एवं प्रश्नानुसार अंकयोजना के साथ जून, अगस्त तथा दिसम्बर में प्रश्नपत्र निर्माण की योजना ।
- 2 सत्रावार प्रायोजना कार्य एवं उसकी समीक्षा ।
- 3 इकाई परीक्षा के पश्चात परिणाम विश्लेषण ।
- 4 इकाई परीक्षा के पश्चात मंदग्राही एवं मेधावी
   विद्यार्थियों की प्रगति की समीक्षा ।

# (ग) विषय समिति की बैठक का वार्षिक योजना

Annual plan for subject committee meeting

#### मार्च / अप्रैल

- शिक्षक दैनन्दिनी लेखन एवं उसकी देखभाल पर चर्चा।
- 2 अनुसंधानात्मक कार्यों को बढ़ावा ।
- 3 शिक्षण तकनीक पर चर्चा एवं आदर्श पाठयोजना
   के साथ कक्षा शिक्षण ।
- 4 विज्ञान प्रदर्शनी ।
- 5 स्वतंत्रता दिवस
- 6 अन्य बिन्दु

#### अगस्त

- 1 हिन्दी सप्ताह / पखवाड़ा / माह मनाने की योजना।
- 2 विद्यार्थियों एवं शिक्षकों द्वारा पुस्तकालय काप्रयोग ।
- 3 प्रायोजना कार्य की समीक्षा ।
- 4 गणित एवं विज्ञान ओलम्पियाड ।
- 5 शिक्षक दिवस
- 6 अन्य बिन्दु

#### सितम्बर

- 1 मौखिक अभिव्यक्ति पर बल ।
- 2 राजभाषा के प्रचार-प्रसार की प्रगति पर चर्चा।
- 3 शरदकालीन अवकाश के लिए गृहकार्य ।
- 4 गाँधी जयन्ती
- 5 अन्य बिन्दु

#### अक्टूबर

- अर्द्धवार्षिक परीक्षा के लिए आदर्श प्रश्नपत्रों का निर्माण, अभ्यास एवं पुनरावृति ।
- 2 आदर्श उत्तर, पत्र, निबंध आदि लेखन पर चर्चा।
- 3 काल / टाल से पढ़ाए गए पाठों का विवरण ।
- 4 अन्य बिन्दु

#### नवम्बर

- शिक्षक, कक्षा, एवं वर्गानुसार अर्द्धवार्षिक परीक्षा
   का परिणाम, विक्लेषण ।
- 2 शीतकालीन अवकाश के लिए गृहकार्य ।



- 3 संख्यात्मक एवं गुणात्मक परिणाम की समीक्षा।
- 4 अन्य बिन्दु

#### दिसंम्बर

- 1 इस माह में विषय सिमिति की बैठक का मासिक एवं त्रैमासिक योजना लागू होगा ।
- 2- गणतंत्र दिवस

#### जनवरी

इस माह में विषय समिति की बैठक का मासिक एवं त्रैमासिक योजना लागू होगा ।

# फरवरी

सत्रान्त परीक्षा के लिए आदर्श प्रश्नपत्रों का निर्माण, अभ्यास एवं पुनरावृति ।



जीवन में दो ही व्यक्ति असफल होते हैं, जो सोचते हैं, पर करते नहीं । दूसरे वे जो करते तो है, पर सोचते नहीं ।



# बालक का समग्र विकास एवं शिँक्षा

कु. मंजुला देवी मिश्र के वि. क्रमांक 1 (द्वितीय पाली) अरमापुर, कानपुर

"बालक ते सर्वगुण सम्पन्न भगवान का स्वरूप है । आवश्यकता है केवल आग पर से राख उड़ा देने की अग्नि दमक उठेगी । "

- स्वामी विवेकानंद

उच्च कोटि के व्यक्तित्व और सामाजिक जीवन के लिए अनेक प्रकार के आवश्यक संस्कारों एवं गुणों से युक्त व्यक्तित्वों का निर्माण शिक्षा द्वारा ही सम्पन्न होता है। विद्यालयी परिवेश में यह कार्य अनेक प्रकार से ज्ञानात्मक, विचारात्मक, क्रियात्मक एवं सृजनात्मक कार्यक्रमों द्वारा ही पूरा किया जाता है। कार्यक्रमों को हम संस्कारित एवं गुणोत्पादक प्रणाली कह सकते हैं। प्राचीन काल से जिस प्रकार क्षणभंगुर पारे जैसी धातु को अनेक रसायनिक क्रियाओं के द्वारा सुधातु स्वर्ण के रूप में परिवर्तित करने की घटना का वर्णन मिलता है, उसी प्रकार प्रकृति मानव को विकृतियों से बचाकार संस्कृत मानव बनाने का कार्य करता है।

विद्यालय में विद्यार्थी ही हमारी शिक्षा का केन्द्र बिन्दु रहता है । परिवार में वह सबका स्नेह - बिन्दु है और माता पिता की उत्तम कृति । परिवार से समाज का भावी स्वरूप प्रगति का आधार, राष्ट्र के विकास की असीम शक्ति है । अतः विद्यार्थी का सर्वांगीण विकास कराना ही किसी विद्यालय का प्रथम उत्तरदायित्व है ।

# बालक एक परिकल्पना -

अब प्रश्न यह उठता है कि जिस बालक को हम शिक्षित करने जा रहे हैं उसके विषय में हमारी परिकल्पना क्या है ? हम उसे कैसे और किस दिशा में शिक्षित करेंगें जिससे उसका चतुर्दिक विकास सम्भव हो सके ?

हम उसे कुम्हार की कच्ची मिट्टी समझते हैं या उपवन में उगने वाला नन्हा पौधा । हम उसे मनोदैहिक समझते हैं या इससे कुछ अधिक । बालक के विषय में भारतीय संकल्पना यह है कि वह एक परिपूर्ण मानव है। वह परब्रह्म का एक अंश है, उसी का व्यक्त स्वरूप। उस ज्योमिय पुन्ज की एक छोटी चिनगारी जिसमे ममुष्यत्व से देवत्व प्राप्त करने की सम्भावनाएं जन्म से ही विद्यमान रहती है । अंग्रेज किव William Wordsworth की भी यही धारणा है कि -

"हमारी आत्मा का उद्गम प्रभु के स्वर्ग से होता है और बाल्यकाल में शिशु के चारो ओर स्वर्मिक आभा विद्यामान रहती है ।"

'But trailing clouds of glory do we come from God, who is our home'.

### शारीरिक विकास

एक कहावत है कि - "स्वस्थ शरीर में स्वस्थ मस्तिष्क निवास करता है ।"

अतः बच्चों के शारीरिक विकास की दृष्टि से योग शिक्षा एवं शारीरिक शिक्षा का पाठ्यक्रम मे विशेष



महत्व है । हमारे केन्द्रीय विद्यालयों में इस शिक्षा पर विशेष बल दिया गया है । योगाभ्यास द्वारा तीन शक्तियों का जागरण तथा सामंजस्य होता है ।

 क्रिया शक्ति तथा शारीरिक शक्ति-सभी प्रकार के शारीरिक कार्य करने की तत्परता तथा इच्छा शक्ति ।

(Co native impulse and will to do or will to action)

- ज्ञान शक्ति जानने तथा संग्रह करने की तत्परता
   (Conative impulse and will to know)
- भावना शक्ति भावात्मक अनुभूति करने की तत्परंता

(Affection and will to symphathies)

व्यायाम द्वारा हम शरीर के विभिन्न भागों को पुष्ट बनाते हैं, और नवस्फूर्ति जाग्रत करते हैं । किन्तु मस्तिष्क का कोई व्यायाम नहीं। मस्तिष्क का व्यायाम योगासनों द्वारा ही सम्भव है । योगाभ्यास से सभी प्रकार के कार्य करने की कुशलता प्राप्त होती है । गीता में कहा गया है -

# "योगः कर्मसु कौशलम्"

योगाभ्यास द्वारा ज्ञानेन्द्रियों की शक्ति को बढ़ाया जा सकता है जाग्रत किया जा सकता है , हमारी ज्ञानेन्द्रियाँ ही बाल्यकाल में सीखने का प्रमुख माध्यम हो सकती हैं, इन्हें प्रशिक्षित कराने से सीखने की अनन्त क्षमता का विकास हो सकता है । योगाभ्यास द्वारा बुद्धि की शक्तियाँ मेघा या ऋतम्मरा तथा प्रतिभा का

विकास होता है । स्मरण शक्ति भी बढती है ।

> भावना शक्ति से हमारा तात्पर्य है-दूसरों की संवेदनाओं

के साथ समरस होना । दूसरों की भावनाओं को समझना तथा उनकी अनुभूति करना । हमारे शरीर में नाडी संस्थान है तथा अनेक भावना ग्रांथियाँ हैं जिनमें रसों का स्त्राव होता है । रसों के स्त्राव से भावनाओं की अनुभूति तथा प्रकाशन पर प्रभाव पड़ता है। योग द्वारा रसों को नियंत्रित किया जाता है तथा इन्में सामंजस्य स्थापित होता है ।

योग की प्रक्रिया में आसन प्राणायाम और ध्यान भी आते हैं । इन तीनों के संचालन एवं समन्वय से चेतना प्राप्त होती है । चेतना प्राप्त करना ही शिक्षा है। यदि इन तीनो में समंवय नहीं स्थापित होता तो मस्तिष्क में कितना भी ज्ञान भरा जाय बुद्धि का विकास नहीं होगा ।

#### सामाजिक शिक्षा -

शिक्षा के द्वारा सभ्यता और संस्कृति का केवल स्थानांतरण ही नहीं होता है अपितु इसका संवर्धन विकास परिष्कृतकरण भी होता है। जे. एस. गिल के अनुसार - "शिक्षा का प्रमुख कार्य किसी समाज की संस्कृतिक विरासत को एक पीढ़ी से दूसरी पीढ़ी को स्थानान्तरित करना है। "

#### सामाजिक शिक्षा के तीन माध्यम बताए गए हैं -

(क) संस्कार (ख) अध्ययन (ग) स्वाध्याय

(क) संस्कार - बालक को संस्कार सर्वप्रथम उसके परिवार से प्राप्त होते हैं। विद्यालय आने से पूर्व ही बालक अपने परिवार से कुछ संस्कार प्राप्त कर लेता है, जिनके आधार पर उसकी आदतें और व्यवहार की शैली बनजाती है। परिवार में माता ही बालक की प्रथम शिक्षिका एवं साथी होती है। वह मातृशक्ति ही है जो बालक में सबसे पहले आत्मशक्ति का विस्तार करती है। उसका भविष्य एवं संस्कार माता के स्नेहमयी हाथों में रहता है



। इस तथ्य को कवीन्द्र रवीन्द्रनाथ टैगोर ने अपनी कविता 'Cresent Moon' में स्पष्ट किया है।

"Where have I come from where did you pck me up?

The boy asked his mother.

She answered half crying, half laughing and clasping the baby to her breast. You were hidden in my heart as desire my darling. You were in the dolls of my childhood games and when with clay. I made the image of my God every morning, I made and unmade you then."

यही कारण है कि समाज में माताओं के शिक्षित होने पर अधिक बल दिया जाता है । परिवार में होनेवाले पूजा - पाठ, ईश वन्दना, छोटे-बड़ो के प्रति आदर एवं स्नेहभाव मधुर वाणी भारतीय संस्कृति से परिचय परिवार में मनाये जाने वाले त्योहारों एवं उत्सवों का ज्ञान उसे माता-पिता के वात्सल्यमयी छत्र में प्राप्त होता है । विद्यालय का वातावरण केवल उसमे वांछनीय परिवर्तन ही कर सकता है । विद्यालय के संस्कारों से ही उसके व्यवहार में प्रमाणिकता उत्पन्न होती है ।

(ख) अध्ययन - अध्ययन से हमारा तात्पर्य लोक शिक्षा से है । जैसी लोक शिक्षा होगी वैसे ही समाज का निर्माण होगा । अतः भावी समाज के निर्माण में विद्यालय का गुरुतर उत्तरदायित्व है जो राष्ट्र निर्माण के कार्य में रत है । ब्रिटेन शिक्षा शास्त्री टी. पी. नन ने कहा है - "किसी भी राष्ट्र के विद्यालय उसके जीवन का महत्त्वपूर्ण अंग होते हैं । इन विद्यालयों का प्रमुख कार्य राष्ट्र की आध्यात्मिक शक्ति को पुष्ट करना है । राष्ट्र की प्राचीन उपलब्धियों को सुरक्षित बनाने के लिए ऐतिहासिक

परम्पराओं को अविच्छिन्न बनाये रखना है। राष्ट्र के भविष्य को सुनिश्चित बनाए रखना है।"

लोक शिक्षा समाज में समरसता, एकता और विश्व की चुनैतियों का सामना करने की क्षमताओं का विकास करने में समर्थ होनी चाहिए।

(ग) स्वाध्याय - 'स्वाध्याग्रान्मा प्रसाद' अर्थात स्वाध्याय में कभी प्रसाद न करना । यह शिक्षा प्राचीन काल में गुरु दीक्षोपरांत शिष्य को देता था वर्तमान वरिवेश मे स्वाध्याय का क्षेत्र बहुत व्यापक हो गया है । पत्र-पत्रिकाएँ, रेडियो, टी.वी, कम्पूटर, इंटरनेट प्रतिदिन हमारे स्वाध्याय के माध्यम हैं। इनके द्वारा समाज की धारणाओं विश्वास और जीवन का निर्माण होता है । विद्यालय के अतिरिक्त शिक्षा के अनियमित साधन मिलकर व्यक्ति मे सामाजिक चेतना का निर्माण करते है। अमेरिका के दर्शनिक जान डी. वी. ने सामाजिक चेतना पर अधिक बल दिया है।

"All Education proceeds by the participation of the individual in the social consciousness of the race".

सामाजिक चेतना में भागीदारी का मतलब है अपनी संस्कृति इतिहास और जीवन मूल्यों से परिचित होना अपने जातीय वैशिष्ट्य को पहचानना जीवन के मानस से एकाकार होना । बालकों में सामाजिकता और सामाजिक चेतना के विकास में माता-पिता. परिवार और समाज की अहम भूमिका है । महापुरुष खलिल जिब्रान का कथन है -

"Your Children and not your children They are the sons and daughters





of life's longing for itself
They come through you
but not from you
Though they are with you
Yet they belong not to you"

यदि शिक्षा जीवन की तैयारी का दूसरा नाम है तो यह तैयारी समाज और राष्ट्र के प्रति समर्पण के साथ होनी चाहिए ।

#### बालक का नैतिक आध्यात्मिक विकास

शिक्षा रूपी सरिता के दो किनारे हैं - एक सदाचार और दूसरा नैतिकता । वास्तविक शिक्षा वही है जो बालक के बौद्धिक विकास के साथ साथ उसमें सदाचार और नैतिकता का विकास करती है । नैतिक शिक्षा के तीन उद्देश्य हो सकते हैं -

- देश भिक्त की भावना छात्र का मातृभूमि के साथ माता पुत्र का संबंध स्थापित करना । गीत नाटकों द्वारा छात्रों में स्वदेश गौरव का भाव तथा देशाभिमान जागृत करना ।
- 2. आध्यात्मिकता का विकास इसका प्रथम चरण परम पिता प्रभु की सत्ता में विश्वास उत्पन्न करना है । इसके बाद परम-पिता के प्रति समर्पण का भाव जागृत करना तथा उसकी निरंतर वंदना प्रार्थना के कार्य सम्पादित करना है ।
- 3. सदगुण या सदाचार का विकास सामान्य

शिष्टाचार की बातें घर और विद्यालय में छात्र को बतानी चाहिए । अनुशासित जीवन ग्रहण करने के लिए छात्र को प्रेरित करना चाहिए । सहयोग परस्पर सहानुभूति और साहसिकता के कार्य करने के अवसर छात्र को उपलब्ध कराये जाये । आचरण की पवित्रता के दृष्टांत छात्रों के सम्मुख रखे जाएँ।

अरविंद घोष के अनुसार - "नैतिक शिक्षा का प्रथम नियम सुझाव व प्रेरणा देना है । आज्ञा देने, दवाब डालने या दण्डित करने से नैतिकता का विकास नहीं हो सकता। नैतिकता सिखाने का दूसरा नियम व्यक्तिगत दृष्टांत प्रस्तुत करना । तीसरी विधि वार्तलाप द्वारा दैनिक चिंतन तथा स्वाध्याय है "।

धर्म नैतिक आचरण और आध्यात्मिकता का घनिष्ठ संबंध है। बिना धर्म के नैतिकता या आध्यात्मिकता की बात करना वैसा ही है जैसा कि बिना जड वाले वृक्षों को सींचना नैतिकता का प्रकाट्य समाज में होता है। विद्यालय की प्रत्येक कक्षा समाज का लघु रूप है। नैतिकता का संबंध अंतःकरण या हृदय पक्ष की शिक्षा से रहता है।

# इसलिए -

स्वामी विवेकानंद ने कहा था - "हृदय का विकास करो क्योंकि प्रभु इसीके माध्यम से बोलते है ।"

"Develop the heart because through it the lord speaks".





सद्गुणों की खाद और सन्नाई का पानी पाकर व्यक्तित्व का पौधा विकसित होता है ।



# शिक्षा उद्देश्य पूर्ण बने !

एस. एस. डाकुआ, प्राचार्य केन्द्रीय विद्यालय, सिवनी मालवा

शिक्षा का वास्तविक उद्देश्य मानव के अन्तर्निहित सद्गुणों को विकसित करना है । अंग्रेजी भाषा में शिक्षा को 'एज्युकेशन' कहते हैं । यह लैटिन शब्द 'ऐज्युकेयर' शब्द से बना है, जिसका तात्पर्य है - व्यक्ति की व्यक्तिगत क्षमता का जीवन को श्रेष्ठ बनाने के लिए पूरी तरह सदुपयोग । व्यक्तिगत क्षमता मनुष्य के अन्तराल में ज्ञान के रूप में निहित है । इस ज्ञान के प्रकटीकरण में अपने को लगानेवाला शिक्षार्थी है । इस प्रक्रिया में सहायता करनेवाला शिक्षक कहलाता है ।

इस कसौटी पर वर्तमान विद्यार्थी एवं शिक्षक दोनों को कसने पर प्रतिफल संतोषजनक नहीं मिलता । आज की शिक्षा का क्षेत्र भौतिक जगत की खोज तक से सिमट कर रह गया है । परिणाम स्वरूप नैतिक मूल्यों के प्रति उदासीनता दिखाई पड़ती है । हम शिक्षा के समग्र उद्देश्य से विमुख हो गये हैं ।

प्राचीन भारत तथा यूनान आदि देशों के वाड्गमय से तात्कालिक मनीषियों की शिक्षा के मूल उद्देश्यों के प्रति जागरूकता स्पष्ट होती है । तत्कालीन व्यवस्था में शिक्षा प्रक्रिया इन्हीं मूल्यों पर आधारित थी । "सामाजिक स्थिति इतनी सशक्त थी कि चोरी जैसी घटनाएं भी यहां कभी नहीं देखी जाती थी ।"

"शिक्षा विकास का वह क्रम है जिससे व्यक्ति अपने को धीरे धीरे विभिन्न प्रकार से भौतिक, सामाजिक वातावरण के अनुरूप बना लेता है, साथ ही नैतिक मूल्यों को अपनाता है ।" वर्तमान समय में शिक्षा स्वाभाविक विकास क्रम न रहकर विविध जानकारियों के ढेर समेटने के रूप में रह गई है । इन जानकारियों को 'किसी तरह मस्तिष्क' में जमा लेना ही सार्थक माना

जाने लगा है । यदि इसकी सार्थकता के औचित्य पर विचार किया जाये तो इसकी भूल स्पष्टतया सामने आने लगती है । मात्र भौतिक जानकारियों को दिमाग में इकठ्ठाकर लेना सार्थक नहीं माना जा सकता है । इसमें भी विवेकयुक्त बुद्धि का आश्रय लेने की आवश्यकता जरूरी है, जिससे जीवन निर्माण, चरित्र निर्माण तथा मनुष्य निर्माण में सहायक विचारों को अनुभूत किया जा सकें ।

इसके उद्देश्य के विमुख होने का कारण क्या है ? इन कारणों की खोज करके इनका निवारण किस प्रकार किया जाये ? इन पर चिन्तन करने से यही स्पष्ट होता है कि आध्यात्मिकता का अभाव और भौतिकता का बढ़ता प्रभाव ही इस स्थिति का मूल कारण है । इनके उपयुक्त समावेश से ही स्थिति फिर सुधर सकती है। आज शिक्षा शास्त्र के अनेकानेक विद्वान भी इसी बात पर जोर दे रहे हैं । हण्टर आयोग से लेकर कोठारी आयोग व नई शिक्षा नीति से राममूर्ति आयोग तक नियुक्त किये जाने वाले सभी आयोगों और समितियों ने शिक्षा संस्थानों में नैतिक शिक्षा प्रदान किये जाने का समर्थन किया है । वर्तमान आयोग की प्रतिवेदनों में सामाजिक, नैतिक और आध्यात्मिक मुल्यों की शिक्षा के लिए सक्रिय और संगठित प्रयास पर बल दिया गया है । इतना होने पर भी नैतिकता का सही स्वरूप किसी को भी ज्ञात नहीं है।

नैतिक मूल्यों का किसी भी कट्टरवादिता से कोई संबंध नहीं है । यह तो मानव के व्यक्तित्व को ऊंचा उठाने वाले तत्व है । इनका समावेश आदिकाल से



अध्यात्म दर्शन में रहा है और ये आज भी अपेक्षित हैं। ऐतिहासिक कालक्रम की दृष्टि से विचार करने पर इसकी महत्त्व स्पष्ट होता है। प्राचीन भारत में आश्रमों एवं पाठ्शालाओं में नैतिक शिक्षा पाठ्यक्रम का अभिन्न अंग था। अंग्रेजों ने भारतीय शिक्षा नीति को नैतिक शिक्षा से बिल्कुल पृथक कर दिया। इसका एकमात्र कारण भारत निवासियों को शारीरिक ही नहीं, मानसिक रूप से भी गुलाम बनाना था। उन्होनें राज्यों द्वारा संचालित विद्यालयों में इस शिक्षा की अवहेलना की। स्वतंत्र भारत में शिक्षा विदों ने बाह्य स्वरूप में थोड़ा परिवर्तन अवश्य किया परन्तु मूल ढांचा वहीं बना रहा। यही कारण है कि शिक्षा अपने उद्देश्यों को पूरा करने में सफल नहीं हो सकी है।

आज पढ़े लिखे लोगों में निराशा, कुण्ठा, असंतोष, असुरक्षा की भावना उत्पन्न हो गई है । यह शिक्षा में नैतिक मूल्यों की, व्यक्तित्व को परिष्कृत करने वाले तत्वों की अनिवार्यता को सिद्ध करता है । वास्तव में नैतिक मूल्य एवं शिक्षा अपने स्वाभाविक स्वरूप में दूसरे से गुंथे हुए हैं । इनमें से एक को विलग कर देने से उनका स्वरूप स्वाभाविक न रहकर विकृत हो जाता है । "कुछ लोग नैतिकता को धर्म से अलग करना चाहते हैं, पर धर्म के आधार के बिना नैतिकता का अन्त हो जायेगा। "शिक्षा का सार तत्व यह है कि वह धार्मिक होती है । जिस प्रकार शिक्षा को धर्म से अलग नहीं किया जा सकता, उसी प्रकार शिक्षा से नैतिकता को भी पृथक करना असंगत है । नैतिक शिक्षा, शिक्षा के समग्र स्वरूप से पृथक नहीं है ।

निःश्संदेह समग्र शिक्षा और नैतिक मूल्य एक दूसरे से गुंथे हुए हैं। इसके अभाव में शिक्षा में विकृति आना स्वाभाविक है। आज छात्रों में व्याप रही चरित्रहीनता, अनुभासनही ता, मर्यादाओं का अभाव इसी विकृति

को दर्शाता है । नीतिमत्ता में किसी प्रकार की कट्टरता नहीं है। इसका तत्वदर्शन हर समय प्रत्येक के लिए लाभकारी है । महात्मा गांधी ने नैतिकता की अनिवार्यता को स्वीकारते हुए कहा था । "मेरे लिए नैतिकता, सदाचार और धर्म पर्यायवाची शब्द हैं । नैतिकता के आधारभूत सिद्धान्त सभी धर्मा में समान हैं । इन्हें बालकों को निश्चित रूप से पढ़ाया जाना चाहिए । " प्रसिद्ध दार्शनिक एवं शिक्षाशास्त्री राधाकृष्णन ने भी इसके समावेश पर बल देते हुए कहा कि "मानवीय मूल्य व्यक्ति की सांस्कृतिक विरासत का एक अंग है । इनको पाठ्य विषय में स्थान न देना, छात्रों को अपने जन्मसिद्ध अधिकार के एक भाग के लाभ से वंचित करना है ।"

विभिन्न शिक्षा विशारदों एवं शिक्षा आयोगों के निष्कर्षों तथा प्रतिवेदनों से इसकी महत्तव स्पष्ट होती है। परन्तु इस समस्या का समाधान इतने भर से संभव है। शिक्षक राष्ट्र मंदिर के कुशल शिल्पी हैं।शिक्षार्थी अनगढ़ मिट्टी के समान हैं। शिक्षा वह विधा है, जिनसे इनको ढाला और राष्ट्र मंदिर को गढ़ा जाता है। नैतिकता एवं मानवीय मूल्य ही वह भाग है, जिससे इन कची ईटों को मजबूती व सौंदर्य प्राप्त होता है, अन्यथा इसके अभाव में गढ़ाई की सुन्दरता के बाद भी कचापन अवश्यम्भावी है।

इस शित्पकला के लिए शिक्षार्थी शिक्षक दोनों को ही अपनी भूमिका समझनी होगी । मनःस्थिति को संस्कारी बनाकर इस निर्माण कार्य में जुट जाना होगा। समय का तकाजा है कि व्यक्ति को संस्कारवान, आत्मनिर्भर तथा परिष्कृत बनाने वाली विद्या को जन जन तक लोकप्रिय बनाया जाये । आज शिक्षालयों की कम, सही अर्थों में विद्या देनेवाले मंदिरों की ज्यादा आवश्यकता है, तभी नवयुग के समाज का सशक्त आधार विनिर्मित हो सकेगा ।





# विद्यार्थियों में 'स्व' प्रबन्धन Self Management in Students

मनोज कुमार सिंह पी. जी. टी. (भौतिकशास्त्र) केन्द्रीय विद्यालय, सोनपुर, बिहार

शिक्षा में 'प्रबन्धन' शब्द का प्रयोग कुछ ही वर्षों से हुआ है । जहाँ तक मुझे ख्याल है कि स्वतंत्रता प्राप्ति के पूर्व तथा उसके पश्चात शिक्षा के क्षेत्र में राष्ट्रीय स्तर पर जितने भी शैक्षिक आयोग गठित किए गए हैं । प्रायः उनमें प्रबन्धन का जिक्र नहीं है । हालांकि बी. एड. स्तर की पुस्तकों में 'प्रशासन' तथा 'संगठन' शब्दों को प्रयोग किया है। ऐसा माना जाता है कि शिक्षा के क्षेत्र में 'प्रबन्धन' की अवधारणा व्यवसाय तथा उद्योग के क्षेत्र से ली गई है । इस क्षेत्र में इसकी सफलता के बाद प्रायः हर क्षेत्र इसे अपनाने की हिचकिचाहट नहीं महसूस की । अतः आज के समय में विद्यार्थियों में 'स्व' प्रबन्धन की नितान्त आवश्यकता है ।

प्रबन्धन आज के युग की सर्वोपिर आवश्यकता बन गया है। आज के दौर में प्रबन्धन में कुशलता सफलता का प्रतीक और पर्याय बन गया है। प्रबन्धन का तात्पर्य है ---- शिक्त सामर्थ्य, साधन-संसाधनों का समुचित विकास और सार्थक सुनियोजन। प्रबन्धन की तकनी कों का सुनियोजन एवं विकास ही सभी मापदंडों का आधार माना जाता है। अगर आप जीवन में विजयी होने की चाहत रखते हैं तो इसके लिए एक ही कारगर उपाय है --- प्रबन्धन की प्रक्रिया में सर्वाधिक कुशलता पाना। इसका ताजा-तरीन परिणाम देखने को मिला केन्द्रीय विद्यालय संघटन में। कुशल प्रबन्धन के चलते ही विगत कुछ वर्षों से केन्द्रीय विद्यालय का परीक्षाफल (दसवीं और बारहवीं का) सर्वोच्च स्थान पर है। अथवा अन्य विद्यालयों की तुलना में सबसे उपर।

प्रबन्धन की मौलिक एवं आधारभूत प्रक्रिया का मूल केन्द्र है -- स्वप्रबन्धन । स्वप्रबन्धन के आधार पर ही विद्यार्थियों में शरीरिक, मानसिक एवं भावानात्मक आदि सभी पक्षों को विकसित किया जा सकता है । ये सभी गुण योग के द्वारा प्राप्त किया जा सकता है ।

योग में जीवन की समग्रता का आकलन एवं विश्लेषण विद्यमान है । हटयोग, राजयोग, भक्तियोग, ज्ञानयोग सभी के यौगिक तकनीकों का लक्ष्य 'स्व' का सर्वंगीण विकास है । कुछ योग जहाँ मानवीय व्यवहार को परिमार्जित करते हैं वहीं पर कुछ योग सुप्त क्षमताओं को जाग्रत करतें हैं । स्व प्रबन्धन परिस्थिति - परिवेश के अनुरूप अपनी अंतर्निहित क्षमता का समुचित सदुपयोग है । जीवन और परिस्थितियों की सभी क्षमताओं का बेहतरीन सूयोग एवं सामंजस्य है । यही बेहतरीन सुयोग और सामंजस्य श्री रामचन्द्र जी को मानव से मर्यादा पुरुषोत्तम राम बना दिया । परिस्थिति -परिवेश के सही सुयोग एवं सामंजस्य ने ही सावित्री को यमराज के हाथ में गया हुआ सत्यवान का प्राण लौटवा दिया । आधी धोती पहनने और ओढ़ने वाले बापू ने लगभग आधे भूभाग पर शासन करने वाले अंग्रेंजों को नाको चने चबवा दिया । और अंततः उन्हें भारत छोड कर जाना पड़ा ।

आज कल प्रायः हर अखबार में मैनेजमेंट कॉलेज का विज्ञापन मिल जायेगा । आप यहाँ पर यह भी विज्ञापन मिल जायेगा । आप यहाँ पर यह भी पढे हैं

त आप यहा पर यह मा पढ़ हकि आई . आई . एम. अहमदाबाद,



चेन्नई के उत्तीर्ण छात्र को एक करोड़, एक करोड़ दस लाख सालाना पारश्रमिक पर, अमुख कम्पनी ने अपने यहाँ रख लिया है । इससे उस व्यक्ति की सामाजिक आर्थिक एवं बौद्धिक शोहरत मिल गयी । जिससे उस व्यक्ति में आत्म सम्मान एवं आत्म विश्वास बड़ जाता है । तो क्या आप यह नहीं चाहेंगे कि आपको जीवन में सम्मान मिले, आत्मविश्वास बढ़े और सफलता बार-बार मिले। यह तभी संभव है कि आप अपने जीवन में 'स्व' प्रबन्धन को अपनाएंगें ।

# स्व प्रबंधन के द्वारा हम प्रमुख कार्य कर सकते हैं।

- 1. नियोजन (Planning)
- 2. संगठन (Organizing)
- 3. बजटिंग (Bdugeting)

- 4. उत्प्रेरण (Motivation)
- 5. नियंत्रण (Controlling)
- 6. समन्वय (Co-ordinating)
- 7. निर्देशन (Directing)

इतने सारे कार्य 'स्व' प्रबन्धन के द्वारा कर सकते हैं तो क्यों न इसमें हम अपनी सारी ताकत झोंक दे और 'स्वप्रबन्धन' को सशक्त और मजबूत बनाया जाए । तब मनुष्य पूर्ण मनुष्य बन जाएगा । जिसकी हम कल्पना करते हैं ।

मनुष्य जीवन अनंद संभावनाओ और अद्भुत क्षमताओं का भंडार है। इन्हें समुचित ढंग से सुनियोजित कर इनकी विशेषताओं के सदुपयोग करने की तकनीक स्वप्रबन्धन में निहित है। स्वप्रबन्धन के द्वारा हमारा व्यक्तित्व विकसित एवं आकर्षक बन सकता है।



सुनियोजन ही सौन्दर्य है । उसी को कला कौशल भी कहना चाहिए ।

पढ़ना तो बहुत जानते हैं, पर यह कोई विरता ही जानता है कि क्या और क्यों पढ़ना चाहिए ।





# एच. आई. वी./ एड्स

आर.ए.एस. यादव उप - प्राचार्य (द्वितीय पाली) केन्द्रीय विद्यालय क्रमांक - 1, अर्मापुर, कानपुर

#### एच. आई. वी. / एड्स की विभीषिका एवं बचाव:

आज एच.आई. वी. एड्स का प्रसार समाज के सभी वर्गों में हो रहा है । कोई भी जाति, धर्म इसके प्रकोप से अछूता नहीं है । चाहे वह स्त्री हो अथवा पुरुष, शिक्षित हो या अशिक्षित, शहरी हो या ग्रामीण, बच्चे हों या बूढ़े, एच.आई.वी./एड्स सभी को अपनी गिरफ्त में ले रहा है ।

भारतवर्ष में वर्ष 1986 में प्रथम एच.आई. वी./ एड्स की पुष्टि हुई । तब से लेकर आज तक वर्ष 2007 के अन्त में भारत में विश्व के सर्वाधिक एच. आई. वी. /एड्स संक्रमित (लगभग 58 लाख) व्यक्ति है । वास्तव में सम्पूर्ण विश्व के साथ भारत को एच. आई. वी./एड्स से संघर्ष करना है, जो कि वर्तमान में मानव जाति के लिए सबसे बड़ी चुनौती है ।

# एच. आई. वी./एड्स क्या है ?

एच.आई.वी. / एड्स एक लाइलाज बीमारी है, यह असाध्य संक्रामक रोग है । एच.आई.वी. / एड्स से तात्पर्य "एक्वर्ड इम्यूनो डिफिसियेन्सी सिन्ड्रोम से "है, जो कि एच.आई.वी. (+) (ह्यूमन इम्यूनो डिफिसियेन्सी वायरस) द्वारा होता है । यह शरीर में पहुँचकर गुणात्मक रूप से विभाजित होता है तथा शरीर की प्रतिरोधक क्षमता को धीरे-धीरे समाप्त कर देता है, जिसके कारण मनुष्य को अन्य बीमारियाँ घेर लेती है। वाशरीर की प्रतिरोधक क्षमता कमजोर होने के कारण ये बीमारिसाँ मनुष्य के लिए घातक सिद्ध होती हैं । इन बीमारियों

में सर्वाधिक (60%) भाग क्षयरोग (टी.बी.) का होता है

#### एच.आई.वी. / एड्स से बचाव :

एच.आई.वी. विषाणु शरीर के अन्दर उपस्थित तरल पतार्थों में उपस्थित रहता है जैसे वीर्य व रक्त में, संक्रमित व्यक्ति के तरल पदार्थों का अन्य व्यक्ति से सम्पर्क होने पर दूसरा व्यक्ति भी संक्रमण का शिकार हो जाता है।

#### 1-असुरक्षित यौन संबंध:

एच. आई. वी./ एड्स के प्रसार में असुरक्षित यौन संबंधों की प्रसार क्षमता 0.1-1.0% ही है परन्तु इससे व्यक्ति 80-90% ग्रसित होते हैं, जो कि दर्शाता है कि लोग यौन संबंधों के सुरक्षित मापदण्डों का ध्यान नहीं रखते हैं।

इसके बचाव हेतु अपने जीवन साथी के प्रति ईमानदारी रखना व यौन क्रिया के दौरान कण्डोम का इस्तेमाल बचा सकता है ।

#### 2 - संक्रमित रक्त द्वारा :

संक्रमित रक्त द्वारा 80-100% संक्रमण की संभावना रहती है, परन्तु इसकी प्रसार क्षमता 3-5% रहती है ।

अतः रक्त लेते समय हमेशा एच.आई. वी. मुक्त मुहर को देखकर लेना चाहिये व केवल प्रमाणित व सरकारी रक्त कोषों से ही रक्त लेना चाहिये ।



#### 3- संक्रमित माता द्वारा बच्चों को :

एच. आई. वी. / एड्स संक्रमित माता से बच्चे को संक्रमण का खतरा 20-40% रहता है । ऐसी माताओं को सलाह दी जाती है कि बच्चे को जन्म ही न दें, क्योंकि संक्रमित माता-पिता की मृत्यु निश्चित है ।

### 4- संक्रमित सुई (सीरिंज) द्वारा :

मादक औषधियों का सेवन करने वाले एक ही सुई

ऑकड़े बताते हैं, कि 15 करोड़ व्यक्ति एच.आई.वी./ एड्स के कारण अनाथ हो गये हैं तथा 2010 तक इनकी संख्या लगभग 25 करोड हो जायेगी ।

ये ऑकड़े एच.आई.वी./ एड्स की विभीषिका को दर्शा रहे हैं, अगर हमें एच.आई.वी./ एड्स से बचना है तो भारतीय युवाओं को एच.आई.वी./ एड्स के विषय में अपने ज्ञान को बढ़ाना होगा तथा इसे एक आम चर्चा

संक्रमण आंकड़ा						
क्र.स.	संक्रमण के प्रकार	प्रसार क्षमता	संक्रमण की प्रतिशतता			
			विश्व में	भारत में		
1.	यौन सं संबंधों द्वारा	0.1 - 1.0%	75.0%	79.0%		
2.	संक्रमित रक्त द्वारा	90-05%	05.0%	07.0%		
3.	संक्रमित माता-पिता द्वारा	20-40%	10.0%	0.15%		
4.	संक्रमित सुई सिरिंज द्वारा	0.15-1.0%	10.0%	06.0%		

स्रोता: संकल्प सेवा संस्थान उ.प्र. कानपुर । (सीरिंज) से सभी मादक द्रव्य लेते हैं । ऐसे एक संक्रमित व्यक्ति से अन्य भी संक्रमण का शिकार होते हैं ।

इसमें बचाव हेतु प्रत्येक व्यक्ति को नई डिस्पोजल सीरिंज (सुई) का प्रयोग करना चाहिये तथा बार-बार प्रयोग की जाने वाली सुई का 30 मिनट तक उबालने के बाद ही पुनः प्रयोग मे लाना चाहिये ।

इस प्रकार यदि इस सारणी पर ध्यान केन्द्रित करें तो ज्ञात होता है, कि असुरक्षित यौन संबंधों द्वारा ही, भारत में सर्वाधिक रूप से एच.आई.वी.

> / एड्स का संक्रमण बढ़ रहा है । विश्व परिपेक्ष में 2003 के

का विषय भी बनाना होगा क्योंकि एच.आई.वी./ एड्स के सर्वाधिक शिकार युवाजन ही होते हैं, वो भी अधिकतर असुरक्षित यौन संबंधो के कारण ।

#### स्रोत:

- 1 संकल्प सेवा संस्थान उ.प्र. कानपुरजी. एस. जे. बी. सिंह विक्रम (प्रबन्धक संकल्प सेवा संस्थान)
- 2 एड्स की चुनौतियां (खुर्शीद एम. पावरी) ।केन्द्रीय विद्यालय संख्या 2, लाइब्रेरी
- 3 सक्रिय जीवन की शिक्षा (अल्फ्रेड बिरबाम, दयाल एम. बेथेल) ।

KVS Quarterly Journal



# 4 - उ.प्र. एड्स नियंत्रण सोसाइटी ।

विश्व एड्स दिवस 1 दिसम्बर को संकल्प सेवा संस्थान उ.प्र. कानपुर द्वारा आयोजित विचार गोष्ठी एवं जागरूकता कार्यक्रमों में भाग लेकर ऐसा अनुभव हुआ कि इस प्रकार के विभिन्न कार्यक्रमों को सम्पूर्ण भारत में जमीनी स्तर पर आयोजित किये जाने चाहिये, जिससे खासकर युवाओं को इस महामारी के विषय में सचेत किया जा सकें क्योंकि हम सभी यह जानते है कि:

"एड्स का ज्ञान, बचाये आपकी जान"



कर न सके जो जन कल्याण, उस नर से अच्छा पाषाण ।

धन बल, जन बल, बुद्धि अपार, सदाचार बिन सब बेकार ॥





# मेरे प्रेरणा स्त्रोत, महात्मा गाँधीजी

श्रीकान्त कुलश्रेष्ठ प्राचार्य केन्द्रीय विद्यालय क्र - 3 गांधीनगर कैन्ट (गुजरात)

अपने विद्यार्थी जीवन में गाँधीजी शताब्दी वर्ष के दौरान मुझे एक सेमीनार में भाग लेने जाना था पर अन्य युवाओं की तरह गाँधीजी जी की सत्य, अहिंसा या उनका यह कथन 'अगर कोई तुम्हारे गाल पर एक थप्पड़ मारे तो दूसरा सामने कर दो वाली बात मुझे बेमानी लगती थी । 'दे दी हमें आजादी बिना खडग बिना ढाल, साबरमती के संत तूने कर दिया कमाल' वाली उक्ति में मुझे अतिशयोक्ति नज़र आती थी और वैज्ञानिक एल्बर्ट आंइस्टीन का कथन कि आने वाली पीढी शायद ही विश्वास करे कि एक डेढ पसली के आदमी जिसमें ढाई छंटाक गोश्त और एक छंटाक रक्त था ने दुनिया के सबसे बड़े साम्राज्य जिसमें सूर्यास्त नहीं होता था कि चूलें हिला दी सच प्रतीत होता था और मजबूरी का नाम महात्मा गाँधीजी है का गढ़ा हुआ मुहावरा, मन को सच प्रतीत होता था, पर उस सेमिनार में सेवाग्राम के माहौल को देखकर, वहाँ के समर्पित स्वयं सेवकों को देखकर जिन्होनें केवल प्रेम के बल पर खूंखार डाकुओं को आत्म समर्पण के लिए प्रेरित किया मुझे लगा वास्तव में प्रेम के द्वारा भी कठोर हृदय को जीता जा सकता है । प्रेम में तोप. तीर. तलवार से भी अधिक शक्ति होती है । और मन में गाँधीजी को जानने की इच्छा बलवती हुई और जैसे-जैसे मैंने गाँधीजी जी को पढ़ा मैं प्रभावित हुए बिना न रह सका, मुझे लगा कि गाँधीजी किसी मजबूरी का नाम नहीं

> है, वरन वह तो महलों को झोपड़ियों के चरणों मे झुका देने का नाम है, सत्ता के मोह से अलग रह कर

साधारण व्यक्ति के दुख दर्दों से मुक्त हो जाने का नाम है, अन्याय अत्याचार के समक्ष खंभ ठोक कर खड़े हो जाने का नाम है। सत्य के लिए सर्वस्व समर्पित कर देने का नाम महात्मा गाँधीजी है।

गांधी जी की महानता उनकी उपलब्धियों में नहीं अपितु उनके चरित्र में थी । प्रो. एल. डब्ल्यु, ग्रेस्टेड का यह कथन वास्तव में बिलकुल सत्य है, गाँधीजी जी का जीवन ही उनका आदर्श है । उनके व्यक्तित्व में, मनसा, वाचा, कर्मणा का समन्वय था । उनके आदर्श जीवन की कसौटी पर उन्हीं के द्वारा कसे गये थे । आत्म निरीक्षण. आत्मशोधन द्वारा वह साधारण आदमी मानवता के शीर्ष पर पहुँचा था, महात्मा बना था । गांधीजी के वाक्य ने कि 'मैं किसी न किसी तरह मनुष्य के सर्वोकृष्ट गुणों को उभार कर उनका उपयोग करने में कामयाब हो जाता हूँ', ने मेरे अध्यापकीय जीवन को सार्थक बनाने में मेरी मदद की. मैंने छात्रों को उनकी शक्ति पहचानने. आत्म विश्वास जगाने में गाँधीजी जी को उध्रत किया । मैंने कहा, एक बालक जो बचपन में अंधेरे से डरता था, शर्मीला था, भीड़भाड़ से दूर घर के किसी कोने में छिप जाता था, पहली बार जब बोलने खड़ा हुआ तो बोल नहीं पाया और अपने लिखे वक्तव्य को दूसरे से पढवाता है । एक दिन बडे विश्वास के साथ लाखों लोगों के सामने न केवल अपनी बात रखता है बल्कि मनवाता भी है।

बचपन में कुसंग में पड़कर सिगरेट के टुकड़े चुराकर पीता है, अपना कर्ज चुकाने के लिए घर से चोरी करता



है पर अपने मन में अपनी गलती पर कुढ़ता है, परेशान होता है, आत्मग्लानि का अनुभव करता है और अपने पिता को पत्र लिखकर क्षमा माँगता है और पिता के चरणों में बैठकर आसुओं से क्षमादान माँगता है और पिता की आँखें भी भर आती हैं, पुत्र के इस निर्मल क्षमादान को ढंग पर और दोनों मन पवित्र हो जाते हैं

'मेरे लिए सत्य सर्वोच्च सिद्धांत है.' जिसमें अन्य सिद्धांत समाविष्ट है । यह सत्य वाणी का सत्य नहीं है अपितु विचार का भी है, "सत्य एक विशाल वृक्ष की तरह है, आप जितना उसका पोषण करेंगें, उतने ही ज्यादा फल यह देगा. सत्य की खान को जितना ही गहरा खोदेंगें, सेवा के नये से नये मार्गों के रूप में, यह उतने ही अधिक हीरे जवाहरात देगा ।" गाँधीजी जी ने अपने इस कथन को अपने जीवन में लिया । बचपन में स्कूल इंस्पेक्शन के दौरान एक शब्द गलत लिख रहे थे तब अध्यापक ने सुधारने के लिए संकेत दिया पर गाँधीजीजी ने नहीं सुधारा । शारीरिक शिक्षक ने कसरत के लिए बुलाया । आसमान में बादल थे अतः समय का अंदाज न रहा । गाँधीजी जब आये तो सब जा चुके थे । दूसरे दिन प्रधानाचार्य ने डांटा, सजा दी और उन्होनें सबक सीखा "सच बोलने और सच करने वाले को लापरवाही भी नहीं बरतनी चाहिए । " सेवाग्राम में अकबर भाई उनका कमरा साफ करते थे। एक बार सफाई के दौरान उनके प्रिय तीन बंदरों की मूर्ति गिरकर टूट गई । अकबर भाई ने बापू को यह बात बताई और कहा जो भी दंड आप देंगें मुझे मंजूर है, बापू ने कहा दंड तो तुम्हें क्या दूंगा, हाँ एक सीख दुँगा जिसे तुम जिंदगी भर नहीं भूल पाओगे । सीख है "तमाम जिंदगी सच बोलने से कभी नहीं डरना सच बोलने से बड़ा कोई कर्तव्य नहीं है, सत्य का सबक सिखाने के ढंग भी उनका अनोखा था, घटना दक्षिण अफ्रीका की है, एक बार कुछ युवक उनके फिनिक्स के आश्रम में भरती हुए और उन्होंने आश्रम के नियमों के नियमों के पालन का व्रत लिया । आश्रम के सादे भोजन से जल्दी ही वे उकता गए। चोरी छिपे डरबन से मासलेदार भोजन मंगा कर खाने लगे, बापू को पता चला, उन्होंने पूछा तो युवक झूठ बोल गए और फिर बापू पर ही झूठ बोलने का आरोप लगाने लगे ।

बापू को यह सहन नहीं हुआ और वे जोर-जोर से अपने गालों को पीटने लगे और बोले "मुझसे सचाई छिपाने में कसूर तुम्हारा नहीं मेरा है, ऐसा लगता है अभी तक मैंने सत्य का गुण प्राप्त नहीं किया यही कारण है कि सत्य मुझसे दूर भागता है । दोषी मैं हीं हूँ इसलिए मैं अपने को सजा देता हूँ ।" बापू की यह हालत देखकर युवकों को सदमा पहुँचा और वे बापू के चरणों मे गिर पड़े और अपना अपराध स्वीकार करने लगे । बापू ने सबको क्षमा कर दिया तथा झूठ व उसके दुष्परिणाम बताये । इसके बाद युवकों ने कभी न झूठ बोलने की कसम खाई । गाँधीजी जी द्वारा बतलाई इस विधि से मैंने कई बार अपने विद्यार्थियों से सच कबूलवाया है, और भविष्य में झूठ न बोलने का संकल्प करवाया है

बचपन में हरिश्चंद्र का नाटक देखकर उन्होंने संकल्प, व्रत और 'प्राणजाय पर वचन न जाये' का सबक सीखा और जीवन पर्यंत उसे निभाया । गंगा के किनारे एक महिला को एक ही धोती को धो कर पहनते हुए देखकर "आधी धोती और लंगोटी पहनने का प्रण किया और इतिहास गवाह है जीवन पर्यंत निभाया

। एक बार एक बच्चे ने इनकी पोषाक देखकर "आप कुर्त्ता क्यों नहीं / पहनते, मेरी माँ आपके लिए कुर्त्ता



सी देगीं । " गाँधीजी जी ने उसी भोलेपन से कहा "मेरे लाखों - करोडों भाई बहन के लिए क्या तुम्हारी माँ कुर्त्ता सी देंगीं ।" और बचा मुँह बना कर देखता रह गया । बंकिघम पैलेस में किंग जार्ज से मिलने भी गाँधीजी अपनी परंपरागत पोषाक मे गयें और एक पत्रकार द्वारा यह पूछे जाने पर कि 'क्या माहारानी से इतने कम कपडों मे मिलना आपको बूरा नहीं लगता ? ' उनका यह कहना कि 'स्वयं महारानी ने इतने कपडे पहने हैं' कि दोनों के लिए काफी ही उनकी दृढ़ता को दर्शाता है । गोलमेज सम्मेलन से वापस लौट रहे थे, फ्रांस की फैशनेबल पोशाक 'प्लस फोर' में सजे धजे एक पत्रकार ने जब उनकी वेशभूषा पर टिप्पणी की तो मुस्कराकर वे बोले "आप लोग फ्रांस की पोशाक "प्लस फोर' पहने हैं । मैं भारत की 'माइनस फोर' पहने हूँ ।' ये प्रसंग इस बात का प्रमाण है कि गाँधीजी के चरित्र में व्रत पालन की दृढता थी।

गाँधीजी जो कहते थे उसे कार्यरूप में परिणित करने की क्षमता भी रखते थे । "पर उपदेश कुशल बहुतेरे" में उनका विश्वास नहीं था । कस्तूरबा गाँधीजी बीमार थी, डाक्टर ने नमक खाने के लिए मना कर दिया, कस्तूरबा ने नमक खाने के लिए कहा और बोली नमक के बिना खाना बेस्वाद किया है । बापू ने नमक न खाने के लिए आग्रह किया, "बा" ने कहा "नमक तो आप भी नहीं छोड़ सकते । " बस बापू ने उसी समय नमक छोड़ दिया । बा न अपने व्यवहार के लिए क्षमा मांगी और नमक खाने का आग्रह किया पर बापू ने प्रण कर लिया सो कर लिया एक माह तक उन्होंने दाल और नमक का सेवन नहीं किया ।'



गाँधीजी और अहिंसा एक दूसरे के पर्याय हैं । गाँधीजीजी ने किस प्रकार अहिंसा को तेजस्वी बनाकर हिंसा के स्वर को मंद किया और लोगों को मरने की कला सिखाई, इसके असंख्य दृष्टांत हैं। गाँधीजी का मानना था कि अहिंसा हिर का मार्ग है जिसमें कायरता नाम की चीज नहीं 'अहिंसा विनम्रता की चरमसीमा है।'

घटना अफ्रीका की है, गाँधीजी मानवीय अधिकारों की लड़ाई लड़ रहे थे । एक जर्मन साथी कैमलबैक को उनकी सुरक्षा का जिम्मा दे रखा था । एक दिन गाँधीजी कहीं जाने को थे उन्होंने खूंटी पर से कोट उतारने के लिए हाथ बढ़ाया, वहाँ कैलनबैक का भी कोट था । उनका हाथ अनायास कैलनबैक के कोट की जेब पर लगा । उन्हें संदेह हुआ कि रिवाल्वर जैसी कोई चीज है, उन्होंने देखा रिवाल्वर था, उन्होंने बैक को बुलाया और पूछा "जेब में रिवाल्वर क्यों रखते हो ?' मुझे पता लगा है कि गुण्डे आप पर हमला करने वाले है ।' "और आप मेरी रक्षा करना चाहते है', 'जी हाँ ।'

गाँधीजी हँस पड़े "चलो, अब तो मैं पूरा निश्चित हो गया मेरी रक्षा का बोझ परमेश्वर ने अपने ऊपर ले लिया । " साथी कैलनबैक समझ गया । गाँधीजीजी ने कहा "क्या सोचते हो" ? फैंक दो इस रिवाल्वर को भगवान पर श्रद्धा रखने का यह लक्षण नहीं है, प्रभु सबकी रक्षा के लिए सब जगह मौजूद है, इस रिवाल्वर से मेरी रक्षा करने की चेष्टा छोड़ दो ।' कैलनबैक यह सुनकर लिखत हुए उसने पनी भूल मानकर रिवाल्वर फेंक दिया ।

चंपारना का एक प्रसंग है गाँधीजी ने वहाँ प्रजा पर होने वाले अत्याचारों को दूर करने के लिए जो काम किये, उनसे वहाँ के निलहे गोरे बिगड़ गए । एक दिन पता चला कि एक गोरे निलहे ने हत्यारे गाँधीजी को मारने के लिए लगाए हैं । रात को अकेले गाँधीजी उसके वंगले पर पहुँचे और बोले "मैंने सुना है, आपने

KVS Quarterly Journal



मुझे मारने के लिए कुछ हत्यारे तैनात किए हैं । लीजिए मैं अकेला यहाँ आ गया हूँ और किसी से कह कर भी नहीं आया । " गाँधीजी की हिम्मत देख गोरा चिकत रह गया । दक्षिण अफ्रीका में जिस मीर आलम और उसके साथियों ने गाँधीजी पर लाठियाँ बरसायीं थी और लातें मारी थी, उसके बचाव के लिए गांधीजी ने अधिकारी को तार दिया, 'मुझ पर जो हमला किया, उसके लिए मैं उनको दोषी नहीं मानता, उनपर फौजदारी मुकदमा चलें, यह मैं नहीं चाहता । मुझे आशा है, मेरे खातिर आप उन्हें छोड़ देंगें । मैं अपनी ओर से उन्हें क्षमा करता हूँ ।"

गाँधीजी को खबर मिली कि एक काबुली उनकी नाक काटना चाहता है । साथियों को चिंता हुई । उनकी सुरक्षा बढ़ा दी गई । अगले दिन प्रार्थना सभा के पश्चात् गाँधीजी जब चरखा कातने बैठे तो वह काबुली आश्रम के बाहर लगी तार की बाड़ के पास आ खड़ा हुआ । गाँधीजी ने उसे बुलाया और पूछा "क्यों भाई, तुम वहाँ क्यों खड़े हो ?"

"आप अहिंसा का उपदेश देते हैं इसलिए मुझे आपकी नाक काटकर परीक्षा करनी थी कि ऐसे मौके पर कहाँ तक अहिंसक रह सकते हैं।

गांधीजी ने तत्काल कहा "बस इतनी परीक्षा करनी है, लेकिन सिर्फ नाक ही क्यों, अपना यह धड़ और सिर भी मैं सौंप देता हूँ । तुम्हें जो भी प्रयोग करना हो, बिना किसी संकोच के करो ।"

यह सुनकर काबुली गद्गद हो गया और बोला "आपके दर्शन से मुझे विश्वास हो गया कि आप अहिंसा के सच्चे पुजारी हैं । मरे अपराध क्षमा कीजिए । " क्या ऐसे आदमी को कमजोर, डरपोक या कायर कहा जा सकता है । गाँधीजी ने लिखा है "मैंने तो पुकार-पुकार

कर कहा है कि अहिंसा वीर का लक्षण है, हिंसा करने की पूरी सामर्थ्य रखते हुए भी जो हिंसा नहीं कर सकता, वहीं अहिंसा धर्म का पालन करने मे समर्थ होता है। अहिंसा का अर्थ है प्रेम, दया, क्षमा। शास्त्र उसका वर्णन वीर के गुण के रूप में करतें हैं। यह वीरता शरीर की नहीं बिलक हृदय की है। गाँधीजी के जीवन के अंतिम दिनों में उनकी प्रार्थना सभा में बम फटा और वे बाल बाल बच गये। इस पर लैडी माउन्ट बैटन ने उन्हें बधाई का संदेश भेजा तो उन्होनें संदेश भेजा "आपकी बधाई के लिए मैं तभी उपयुक्त समझा जा सकता हूँ जब सीने मे, गोली तक लगने पर मेरे होठों पर राम नाम हो और मारने वाले के लिए मेरे हृदय में प्रेम हो", क्या ऐसे व्यक्ति की अहिंसा को कायरता कहा जा सकता है।

"मैं ईश्वर के संपूर्ण एकत्व में विश्वास रखता हूँ और इसलिए मनुष्यता के एकत्व में भी । हम सब बहुत से शरीर रखते है, किंतु सबमें एक ही आत्मा है। सबका उद्गम परमात्मा है । इस आधार पर मानव समाज एक है । शिक्षा के उद्देश्य मानव गरिमा को पहचाना, सत्य मार्ग पर चलना, असत्य को छोड़ना चाहिए । मानव सेवा ही ईश्वर सेवा है । यदि हम 'मैं' और 'मेरा' को छोड़ दें तो दुनिया में प्रेम और अमन स्थापित हो सकता है । बापू के दर्शन का केन्द्र बिंदु मानव है और मानव के विकास को वे प्राथमिकता देते थे । एक बार उनसे एक पत्रकार से प्रश्न किया कि" "आपको एक दिन के लिए भारत का बड़ा लाट बना दिया जाए तो आप क्या करेंगें ?

"राज भवन के पास दलितों की जो गंदी बस्ती है उसे साफ करूंगा"

> और एक दिन बढ़ा दिया जाए "वही, कार्य फिर करूंगा"



स्वावलंबन उनकी शिक्षा का आवश्यक अंग था अपनी कार्य व्यक्ति को स्वयं करना चाहिए । एक बार एक सज्जन उनसे मिलने आए कहने लगे "आप मुझे भी कुछ काम दीजिए ।" गाँधीजी उस समय अनाज साफ कर रहे थे उन्होंने एक थाली उन्हें थमा दी वे झिझक भरे स्वर में बोले, "कुछ और कार्य होता तो ।" "अभी तो यही कार्य है ।" गांधीजी ने कहा ।

दक्षिण आफ्रीका से लौटने पर गोंडल में चार घोडों की गाड़ी में बिठा कर उनकी शोभा यात्रा निकाली गई । कुछ उत्साही युवक स्वयं जुट गये । गाँधीजी बोले "मैं आपकी सेवा करने आया हूँ न कि पशु की तरह आपसे अपना बोझा खिंचवाने । "

परचुरे शास्त्री भयंकर कुछ रोग से पीड़ित थे, उनके घावों से मवाद बहता था गाँधीजी ने उन्हें अपने साथ रखा इतना ही नहीं, उनके घावों को वह स्वयं अपने हाथों से साफ करते थे । श्रम की गरीमा में गाँधीजी का विश्वास था । गीता मे उनका अटूट विश्वास था । सर्व धर्म समभाव उनका आदर्श था । सर्व धर्म प्रार्थना गाँधी आश्रम की जान है, प्रार्थना केवल वाणी विलास नहीं है इसका मूल मुख नहीं अपुति हृदय है ।

"मेरी असफलताएँ और मोह भंग भी प्यारे हैं चूिक ये भी तो सफलता की सीढ़िया हैं।" गाँधीजी का यह कथन मेरे विद्यार्थियों को संघर्ष करने, लक्ष्य प्राप्ति के लिए अथक प्रयास करने की प्रेरणा देता है। साध्य की शुद्धता (पवित्रता) के साथ उस पवित्रा साध्य को प्राप्त करने के साधन भी शुद्ध होने चाहिए। गाँधीजी

का यह कथन छात्रों को अनैतिक मार्ग

पर जाने से रोकता है ।

प्रतिकूल परिस्थितिओं में,

विषम परिस्थितियों में, कठिनाइयों मे धैर्य न खोने, स्वयं पर विश्वास करने की प्रेरणा गाँधीजी का व्यक्तित्व देता है।

अध्यापकीय जीवन में प्रवेश करने पर कभी कभी कुछ विद्यार्थियों की ओर से निराशा हाथ लगती थी। कितना भी उन्हें पढ़ाया जाए वे समझते ही नहीं। मैं छात्रों को अयोग्य कहता था। मंदबुद्धि मानता था तभी गाँधीजी का एक कथन पढ़ा "वह बढ़ी अयोग्य है जो अपने औजारों में किमया निकालता है। वह सेनापित अयोग्य है जो घटिया कारगुजारी के लिए अपने सिपाहियों को दोष देता है।" मैने पढ़ाने का तरीका बदला, आत्म विश्लेषण किया, नये तरीके खोजे और अंत में सफल हुआ। बच्चों को बतलाया हर असफलता में आशा को मत टूटने दो, निरंतर वही सार्थक है जो स्वावलंबी होने में सहायक हो। विद्यार्थी के सर्वांगीण विकास के लिए आवश्यक है उसमें स्वयं सोचने विचारने एवं आत्म निर्णय लेने की शक्ति जागृत हो।

मानव को अहंकार ग्रसित होने पर कैसे उससे मुक्त हुआ जाये । इस संदर्भ में उनके द्वारा दिया गया जंतर बड़ा कारगर सिद्ध होता है । "मै तुम्हें एक जंतर देता हूँ जब भी तुम्हें संदेह हो या तुम्हारा अहं तुम पर हावी होने लगे, तो यह कसौटी आजमाओं जो सबसे गरीब और कमजोर आदमी तुमने देखा हो, उसकी शक्ल याद करो और अपने दिल से पूछो कि जो कदम उठाने का तुम विचार कर रहे हो, वह इस आदमी के लिए कितना उपयोगी होगा क्या उससे उसे कुछ लाभ पहूँचेगा ? क्या उससे वह अपने ही जीवन और भाग्य पर कुछ काबू रख सकेगा ? यानि क्या उससे उन करोड़ो लोगों को स्वराज्य मिल सकेगा जिनके पेट भूख हैं और आत्मा अतृप्त है ।"



तुम देखोगे कि तुम्हारा संदेह मिट रहा है और अहं समाप्त होता जा रहा है ।'

मैं अपने छात्रों को कहना हूँ कि यदि पढ़ लिखकर यदि तुम मानवीय गुणों (दया, चित्र, ममता, सत्य) से विलग होते हो तो तुम्हारी शिक्षा अधूरी है । चित्र निर्माण के लिए तुम्हारे विचार भी परिष्कृत होने चाहिए क्योंकि विचार कार्य के जनक है और कार्य व्यक्ति के चित्र को दर्शाते हैं ।

गाँधीजी अन्य महापुरुषों की तरह हम से अपेक्षा नहीं करते । वे तो कार्य करते हैं, व्यवहार में उपदेश को लाते हैं । यही उन्हें अन्य से अलग करता है । एक बार उन्होंने कहा मेरे मित्र मेरा सर्वाधिक सम्मान मेरे कार्यक्रमों को अपने जीवन में लागू करके या यदि आप उन पर विश्वास न करते हों तो उनका भरपूर विरोध करके कर सकते हैं ।'

उनके इस व्यक्तित्व के कारण पंडित नेहरू ने उनके

निधन पर सच ही कहा था "हमारे जीवन से एक ज्योति लुप्त हो गई है । "उनकी महानता के संदर्भ में यह सच ही कहा गया है । "इसे आदमी का अपने देशवासियों के ऊपर इतना जबरदस्त प्रभाव था कि उसकी मिसाल नहीं मिलती यह आश्चर्य की ही बात है । इस प्रभाव के पीछे कोई लौकिक शक्ति या शास्त्रों का बल नहीं था। गाँधीजी रूपी इस गूढ़ पहेली की कुंजी (यदि इसे पहेली माने तो) लार्ड हैलिफैक्स के अनुसार "उनका श्रेष्ठ चित्र और स्वयं को मिसाल के रूप में रखने वाला उनका श्रेष्ठ आचरण है ।"

आज जब विश्व बारुद के ढ़ेर पर बैठा है, आतंकवाद "मानवता" को निगलने की तैयारी में है ऐसे समय में दुनिया गाँधी के देश की ओर निहार रही है और राजघाट पर पड़ी शत् शत् अर्चना के गुलाब की पंखुड़ियां गंभीर उद्घोष कर रही है कि 'दुनिया को भस्म करने की ताकत रखते हुए भी हम नहीं तुम प्रतिष्ठित हो, तुम्हारा देश प्रतिष्ठित है।



प्रत्येक नागरिक अपने जीवन का हर क्षण उपयोगी और देश-हित कार्य में लगाए, यही शिक्षा का आदर्श होना चाहिए । मात्र पुस्तकों से ज्ञान प्राप्त करना शिक्षा नहीं है ।

- महात्मा गांधी





# बदलते परिवेश में शिक्षण की चुनौतियाँ

डॉ. हृदय नारायण उपाध्याय स्नातकोत्तर शिक्षक (हिन्दी) केंद्रीय विद्यालय आयुध निर्माणी भुसावल जिला - जलगाँव, महाराष्ट्र पिन - 425203

गत्यात्मक परिवर्तन भी विकास का एक रुप है। समय गतिशील है जिस कारण देश काल एवं समाज की परिस्थितियों में बदलाव आना स्वाभाविक है। यह बदलाव समय के साथ सामंजस्य स्थापित करने के लिए तो उचित कहा जा सकता है लेकिन इस सामंजस्य के अन्ध मोह में मूल्यों, आदर्शों एवं बुनियाद से कटते जाना अथवा दूर होते जाना कहाँ तक न्यायसंगत है। भौतिकता की चकाचौंध ने कई विसंगितयों को जन्म दिया है जिसमें बढ़ता हुआ असन्तोष एवं बिना परिश्रम किए ही सफलता के शिखर को छू लेने की ललक का बलवती होते जाना सबसे दुखद है। आज अधिकांश शिक्षार्थी बिना किसी विशेष परिश्रम किए ही सफलता को अतिशीघ्र पाना चाहते हैं। उनमें उस धैर्य एवं अध्यवसाय की कमी होती जा रही है जो उन्हें तपाकर खरा बनाती है। 'गीता' का वह पुनीत सन्देश 'कर्णण्येवाधाकरस्ते मा फलेषु कदाचनः' आज कितना अर्थवान समझा जा रहा है. यह एक सोचनीय प्रश्न है।

बाजारवाद के बढ़ते प्रभावों ने शिक्षा जगत को सम्बन्धों बडा नुकसान पहुँचाया है । इसने शिक्षक एवं शिक्षार्थी के मूल्यों को ही नष्ट नहीं किया है उनके पावन सम्बनधों का भी गला धोटा है। लगता है आज शिक्षा ली नहीं बल्कि खरीदी जा रही है और ज्ञान दिया नहीं बल्कि बेचा जा रहा है। ज्ञज्ञान बेचने की तमाम एजेंसियाँ खुल गयीं हैं। ऐसे परिवेश में गुरू शिष्य की पावन परम्परा का लुप्त होना स्वाभाविक ही है। छात्रों और

अध्यापकों के बीच बदलता यह समीकरण समाज एवं देश के लिए कैसा होगा, कहा नहीं जा सकता। शिक्षा जगत में इन बदलते हुए हालातों के जिम्मेदार न तो केवल शिक्षक हैं और न ही विद्यार्थी। इसके लिए घर, परिवार, परिवेश एवं पूरी व्यवसाथा भी कहीं न कहीं जिम्मेदार है। दुख इस बात का है कि हम सब कुछ जानकर भी आज कुछ नहीं कर पा रहे हैं। ऐसे हालात बाजारवाद के बाइप्रोडक्ट हैं जिन्हें हम सबको भुगतना है। इस बाजारवाद का सुखद पहलू यह भी है कि विकेताओं की आपसी प्रतिस्पर्धा में सामानों की बहुरूपता एवं गुणवत्ता में भी सुधार हुआ है तथा ग्राहक के समक्ष खरीददारी के बहुत सारे विकल्प उपलब्ध हो गये हैं। इस बाजारवाद ने आज युवाओं के समक्ष संभावनाओं के अनेक क्षितिओं को उद्घाटित कर दिया है। आज विश्व बाजार में भारतीय युवाओं की माँग भी बढ़ी है लेकिन सवाल पुनः आदर्शों एवं मूल्यों के विघटन का भी खड़ा है।

ऐसे पिरवेश में शिक्षकों के समक्ष शिक्षण की अनेक चुनौतियाँ खड़ी होती जा रही हैं। एक समय था जब ज्ञानार्जन के लिए विद्यार्थियों को गुरूओं के पीछे घूमना पड़ता था और आज हालत यह है कि ज्ञान देने के लिए शिक्षकों को विद्यार्थियों के साथ सामन्जस्य बिठाना पड़ रहा है। अर्थात यह स्वीकार कर लिया गया है कि आज की शिक्षा शिक्षक केंद्रित न होकर विद्यार्थी केंद्रित हो गयी है। विद्यार्थियों के समक्ष आज ज्ञान प्राप्ति के अनेक विकल्प मौजूद हैं। इलेक्ट्रानिक मीडिया, प्रिन्ट मीडिया एवं कोचिंग सेण्टर्स की बाड़ ने विद्यालयी शिक्षण एवं शिक्षक के समक्ष कई सवाल खड़े कर दिए हैं। ऐसी दशा में जिस शिक्षण संस्था अथवा शिक्षक के पास उत्तम माल नहीं होगा वहाँ विद्यार्थी क्यों खरीददारी करने जाएगा?

समय के अनुरूप सरकारी विद्यालयों में भी बहुत KVS Quarterly Journal



से बदलाव हो चुके हैं। बदलती परिस्थितियों के अनुसार पारम्परिक शिक्षण व्यवस्था में भी आमूल पिरवर्तन हो चुका है। शिक्षाशास्त्रियों एवं मनोवैज्ञानिकों के शोध एवं निष्कर्षों के आधार पर नित नवीन प्रयोग सरकारी विद्यालयों में किए जा रहे हैं लेकिन यदि सचाई से देखा जाय तो परिणाम उतने असरदायक दिखाई नहीं दे रहे हैं जितनी अपेक्षा की जा रही है। इसका सबसे महत्वपूर्ण कारण शायद यहा हो सकता है कि आज ज्ञान लेने वाला उतना सिक्रय नहीं है जितना कि ज्ञान देने वाला। सरकारी नियमों एवं आदेशों से बँधा शिक्षक निरन्तर नवीन प्रशिक्षणों से गुजरकर एवं नवीन अध्यापन शैलियों से युक्त होकर शिक्षण कार्य करता है लेकिन विद्यार्थी ज्ञान लेने में यदि उतना सिक्रय नहीं है तो अपेक्षित परिणाम कैसे प्राप्त किया जा सकता है।

वास्तव में आज कक्षा में शिक्षण का कार्य करना निरन्तर जटिल होता जा रहा है। विभिन्न रूचियों बौद्धिक स्तरों एवं संस्कारों वाले छात्रों के बीच उनकी भावनाओं को जरा भी आहत किए बिना उन्हें हँसमुख और प्रसन्नचित्त रखते हुए अध्यापन करना कहना तो बड़ा आसान है लेकिन करना बड़ा ही कठिन होता जा रहा है। मेरी यह बात कोरे आदर्शवादियों को थोड़ी आहत तो जरूर करेगी लेकिन यदि वे निरपेक्ष होकर सोचे तो मेरी बातों से सहमत अवश्य होंगे। बालकों की रूचियों में एवं किशोरों की मानसिकता में आए नकारात्मक बदलावों के कारण क्या आज की कक्षाएँ आदर्श कक्षाएँ रह गई हैं। ऐसे परिवेश में यह अपेक्षा की जाती है कि शिक्षक विद्यार्थियों को डाँटे भी नहीं कोई प्रतिकूल टिप्पणीं भी न करे तथा अपने अध्यापन कार्य को बडे प्रभावशाली ढंग से सम्पादित करें। क्या

शत प्रतिशत संभव है? औपचारिक शिक्षण के लिए जहाँ शिक्षकों नियमों का पालन करना अनिवार्य है वहीं छात्रों के लिए भी आदर्श आचार संहिताओं का पालन जरूरी है तभी आज के परिवेश में सही शिक्षण संभव है। यहाँ अभिभावकों की भूमिका भी अपने - अपने पाल्यों के प्रति बढ जाती है। क्योंकि संस्कार परिवार से ही बनते हैं। अधिकांश अभिभावक अपनी एक दो सन्तानों को तो सही ढंग से सँभाल नहीं पाते और अपेक्षा करते हैं कि विद्यालय शिक्षक एवं विद्यार्थी आदर्श के मूर्तिमान उदाहरण बनें। दूसरों से अपेक्षा करने के बजाय स्वयं को भी दूसरों की अपेक्षाओं के अनुरूप बनना उचित है। जैसा कि कहा भी गया है "अंधकार की शिकायत करने की अपेक्षा एक दीपक जलाना बेहतर है।" औपचारिक शिक्षण में शिक्षक शिक्षार्थी एवं अभिभावक तीनों की सक्रियता आवश्यक है। इनके पारस्परिक सहयोग से ही लक्ष्य को हासिल किया जा सकता है।

शिक्षा के क्षेत्र में व्यापक परिवर्तन हो रहे हैं। यह परिवर्तन लोक कल्याण को ध्यान में रखकर किए जा रहे हैं। यदि कहीं विसंगतियाँ हैं तो उन्हें सामने लाना होगा और उन्हें दूर करने का प्रयास करना होगा। हर युग में समाज को दिशा आदर्श गुरूओं एवं शिक्षकों से मिली है और आगे भी मिलती रहेगी। विकास के सोपानों तक पहुँचने का मार्ग गुरू ही दिखाते है। हमें आशा ही नहीं पूर्ण विश्वास कि वर्तमान परिवेश में भी शिक्षक अपने गुरूतम दायित्वों का निर्वहण भली प्रकार कर रहा है आगे भी करता रहेगा।



आशावाद आस्तिकता है और निराशा नास्तिकता । आशावादी केवल ईश्वर से डरता है ।





# पन्द्रह दिवसीय 'हस्तलेखन प्रयोजन कार्य' उद्देश्य : छात्रों में सुन्दर हस्त केंद्रीय लेखन कौशल विकसित करना ।

पा.सी.शर्मा P.C. Sharma

प्राचार्य / Principal

केंद्रीय विद्यालय / Kendriya Vidyalaya आई.ए.टी. गिरिनगर् / I.A.T. Girinagar

पुणे / Pune - 411025

कहते हैं कि व्यक्ति की लिखावट से उसके स्वभाव, हावभाव, रहन-सहन एवं व्यवहार पर दृष्टि डाली जा सकती है। अक्षरों के माध्यम से वह कागज पर अपने व्यक्तित्व की छाप छोड़ता है। व्यक्तित्व को हस्तलेखन से जोड़ने से पहले यह सोचना उचित होगा कि बच्चों को अक्षरों को लिखना (अक्षरों का मोड़) ई नहीं सिखा पाए और लेखन से उसके व्यक्तित्व को तोला जाए तो यह व्यक्तित्व की भविष्यवाणी गलत साबित होगी। हस्तलेखन को व्यक्तित्व से जोड़ने की अपेक्षा पहले शिक्षा एवं शिक्षण से जोड़ना अनिवार्य है।

आज के इस 'संगणक' के युग में बच्चों का हस्तलेखन अभिभावकों तथा अध्यापकों के लिए चिंता का विषय बन गया है। बच्चों में लिखने की रूचि कम होती जा रही है। किंतु परीक्षा में हस्तलेखन आज भी स्थान रखता है जो सदियों पहले था।

आइए! हस्तलेखन से सम्बन्धित कुछ पहलुओं पर विचार करें।

# बच्चीं की लिखावट बिगड़ने के कारण

- अध्यापकों द्वारा कक्षा 'प्रथम' में ही बच्चों को अक्षरों के सही आकार की पहचान न कराना।
- बच्चों द्वारा लिखे गए सभी अक्षरों के लिखने के ढंग पर उचित ध्यान न देना।

- बच्चों को सुलेख के प्रति जागरूक न बनाया जाना।
- 4. अध्यापक दवाए खराब लिखावट वाले बच्चों को पहचानकर, उनसे नियमित रुप से सुलेख न लिखवाना।
- 5. सुलेख के लिए अलग से पुस्तिका न बनवाना।

# बच्चों के हस्तलेखन में पाई जानेवाली सामान्य त्रुटियाँ -

- क) छात्रों द्वारा लिखे गए अक्षरों का आकार ठीक न होना ।
- ख) शिरोरेखा को ठीक ढंग से न लगाना।
- ग) अक्षरों और शब्दों की दूरी पर ध्यान न देना ।
- घ) मात्राओं की उचित बनावट।
- 3. बच्चों को अक्षरों के मोड़ो का सही ज्ञान न होना।

केंद्रीय विद्यालय आई.ए.टी. गिरिनगर, पुणे में हस्तलेखन सम्बन्धी पन्द्रह दिवसीय प्रयोजन कार्य किया गया। इसमें अध्यापकों ने विद्यार्थियों के हस्तलेखन सुधारने का उत्तम कार्य किया। इस प्रयोजन कार्य को विद्यालय में समयबद्ध तरीके से किया गया। इसका विवरण निम्नलिखित है।





प्रायोगिक कार्य		अध्यापक कृति	फल निष्पत्ति
1.	प्रथम दिवस छात्रों को अपनी पाठ्य- पुस्तक से पांच - छह पंक्तियों का एक अनुच्छेद लिखने के लिए दिया जाएगा।	अध्यापक द्वारा अनुच्छेद लेखन की जाँच करके वर्तनी सम्बन्धी तथा लिखावट सम्बन्धी अशुद्धियाँ निकाली गईं।	अध्यापक को छात्र की लेखन सम्बन्धी सामान्य अशिद्धियों का बोध हुआ। प्रथम दिवस लिखे गए अनुच्छेद की इस प्रयोजना के अन्तिम दिन लिखे गए अनुच्छेद के साध तुलना करना तािक छात्र को स्वयं के हस्तलेखन में हुए सुधार का ज्ञान होगा।
2.	द्वितीय दिवस अध्यापक छात्रों को स्वयं का नाम, माता - पिता, अध्यापक, विद्यालय एवं प्राचार्यजी का नाम लिखने को कहेंगे ।		
3.	तृतीय दिवस अध्यापक व्दारा हिन्दी वर्णमाला में दिए गए स्वरों की जानकारी देकर उनके लिपि चिह्नों का शुद्ध लेखन करवाया जाएगा।		छात्रों को अ, आ, इ, ई, उ, ऊ इन स्वरों का तथा मात्राओं का सही ज्ञान होगा तथा वे इन स्वरों को ठीक ढंग से लिखना जान जाएंगे। नित्य अभ्यास से छात्र इन्हें लिखना सीख गए।



चौथा दिवस 4. आसे ए, ऐ, ओ, औ तथा ऋ विधि बाती गई। स्वरों के लेखन की जनकारी दी जाएगी।

अध्यापक व्दारा श्यामपट पर हिन्दी छात्र ए, ऐ, ओ, औ, तथा उनकी अध्यापक द्वारा हिन्दी वर्णमाल वर्णमाला के निम्न वर्णों को लिखने की मात्राएँ लिखना सीख गए। ऋ का

उच्चारण रि की भाँति करना चाहिए. यह भी जान गए।

औ =

ऋ =

विद्यार्थियों ने अध्यापक के साथ पाँच -पाँच बार वर्ण दोहराकर लिखित अभ्यास किया।

पाँचवा दिवस

की लिखित जानकारी देंगे।

अध्यापक श्यामपट्ट पर 'क' वर्ग के वर्णों विद्यार्थियों को 'क' वर्ग के सभी व्यंजनों अध्यापक छात्रों को 'क' वर्ग को निम्न विधि से लिखकर बताते हैं।

ख

ग

छात्रों ने 'क'वर्ग के सभी व्यंजनों को लिखने की जानकारी प्राप्त की तथा अपनी पुस्तिका में दस - दस बार लिखने का अभ्यास किया ।

को सही ढंग से लिखने का अभ्यास हुआ। छात्र यह सीख गए कि व्यंजन लिखने के पश्चात् शिरोरेखा अवश्य लगानी है।





_		·	
7.	छठा दिवस अध्यापक द्वारा विद्यार्थियों को 'च' वर्ग के सभी व्यंजन वर्णों का लिखित परिचय दिया गया।  सातवां दिवस 'ट' वर्ग के वर्ण लेखन विधि बताई गई ।	च = छ = ज = झ = ञ = अध्यापक द्वारा श्यामपट पर 'ट' वर्ग के	सभी वर्णों को ठीक ढंग से लिखना आ जाएगा। छात्र 'ट' वर्ग के सभी वर्णों को ठीक
8.	आठवां दिवस 'त' वर्ग के सभी वर्ण जैसे - त थ द ध न को शुद्ध एवं सुंदर ढंग से लिखने की जानकारी दी जाएगी।		<ul> <li>विद्यार्थी 'थ' और 'ध' ऊपर पूरी शिरोरेखा लगाने की भूल नहीं करेंगे।</li> <li>छात्र घ और ध के लिखने में जो अन्तर है, वह जान जाएंगे।</li> </ul>



9.	नवम दिवस	अध्यापक 'प' वर्ग के सभी वर्णों को	'भ'वर्ण लिखते समय छात्र ऊपर पूरी
	'प'वर्ग का लिखित परिचय	<b>भ्यामपट्ट पर लिखकर अभ्यास कराएंगे</b> ।	शिरोरेखा नहीं लगाएंगे। 'भ' एवं 'म'
	देना।	प =	वर्ण के अन्तर को समझ जाएंगे।
		फ <b>=</b>	
		 ਬ =	
		भ =	
		भ =	
10.	दशम दिवस	अध्यापक य, र, ल, व, श, ष, स, ह	
		वर्णों को श्यामपट्ट पर लिखकर छात्रों	वर्णों को ठीक ढंग से लिखना सीख
		से लिखित अभ्यास कराएंगे।	जाएंगे।
	लिखाना।	य =	
		₹ =	
		ल =	
		ਕ <b>=</b>	
		श =	
		ष =	
		स =	
		ਫ਼ =	
11.	ग्यारहवां दिवस	अध्यापक संयुक्त व्यंजन क्ष, त्र, ज्ञ, श्र	छात्र प्रायः संयक्त व्यंजन लिखने में
	संयुक्त व्यंजन क्ष, त्र, ज्ञ, श्र	को फलक पर क्रमिक ढंग से लिखकर	
	को दस - दस बार लिखवाया	छात्रों से प्रत्येक वर्ण दस -दस बार	स्पष्ट मार्गदर्शन करने पर एवं प्रत्येक
	जाएगा।	लिखवाएंगे।	वर्ण का दस - दस बार लिखित अभ्यास
		क्ष =	करवाने से छात्र संयुक्त वर्णों को सुंदर
		ਕ =	एवं शुद्ध लिखना जान जाएंगे।
		ज ज=	
	Part saus a tree,	<b>श</b> =	



# 12. बारहवां दिवस

ज्ञान कराना ।

अध्यापक 'ह्रस्व' तथा 'दीर्घ' मात्राओं |बर-बार अभ्यास करते रहने से 'ह्रस्व' तथा 'दीर्घ' मात्राओं का वाले चार - चार शब्द बनाकर फलक पर लिखेंगे तथा छात्रों से ऐसे अन्य शब्द बनवाएंगे।

विद्यार्थी मात्राओं का सही प्रयोग कर पाएँगे।

#### जैसे

- = दिन, खिल, मिल, बिन
- = दीन, जीत, धीर, बीच
- कुल, कुछ, खुल, पुल
- फूल, शूल, धूल, भूले
- = हेल, मेल, बेल, खेल
- = कैसा, वैसा, जैसा, पैसा
- = मोर, शोर, भोर, डोर
- = कौआ, बौना, मौन, कौन

#### 13. तेरहवां दिवस

(") चंद्रबिंदु के बीच के अंतर अंतर स्पष्ट करेंगे। को सोदाहरण स्पष्ट करेंगे।

अध्यापक श्यामपट्ट पर अनुस्वार ( ) अनुस्वार ( ) तथा अनुनासिक एवं अनुनासिक (+ )के उदाहरण लिखकर

> अनुस्वार : बातें, रातें, बहनें, हंस अनुनासिक : माँ, हँसी, कहाँ, जहाँ

'अनुनासिक' एवं अनुस्वार वाले शब्दों का यदि बार- बार लिखित अभ्यास करवाएँ, तो छात्र अनुनासिक एवं अनुस्वार वाले शब्दों का अंतर समझ जाएँगे।

#### 14. चौदहवां दिवस

वाक्य लिखने का कार्य दिया जाएगा।

#### जैसे -

- मेरा विद्यालय
- मेरा प्रिय मित्र
- मेरा प्रिय अध्यापक

अध्यापक छात्रों द्वारा लिखे वाक्यों को र अध्यापक व्दारा छात्रों को किसी जाँचेंगे। वर्तनी सम्बन्धी अशुद्धियों को एक विषय पर पांच या दस शुद्ध करके छात्रों से प्रत्येक शुद्ध शब्द दस - दस बार लिखवाएंगे। वाक्य -रचना सम्बन्धी त्रुटियों को सुधारकर छात्राओं द्वारा शुद्ध वाक्य लिखवाएंगे।

- छात्रों को, वर्तनी सम्बन्धी तथा वाक्य रचना सम्बन्धी, अशुद्धियों का बोध होगा।
- लेखन क्षमता विकसित होगी।
- संक्षेप में छात्रों का 'लेखन -कौशल' अवश्य ही विकसित होगा।





15. पंद्रहवां दिवस लेखने के लिए दिया जाएगा।

अध्यापक से छात्रों द्वारा लिखित अनुच्छेद अध्यापक को अपने शिक्षण एवं छात्रों अध्यापक द्वारा छात्रों को पहले का जाँचन । वे छात्रों को उनकी वर्तनी के लेखन - कौशल' में हुए विकास की दिन दिया गया 'अनुच्छेद' पुनः तथा वाक्य - रचना सम्बन्धी अशुद्धियाँ समीक्षा करने का अवसर प्राप्त होगा। बताएंगे।

- हस्तलेखन सुधार हेतु छात्रों द्वारा संपन्न इस 'प्रयोजना कार्य ' के उपरान्त यह देखा गया कि-
- विद्यार्थियों के हस्तलेकन में काफ़ी सुधार हुआ।
- विद्यार्थियों की लिखने में रुचि बढी।
- अक्षरों के मोढ़ों का, छात्रों को बोध हुआ।
- विद्यार्थियों में आत्मसम्मान की वृद्धि हुई ।
- वर्तनी लेखन में पयप्ति सुधार हुआ।
- छात्र 'हिन्दी' विषय के साथ- साथ अन्य हिन्दी माध्यम के विषय में भी अपेक्षाकृत अच्छे अंक प्राप्त करने लगे।
- अधयापकों ने अनुभव किया कि छात्रों की पुस्तिका जाँचने में भी सुविधा होने लगी।

# 'हस्तलेखन प्रयोजन' कार्य कब किया जाए ?

- इस कार्य को शून्य (ज़ीरो) कालांश में विद्यालय के समस्त विद्यार्थियों व्दारा करवाया सकता है।
- प्राथमिक कक्षाओं में अध्यापक ए.एच.पी. एल. / चित्रकला के कालांश में करवा सकते हैं। यदि अध्यापक निर्देशित विधि व्दारा छात्रों का हस्तलेखन का प्रयास करें, तो हमारे विद्यार्थी निश्चित रुप से स्पष्ट, सुंदर एवं शुद्ध लेकन में दक्षता प्राप्त करेंगे।

अतः आवश्यकता है, मात्र नियमबद्ध निरंतर प्रयास की।

मनुष्य का सन्चा जीवन साथी विद्या ही है, जिसके कारण वह विद्वान कहलाता है ।



-जवाहरलाल नेहरू





