

**REGIONAL RESEARCH SEMINAR ON INDICATORS OF  
QUALITY EDUCATION AT ELEMENTARY STAGE**

**SEPTEMBER 20 – 21, 2000**

***ABSTRACTS PAPERS***



**REGIONAL INSTITUTE OF EDUCATION  
(NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING)  
MYSORE – 570 006**

**REGIONAL SEMINAR**

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## ***PREFACE***

*The National Council of Educational Research and Training (NCERT), New Delhi, has been organising since 1995, International Seminar on Researches in School Effectiveness at Primary Stage under the auspicious of District Primary Education Programme (DPEP).*

*The Sixth International Seminar "Indicators of Quality Education at Elementary Stage" will be organised at New Delhi, India during 13-15 December 2000. As a prelude to this International Seminar a two-day Regional Research Seminar will be organised at the Regional Institute of Education (RIE), Mysore, on 20<sup>th</sup> and 21<sup>st</sup> September 2000. Altogether 21 papers have been selected by a committee of experts at the level of the NCERT for the South India and the same will be presented by the authors during the seminar. The papers will be rated by a jury of experts nominated by the NCERT for final selection. In this booklet an attempt has been made to provide the abstract of each of the 21 research papers selected for the regional research seminar.*

**G. Ravindra**  
PRINCIPAL

REGIONAL INSTITUTE OF EDUCATION (NCERT), MYSORE – 570 006

**REGIONAL RESEARCH SEMINAR ON INDICATORS OF  
QUALITY EDUCATION AT ELEMENTARY STAGE  
20 – 21 SEPTEMBER 2000**

**THE PROGRAMME SCHEDULE**

**20-9-2000: WEDNESDAY**

9.00 – 10.00 am Registration of Participants

10.0 – 11.15 am **INAUGURAL SESSION**

Rapporteur: Dr. N.N.Prahallada

11.15 – 11.30 am Tea Break

11.30 – 1.15 pm **Session I: Studies On School And Home As Indicators of  
Quality Education**

**CHAIRPERSON: Dr I V Subba Rao**

1. Indicators of Quality Education: A Status Study at the Elementary Stage in the Chosen Schools at Southern Districts of Tamil Nadu  
- P. Chandrasekharan
2. Indicators of Learners Achievement in Primary Schools of Karnataka  
- D. Basavayya
3. Comparison of School Quality – An Observation in Two Districts of Karnataka  
- B. Krishna Gowda
4. Parental Involvement: An Index of Quality of Education at Primary Level  
- Bindu T.V.
5. Indicators for Learning at Early Childhood for Better Future Education  
- T. Mrunalini

*DISCUSSION ON PAPERS*

Rapporteur: Dr. P.R. Lalitha

1.15 – 2.15 pm **LUNCH**

2.15 – 3.30 pm      **SessionII: Effectiveness Studies on Strategies in Learning of English**

**CHAIRPERSON: Dr G Ravindra**

1. Enrichment of Language Competencies through various Activities in Teaching English for Standard IV  
- Niranjani, V.
2. The Effectiveness of Organic Writing in Primary Classes  
- K.J. James
3. English Spelling Made Easy for the Beginners  
- H.N. Gurunanjamamma, K.J. Annie & Pramila, H
4. Effectiveness of Prerecorded Audio Cassette in Teaching of English Pronunciation at Primary Level  
- N.Balasubramanian and M. Yoganandam

*DISCUSSION ON PAPERS*

Rapporteur: Mrs Prema Raghavan

3.30 – 3.45 PM

TEA BREAK

3.45 – 5.15 PM      **Session III: Effectiveness Studies on Strategies in Learning of Science**

**CHAIRPERSON: Dr Ved Prakash**

1. Effectiveness of Motivational Intervention Strategies for Teaching Science at Elementary Level ( VI Standard )  
- S.Uma Rani and S. Mohan
2. Effect of Activity Based Approach on Developing Environmental Consciousness among Primary Children  
- R. Rajammal and S. Mohan
3. Developing a New Strategy to Teach “Light” for VII Standard Students  
- S. Jayaraman

*DISCUSSION ON PAPERS*

Rapporteur: Dr. Sudha V. Rao

5.30 PM

VISIT TO K.R.S.

**21-9-2000: THURSDAY**

10.00 – 11.15 am      **Session IV: Studies on Teacher Competence**

**CHAIRPERSON: Dr K Dorasami**

1. Influence of Psycho-Social Variables on Teaching Competency of DPEP and non-DPEP Teachers  
- U.Lakshminarayana and G.V. Surendranath Babu
2. A Study of Factors Affecting Organisational Commitment of Primary School Teachers of Bangalore City  
- Tara Sabapathy
3. Changing Teacher – Oriented to Learner – Oriented Methods of Teaching A Challenge to 21<sup>st</sup> Century Teachers: An Experiment to Enhance Students Learning Attainment and Self-Confidence  
- Haseen Taj and N. Shaik Masthan

*DISCUSSION ON PAPERS*

Rapporteur: Dr Manjula P Rao

11.15 – 11.30 am

TEA BREAK

11.30 – 1.15 am

**Session V: Studies On Children With Special Needs**

**CHAIRPERSON: Dr S N Prasad**

1. Strategies for Identifying Students with Learning Disabilities in Mathematics at Primary Level ( III Standard )  
- R. Jayanthi
2. Linguistic Concept Attainment as one of the Indicators for Successful Inclusion of Hearing Impaired  
- Sharmista and Premalata Sharma
3. Clearing the Menace of “Hard-to-Reach” Students through Novel Strategies – A Myth or Reality  
- U. Nageswara Rao

*DISCUSSION ON PAPERS*

Rapporteur: Mrs Prema Raghavan

1.15 – 2.15 pm

LUNCH

2.15 – 3.15 pm      **Session VI: Effectiveness Studies on Strategies in Health and Physical Education**

**CHAIRPERSON: Dr S G Gangoli**

1. Nutrition Education for Pre-Schoolers Through Games  
- N. Shakuntala Manay, Jayalakshmi, L.S. and Madhumathy, S.
2. Study of Minimum Muscular Fitness on Elementary School Boys in Tamil Nadu and the Influence of Yoga and Selected Conditioning Exercises on Them  
- K. Murugavel
3. The Effect of Environment on the Potentiality of Perfection  
- K.G. Prasad Raju

*DISCUSSION ON PAPERS*

Rapporteur: Dr Manjula P Rao

3.15 – 3.30 pm

TEA BREAK

3.30 – 4.30 pm

**VALEDICTORY SESSION**

Rapporteur: Dr N N Prahallada

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# Indicators of Quality Education: A Status Study at the Elementary Stage in the Chosen Schools at Southern Districts of Tamil Nadu

-Major P Chandrasekharan

## Introduction

The competency of a teacher is a major determinant of the quality of education (Inderjit Khanna, 1995). Education in any free and complex society is influenced by socio-economic and political circumstances and by educational philosophy (Mehta, 1995). In spite of hectic measures for promotion of quality of education at the elementary stage in particular, the response and rate are at snail's pace. To assay the status of quality education and to find out the indicators of quality education, the study was carried out at various schools pertaining to their efficiency and performance at diverse aspects through multifarious tests in vernacular, English and other languages. Through the analysis, the investigator is able to trace the indicators of quality education.

## Objectives

1. To find out the role of teachers in quality education
2. To find out the role of students in quality education
3. To find out the impact of infrastructure
4. To find out the impact of environment (rural and urban)
5. To find out the impact of quality of teaching
6. To find out the role of languages and
7. To find out the role of awareness status on quality education

## Methodology

Keeping the objectives in focus, eight categories of schools were identified and chosen for the experimental study. They were Remote to Approach School (RAS), Remote Rural School (RRS), Moderate Rural School (MRS), Typical Rural School (TBS), Semi-Urban School (SUS), Typical Urban School (TUS), Elite Urban School (EUS) classified on the basis of quality of input, quantum infrastructure and type of environment. The questionnaires were issued randomly to the student test samples of above schools and following aspects were tested viz. Spell test, sentence construction efficiency, legibility in handwriting, efficiency in short verse writing and recitation, oratorical expertise, performance in singing, (folk, devotional, subjective and patriotic), RLV (Reading, Listening and Viewing) retention and delivery system, reading habits, subjective knowledge, awareness status on socio-political-economical-educational cultural, environmental, health, hygiene and moral values. Extempore Nature Watch and IPIA (Interpersonal Interaction and Adjustment).

## Findings

Spell test as an indicator of quality education through vernacular English and Hindi evaluation, SUS exhibit better performance with vernacular and EUS through

English and Hindi and foreign languages. However the performance was found to be low and decreasing with first four categories of schools, both in vernacular and in English. Similar is the situation with ability to construct sentences, legibility in hand writing, short verse writing and recitation and oratorical expertise of the participant. But with singing talent, the situation is different that in vernacular, the performance was in ascending order from RAS to EUS and in descending order in English from EUS to RAS. As regard to RLV i.e. reading, listening and viewing – retention and delivery efficiency, by way of writing, speaking and line drawing or shade drawing, the result was interesting (Table VIII). Another interesting dimension on the student's reading habits (story books and newspapers) do exhibit a variegated performance in different media (Table VIII). Similar to spell test, sentence construction, legibility etc. the subjective knowledge proficiency do exhibit same pattern of result. Awareness status on social, political, economic, educational, environmental, cultural, health, hygiene including moral values too reveal the same trend among the school types studied. Extempore, IPIA and Nature watch attitude also exhibit a high positive trend at EUS in the ascending order from RAS.

### **Implications of findings for School Effectiveness**

The aim of education should be to create awareness, develop skills according to the potential of the individual and train the minds. At the elementary stage, education should be aimed at character building, inculcation of moral values and specific codes of conduct. On the academic front curriculum should be designed to impart elementary knowledge which would help in building of concepts. The childhood experiences, memories and habits tend to have a lasting impact on the personality of an individual. The ability to observe, learn, memorize, understand, analyze, comprehend, interrelated and generalize is judged effectively here in this study. Following implications were derived for school effectiveness and quality education.

1. The standard of Government – aided schools exhibit poor performance, when compared to self-finance institution (SFI).
2. Week end periodical test and monthly continuous assessment (CIA) at the first three categories of schools will help them in getting quality output.
3. Periodical competitions without financial commitments in curricular and extra curricular programmes may be conducted and the date should be fixed in the calendar and a sheet of calendar of activities should be supplied to the students free of cost.
4. Social service, health watch and hygiene (personal and campus cleanliness), communal harmony, Eco-development (Gardening and Horticulture), Resources Management and development are the vital aspects to be imbibed at the elementary stage sportily and spontaneously.
5. Selected post-graduate and under-graduate students from neighboring higher educational institutions may be utilized to provide the knowledge on current information and thrust areas.
6. Student's practice blackboards may be installed, allocated and maintained for their free lance writing and drawing practice.

# Indicators of Learners' Achievement in Primary Schools of Karnataka

-Dr. D Basavayya

## Introduction

At the time of Independence of the country in 1947, India inherited an educational system, which is not only quantitatively small, but was also, characterized by acute gender and regional disparities along with structural imbalances. Only 14 per cent of the population was literate and only one child out of these was enrolled in primary school. Recognizing that education is vitally linked with the totality of the development process, the reform and restructuring of the education system was accepted as an important area of state intervention.

The National Policy on Education (NPE, 1986) gave the priority for universalisation of elementary education by focusing on the following aspects, viz.,

- i. universal access and enrollment,
- ii. universal retention of children up to 14 years of age, and
- iii. improvement in the quality of education to enable all children to attain essential levels of learning.

To achieve these, a number of strategies were being formulated for application at the grass root level. One of them is the district specific planning to develop the educationally backward districts as envisaged in the Programme of Action (POA, 1992). In this direction, a new initiative, the District Primary Education Programme (DPEP), has been launched in 1993 with the following objectives.

To develop and implement in the selected districts, a replicable, sustainable and cost-effective programmes so as to

- i. provide all children access to primary education through formal primary schools or its equivalent alternatives;
- ii. reduce overall dropouts at the primary level to less than 10 per cent;
- iii. increase achievement level by 25 per cent over the measured baseline levels; and
- iv. reduce disparities of all types (gender, SC/ST, rural/urban etc) to less than 5 per cent.

In order to project a true picture of the primary schools for planning interventions DPEP had organised Baseline Assessment Surveys (BAS) in various states. In Karnataka, as part of the second phase five districts viz. Bangalore Rural, Bellary, Bidar, Gulbarga and Mysore were selected to

- i. assess the achievement level of students who were nearing the end of the primary cycle in the districts under the DPEP programme and to investigate differences in achievements of the different groups of students (boys/girls, SC/ST students and rural and urban students);
- ii. estimate the level of learning of simple skills of literacy and numeracy achieved at the end of class I and of students who had dropped out after 3 or 4 years of schooling; and
- iii. collect data on relevant pupil background and school factors that explain differences in the learning achievement of pupils at the end of the primary stage.

The second phase of the BAS in Karnataka was undertaken by the DPEP Bureau, Karnataka and the report was finalised by Regional Institute of Education, Mysore. In the present study the same data were used to examine the effect of school factors and interventions on learner achievement.

### **Objectives**

The main objectives of the present study are to examine

- i. the effects of school factors on learners' achievement;
- ii. the achievement differences between boys and girls in relation to school level factors;
- iii. the effects of school factors on achievement gap between SC/ST and non-SC/ST students; and
- iv. the impact of state interventions on learners' performance.

### **Methodology**

#### **Sample for the Study**

This study was based on sample survey conducted in the context of DPEP during the second phase of Karnataka. As mentioned above, five districts, viz., Bangalore Rural, Bellary, Bidar, Gulbarga and Mysore were selected for the study based on the low female literacy rate. About 20 per cent of rural blocks and urban areas (towns) are randomly selected from the districts with a view to cover at least one tribal block using proportionate allocation. From these selected blocks and urban areas, 35 to 45 primary schools were randomly selected for each district. From each school a maximum of 30 students and a maximum of 5 teachers were selected. In all 2709 students and 382 teachers from 211 schools were covered in the Baseline Survey.

## Tools Used

- i. School Record Schedule
- ii. Teacher Schedule
- iii. Student (Present) Schedule
- iv. Achievement Test on Mathematics
- v. Achievement Test on Reading

## Findings

1. The pupils' achievement in mathematics and language varied substantially within as well as between schools.
2. The between school variance was more than the within school variance in both mathematics and language achievements.
3. The performance difference between boys and girls varied across schools.
4. On the average SC/ST students have lower achievement (more than 9.0% in mathematics and 4.4% in language) when compared to Non-SC/ST students.
5. Parent's education was found to be positively associated with pupils' achievement.
6. The MEANSES has positive association with the achievement of mathematics and language.
7. The percentage of SC/ST students has negative association with mean achievement in mathematics and language.
8. Teacher qualification has negative association with both mathematics and language achievement. It means that longer the teaching experience, lower is the school mean achievement. Also higher qualified teachers could not bring better achievement.
9. Percentage of female teachers has positive association with mathematics achievement whereas the number of teachers has positive association with language achievement.
10. Higher Pupil-Teacher ratio has got negative association with the average pupil achievement in both mathematics and language.
11. Giving tests and feedback to the pupil could effect the achievement substantially.
12. Most of the incentive schemes have no effect in enhancing learners' achievement. Operation Black Board scheme has negative association.

13. Educational facilities, Pupil-Teacher ratio and percentage of Female-teachers were responsible to improve mathematics achievement. Similarly, Pupil-Teacher ratio and number of teachers in a school were the factors to enhance the achievement in language.
14. On the whole, state interventions did not have any significant impact in accelerating the achievement in schools. However supply of material under OB scheme has got some impact on enhancing the achievement in mathematics.

## **Conclusion**

The findings of this study will be very helpful to the Educational Administrators and Policy Makers. Also this study motivates the researchers to implement the Hierarchical Linear Modeling (HLM) in their data analysis.

# Comparison of School Quality – An Observation in Two Districts of Karnataka

-B Krishne Gowda

## Introduction

The concept of quality in primary education has gained much importance in the last few years. The deterioration of the quality in primary education has been observed particularly in the developing countries including India and it can be attributed to both the school related and non-school related factors. While the non-school related factors arise from the socio-economic considerations, the school related factors arise from the policy decisions of the state. Research evidences over the years have demonstrated that school related factors play a major role in the quality of primary education than the non-school factors. Although determined efforts have been made by the government in order to improve the school related factors, the major attempts started only in the recent past is after launching the National Policy (NPE, 1986) and Programme of Action (POA, 1987). As a result of this, Operation Blackboard (OB) is to provide at least minimum facilities for schools and District Institutes of Education and Training (DIETs) to improve the teacher training have been set up in Karnataka like some other states in India. In addition District Primary Education Programme has been launched in some of the districts in Karnataka through which some additional structures have also been created at sub-district levels in the form of Block Resource Centres, Cluster Resource Centres and a non-academic body like Village Education Committees to look after the primary education as a whole. It is important to be noted that BRCs and CRCs are exclusive features of DPEP districts only. The DIETs are found to be a common feature in both DPEP and non-DPEP districts. In the light of these additional structures at sub-district levels in DPEP district, whether the schools in DPEP district stand better than the schools in non-DPEP district or not? Is an important issue which needs to be addressed. Although some attempts have been made in studying the school quality as such in the world as well as in India hardly are there attempts which specifically focus on the status of school quality in two different developmental contexts in Karnataka. Hence the present study attempts to throw light on the existing school situations in two different developmental contexts in Karnataka.

## Major Objectives of the Study

The study undertaken by the researcher was to find out whether the school quality in primary schools differ in the DPEP and non-DPEP context or not? In Karnataka.

## Methodology

A qualitative research design using Case Study method was employed to study the school quality in primary education and the unit of case is the district.



In order to draw the sample multistage stratified random sampling technique has been employed. In the first stage districts and in the second stage taluks were selected from the farthest and nearest distances to the district headquarters on the basis of an approximate distance from the district headquarters. In the third stage primary schools were selected. The selection of primary schools was done based on the training received by the teachers for the purpose of looking at the quality of those schools.

## **Findings**

As is expected, the schools in Kolar slightly stand better than those of Tumkur because of the additional support as an intervention of DPEP programme in Kolar district. Although there is no major shift in the school quality in both the districts, the schools in Kolar slightly stand better than those of Tumkur by being better in the availability and usability of infra-structural facilities, teacher related factors and the organisation of classroom teaching learning processes. This suggest that ensuring adequate facilities to schools and pedagogical support especially in terms of inservice training for teachers are no doubt the pre-requisite for enhancing demand for primary education. However, it should be noted that it is also necessary to ensure the quality of inservice training programmes of teachers.

# Parental Involvement: An Index of Quality Education at Primary Level

-Bindu T V

## Introduction

Parental interest and involvement in schooling does not exist independently of what the school does. At both infant and junior levels, it is clear that some inner city schools are markedly more successful than others in establishing effective home-school liaison in giving parents a sense of belonging to the school community, regardless of their social class or ethnic group (Docking, 1988).

The foundation for education is laid in the home of the child. Home is the base and school forms the future construction. Home is a place on which the sun shines and home is a place in which son shines (Shamsuddin, 1975). It is abundantly clear that parenthood pervades the entire life of the child. If one has to prepare the list of educators participating in the task of education, parents will primarily top the list. The mother is a ministering angel and the father is the custodian of human and material situations promoting the forward-looking tendencies in the growing child. Thus, "if the home and parents supply the right environment of study, love and affection and provide the child with opportunity to express himself in freedom, then like a plant, given good soil and sunlight, the child will flourish" (Khan, 1976).

Education of the child is not the exclusive responsibility of the school. It is widely agreed that parental interest and family environment are crucial in determining what a child makes of his. Parents can and should play a vital role in shaping and building the career of their children. The interaction between parents and children is highly educative. It is a fact that most parents want to facilitate their children's learning, and are already making efforts to do so. Hence the starting point of all education is the early life of the child carved out by the genius of the parents under the bracing environments of parental proof (Singh, 1976).

## Objectives

The important objectives of the study are:

1. To find out the relationship between Parental Involvement and Achievement of pupils on the basis of sex, locality and type of institutional management.
2. To find out the effect of different levels of Parental Involvement (high, average, and low on Achievement).
3. To compare Parental Involvement on pupils belonging to the following pairs:
  - (i) Boys and Girls
  - (ii) Urban and Rural areas
  - (iii) Government and Private Institutions

## Methodology

### Tools

The following standardized tools have been used for collecting required data:

- (i) Parental Involvement Inventory
- (ii) Achievement Test for Standard IV.

### Sample

The data for the study has been derived from a sample of 400 primary school pupils (standard IV) drawn from two Revenue District of Kerala using proportionate stratified random sampling technique.

### Statistical Techniques Used

- (i) Product-moment correlation
- (ii) Two-tailed tests of significance for difference between means for large independent groups.

### Conclusions

Important conclusions based on the present study are summarised below:

1. The analysis of relationship between Parental Involvement and Achievement was found to be significant at 0.01 level for Boys (0.5555), Girls (0.3676), Urban subjects (0.5111), Rural subjects (0.3420), Government Institutions (0.4884) and Private Institutions (0.3558). So, it can be concluded that Parental Involvement and Achievement are positively related.
2. Comparison of Mean Achievement score of pupils in High, Average and Low Parental Involvement groups resulted in the following conclusions:
  - (a) Significant difference in achievement is found ( $CR=2.791$ ) when High Parental Involvement group and Average Parental Involvement group were compared.
  - (b) Significant difference in achievement is found ( $CR=2.078$ ) when High Parental Involvement group and Low parental Involvement group were compared.
  - (c) No significant difference in Achievement is found when Average Parental Involvement group and Low Parental Involvement group were compared.

Hence, we may conclude that significant relation exist between Parental Involvement and Achievement of Primary school pupils.

3. Comparison of Mean Scores of Parental Involvement with respect to sub-samples based on sex, locale and management of institution led to make the following conclusions.
  - (a) Parental Involvement is found to be higher for Boys than that of Girls (CR=2.227).
  - (b) On the basis of locality Parental Involvement is found to be higher for Urban pupils than that of Rural Pupils (CR=2.416).
  - (c) On the basis of management of Institution, Parental Involvement is found to be higher for pupils studying in Primary Schools than that of in Government Schools (CR=3.827).

# Indicators for Learning at Early Childhood for Better Future Education

-Dr T Mrunalini

## Introduction

“Normal experience at the normal time results in neural activity that maintains typical connection; lack of such experience at the usual time results in a typical connection. Thus, there is a sensitive period (Bornstein, 1989) in which relevant experience much occurs for the experience to have the usual effect on brain development”.

Children at early years are cognitively competent and they possess set of abilities, which brings rapid cognitive process. Children possess a variety of broadly applicable learning processes. The strengths that young children bring to their own maturity are significant. “I want is the theme”. So, the child is very assertive at this stage. There is a need to constantly provide them with rich learning experiences at the right time, catering to the needs of all domains cognitive, affective and psychomotor.

In this context when observed the whole scenario of existing early childhood educational practices especially in urban private schools were discouraging.

## Objectives

1. To understand the children’s perceptions and feelings about the early childhood experiences (both in conventional and ideal schools).
2. To find out the opinions of teachers about the early childhood programmes in their respective schools (both conventional and ideal schools).
3. To find out the type of transactions of children with teachers, peer group and the materials.
4. To find out the inclusion of indicators in regular school practices (both ideal and conventional).
5. To find out the difference between the children’s (from conventional and ideal school background) mode of learning.

## Methodology

### Research Design

The research design for the study was based on an empirical study. The survey method was adopted.

### Sample Selected for the Study

Purposive sampling technique was used in selecting the sample. For the purpose of the study two schools located in Hyderabad City were identified. The schools selected for the study includes one with conventional style of learning, and the

other with the ideal mode of learning. A representative sample of 50 children between the (2+ and 7+) age group was selected. The sample includes 5 children from each age group from two schools (conventional and ideal school). The sample also includes 20 teachers, 10 each from two schools.

### **Tools developed for the study**

The following tools were developed for the study.

- A. List of indicators for early childhood education
- B. Opinionnaire for teachers
- C. Interview schedule for children
- D. Observation schedule for the investigator

### **Findings**

1. Indicators of early childhood education showed a positive impact on the development of the children in all dimensions.
2. All the teachers (from both conventional and ideal schools) recommended indicators for the better development and learning in future.
3. Majority of the teachers was not interested in conventional practices at early childhood education.
4. Teachers from ideal school were happy with the practices and could get good feed back from the parents.
5. Children enjoy learning in an ideal school when compared to conventional mode of learners.
6. Children get wider learning experiences for the development of different aspects (physical, academic etc).

### **Implications of findings for School Effectiveness**

Conventional styles of learning and existing practices of learning at early childhood education (preparing primary 3R's upto 5+) hinders cognitive development of the mind (S. Siegler 1991) more so there is no place for the total development of the child. So, it could be the better development. Ideal early childhood programme may be made mandatory by the government authorities irrespective of the type of school.

# Enrichment of Language Competencies through Various Activities in Teaching English for Standard IV (In Kendriya Vidyalaya, Hebbal)

-Mrs V Niranjani

## Introduction

A variety of interesting activities in the form of narration of events, peer group discussions, story telling, drama, dialogue, question-answer, quiz competitions, riddles, word play, debates during school co-curricular programs and functions, and songs are organized for making language learning a joyful activity. Self-learning skills and functional use of language are also to be developed by encouraging the study of interesting children's books, picture dictionary and peer group activities. Thirty three children belonging to class IV were selected for the purpose of the study.

## Findings

1. Children could pronounce words correctly.
2. Pause wherever necessary.
3. Use proper accent and rhythm.
4. Use proper intonation.
5. Maintain reasonable speed and flow.
6. Read according to the sense expressed in the material.
7. Display reasonable speed in silent reading.
8. Grasp the meanings of the words, phrases and sentences from the context.
9. Locate keywords, phrases and sentences.
10. Locate important facts and ideas.
11. Identify relationship between objects, ideas, events, facts, characters, etc.
12. Infer the meaning, ideas and the message of a passage.
13. Write a neat and legible hand with reasonable speed.
14. Use appropriate words, idioms and structures.
15. Use varied sentences.
16. Use capital letters and mark punctuation correctly.
17. Make appropriate uses of connectives such as 'and', 'but', 'so', 'therefore', 'otherwise', etc.
18. Present only relevant ideas and facts.
19. Avoid unnecessary repetitions.
20. Organize ideas, facts, etc. into a paragraph.
21. Give a suitable title
22. Display imagination in writing.
23. Children easily learnt the spellings and use them correctly in their written work.
24. Along with the spellings they learnt the word meanings.
25. Attitudes of the children improved regarding learning the spellings.
26. Spelling errors reduced to the maximum in other subjects too.
27. Children enjoyed learning the spellings through games and their learning was very fast.

### **Implications of Finding for School Effectiveness**

1. The study will help to improve the quality of teaching and learning at elementary level and would help the schools of Kendriya Vidyalaya Sangatan in building a model for teaching situations.
2. The activity method involves children's full cooperation and ensures participation for effective learning.
3. The learning is made permanent through activity methods.



# The Effectiveness of Organic Writing in Primary Classes

-K J James

## Introduction

Writing is usually considered the most complex skill for the learner to master because the other three skills (listening, speaking, reading) get integrated in it. A certain degree of mastery over listening, speaking and reading skills is a pre-requisite to function through writing. Since the exposure is minimal and inadequate in a second language, the problem becomes worse and hence more complexity is there in writing in a second language. Furthermore, the lack of one-to-one correspondence between a speech sound and a letter makes the act of writing a less interesting one to the second language learner.

In spite of all these, writing is the most neglected skill in actual teaching. No focus is given in teaching writing in the classroom. If at all any amount of time is spent on teaching writing, it is exclusively for enforcing the mastery of grammatical items i.e. to 'drill the structure' as it is usually called. It seems that teachers, learners, and parents share the same belief that by teaching to inculcate the other three skills, namely listening, speaking and reading the learner will automatically master the additional skill of writing too.

The primary school curriculum in Kerala has been revised in 1998. This revision is based on activity based, child-centred philosophy. An approach towards first language as well as second language learning have been evolved as a part of this revision and approach have their influence on the language learning scenario in the state. The concept of organic writing is embedded in the language learning exercises. This attempt will contribute to the enquiry on the validity of organic writing.

As a part of this project the investigator has formulated certain activities for development of writing skill. Effectiveness of these activities is examined in this project.

## Objective

The sole objective of the present study was to explore the effectiveness of Organic Writing for the children of primary classes.

## Methodology

It was a single group design in which the sample comprised of 36 pupils from class V in DIET Lab School Ernakulam. A pretest and posttest were given to this target group to measure the status before intervention and after intervention. Analysis and interpretation of data are made on the basis of these two sets of scores.

## **Major Findings**

1. Children in class V welcomed organic writing exercises than mechanical writing exercises like copying from a textbook or blackboard or taking down notes dictated by the teacher in traditional way.
2. Intervention package formulated for the present project has been proved effective.

## **Implications**

What does school effectiveness mean? Ronald Edmonds and his colleagues have defined school effectiveness in terms of a system in which working-class students score as high as middle class students on basic skill tests.

In the above definition two characteristics are noticeable i.e. high expectations and requirements for all students and the focus on teaching important skills to all students. In order to assure these objectives instructional effectiveness should be maintained. The intervention package formulated by the primary school children in the development of writing skill in second language (English). The activities adopted here assure organic writing, which is more effective than traditional mechanical writing exercises.

# Action Research Report on English Spelling Made Easy for the Beginners

-H N Gurunanjamamma

## Introduction

English spelling is an area where a foreign learner always stumbles. He/She feels uncomfortable with it in the beginning because of its non-phonetic nature. English spelling and sounds don't go together. But we can find out some order in this disorder. If the beginner is introduced to this area of order in a systematic way, the way of phonic method with the help of various activities, half the battle is won. It becomes a part of their unconscious learning and further learning of spelling becomes automatic.

## Objective

To enable the pupils of V standard to write the correct spelling of simple English words through a variety of spelling activities.

## Methodology

### Research Question

Will the pupils of V standard learn to write the correct spelling of simple English words, if they are involved in a variety of spelling and picture reading activities?

### Design of the Study

Pre- and post-tests, experimental design has been used. Both qualitative and quantitative analyses have been used.

The mode of administering the pretest was discussed and designed. Pretest was designed to be conducted on 7.1.2000 (vide annexure 1).

Nursery rhymes, gliding strips, word discs, revolving disks and word charts were designed and prepared for the first phase of five days. Vide annexure 6 for nursery rhymes and annexure 5 for list of activities.

A gliding strip, word grid, stick me to the sun, '- eat' words, '9'- ate' words, '- age' words and '- ear' words were designed and learning materials were prepared for the second phase.

Rotating discs of '-low' words, '- arms' words, '-ram' words, '-ight' words, '-her' words, word charts, word grids and letter cards were designed and learning materials were prepared for the III phase.

The mode of carrying out the activities in all the three phases was discussed and finalised.

### **Tools and Techniques**

Pretest items were discussed and framed to test the entry level of the pupils. This test comprised of twenty simple English words. Ten pictures were drawn on the left side of the test paper. Pupils were asked to write the words by the side of the pictures. Ten words were given for dictation.

Post test items were also discussed and finalized in the third phase. Ten pictures were drawn. Pupils were asked to write the words by the side of the pictures. Ten words were given for dictation.

The collaborators were told to maintain their diaries diligently. They were asked to observe the attitudinal changes of the pupils and record them.

Direct observation was made by the investigator and spot feedback was given in the collaborators.

### **Implementation**

Cognitive abilities develop only when they are operationalised and used.

The intervention was carried out in three phases. At the end of each phase the investigator and the collaborator met at the DIET and shared their experiences and decided the future course of action. Activities and aids were also prepared after thorough discussion.

The investigator visited the classes and personally observed the intervention. Spot suggestions and guidance were given to the collaborators. Correct responses of the pupils were appreciated and all the children were encouraged to participate in the activities. The investigator and the collaborators recorded their observations in their diaries.

### **Major Findings**

1. Improvement is seen in the skill of writing correct spelling of simple English words among the V standard pupils. There is improvement even in their writing the shape and size of the English letters.
2. Different activities used in the study ensured the involvement of all the pupils.
3. It was observed by the investigator that pupils were eager to say the English words with the same pronunciation and spelling. They started to give such words on their own. For example when words like late, mate, rate, hate, plate, slate were being formed, a boy by name Ranjan gave the word date. When

eight, fight, light, might, right, sight, bright, height, weight were formed and practised. Sudharani gave the word night. It was a rewarding experience both to the investigator and the collaborator.

It was found that activity designed to practice the spelling of the longer words like feather, weather, leather was confusing to the pupils. Hence we decided to modify that activity into a simpler form.

## **Conclusion**

The investigator doesn't claim that spelling for all the English words can be taught/learnt through such simple activities. This study is just a humble effort to create a spelling awareness among the beginners of English language learning. This study tries to lessen the apprehension about the spelling area of English language. Once an awareness is created pupils feel confident of writing correct spelling of some basic simple words in English.

This study sets simple goals in the beginning. It begins with small changes but widens the scope for other desirous practitioners. Further studies can be undertaken to study the impact of the activities. A further study on similar lines or with modification on longer words can be undertaken.

To conclude, it is hoped that a sense of direction and accountability has been instilled among the collaborators. It is ensured that in the English period there was a lot of involvement of the pupils in the learning process. The load on memory in remembering the spelling of even simple words is reduced to some extent. The post test scoring reveals that the pupils have achieved the acquisition of the skill of writing simple English words correctly to a reasonable level. It is hoped that the influence of intervention would be permanent.

# Effectiveness of Prerecorded Audio Cassette in Teaching of English Pronunciation at Primary Level

- N Balasubramanian and M Yoganandam

## Introduction

Learning a language cannot be complete and meaningful without the proper acquisition of all the four skills viz. Listening, speaking, reading and writing. The present study was undertaken with the children of Std V to try out the effectiveness of the prerecorded audio cassette and the specially developed instructional material in teaching English pronunciation. The study hypothesised that the specially developed instructional material and the pre-recorded audio cassette improves the pronunciation of English sounds and other aspects of spoken English viz. Word stress, sentence stress and intonation. They study also hypothesized that there is difference between the subject teacher and the pre-recorded audio cassette with regard to the effectiveness of improving English pronunciation, stress and intonation among primary children.

## Objectives of the Study

The objectives of the study are as follows:

1. to conduct a survey among the V standard children and to find out the deficiencies in their speech habits.
2. To design a remedial package to train the children to acquire proper speech habits.
3. To develop an audio cassette remedial material based on the remedial package already developed for the purpose of training the children to acquire proper speech habits.
4. To tryout the effectiveness of the package as well as the pre-recorded audio cassette with a group of children.
5. To evaluate the prepared remedial package as well as the pre-recorded audio cassette.

## Methodology

Experimental design was planned to try out the formulated hypotheses. A remedial package and a pre-recorded audio cassette were developed as a means of experimental interventions in the present study. A survey was conducted in 10 elementary schools with regard to finding out the areas of weakness among primary level children in their English pronunciation. The findings of the study helped in the development of the remedial package as well as the pre-recorded audio cassette.

Pre-test and post-test were conducted to the control and experimental groups before and after the experimental intervention. The responses made by the subjects of the experimental and control groups were scored, tabulated and analyzed using appropriate statistical techniques.

## Findings

It is concluded that the specially developed remedial package is more effective when compared to the conventional method of teaching in improving certain other aspects of spoken English. It is also concluded that the specially prepared remedial package is in no way better than the conventional method of teaching in certain aspects of spoken English viz. the articulation of vowels, diphthongs, consonants and sentence stress.

It is also concluded that audio technology in the form of the pre-recorded audio cassette is more effective when compared to conventional lecture method in improving the different aspects of spoken English.

Again, it is concluded that the audio technology in the form of the pre-recorded audio cassette is more effective when compared to the specially developed remedial package used by the subject teacher in improving the different aspects of spoken English.

# Effectiveness of Motivational Intervention Strategies for Teaching Science at Elementary Level (VI Standard)

-S Uma Rani  
-Dr S Mohan

## Introduction

Motivation is an important aspect that has influence on the energy and direction of human behaviour. "Motivation in school learning involves, arousing, persisting, sustaining and directing desirable behaviour. Motivation is a process in which the learner's internal energies or needs are directed towards various goal or objects in his environment".

Now a days the teaching seems to be very mechanical, boring and mostly involves reading and sometimes lecturing. This type of unpleasant classroom climate produced by teachers teaching science make students disinterested in learning science. In spite of many innovative strategies of classroom practices available, now a days teachers are not able to initiate desired changes in the learners to the fullest possible extent and unable to contribute much for school effectiveness. The reasons for this failure may be many but one important and significant reason is, perhaps, lack of proper motivation among teachers.

A competent teacher makes the teaching-learning process a joyous experience for children and also to himself. Thus the personality to the teacher is an important factor in motivation.

Unless we, teachers, make conscious efforts to focus our attention on the information, that is to transfer it to LTM, it is quickly lost. The extent of transfer of an academic subject clearly depends on the motivation, teaching methodology, on excitation of our neural circuits underlying well established response patterns (i.e.) how to draw attention and to direct it to significant parts like thalamus (responsible for STM) and hippocampus (responsible for LTM) for its organisation and consolidation of new information. If our teachers are aware of this mechanism of transmission of information, the learning process will be made meaningful, effective and easy.

## Objectives

The following are the objectives of this study.

- i. To identify the present level of achievement of VI standard students in science.



- ii. To identify and to implement appropriate motivational intervention strategies to teach science in VI standard.
- iii. To find out the effect of motivational intervention strategies on enhancing the level of achievement of VI standard students in science.

## Methodology

The investigator adopted experimental method (i.e.) single group – pre-test-treatment-post test design. A sample of 14 students of VI standard from urban Municipal middle school, in Pudukkottai district, Tamil Nadu was selected for this study. The average performance of the students in VI standard of this school was compared with that of VI standard students in Government, aided and private schools in the surroundings. It was found that the average performance of the sample school was very poor (i.e.) below 40%. It had also been observed that in this school mainly, the first generation learners and low socio-economic status background children study. They virtually do not have any home support for the guidance in their studies and for overcoming their deficiencies in learning. They also do not have priority for tuition at their home. So the investigator thought that a school with all such handicaps would be a better sample to study the effect of motivational intervention strategies developed by the investigator.

## Findings

- (a) Both Wilcoxon signed Ranks test and 't' test show that there is significant difference between pre-test and post-test scores and this significance implies that the implementation of motivational intervention strategies in teaching science at elementary level (VI standard) has positive effect on enhancing academic achievement in science.
- (b) There was no proper planning to link known concepts with that of unknown.
- (c) There was no proper preparation for setting and defining the goal.
- (d) There was the use of lecture method only.
- (e) There was no use of positive feedback
- (f) The content taught in the class was not reviewed by the teacher

The outcome of the study has the following implications for the school effectiveness.

- i) These strategies can be used to teach other subjects in VI standard.
- ii) These strategies can also be extended to teach science in Primary, high and higher secondary levels and also to other subjects.
- iii) This can also be tried in teaching languages at all levels.
- iv) In pre-service and in-service training these strategies can be practiced to enhance teaching competence of the trainees.

# Effect of Activity Based Approach on Developing Environmental Consciousness Among Primary Children

-R Rajammal  
-Dr S Mohan

## Introduction

The National Policy on Education (1986) has emphasized that “each individual’s growth presents a different range of problems and requirements at every stages from the womb to the tomb implying that an individuals individuality and dignity should be respected his/her reads interests, aptitudes and abilities taken into account by educational system. The policy has advocated a child entered and activity based process of teaching and learning especially at primary stage.

In this approach ‘learner’ or ‘child’ and not the teacher is the main focus of the educational programs. It emphasizes learning through activities rather than teaching. The over all goal of education according to this approach is all round development of the child and not only that of acquiring knowledge. Curriculum according to this approach should be based on needs interest, aptitudes, and ability of children at different levels. So that it enables the learner to acquire the necessary skills, knowledge, attitudes which will help to realise the full potential of child.

## Objective

The environmental concept ‘living things’ was introduced for III standard primary children to develop environmental consciousness, but this objective was not yet achieved and achievement level of children is also below 30%. His concept was identified as Hard spot. So the investigator made an attempt to find out the effect of activity based approach in developing environmental consciousness among primary children in PUP school, Oddanchatram, Dindigul District.

1. To find out Hard Spot in EVS II of III standard syllabus.
2. To design activities for the identified hard spots.
3. To find out the effect of activity based approach on teaching EVS II.
4. To develop Environmental consciousness among primary children.

## **Methodology**

Research design adopted for this study is Experimental Method (Equivalent group design).

## **Sample**

The investigator identified the III standard students from the P.U. Primary School, Oddanchatram by following the experimental design in this study.

Based on the marks obtained by primary children in EVS II in the half-yearly Examination alone was considered in this study. From the forty students of III standard in P.U.P. school, twenty were selected for control group and the other twenty were treated as experimental group. Among twenty students ten boys and ten girls were selected for each control and experimental group.

Hard spots were identified by conducting discussion with primary teachers of P.U.P. School, Oddanchatram on 1.2.2000. Pretest was conducted on 2.2.2000. Students were observed for environmental consciousness from 1.2.2000 to 7.2.2000 before experimental treatment. Activities were designed from 8.2.2000 to 28.2.2000. Designed activities were implemented in the classroom from 2.3.2000 to 27.3.2000. Post-test was conducted on 28.3.2000. Students were observed for environmental consciousness from 22.3.2000 to 28.3.2000 after the experimental treatment. The changes in pretest and post-test score may be considered as the effect of experimental treatment.

## **Tools**

1. Achievement test questionnaire.
2. Observation Schedule.

## **Findings**

1. There is no significant difference between pretest and post-test scores of control group in achievement.
2. There is significant difference between pretest and post-test scores of experimental group in achievement.
3. There is no significant difference between pre-test scores of Experimental and Control group in achievement.
4. There is significant difference between post-test scores of control & experimental group in achievement.
5. There is no significant difference between pretest scores of boys & girls in the control group in achievement.

6. There is no significant difference between post-test scores of boys & girls in the control group in achievement.
7. There is no significant difference between pre-test scores of boys & girls in the experimental group in achievement.
8. There is no significant difference between post-test scores of boys & girls in the experimental group in achievement.
9. There is significant mean difference in Environmental consciousness between pretest and post-test scores of control group in environmental consciousness.
10. There is significant mean difference between pre-test & post-test in the Experimental group in environmental consciousness.
11. There is no significant mean difference between pre test scores of control & experimental group in environmental consciousness.
12. There is significant mean difference between post- test scores of control & experimental group in environmental consciousness.

### **Educational Implications**

It is found that there is significant mean difference between pretest & post-test scores of experimental group and also there is significant mean difference between post test scores of control & experimental group in achievement level and in Environmental consciousness. This is due to effective use of Activity Based Approach in the classroom. This approach enabled the children to aware of things available in the environment and made them to understand its structure and functions of those things available in their environment. This approach also helpful for teachers to emphasize the need for understanding the environmental component and motivate the children to contribute towards the improvement.

# Developing a New Strategy to Teach 'Light' for VII Standard Students

-S Jayaraman

## Introduction

Education means becoming developed or progressing from inside to outside. It is the process of developing the inner abilities and powers of an individual. It implies some kind of a change for the betterment of a person. Development means the gradual and continuous progress of mind and body. Through this development, acquires the following.

1. Knowledge of the environment by which he is surrounded.
2. The necessary motor control to fulfill his individual needs.
3. Linguistic abilities to enable him to converse.
4. Some knowledge of individual and collective relationships.

The development of all these elements begins at home itself. The educator's task is to continue this process and encourage it while the child is at school. This is the time for the researcher to find out the remedy for the difficulties experienced by the DTE students in teaching of light topic in science subjects.

## Objectives

1. To develop a new strategies for the implementation of MLL based teaching of light topic in science subject.
2. To give interaction and proper guidance during the implementation of this new strategy.

## Methodology

The research is going to be an experimental one. Data about the students, the teachers and the availability of aids to teach light topic were collected from the 50 schools at the ratio of 1:5, through the questionnaire and oral enquiry. Based on these data and by the way of purposive random sampling technique, 10 schools were identified. Care was taken that all the schools are almost in the same status in economic, linguistic, education and environment. To make the study representative some of the schools were selected in such a way that nearly 4% of the students comes from a wealthy family and their parents are also good in all status. The students of ten schools are formed as one part of the sample and ten DTE students are formed as the second part of the samples. A videocassette was developed using the computer multimedia software on the properties and laws of reflection in light. Two lesson plans were prepared for two sets of groups of

samples. A module on the same unit is also prepared to help one of the groups. This will avoid extra influence of the factors which may be available during their teaching practice.

### Samples

Ten students of Diploma in Teacher Education were selected as a first part of the sample, comprising 5 boys and 5 girls and 489 7<sup>th</sup> class students were also selected as the second part of the sample. Care is taken that all the samples are almost in the same status in environment and IQ. Achievement in public examination, test and discussion with students were taken as the criteria to measure the IQ of the both part of the samples. The first part of the sample is divided into two groups called A and B. The second part of the sample is divided into two groups called C and D. Groups A & C are treated as the experimental group and groups B & D are treated as the control group.

Table-1 Showing the number of samples selected for this study

Sl. No.	Category	Group	Number of Students
1.	DTE Boys	A	5
2.	DTE Girls	B	5
3.	7 <sup>th</sup> Class students from schools 1 to 5	C	245
4.	7 <sup>th</sup> Class students from Schools 5 to 6	D	244
	<b>Total</b>		<b>499</b>

### Tools

1. A questionnaire was prepared to collect the data about the personnel information and the availability of the aids to teach the light topic.
2. A video-cassette was prepared using the multimedia software on light topic as a new strategy.
3. Lesson plan and the module were prepared for the control group.
4. Post evaluation test was conducted for the groups C & D.

### Findings

1. The video projection makes the students to give their full concentrations, by which students can understand the properties and the laws of reflections.
2. Since the researcher made all other factors are in equal status, the effect of videocassette is very much high, when comparing to the other scientific method.

3. Through both the experimental and control groups were given the same situational effect, the experimental group achieved more. The standard deviation is very low. The hypothesis is most significant.
4. Student will show more involvement for the usage of TV, VCR and computer etc.
5. Animation of the videocassette makes the students to understand very well about the properties and the laws of reflection.

### **Implications of the Research**

1. Number of copies may be made and distributed to all the elementary schools.
2. Since VCR and TV are not available in the elementary school, the Government should immediately supply them, so as to utilize them fully not only for this videocassette but also for other available educational cassettes.
3. If this is not possible by the Government to supply both the school may be permitted to utilize the panchayat TV. So it is enough for the Government to supply the VCR.
4. Training has to be conducted for all the teachers to tell about the importance and implementation of the videocassette by the Government or any N.G.O's or the sponsor persons.

# **Influence of Psycho-Social Variables on Teaching Comptency of DPEP And Non- DPEP Teachers**

**-Dr. U Lakshminarayana  
-Dr. G V Surendranath Babu**

## **Introduction**

Of all the factors, which influence the quality of primary education and its contribution to national development, the competency of teachers is undoubtedly the most significant. But, now-a-days, performance of teachers is much below the expectations of the society of which they are apart. What are the factors that contribute to this kind of performance among teachers? Where does the defect lie? Does the defect lie with teaching competency of teacher? If so, will teaching competency of teachers be influenced by any psycho-social factors? This study makes an attempt to answer these questions.

## **Objectives**

1. To find the influence of Motivation of primary teachers on their Teaching Competency in DPEP and non-DPEP districts.
2. To find the influence of Attitude of primary teachers towards teaching on their Teaching Competency in DPEP and non-DPEP district.
3. To find the influence of Adjustment of primary teachers on their Teaching Competency in DPEP and non-DPEP districts.
4. To find the influence of Sex of primary teachers on their Teaching Competency in DPEP and non-DPEP DISTRICTS.
5. To find the influence of Location of the schools on Teaching Competency of primary school teachers of DPEP and non-DPEP districts.

## **Methodology**

### **Sample for the Study**

The sample in the present study constituted primary teachers belonging to DPEP and non-DPEP districts. The two districts in Andhra Pradesh were chosen for the study, namely Kurnool district and East Godavari District. Kurnool is a first phase DPEP district and East Godavari is a Non-DPEP district. The present sample consisted of 640 primary teachers drawn from DPEP and non-DPEP districts. Among the 640 primary teachers, 320 were DPEP teachers and 320 were non-DPEP teachers. A stratified random sampling technique is followed to draw the sample for the present study.



## Tools Used

The following tools were used in the study:

- (a) Teaching Competency Scale
- (b) Teacher Motivation Scale
- (c) Teacher Attitude Inventory
- (d) Teacher Adjustment Scale.

## Major Findings

1. There is a significant influence of Motivation on the Teaching Competency of primary teachers in DPEP and non-DPEP districts.
2. There is a significant influence of Attitudes of primary teachers towards teaching on their Teaching Competency in DPEP and non-DPEP districts.
3. There is a significant influence of Teacher Adjustment on the Teaching Competency of primary teachers in DPEP and non-DPEP districts.
4. The sex of primary teachers has no influence on the Teaching Competency of primary teachers in DPEP and non-DPEP districts.
5. The Location of the schools has no influence on the Teaching Competency of primary teachers in DPEP and non-DPEP districts.

# A Study of Factors Affecting Organizational Commitment of Primary School Teachers of Bangalore City

-Dr (Mrs) Tara Sabapathy

## Introduction

The vitality of organizations lies in the willingness of individuals to contribute to their growth and development. Educational organizations in particular such as schools, colleges and universities require individuals who are committed to their profession and well being of students. In this context teachers' wholehearted commitment is an essential input for organizational effectiveness. Teachers strong in commitment find it easy to be interested in whatever they are doing and can involve themselves in it wholeheartedly. They are rarely at a loss for things to do. They always seem to make maximum effort cheerfully and zestfully. Committed teachers also have strong psychological ties to their schools, their students and their subject areas. Challenging and committed teachers consider it natural for things to change and anticipate the changes as a useful stimulus to development. In contrast alienated teachers find things boring or meaningless and hang back from involvement in the tasks they have to do. Although they are seldom strongly involved they often appear taxed. Teachers who feel threatened think it is natural for things to remain stable and they fear the possibility of change because it seems to disrupt conform and security.

## Concept Of Organizational Commitment

Organizational commitment is the degree to which an employee identifies with the organization and wants to continue actively participating in it. Like a strong magnetic force attracting one metallic object to another, it is a measure of the employee's willingness to remain with an organization in the future. It often reflects the employee's belief in the mission and goals of the organization, willingness to expend effort in their accomplishment and intentions to continue working there. Organizational commitment is therefore an individuals' orientation toward the organizations in terms of loyalty, identification and involvement.

## Objectives

The following objectives have been formulated.

1. To find out the relationship between organizational commitment of primary school teachers and their work motivation, job satisfaction, morale and leadership behaviour of school heads.

2. To find out whether differences in work motivation of primary school teachers would account for significant differences in their organizational commitment.
3. To find out whether differences in the job satisfaction of primary school teachers would account for significant differences in their organizational commitment.
4. To find out whether differences in the morale of primary school teachers would account for significant differences in their organizational commitment.
5. To find out whether differences in leadership behaviour of school heads would account for significant differences in the organizational commitment of primary school teachers.
6. To find out whether differences in biographical variables viz., sex, type of management, age, teaching experience, salary and marital status of primary school teachers would account for significant differences in their organizational commitment.

## **Methodology**

### **Variables Chosen for the Study**

#### **Dependent Variable**

1. Organizational Commitment

#### **Independent Variables**

1. *Work Relevant Variables*
  - a. Work Motivation
  - b. Job satisfaction
  - c. Morale
  - d. Leadership Behaviour of School Heads
2. *Biographical Variables*
  - a. Sex
  - b. Type of Management
  - c. Age
  - d. Teaching Experience
  - e. Salary
  - f. Marital Status

## Tools

The following tools were used to measure the selected variables.

1. **Organizational Commitment Questionnaire (OCQ)** by R.T. Mowday, R.M. Steers and I.W. Porter was adopted and standardized by the investigator. The OCQ is the most widely used measure of affective commitment to date (Mowday, et.al., 1982). There is some evidence that scores on this measure correlate positively with individual and group level indexes of performance (eg. Mowday, Porter and Dubbs, 1974; Steers, 1977). Thus employees who are effectively committed to the organization tend to perform at a higher level than those who are not.
2. **Work Motivation Scale (WMQ)** by K G Agarwal was adapted and standardized by the investigator.
3. **Job Satisfaction Scale (JSS)** by J Indiresan adapted and standardized by Umme Kulsum.
4. **Teacher Morale Scale (TMS)** by Rajeev Lochana.
5. **Leadership Behaviour Description Questionnaire (LBDQ)** by Halpin and Weiner, adapted and standardized by Umme Kulsum.

## Sample

The initial sample comprised 150 sixth standard teachers giving equal representation to gender and to type of management namely private aided, private unaided and government schools. After the scoring of protocols the sample was reduced to 138 teachers due to incomplete questionnaire. The sampling frame is as follows.

Sl. No.	Type of Management	Male Teacher	Female Teacher	Total
1.	Private aided	23	23	46
2.	Unaided	23	23	46
3.	Government	23	23	46
<b>Total</b>				<b>138</b>

The final sample also comprised equal number of male and female teachers in the 3 types of school managements.

## Data Analysis

The data was analysed using Pearson's product moment co-efficient of correlation and t-test.

## Findings And Conclusion

1. Table 1 reveals that there is a significant and positive correlation between organizational commitment of primary school teachers and their work motivation ( $r=0.29$ ).
2. There is a significant positive correlation between organizational commitment of primary school teachers and job satisfaction ( $r=0.51$ ).
3. There is a significant and positive correlation between organizational commitment of primary school teachers and their morale ( $r=0.31$ ).
4. There is low but significant relationship between organizational commitment of primary school teachers and leadership behaviour of their school heads ( $r=0.176$ ).
5. Table 2 reveals that highly motivated teachers ( $M=77.75$ ) are more committed than teachers with moderate ( $M=71.00$ ) and low levels of work motivation ( $M=70.79$ ).
6. Highly satisfied teachers were more committed ( $M=81.89$ ) than moderately ( $M=74.63$ ) and less satisfied teachers ( $M=64.68$ ).
7. Teachers with higher levels of morale ( $M=77.82$ ) were more committed than teachers with moderate ( $M=71.31$ ) and low morale ( $M=71.08$ ).
8. Leadership behaviour of school heads did not have any significant effect on organisational commitment of primary school teachers.
9. Female teachers had ( $M=76.49$ ) more organizational commitment than male teachers ( $M=71.65$ ).
10. Teachers of private aided school had better organizational commitment ( $M=77.50$ ) than teachers of private unaided ( $M=77.24$ ) and government ( $M=67.48$ ) schools.
11. Younger teachers were less committed ( $M=70.94$ ) than older teachers ( $96.94$ ).
12. More experienced teachers ( $M=76.71$ ) had more organizational commitment than less experienced teachers ( $M=70.94$ ).
13. Teachers drawing more salary ( $M=77.59$ ) were more committed than teachers, drawing less salary ( $M=69.76$ ).
14. Marital status of primary school teachers did not have any significant effect on their organizational commitment.

## Conclusions

The present study has pinpointed some relevant conclusions. It has identified a significant relationship between organizational commitment of primary school teachers and their work motivation, job-satisfaction, morale and leadership behaviour of school heads. The study also highlights the influence of biographical variables namely, sex, type of management, age, experience and salary on teacher commitment.

## Implications of Findings for School Effectiveness

A major concern in school education is the quality and relevance of education being imparted to young learners. Every learner is supposed to acquire mastery level

learning in identified competency areas. NCTE has analysed the existing curriculum of teacher education from the point of view of competency areas. It has emerged that to enhance the quality of school education equal emphasis needs to be given to competencies, commitment and willingness to perform on part of teachers. A curriculum framework based on competencies, commitments and performance has been developed. Competency areas namely, contextual competencies, conceptual, content, transactional, related to other educational activities, developing teaching learning material, evaluation, management, working with parents and working with community and other agencies have been identified as critical to teacher preparation at elementary stage.

Acquisition of competencies alone will not be sufficient until and unless the teacher is fully committed. Teacher commitment areas identified include commitment to the learner, commitment to the society, commitment to the profession, commitment to attaining excellence for professional actions and commitment to basic values.

Along with competency and commitment areas, performance areas have also been identified. These include classroom performance, school level performance, performance in the out-of-school educational activities, parents related performance and community related performance. Teacher education institutions could identify details in each of the three major categories. For each competency, commitment and performance area, the existing curriculum needs to be analyzed. Whenever certain unit of curriculum is taken up for transaction, its relationship to commitment and performance has to be examined. Such an approach would provide an opportunity to the training institutions to prepare teachers who are not only competent but are also committed and both these aspects are reflected in their performance leading to higher learning attainments by all children.

Educational planners and administrators may be utilized the findings of the present study to assess the level of teachers' motivation to work and develop strategies for tonning up the educational atmosphere in the schools. It will definitely be beneficial to the teacher training institutions interested in renovating their academic and administrative practices in order to turn out highly committed teachers for the institutions of the country. The study may also be of interest to teachers/principals who wish to get feedback about their own functioning with a view to improving their performance.

# Changing Teacher-Oriented to Learner-oriented Methods of Teaching a Challenge to 21<sup>st</sup> Century Teachers: An Experiment to enhance students Learning Attainment and self-confidence

-Dr Haseen Taj  
- Dr N Shaik Masthan

## Introduction

The present study was attempted to study the impact of a few learner-oriented vs teacher-oriented methods as interventions to enhance the learning attainment of students and also to establish the relative superiority of learner-oriented vs teacher-oriented methods of teaching to bring about qualitative improvement in school education at primary stage. And thus, to achieve school effectiveness.

## Objectives

1. To equate the groups (G1 – G2) on a few intervening variables such as sex, SES, social maturity, intelligence and self-confidence which affect learning attainment of primary school students.
2. To study the impact of learner-oriented methods on the learning attainment and self-confidence of primary school students.
3. To investigate the impact of teacher-oriented methods on the learning attainment and self-confidence of primary school students.
4. To compare the relative superiority of learner-oriented vs teacher-oriented methods on the learning attainment and self-confidence of primary school students.

## Methodology

### Sample of the Study

A pre-test, post-test two equivalent group experiment design was adopted using a sample of 210 VII std students. The groups were equated on the presumed intervening variables such as SES, intelligence, social maturity, self-confidence and achievement. After equating the groups, the finally retained sample of 76 girls and 94 boys were equally assigned to learner-oriented and teacher-oriented groups randomly (38 girls and 47 boys respectively).

### Design of the Study

The study was conducted in III phases.

Phase I: Equating the groups.

Phase II: Experimental Treatment to Groups

Phase III : Post-test

The learner oriented methods such as discussion, demonstration cum talk, role play, dramatised presentation and field visit were used. Talk and Chalk, reading and explaining, dictation/board work were a few methods used in teacher-oriented methods.

## **Results**

The results of the study after the exposure to the experimental treatment reveals that the learning attainment and self-confidence of students under learner oriented method of teaching was far better than their counterparts in teacher-oriented methods.

## **Implications**

The implications of the study to school effectiveness is that all types of interventions at process level are developed to enhance the achievement of students, because students' academic achievement is considered to be a very important aspect of school effectiveness. Thus, the teachers at primary stage should be oriented and allowed freedom or autonomy to use the learner-oriented methods to enhance not only the learning attainment and school effectiveness but also to prepare the teachers to meet the challenges of 21<sup>st</sup> century.



# Strategies for Identifying Students with Learning Disabilities in Mathematics at the Primary Level (Third Standard)

-R Jayanthi

## Introduction

There is a growing concern for children and youth with Learning disabilities who have extreme difficulty in learning academic and other skills despite their mental capacity for doing so. All these years, children from all walks of life have experienced difficulties in learning.

Research in the analysis and remediation of problems related to students with mathematics learning disability has been rather neglected. A large number of school children continue to experience failure in this subject.

The identification and treatment of mathematics disabilities have received much less attention than problems associated with reading disabilities.

Identifying students with Learning disability in mathematics is completely a new area in our classrooms. So to create awareness among the primary school teachers, an attempt is made to develop tools to identify the students with mathematics learning disabilities at the primary stage. For this investigation third standard students of panchayat union middle school Perundurai West (Lab area of DIET) were selected to assess the reliability of the tools, developed to identify the Learning disabled students, formulate strategies in teaching to overcome learning disability in mathematics. Since, the earlier studies indicate the children with learning disabilities are one to three years below the expected grade level in arithmetic computation, the third standard students were selected for this study.

## Objectives

- to identify students with learning disabilities in mathematics at third standard.
- To contrive specific instructional strategies to teach mathematics to students with learning disabilities.
- To develop informal classroom tests to assess the students with learning disabilities in mathematics.
- To improve skills among the primary school teachers to identify the students with learning disabilities in mathematics.

## Methodology

Learning disabilities in mathematics may be due to four areas according to Kauffman (1980)

1. Cognitive factors
2. Psychomotor factors
3. Physical and sensory factors
4. Social factors.

**First Stage:** Developing tools for the 10 basic cognitive skills.

**Second Stage:** Identifying students with learning disabilities by using the developed tools.

**Third Stage:** Giving specific instructional strategies to the learning disabled students.

**Fourth Stage:** Assessing the learning disabled students with informal classroom tests.

**Fifth Stage:** Based on the outcome, improving skills among the primary school teachers to identify the learning disabled students.

## Tools

- (a) Almost all the students did well in the Memory skill. Very few were confused with the symbol 'x' and '+'.  
(b) Except 3 students all the other students were not familiar with 'left-right' orientation.
- (c) Most of the students were able to distinguish the objectives according to shapes and classified them.
- (d) Students were able to tell and write the after number in a number series, but found it difficult to tell the before and between numbers of a number series.
- (e) Due to vocabulary deficit, many students failed to match the number name with the given numerals.
- (f) The problem faced in computing – addition, subtraction skills are of different types.

## Findings

- (a) Many teachers are not aware of how to teach mathematics in the primary classes. They give more emphasis on rote learning.
- (b) Many children fail to acquire maths concepts because they lack the cognitive maturity to understand the skills.
- (c) Parents are unfamiliar with modern maths & unable to help their children at home.

# **Linguistic Concept Attainment as one of the Indicators for Successful Inclusion of Hearing Impaired**

**-Dr (Ms) Sharmista  
-Dr (Mrs) Premalata Sharma**

## **Introduction**

Concept learning takes place through knowledge, experience and intelligence. The normal growing child interprets his sensory experiences in an increasingly complex fashion. Usually the hearing impaired children are passive recipients of sensory information. Language abilities and perpetual experiences are both necessary for concepts to develop optimally. The hearing impaired children are often delayed in their perceptual development because of a lack of close experience with people and objects. They are not talked to as much as most other children due to this hearing impaired fail to observe things around them. The hearing impaired do not know the labels for objects and activities, they perceive. Often they have difficulty in conceptualizing them and retaining them in their memory. The hearing impaired children suffer catastrophically because they do not learn labels due to hearing loss and are unable to associate labels with the objects and class of objects. Due to this, concept learning among them suffers. They need sensory-motor, language, auditory, visual, kinesthetic and tactile stimulation to build linguistic concepts properly and for better retention of the linguistic concepts. The concepts and thought process of normal children become entertained with language and each facilitates the growth of the other. This process is absent in the hearing impaired children.

## **Objectives**

The objectives of study were as follows:

1. To identify difficult concepts on the basis of pretest for hearing impaired children of 6 to 7 years age group in comparison to the normal peers of the same age group.
2. To help the hearing impaired learn the linguistic concepts through intervention.

## **Methodology**

The methodology followed for the study is discussed briefly.

## **Sample**

The sample comprised of 50 hearing impaired children and 50 normal children drawn from special and integrated primary schools of Karnataka. All the schools from which the sample was drawn followed the same (state) syllabus.

The size of the sample was 100 comprising of 50 hearing impaired children and 50 normal children of the age group 6-7 years. Out of 50 hearing impaired

children. 25 children were males and 25 children were females. Similarly out of 50 normal children selected. 25 children were males and 25 children were females. The hearing-impaired children and normal children were matched on scores of intelligence. The sample was matched to minimize the research methodological errors.

## **Research Design**

The study was experimental in nature with pretest- posttest design. The hearing impaired children and normal children were divided into experimental groups and control groups.

In the pretest, the test on basic concept development-I developed by the investigator was administered to the experimental and control groups of hearing impaired. The scores obtained on pretest for each student indicated his level of concept attainment and also the difficulties faced in learning the linguistic concepts. This helped the investigator listing the difficulty level faced by the hearing impaired. After identification of the difficulty levels, the investigator developed teaching strategies for developing difficult linguistic concepts among the experimental groups of hearing impaired and normal children. The investigator provided the intervention to the experimental groups of both the hearing impaired and normal children. The intervention was given for two hours once in a week, for a year. The posttest was conducted after one year of the intervention given. The intervention was given groupwise to the experimental groups of hearing impaired and normal children only to those difficult concepts, which had less than 80% concept attainment. More than 80% and above attainment levels on a given concept were considered as learnt concepts.

## **Tools**

The tools used for the present study were grouped into two categories as given below.

- I. tools used for identification and matching the groups of hearing impaired and normal children.
  - Raven's Colour Progressive Matrices
- II. Tools used for identifying difficulties in developing linguistic concepts.
  - Test on Basic Concept Development – I
- III. For developing linguistic concepts interventional materials were used.

## **Statistical Techniques**

The data obtained was treated with 't' test and correlation.

- 't' test was used to find the impact of intervention on concept learning among the hearing impaired.
- Correlation was used to find out whether language was related with concept learning among the hearing impaired and normal children.

## Major findings of the study

1. The hearing impaired lagged behind the normal children in concept learning as the value of 't' at posttest was 7.032 significant at 0.01 level.
2. The intervention given to the hearing impaired was effective as the value of 't' was 14.19 significant at .01 level on total concept attainment scores for hearing impaired children. Intervention was also found to be effective for normal children as the value of 't' for the normal children was 11.304 respectively significant at 0.01 level.
3. The values of 'r' for concept learning and language for the hearing impaired and normal children were 0.47 and 0.71 respectively. This shows that there is a significant relationship between language and concept learning. Children who are poor in language are poor in concept learning. Children having better language may have better developed concepts. So language is an important factor in concept attainment.

## Implications

Ours is a verbally overloaded system of valuation of a child's academic competence. Hence verbal efficiency and competence occupy a key position in a child's academic attainments. This is the reason most of the researches on hearing impaired have emphasised the hearing impaired with severe losses generally lag behind by 4-6 years than the normal children in language development. This is because due to the auditory lack they cannot develop the language appropriately. Therefore children coming from impoverished linguistic background and children with speech defects and hearing loss should be given intensive education in the area of language development to make them successfully integrated.

For education of hearing impaired in inclusive education, it requires simplification of concepts and use of simple language. Therefore there is a need for simplification of instructional materials for helping hearing impaired to learn concepts like normal children. Retardation in concept learning creates problems for academic and social participation of the child. Therefore such deficiencies should be remediated at initial stages.

# Clearing The Menace of “Hard-To-Reach” Students through Novel Strategies – a Myth or Reality

-Dr Udayagiri Nageswara Rao

## Introduction

Teachers' role is pivotal in arousing enthusiasm and inspiring child for learning and sharpening his intelligence and wisdom. Especially role of primary teacher is quite crucial as he has to layout strong foundation for the edifice of effective education. To impart it, Teacher's commitment and devotion really count a lot. "Teaching is reaching out the pupils so as to enrich". But do the existing teachers competently reach all the 3 categories of pupils in the class average, gifted and dullards? Really the baffling problem before ideal teacher is to cater the needs of 'hard-to-reach' pupils in the class without neglecting them and enabling them to be dropouts or deviants from schooling, which threatens the ulterior motive of National Literacy Mission. The present educational context is deplorable with understaffed schools, Multigrade situation, overcrowded classrooms, ill-equipped schools, large number of out-of-school children and huge number of hard-to-reach pupils as hindering forces to pull down educational standards. Even in such odd, unfavourable conditions can't the teachers make an effort to enhance school effectiveness with their competence? Yes... they do. The investigator with a very positive out look, attempted to clear the menace of 'hard-to-reach' students through novel strategies.

## Concept Of Novel Strategies

Among the listed out possible causes for the decline in academic performance and downfall in education standards, the investigator gave stress to these two aspects.

1. As the technical terminology used in the textbook is tough, unfamiliar and more sanskritised, the students could not get a grip over the content and miserably fail to acquire knowledge. ASETT is an effective remedial device, which enables the students to acquire simple equivalent technical terminology. The need was felt to find out the way to reduce the difficulty in technical terms. The pupils may be insisted to use the technical words after acquiring an understanding of those words.
2. Students are accustomed to confine themselves to the questions and answers in the notes given by the teacher. Instead of simply confining to the process of 'chewing-the cud' the child should develop skill of framing many questions from the text books by reading the text book thoroughly which facilitates the learner to correctly answer even when the mode of question and question form was altered. IOLS is an effective remedial measure to enable the children to successfully frame as many

questions as they can be correlating correct answers after being effectively trained and guided by the teacher. It is a challenging strategy for all the three categories of children.

## **Objectives**

1. To identify the extent and level of academic performance of students in the pre test in three non-language subjects covering the lessons which were effectively dealt with.
2. To classify the class into two equal halves based on their academic performance after recording initial statistical academic achievement in non-language subjects among the pupils.
3. To lessen the burden of complicated technical terms in the three non-language subjects by providing enough opportunities for the practice of the terms by reducing the difficulty level in understanding them by giving each equivalent words for the half of the class which constitute experimental group.
4. To make the children acquaint themselves with the skill of effective comprehension and develop precise skill and able questioning by enabling the children of another experimental group to acquaint themselves with the skill of framing enormous number of questions.
5. To study the relative efficacy of ASETT and IOLS as effective preventive measures of clearing the menace of 'Hard-to-reach' students in the class.

## **Methodology**

**Type:** Experimental Research

**Sample:** 60 students of V standard of M.J.B.U.P School for Pre-test. Two groups of 30 each as First and Second experimental Groups to employ new strategies ASETT and IOLS.

## **Findings**

1. The performance of second experimental group (N=30), which is exposed to both novel strategies ASETT and IOLS (double advantageous group) than performance of total students of the class in pre test is found to be extremely more.

2. The performance of first experimental group (N=30), which is exposed to the novel strategy ASETT (single advantageous group) than performance of total students in the pre test is found to be more.
3. The performance of second experimental group (N=30), which is exposed to both novel strategies ASETT and IOLS (double advantageous group) than performance of first experimental group (N=30), which is exposed to the novel strategy ASETT (single advantageous group) is found to be slightly more.
4. The percentage of impact by both the novel strategies is found to be 60%
5. The percentage of single impact by only ASETT is found to be 30%.
6. The percentage of impact of both the novel strategy ASETT and IOLS is 30% more than the resultant hike in percentage of performance by ASETT alone.
7. The number of students who crossed the average mark of 50 are less in number in pre test after being exposed to traditional teaching. The number of students who crossed the average mark of 50 are moderate in number in first experimental group after being exposed to ASETT alone. The number of students who crossed the average mark of 50 are more in number in second experimental group after being exposed to ASETT and IOLS alone.

### **Educational Implications**

An earnest attempt by a committed teacher to adopt exemplary, novel strategies and an inclination to change-proneness by being flexible will enhance teacher competency and creativity. If commitment and creativity are associated with a favourable attitude in accepting new strategies, which are innovated and initiated by themselves and in accepting new strategies put forth by others which are proved to be fruitful will make an exemplary teachers' effort of teaching can easily dart into the minds of individuals making "Reaching hard-to-reach pupils", and clearing the bane not a myth – but a reality and possibility.



# Nutrition Education for Pre-Schoolers through Games

-Dr N Shakuntala Manay

- Jayalakshmi L S

- S Madhumalthy

## Introduction

Nutrition education is defined as the means of translating nutritional requirements into food and adjusting food choices to satisfy nutritional, cultural, social, physiological and economic needs. It is a process by which beliefs, attitudes, environmental influences and understanding about food are converted into practices, which are nutritionally sound.

Nutrition and health related behaviours are both learned and amenable to change. Hence the best time to start formal nutrition and health education is at the elementary school years, when the child is more flexible and more apt to accept positive health behaviours. At this impressionable stage, desirable lifetime food and health habits can be established.

## Objectives

The objectives of the present study are stated as follows :

1. Play-way method is the best method to transfer health knowledge and basic concepts of nutrition.
2. To assess the knowledge of basic nutrients among pre-school children.
3. To study the effect of educational/recreational games in developing good habits of health and nutrition among pre-school children.
4. To compare the knowledge of nutrition among experimental and control groups.
5. To compare the knowledge of health among experimental and control groups.

## Methodology

### Research Design

The research design undertaken for the present study was the pretest, posttest design. The pretest has been used as a means of verifying the comparability of the control and experimental groups at the beginning of the study and also to provide a basis for determining if change took place in the control and experimental groups.

### Sample

Eighty pre-school children in the age group 4½ to 5½ years were selected from two randomly drawn schools in Bangalore city. The selected schools were Parents Teacher Association (PTA) School, Jayanagar and Mahila Seva Samaj School.

Shankarampuram. Forty children from the PTA school served as the experimental group and forty children from the Mahila Seva Samaj school served as the control group.

Pretest- posttest research design was used. A questionnaire was formulated to check the subject's knowledge on nutrition and health. Interview method was used to collect data from the subjects. Five educational games were designed to impart nutrition and health education. The experimental group children were exposed to these games for one month. Results were tabulated and statistically analysed. A follow-up study was carried out after an interval of ten months.

## **Findings**

Improvements were seen in the experimental group regarding awareness of nutrition and health habits. Results revealed statistically significant improvement in washing hands with soap, avoiding foods sold at roadside stalls, washing fruits before eating and brushing teeth regularly among experimental group subjects.

Experimental group subjects gave appropriate responses on specific functions of food, they reported better awareness on nutrition concepts and importance of following healthy habits. In the follow-up study, the pretest performance of the experimental group subjects was not satisfactory. But, after they were exposed to the educational/recreational games these subjects were able to recall the previous year's experiences. This spontaneous recall and better retention of knowledge from the earlier experience was evident in the posttest performance of these subjects.

All the experimental group subjects that is, forty of them reported that they are aware of the importance of nutrition and good health habits. Twenty two of them agreed that the major source of this information was school/teachers. This improvement can be attributed to the educational/recreational games.

## **Major Findings**

The follow up study revealed the following results.

1. Regarding washing of hands after wearing of shoes or playing outside, the percentage of experimental group subjects who washed hands increased from 87.5% in the pretest to 100% in the post-test. The percentage of subjects who used soap to wash their hands also increased from 80% to 95%. No similar improvement was seen in the control group.
2. Statistical analysis revealed that there was significant difference in the responses of the experimental group regarding eating of foods sold at roadside stalls. The subjects of experimental groups were also able to give appropriate reasons for not eating foods sold at roadside stalls. There was no improvement seen in the control group.
3. In the experimental group, the percentage of subjects who ate chocolates and candies reduced considerably.

4. Regarding the habit of washing fruits before eating, the experimental group subjects showed improvement and were also able to give correct reasons for the need to wash fruits before eating.
5. The practice of brushing teeth after eating sweets and brushing teeth before going to bed improved significantly among the experimental group subjects.
6. An increased awareness was observed in the experimental group subjects regarding functions of food.
7. Regarding awareness of importance of good health and nutrition habits, the subjects of experimental group were found to have a total awareness of 100% as compared to 37.5% awareness in case of the control group in the post-test.
8. The responses of the experimental group subjects regarding sources of nutrients and specific functions of foods were not satisfactory in the pretest of the follow up study. Although they were exposed to these concepts in the previous year, they were unable to recall the names of the nutrients and their sources. However, in the post-test they were able to recognise the nutrients and their sources to some extent.
9. There was a significant increase in the percentage of experimental group subjects who indicated school/teachers as the main source of information about nutrition and health.

### **Implication of Findings for School Effectiveness**

Health and nutrition concepts conveyed to children at an early age will form a good foundation for development of healthy habits. They help the children in their choice of consumption of day-to-day foods throughout their life. Thus the health and nutrition education rendered through games is better absorbed and lasts for a lifetime. The number of children who will suffer from malnutrition resulting from faulty eating habits can be reduced and the section of healthy population will be proportionately larger. This in turn will make the future generations healthier.

The present study is an effort to emphasise to children that they cannot become healthy passively. Involving them in active learning opportunities like the educational/recreational games planned in the study help to clarify their values and teach them how to make a wise decision, which will in turn personalize their health education. The educational/recreational games aim to integrate the left and right hemispheres of the brain by accentuating both the visual and logical aspects of play. By this integrated approach the children will not only gain knowledge, but they will also be better equipped to make their own conscious, responsible choices for healthful behaviour and will be able to naturally reject bad habits.

### **Conclusion**

The study shows that there is a definite improvement in the knowledge gained on health and nutrition concepts by the subjects of experimental group. In the pretest of the follow-up study it was found that they retained few concepts from the previous years' exposure to the games. Reinforcement of similar health and nutrition concepts resulted in better knowledge in these subjects which was evident in the posttest performance.

# **Study of Minimum Muscular Fitness on Elementary School Boys in Tamil Nadu and the influences of Yoga and Selected Conditioning Exercises on them**

**-K Murugavel**

Yoga and conditioning exercises are considered as best methods to improve the fitness because measured and controlled exercise load and because the muscles work through a complete range of motion.

Kelliher (1990) found that the boys below 6<sup>th</sup> class are lacking in minimum muscular fitness. Brown (1987) reported that the trainable mentally retarded children were seriously deficient in muscular fitness than normal children.

Rupier (1981) reported that the highest percentage of failure was on item '6' in the Kraus – Weber test. Moorthy (1982) concluded that yogic practices were effective in improving the percentage of subjects passing in minimum muscular fitness test.

## **Objectives**

Objective of this study is to survey the minimum muscular fitness of elementary school boys in Tamil Nadu. Further an attempt is made to find out the influence of yoga and conditioning exercises on failed subjects.

## **Methodology**

2000 elementary school boys of 6 to 10 years of age from Tamil Nadu were selected at random. By using Kraus – Weber test the data was collected to find out the minimum muscular fitness.

The experimental treatments for group II and III were given for 6 weeks 4 days per week. Group I acted as control group and was not exposed to any specific training. Experimental group I was given selected conditioning and the experimental group II was given selected yogic practices to suit elementary school boys.

The minimum muscular fitness of elementary school boys age (6-10) is not similar. It is also found that maximum number of failures noted in second test item and minimum number of failures were observed in first test item. The main reason for this state of affairs be (1) Elementary School boys are involving indifferent types of activities. (2) the age of elementary boys (3) Since the boys range from 6 to 10 years having different level of motor fitness. conditioning exercises and yogic practices improved significantly the minimum muscular fitness of elementary school boys.

When the conditioning exercise group is compared with yogic practice group. conditioning exercise group had a significant improvement in minimum muscular fitness of elementary school boys.

## **Implication of findings for School Effectiveness**

From the results of present study, the investigator suggest that the physical education should be introduced from elementary school onwards, particularly the physical conditioning exercises and yogic practices should be made as compulsory for elementary school boys, for better academic achievement. To have sound mind children should involve with conditioning exercises and yogic practices daily to possess minimum muscular fitness to do work.

# The Effect of Environment on the Potentiality of Perfection

-K G Prasad Raju

## Introduction

A scientific new learning schedule based on Biorhythms creates a favourable internal environment for effective learning and this leads to quality education.

The geophysical cycles, environmental periodicity and Biorhythms are interrelated and creates an internal and external environment which influences all living organisms which were described in our ancient literature as Pancha Bhootas: Akasa, Vayu, Agni, Jala, Bhoomi, Ayurveda also described three factors Vata, Pittha and Kapha (related to Vayu, Agni and water) are the fundamental for all physical and mental disorders.

## Objectives of the study

The objectives of the study are:

1. to establish the relationship between periodical changes in environment and learning efficiency.
2. To identify the days of fast learning, slow learning and no-learning in every month.

## Methodology

The researcher used the experimental method with a single group design in the study.

## Sample

To establish the objectives the researcher has taken 33 students of fifth class.

## Tools and Methods

1. Achievement test is constructed and used in order to measure the periodical changes in learning efficiency.
2. 30 achievement tests were conducted in 30 days continuously from New moon to New moon of lunar month.
3. Class-wise and groupwise scores are recorded and their average scores computed and interpreted.
4. Variables are controlled, particularly with regard to the subject weightage uniform presentation, common test pattern, single teacher etc. to the maximum extent possible.
5. Soon after the completion of the presentation of the subject, objective type tests were conducted and evaluated.

All these elements are playing a periodical role in the functioning of human body and mind through liquids and fluids which will create a constant internal environment which are interrelated and constituents of internal exchange of energy.

The internal environment influenced by the external environment gives an impact on learning mechanism or function of brain. It means that, basing on the reception of external influence, the function of brain is sometimes normal, sometimes above normal and some other times below normal. On this view of the variations our ancestors classified the month on learning aspect as *advaya*, *anadaya* *dinas* (learning days, non learning days) which may indicate the positive and negative environment of these days. These days occur periodically in every month due to the movement of the moon. In view of the above concept the researcher conducted an experiment to establish the relationship between periodical changes in environment and periodical changes in learning efficiency. The brain based learning schedules are the indicators of quality of education to improve the school effectiveness.

### **Findings**

1. During the full moon days, the positive growth is observed in achievement test i.e. nearly 11 days (Table 1).
2. During the new moon days, normal growth is observed i.e. nearly 11 days (Table 2).
3. When the moon is at right angle negative growth is observed (8 days) (Table 3).
4. More disturbances are observed in classroom on no learning days.
5. A clear, significant relation is observed between periodical changes in environment and periodical changes in learning efficiency.

### **Implications**

1. A teacher can utilize the fast learning days for teaching fundamentals and new lessons, and slow learning days for revision of exercise and dictation of notes.
2. The no learning days can be converted into holidays instead of regular holidays because it is brain based time schedule.
3. Stress on learners can be avoided.
4. Classroom disturbance can be minimized.

So the new learning schedule based on the periodical changes of the environment is the best indicator of quality education to improve the school effectiveness without any infrastructure and monetary commitment.