

INTRODUCTION

Primary education forms an important part of the entire education system. It is at this stage that the child starts going to school. The education, which he receives at this state, forms the foundation of his physical, emotional, intellectual and social development. Primary education is as sound base for secondary and higher education. Hence it should be given the highest priority as it needs to development of the competence of average worker and increase in national priority.

Thus, it can be said that sound, primary education is essential for all round development of individual as well as that of the country.

CONCEPT OF MULTI GRADE TEACHING

Multi-grade teaching is a universal problem. Most of the schools beings two teacher and three teacher schools. The teaching – learning time available to the children is meager and hence the children receive very less amount of learning. In simple term Multi-grade teaching implies situation in which a teacher has to teach simultaneously more than one class. “a form of teaching in which a single teaches children of two or more grades....” (UNESCO, 1998) usually for administrative reasons, such as student numbers and financial constraints. The respective grade specific curricula. The single and two – teacher schools in India conformed to this definition.

- 1) Most of such schools are located in small communities in rural areas or outskirts of city.
- 2) The total enrolment in such schools range from 40 to 120 and the daily attendance would be around 30 to 90.
- 3) In states where the lower primary stage is separately administered (like U.P., Bihar, etc.) the schools will have 1 to 5 standards with two teachers.

In states like Maharashtra, Karnataka where the lower primary is not separately managed the schools may either have 1 to 4 standard or 1 to 7 standards. It is a common phenomenon that in recent years, the schools with 1 to 7 standard would have 3 to 4 teachers.

According to Nagaraju (1997) and DPEP (1998) Newsletter some problems in multi-grade teaching in India are :

1. The curriculum and the textbooks are the same as in other schools where one teacher teaches one class.
2. Due to heavy pressure of work on the teacher, he generally treats the teaching of different subjects casually and suit his convenience. Consequently, children do not get regular and systematic instruction in different subject areas.
3. There is no definite pattern of class combination taught by one teacher.
4. There is no special training given to the teachers handling multi-grade teaching.
5. The teachers find it difficult to take the children out on educational trips as envisaged in the curriculum.
6. The teachers do not find the time to attend to remedial teaching programmes.
7. Generally, school equipment is supplied in proportion to the number of teachers.
8. The instructional programmes suffer heavily when in a two teacher school either of the teachers proceeds on leave.
9. In view of the already heavy workload, the teachers do not take the necessary interest in compulsory education enrolment drive. Moreover, little attempt is made to retain such children who show tendencies to dropout.

Looking to the problems few questions in Multi-Grade teaching are raised.

- a) Practical aspects of classrooms situation such as the complexity of conducting activities in multi-grade setting, overcrowding classes.
- b) Curriculum : should there be cross-curricular integration, what is the place of a school readiness programme, what would be realistic learning goals, should curriculum be redefined in terms of multi-grade context ?

- c) Teaching Strategy / Methodology / Classroom management, e.g. what kind of activities would help a teacher ? What kind of planning is required on part of the teacher ?
- d) Teacher training : what are the requirement from teachers to teach / create learning environment ? How can teachers be equipped for multi-grade situation ?

RATIONALE OF THE STUDY

Since 1970s many schools in developed countries have been forced to discharge their teachers because of financial constrains. Moreover, due to change in birth rate and declination in population has reduced the enrollment rate. This has also forced to the Government to establish small primary schools for thinly populated areas in the form of multigrade schools.

In a multi-grade teaching situation about 30 to 150 students, who are in many respects heterogeneous, have to be kept busy. They are aged from 6 to 11 years; there are differences in the capacity of their understanding and they come from different socio-economic backgrounds. The teacher's task of handling such a group is really difficult.

Usually, the first difficulty that teacher encounters, is that of space. Invariably, the single-teacher school is a one-room affair, where the learning ability of a students depends much on the way they sits along with students of other classes. Teacher attention is automatically distracted.

The major issue is that lack of orientation to teachers. Teacher competence, as of today, is woefully inadequate to handle multiple class teaching situation. Even through large number of teachers have to handle the multigrade situation, the training institutions hardly equip them with the skill to do so. An in-built programme of exposing teachers to such a situation, making them aware of the problems and imparting them the necessary skill to handle the multi-grade situation.

It can be said that the successful accomplishment of task of UEE along with MLLs i.e. quantity along with quality is possible only if there is universal

retention and improved teaching – learning process by making teaching – learning process more joyful and activity based.

Since, All India Educational surveys are global in nature, they do not show the unique features and available facilities of education of local areas. Hence, it is very essential that studies be conducted for local area also. Moreover, there is a dire need for primary education in order to bring 100 percent enrolment in secondary and tertiary level by bringing the quality in primary education, through Intervention.

The Curriculum for the ten-year school (NCERT) suggested Mother Tongue, Mathematics and Environment as the subjects at the primary stage.

Thus, Investigator developed a Strategy for Environment for Class III and Class IV. As, In Multi-grade teaching these two classes are merged and taught together in a single Classroom by a single teacher. Moreover, units and competencies of Environment are related in these classes. Students should be able to develop the habit of cleanliness. They should be able to see and observe the gradually expanding components of human life and students should be able to know about natural phenomena. Moreover Environment as a subject prepares well informed and responsible citizens. Added Environment as a subject is given least importance as teacher devotes most of her instructional time in teaching the other two subjects i.e. Gujarati and Mathematics. Teacher's teach Environment twice or thrice a week only.

According to Dave, et. Al. (1988), that pupils achievement in environmental science was excellent in class I and II, minimum in class III, and poor in class IV.

DPEP (1998), stressed on Multi-grade situation that majority of the teachers in the country find themselves in such situation. Supported by UNESCO Report (1998) that Multi grade teaching is not a temporary phenomenon. 77 percent of primary schools in India are Multi grade. Thus, Investigator focused her study on Multi grade teaching.

The basic assumption, which the Investigator had formulated on the basis of her own experience, teacher's views and from reviews, is that teachers teaching

in Multi-grade situation needed more of a planning in the classroom. Moreover, they need to have much information about curriculum organization and integration of competencies with regard to Multi-grade teaching. They treat textbook as a major or only aid. Therefore, there was a need to develop an Strategy, which could help teacher's to understand the planning and its execution in a Multi-grade set up.

Since gap lies in research in the area of quality improvement, it becomes very essential that study be conducted to improve quality of education in Multi-grade schools. This, aspect therefore needs research at each and every local area level so that standards of Minimum levels of learning can be reached and task of Universalization Primary Education gets accomplished and finally the quality of Primary Education is Improved.

STATEMENT OF THE PROBLEM

Development and tryout of a Strategy for Environment in Multi-grade Teaching for class third and fourth.

OBJECTIVES OF THE STUDY

1. To identify administrative and pedagogical problems in Multi-Grade teaching
2. To develop a strategy for environment in Multi-Grade teaching
3. To implement and study effectiveness of developed strategy with respect to a) achievement of students b) competency
4. To compare the achievement of the schools
5. To study the reaction of teachers regarding workshop
6. To study the perception of teaches regarding the developed strategy on Environment

DE-LIMITATIONS OF THE STUDY

The study was delimited to the teachers and pupils of schools run by Sardar Sarovar Punnar. Vasahat Agency – Education Cell Vadodara District.

The study was delimited to 3rd and 4th Standard of these schools.

The study was delimited to Environment as a subject of class III and IV.

SAMPLE OF THE STUDY

Sampling is the process of selecting a numbers of individuals for a study in such a way that the individuals represent the larger group from which they are selected.

Out of twenty-five schools of Dabhoi taluka, twenty schools were selected randomly and all the students of class III and IV of selected school were included in the sample. Thus, sample was selected using cluster sampling techniques.

SELECTION OF TOOLS

Following were the tools used in the present studies.

1. Questionnaire for situational analysis
2. Semi-structured interview schedule for teachers
3. Classroom observation – before and after workshop
4. Official document for situational analysis
5. Reaction scale for the feedback of the workshop
6. Achievement test for the effectiveness of the strategy
7. Semi-structured interview schedule to study the perception of teacher regarding the developed strategy

MAJOR FINDINGS OF THE STUDY

Findings related to Situational Analysis

- 100 percent (25) of the schools were located in the vasahat itself that is within 1 kilometer. But the teachers were either commuting from the Dabhoi village or Vadodara city.
- Out of twenty-five schools majority sixty-eight percent (17) schools were belonging to Gujarat followed by twenty-four percent (6) schools were

belonging to Madhyapradesh and only eight percent (2) schools belonging to Maharashtra.

- Forty eight percent (12) schools were running classes I to V followed by twenty-eight percent (7) schools running classes I to VI and twenty-four percent (6) schools running classes I to IV.
- As far as the rooms in the school were concerned forty percent (10) of the schools were having 2 rooms followed by thirty-six percent (9) schools were having 3 rooms and twenty percent (5) schools were having one room and only four percent (1) school was having 6 rooms irrespective of number of class.
- Majority seventy-six percent (19) schools were having 2 teachers followed by sixteen percent (4) schools were having 3 teachers and only eight percent (2) schools had single teacher.
- 100 percent of the vasahat schools were having school building.
- 100 percent (25) schools were following multigrade teaching, where they handle more than one grade simultaneously.
- Eighty percent (20) of the schools were giving more emphasis to Gujarati and mathematics and only twenty percent (5) schools were teaching environment everyday.
- 100 percent (25) schools were preparing time-table but none of the school were practicing.
- Eighty percent (20) of the teachers were employing a story telling and poem for teaching some content as a major activities and only twenty percent (5) teachers were using field visit as an activity.
- 100 percent (25) teachers were not given any training related to multigrade.
- 100 percent (25) teachers used text-books as major teaching aid (although they had teaching aids related to our body, charts on animals, birds, season, weather, map etc. but were not used.)
- 100 percent (25) teachers had no training with respect to use of available teaching aids.

- 100 percent (25) teachers responded that there no provision for transfer and promotion. On the basis of Mutual understanding among teachers the transfers is given.
- Supervision was conducted twice or thrice in a year.
- Vidyasahayak gets twelve casual leaves only. But teachers who are permanent gets optional leave, medical leave, maternity leave for three months apart from twelve casual leaves.
- 100 percent of the teachers were following grade combination technique on the mutual basis.
- 100 percent of the teachers responded that there is no substitute teacher when they go on leave.

Overall chi-square value was found to be significant with respect to all the items in the reaction scale as teachers perceived Strategy to be related to real classroom situation.

Respondents informed that they will face the problem in evaluation if they are using developed strategy of compiling the competencies of two classes. As the exams are taken by Jilla Panchayat where they follow content. Further they requested for decentralization of evaluation system where they can make maximum use of the present training.

Overall majority of the students that is sixty-eight percent of the students scored between 30 to 39 and only five percent of the students scored between 10 to 19.

The test, which was administered on students after the implementation of the strategy, indicates the overall effectiveness of strategy.

Average seventy-seven percent of the students have mastered the overall competencies. Item no. 47 that was 'where does the weaving of raw cotton takes place?'(3.4.1) was mastered by only 53 per cent of the students which shows that the item was found to be most difficult. Further, item no. 41 that was 'Name the Implement through which water is taken out from the well' (3.4.1), 45 'who ploughs the Land'(3.4.1) and item 49 that was Identify the tool

(3.4.1) was mastered by 97 per cent of the students which shows that these items were found to be least difficult.

Although the facilities provided to the vasahaty schools were more or less same but still within some schools some differences were found. Especially, with school 3 the difference observed was maximum, may be because teachers in this school were more committed, dedicated and enthusiastic. They might have prepared teaching- learning materials and may be using them while teaching.

Thus, the present study helped the teacher in developing positive attitude towards multigrade teaching. Teachers no more see multigrade teaching as a problem but see it as one of the school situation. The developed strategy was found to be effective in handling more than one grade simultaneously without wasting time of either of the class. Moreover, the strategy was found to be effective with respect to academic achievement of the students and in mastering the identified competencies. Thus, teachers developed more interest and confidence in handling multi-grade teaching situation.

Suggestion for future studies

- Universities, Educational Departments and suitable agencies may undertake research in multi-grade schools with respect to Administration and Pedagogical aspects.
- Cross-cultural studies should be organized and conducted in order to develop better understanding about multi-grade schools.
- The same strategy should be applied for training the teacher of the other talukas in the State of Gujarat
- A similar type of Strategy needs to be developed in the form of an Intervention programme that can be implemented for the other units of environment subject, which were not covered in the present study. A similar type of strategy could be developed for other subjects also.