

## UNIT – X

NEW TRENDS AND INNOVATIONS IN EDUCATIONAL MANAGEMENT

School Complex – Village Education Committees – School based in-service programme – Centrally sponsored Schemes, Sarva Siksha Abiyan (SSA) – Innovations in Examination System : Open Book System, Grading, Continuous and Comprehensive Evaluation – Computer in Education: Role of Computers in School Education, Use of Computers in Methodology of Educational Administration and Management – Action Research: Concept, Importance, Steps.,

SCHOOL COMPLEX

According to the Indian educational commission (1964-66), “the group of schools, built around a secondary school, as the minimum viable unit of educational reforms is termed as school complex. The commission further says, “it is possible to provide certain facilities and equipment which cannot be provided separately to each school, but jointly for all school in a complex “

School complex is a plant for making the maximum use of the human and material resources available in an area for the benefit of all the students of the area. This complex creates the possibility of exchange of materials and the know-how. It provides organizing subject committee meetings, preparation of teaching aids, inter-school competition and visits, sharing of library books, laboratory and game materials, organizing of refresher course for the professional growth of the teachers, and planning evaluation programmes collectively. The main purpose of this complex is to bring about qualitative improvement of education through ensuring cooperation between primary, secondary and senior-secondary schools. The schools forming a complex within a radius of 10 miles or so must have a central school which is to act as a nucleus of the complex.

Characteristics of school complex**1. Neighborhood**

School complex consists of a number of neighborhood schools, in which some primary, secondary and one or more senior schools are grouped together.

**2. Unit for educational reform**

School complex can be understood as a compact unit of educational reform or development. This neighborhood school joins hands and functions for raising the quality of education. The teacher benefits through the exchange of ideas and discussion. The senior school functions as a source of inspiration for the junior schools any good school in the complex becomes a model for all others. The complex ensures pulling of resources for common good and for raising the quality of education.

3. **Cooperation**  
It brings many institution and their teachers in a common platform. The useless jealous are removed and there is a scope for meaningful cooperation between primary, secondary and senior secondary schools of the area. Instead of working in isolation, they learn to work in cooperation.
4. **Solution for problems**  
There may be common problems that are prevalent in the educational and these problems could easily tackled when all the institutions come together and make some efforts to solve such problems
5. **Integration**  
There should be integrity among the different types of institutions present in area. As a result of these schools, there is a lot of scope for developing models in education
6. **Guidance**  
In the complex, the institution which acts as the head plays a direct role in guiding the other institutions. For e.g an institution which is very old and which has gained reputation in the public can act as knowledge resource center for other schools in the complex
7. **Better teaching and evaluation**  
School complex will be a manageable unit for trying and introducing better methods of teaching and evaluation. The teachers , can come together to work out of an improved approach in their activities
8. **Unit of promotion**  
The complex can also be treated as a unit to work out the norms of promoting the students from lower to the next higher class
9. **Complex committee**  
The can set up a coordinating committee under the chairmanship of the head of the nucleus school. The head of the remaining schools will be the members of this committee
10. **Departmental tasks**  
It can also set up a joint channel to look after departmental tasks an behalf of all the number of schools. This will reduce the amount of botheration and correspondence for each one of them.

### Objectives of school complex

Following are the objectives of school complex:

1. **Breaking the isolation**  
A school aims at breaking the isolation that exists between one school and the other. They will come closer to work for the common cause
2. **Collective effort**  
It will promote joint cooperative effort among all the functionaries working in these schools. There will be exchange of experiences to prepare common workable policies.
3. **Sharing of resources**  
It will make possible the sharing of available resources and make the best possible use



#### 4. Solving problems

Common problems will be more effectively tackled through the joint efforts of the school complex

#### 5. Common planning

It provides assistance and opportunity for common and comprehensive planning for the overall functioning of member schools

#### 6. Guidance

Finally, a school complex is a source of guidance for the constituent schools, in use of better methods of teaching, Understanding projects, organizing co-curricular activities and in institutional planning

### Functions of school complex

#### 1. Providing academic guidance

A school complex can discover experts among its teachers and headmasters and harness their services for providing academic guidance to the member school in the following areas:

##### a) Teaching

It is a source for guidance towards best method of teaching. The subject committees can be formed in each one of the subjects to perform the activities like:

- Division of syllabus for the preparation of unit plan,
- Preparation, collection, and maintenance of audio-visual aids for the entire complex,
- Discussion on new methods of teaching and other innovations in teaching ,
- Giving model lessons for the benefit of the subject teachers
- Preparation of model lesson plans,
- Providing supplementary reading material
- Making collective arrangements for remedial teaching in the case of slow learners and backward students,
- Organizing team teaching
- Arranging special talks on the topics of common interests.
- Planning and executing projects,
- Providing guidelines in the setting up of question papers question banks and actual conduct of examinations,
- Arranging complex level academic competitions for the teachers and students.

##### b) Co-curricular activities

The school complex will provide guidance in the co-curricular activities like

- inter-school friendly matches
- inter-school tournaments
- inter-school competitions in debates , poetry, singing etc

- tours and excursions ✓
- first aid in member schools ✓
- Exchange of good organizers of various co-curricular activities ✓
- Sharing of materials, facilities, playgrounds, and auditorium ✓

### c) School improvement projects

A school complex can create in it a cell for suggesting improvement projects for each member school

### 2. Providing equipment

Arrangement and exchange of equipment is the second important function of school complex. The better equipped school may be in a position to lend material to the other needy schools. Some of the items of equipment which can be borrowed and shared are:

- The better stocked library of the central schools and books can be lent by each one of the schools to the other school,
- The nucleus school or any other audio-visual equipment, maps, models, tape recorder, television and other audio-visual equipment and furniture to the member school on special occasion,
- The sports material can also be shared by schools,
- The materials for dramatics, for tournaments and sports day can also be used by other schools, Some of the schools can spare funds and purchase costly materials to be used commonly by all schools

### 3. Supervisory function

The head of the nucleus school, heads of the member of the schools and senior teachers of various subjects can constitute a supervisory team to supervise the instructional work, organizational work and other activities of the constituent schools and give their suggestions for improvement. This team can take care of the follow-up work also

### 4. Evaluation function

The school complex will ensure improvement in the evaluation work of the member schools also. Subject wise committees may be set up to prepare better question papers, prepare and maintenance cumulative record cards and to introduce innovations in the evaluation programmes

### 5. In-service training ✓

It will also look after the in-service training, professional growth and updating of the teachers. For this purpose, it can maintain a central circulations library for the teachers. It can also arrange periodical meetings of teachers for discussion and exchange of experiences. Some talks, demonstration lessons and paper reading can also be arranged. During long vacations some special orientation courses may be held to meet their requirements with respect can also be arranged in respect of new techniques of teaching and new additions to the body of the knowledge. Audio-visual aids can also be prepared by a group of teachers jointly as a part of their in-service training.



#### **6. Imparting educational information**

The nucleus school may serve as a clearing house for expertise, educational information, latest educational literature, educational data, educational news and trends in education. An average teacher does not enjoy access to these items of information on his/her own. Only a central body with better sources can acquire such valuable information for him/her.

#### **7. Institutional planning**

The nucleus school with the cooperation of member schools will draw up and get executed. Institutional plans for every member school. A master plan is prepared by it as design. Each institution should be guided and motivated to draft its own plan in respect of curricular and co-curricular and development activities.

#### **8. Administrative function**

The nucleus school has to discharge some administrative functions also. If it is a school complex consisting of government schools, then the pivotal school may perform financial and other administrative function on behalf of the department. Even the local adjustment of the curricula, time table, examination, etc... may be made through this school. It may provide leave substitute for the teachers in the members' schools. It may also look after the correspondence, grant-in aid, scholarship etc..

### **Advantages**

Following are the advantages of the school complex:

1. Better utilization of resources,
2. Cooperation of all educational institutions is possible
3. Professional growth of teachers is enhanced ,
4. Improvement in teaching and evaluation is possible,
5. Develops a cooperative educational set up in the society,
6. Ensures for the quality education as a whole.

### **Disadvantages**

Following are the disadvantages of the school complex:

1. Lack of cooperation among the school members could lead to the dissolution of the complex,
2. It is more expensive,
3. There must be a nucleus school at the vicinity of the other member schools.

## **VILLAGE EDUCATION COMMITTEES: (VEC)**

A decentralized setup of management structure commonly known as Village Education Committee ( VEC) was started by SSA. Village Education Committees play committees play significant role in micro-planning. VEC prepares the school development plan which envisages among other things, and up gradation of primary into middle school and sends the same to DPO through BRC. The requirements of buildings, toilet and water facilities are also assessed by VEC to include them in plan.

### **Objectives**

The Village Education Committee (VEC) has been formed to enable members of the older generation who missed out formal education, to participate in the management, improvement, administration, supervision and control of the schools in their community.

### **Constitution of the VEC**

- Nine parents elected by local community. ✓
- Three non-parents elected by local community. ✓
- Two non-elected community members. ✓
- One School Headmaster.

Of the twelve elected members of the VEC, there should be least five female members. There should be at least one male and one female member each from Scheduled Caste, Scheduled Tribes and Other Backward Classes. The fifteen members of the VEC elect the Secretary and Chairperson either of whom must be a woman. The Act defines the process for selection / expulsion of the VEC with a maximum term of three years.

### **Functions of VEC :**

The functions of the VECs are as follows:

1. To conduct Social Audit of elementary education for:
  - a. Making decisions related to elementary education.
  - b. Ensuring school enrollment of all children in the suggested age group from within the feeder area.
2. To plan for:
  - a. Organising and supervising and distribution of Mid-Day Meal.
  - b. Deciding the timings of school operations.

3. To oversee construction and civil works for:

- a. Identifying the need for construction of classrooms, toilets etc, based on student enrollments.
- b. Organising and supervising civil work of the same.

4. To manage financial release to :

- a. Create a development fund with School Development Grant (Rs.2000/-), Maintenance (Rs.2000/-), Maintenance and Repair Allocation (Rs.5000/-) and Teaching and Learning Material Grant (Rs.500/-).
- b. Request for construction funds for physics infrastructure ( Classrooms and Toilets).
- c. Supplement these with funds from public construction, raising resources by cultural activities and other legal means.
- d. Maintain a fund account in a Bank or Post-office to be operated jointly by the Secretary and Headmaster.

### Role and Responsibilities of VEC

1. Identifying the needs of schools.

2. Conducting periodical meetings to ensure co-operation of the community.

3. Assisting the Headmaster in transparent utilization of grants released to schools and effective utilization of funds.

4. To manage the Joint Account of VEC.

5. Undertaking civil construction and maintenance works wherever assigned or needed.

6. Enrollment of all school-age children and ensuring cent percent completion of elementary education of all children.

7. Monitoring the Academic performance of children attendance and quality of education.

8. Effective co-ordination with implementing agencies.

9. Involvement in Teacher Training.

10. Monitoring the functioning of EGS & AIE centers.

### Tasks of VEC:

#### • Enrollment

Increase the enrolment and reduce the number of out-of-school children in the feeder area.



- **Retention**

Check on student attendance as retention is a bigger challenge than enrollment.

- **Competition**

Reduce drop-out rates which can happen due to school inefficiencies or parent mindsets.

- **Equity**

Ensure equity in education with sensitivity towards gender, vocational/socio-economic deprivation or Children with Special Needs.

### **SCHOOL BASED IN-SERVICE PROGRAMME**

#### **Meaning:**

School based in service programmes refer to the in-service programmes conducted in the school using the resources of the school. Usually DIET's and other higher teacher education related institutions are involved in in-service programmes. But in this system, all the physical and human resources associated with the schools are used to conduct the in-service programmes. Teachers of nucleus institutions of the school complex, experimented teachers, highly reputed teachers etc... are involved in these programmes as resource persons.

#### **Functions:**

Following are the functions of the school based in-service programmes:

- It provides a lot of knowledge for the budding teachers.
- It helps the teachers to get direct contrived experience of the renounced teachers.
- It helps the teachers to develop their professional practicing skills.
- It makes the school as a resource center for teachers.

### **CENTRALLY SPONSORED SCHEMES :**

#### **SARVA SIKSHA ABIYAN (SSA)**

Free and compulsory education for all is given by this programme also. It is one of the programme in UPE / UEE

Sarva Siksha Abhiyan is an effort to universalize elementary education by community-wnership of the school system. It is a response to the demand for quality basic education all over the



Country. The SSA programme is also an attempt to provide an opportunity for improving human capabilities to all children, through provision of community-owned quality education in a mission mode.

#### **What is Sarva Siksha Abhiyan(SSA)**

1. A programme with a clear time frame for universal elementary education.
2. A response to the demand for quality basic education all over the country.
3. An opportunity for promoting social justice through basic education.
4. An effort at effectively involving the Panchayati Raj Institutions, School Management Committees, Village and Urban Slum level Education Committees, Parents' Teachers' Associations, Mother Teacher Associations, Tribal Autonomous Councils and other grass root level structures in the management of elementary schools.
5. An Expression of political will for universal elementary education across the country.
6. A partnership between the Central, State and the local government.
7. An opportunity for States to develop their own vision of elementary education

#### **Aims of Sarva Shiksha Abhiyan**

The Sarva Shiksha Abhiyan is

- To provide useful and relevant elementary education for all children in the 6 to 14 age group by 2010.
- To bridge social, regional and gender gaps, with the active participation of the community in the management of schools.
- To allow children to learn about and master their natural environment in a manner that allows the fullest harnessing of their human potential both spiritually and materially.
- Allows children an opportunity to work for each other's well being rather than to permit mere selfish pursuits.
- Sarva Shiksha Abhiyan realizes the importance of Early Childhood Care and Education and looks at the 0-14 age as a continuum. All efforts to support pre-school learning in ICDS centers or special pre-school centers in non ICDS areas will be made to supplement the efforts being made by the Department of Women and Child Development.

#### **OBJECTIVES OF SARVA SHIKSHA ABHIYAN**

- All children in school, Education Guarantee Centre, Alternate School, 'Back-to-School' camp by 2003
- All children complete five years of primary schooling by 2007
- All children complete eight years of elementary schooling by 2010
- Focus on elementary education of satisfactory quality with emphasis on education for life

- Bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010
- Universal retention by 2010
- The objectives are expressed nationally though it is expected that various districts and States are likely to achieve universalisation in their own respective contexts and in their own time frame. 2010 is the outer limit for such achievements. The emphasis is on mainstreaming out-of-school children through diverse strategies, as far as possible, and on providing eight years of schooling for all children in 6-14 age group. The thrust is on bridging of gender and social gaps and a total retention of all children in schools. Within this framework it is expected that the education system will be made relevant so that children and parents find the schooling system useful and absorbing, according to their natural and social environment.

### **INNOVATIONS IN EXAMINATION SYSTEM: ( Open Book System, Grading, Continuous and Comprehensive Evaluation)**

#### **Open Book System**

##### **Meaning:**

Open Book exams allow the students to take notes, texts or resource materials into an exam situation. Open Book exams test the ability to find and apply information and knowledge. They are used in subjects requiring direct reference to written materials like law, statistics or acts of parliament.

##### **Need for Open Book system:**

Some exams are Open Book because they test for more than just rote-learning. At university, simply memorizing and repeating information is not enough to get a good mark. Higher education is supposed to equip students with intellectual abilities and skills. Open Book exams test students' ability to quickly find relevant information and then to understand, analyse, apply knowledge and think critically.

##### **Objectives of open book examination system**

- To make the examination more comprehensive in nature by providing the testing of higher cognitive abilities.
- To inculcate regular study habits
- To remove fear psychosis and help students develop positive attitude towards examinations
- To upgrade teaching-learning process
- To refrain from stress and strain of examinations
- To develop competency to consult reference books



- To develop ability to analyse the problem and find solution.
- To reduce considered if not remove altogether the emphasis laid on memory in the existing system.
- To inculcate regular study habits among students.
- To remove the 'fear psychosis' among students and help them develop positive attitudes towards examinations.

### **Nature of Open Book system:**

Open Book exams make the students to

1. Lean for understanding rather than just remembering.
2. Understand how to find information.
3. Make good notes and organize materials and fast reference.
4. Apply the information in your sources to the questions.
5. Analyze elements and relationships.
6. Synthesize or structure.
7. Evaluate using your material as evidence.
8. Apply material to new situations.

### **Types of Open Book System**

Open Book exams usually come in two forms:

1. Traditional sit-down / Limited-time exams, with varying degrees of access to resources and references.
2. Take Home exams. Questions are handed out, answers are attempted without help from others and the exam is returned within a specified period of time (often the next day).

### **Kinds of Material Used**

The materials used in an Open Book exam can vary. Some Open Book exams restrict the type of materials (e.g. formula sheets and tables or a limited number of texts). Others may be totally unrestricted (any quantity of any materials).

Materials might be:

- Notes
- Readings, reference materials or textbooks.
- Equipment like calculators, drafting tools etc.

### **Merits:**

The merits of open book examination system are:

- It evaluates the understanding capacity of the students than rote remembering in traditional examination system.
- It is a personalized system of examination, wherein students take the test at their own pace.
- It develops problem solving ability.
- It is easy to conduct.
- It is free from examination tension.
- Copying and other malpractices would be reduced.
- Writing guides and low quality text books will be stopped.
- Emphasis is shifted from memorizing to the understanding of the material.
- Memorization is reduced and critical thinking is encouraged.
- Students spend more time referring books to memorizing the facts.
- Tests higher cognitive abilities.

### **Demerits**

The demerits of Open Book examination system are:

- It is not formalized in the educational system.
- It is not time bound.
- The purpose of evaluation is not clearly defined.
- The psychological principle of successive approximation is neglected.

### **Grades**

What is grading? In the system of grading, students are classified into a few ability groups or categories according to their level of achievement in an examination. The achievement is defined in the form of numerical or letter grades, each of which denotes a certain level of performance of the whole group.

As stated above, grading is essentially meant for categorizing students into a few ability groups on the basis of their performance in the examination. There are two approaches to formation of groups that define the grades (a) on the basis of absolute marks and (b) on the basis of relative marks or rank order of marks. Let us see what these mean and also consider their merits and demerits.

### **The objectives of grading system**

- Uniformity of evaluation in different universities
- More reliable means of evaluating achievement
- Better comparability among and within subjects
- Greater mobility of students

Advantages of grading system over marking system



### **Absolute Grading**

This approach involves direct conversion of marks into grades. Whatever be the distribution of marks in a subject, the marks between two fixed points on 0 – 100 scale would correspond to a given grade. An example of this is the categorization of student into 5 groups – Distinction 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> Division and fail categories on the basis of marks as follows:

75 or above	:	Distinction
60 – 74	:	1 <sup>st</sup> Division
45 – 59	:	2 <sup>nd</sup> Division
33 – 44	:	3 <sup>rd</sup> Division
Bellow 33	:	Fail

It is possible to form any number of groups to correspond to grades (A, B, C etc...) in this way on the basis of marks. However, in view of the disparity in the distribution of marks of different subjects, Grade A of one subject cannot be treated at par with Grade A of another subject though Grade A is based on the same cut-off point in both the subjects. For example, if it is decided to award Grade A to those scoring 90% or more whatever be the subject, there may be no student getting Grade A in English or History while getting Grade A in Mathematics. In a sense it only serves as a substitute for individual marking system except that it gives a number of ability groups.

### **Comparative Grading**

This involves conversion of marks into grades on the basis of rank order or percentiles. In this case the distribution of marks is taken into consideration while determining the range of marks corresponding to different Grades. For example, the top 5% students may be given grade A, the next 10% Grade B and so on. Here the actual cut-off score for Grade A is one subject may be quite different from that of another subject. In this case the Grade that a student gets depends on his/her relative performance, that is, on what his/her marks are in relation to the marks of others. This type of grading actually corresponds to norm-referenced testing.

### **Advantages**

In general when we talk of grading it is only the type of grading based on relative marks that we have in mind. These grades are expressed in the form of letters A,B,C etc. The following are the main advantages of such grading:

- I) With the same uniform pattern being adopted for all subjects, grading would provide better comparability of the results of different in the same subjects.
- II) Grading is essentially based on rank ordering of students. Studies have shown that agreement among examiners on ranks to be awarded to examinees is much more in this than on absolute marks. Hence grades based on rank order in general, are more reliable.
- III) There is a greater comparability among subjects when grades are used. When there is a choice of subjects, students need not avoid the subjects which are considered low scoring. Even with a so called low scoring subject, the proportion of students getting a grade would be nearly the same as in a so called high scoring subject.
- IV) Grades in different subjects in an examination provide a meaningful profile of the achievement of a student. Unlike marks, one can easily find out in which subjects the performance is outstanding, good, fair or poor. With mark, one can arrive at such inference only on knowing what the range, average and dispersion are of the mark in the different subjects.

### **Continuous and Comprehensive Evaluation (CCE)**

Education is goal directed, and educational outcomes are judged in terms of goal attainment. Every educational programme should aim for the all round development of the personality of the child. Therefore, the learning experiences provided in the school should contribute toward the achievement of the desired goals. A teacher or an educational planner, while deciding about the content and the related learning experience for an educational programme (i.e. a curriculum) should describe both scholastic and non-scholastic outcomes as desirable behavior of that programme.

### **What is Continuous and Comprehensive School based Evaluation?**

With the development of total personality of students as the purpose of education, evaluation has to take up the responsibility of assessing the multi-dimensions of student performance.

- ▶ So, the coverage of both scholastic and non-scholastic aspects of pupils' development is an important component of the scheme of evaluation.
- ▶ Comprehensive and continuous evaluation covers curricular areas, personal and social qualities, interests, attitudes, values, proficiency in co-curricular activities and the health status of the students.

### **Scholastic and Non Scholastic Domain**

The desirable behavior related to the students' knowledge and understanding in subjects and his ability to apply it in an unfamiliar situation are described as objectives in scholastic domain.

The desirable behavior related to students' attitudes, interests, personal and social qualities and physical health are described as objective in non-scholastic domain.



The process of assessing the students' progress in achieving objectives related to scholastic and non-scholastic domain is called comprehensive evaluation. It has been observed that the scholastic elements such as knowledge and understanding of the facts, concepts, principles etc. of a subject and thinking skills are assessed. The non-scholastic elements are either altogether excluded from the evaluation process or they are not given adequate attention. For making the evaluation comprehensive, the scholastic and non-scholastic both should be given equal importance. Simple and manageable means of assessment of non-scholastic aspects of growth must be included in a comprehensive evaluation scheme.

In national Policy on Education (NPE) document, 1986 and as modified in 1992 also it is mentioned that the scheme of evaluation should cover all learning experiences of scholastic subjects and non-scholastic areas.

### **Functions of Comprehensive and Continuous Evaluation :**

- Continuous evaluation helps in regular assessment to the extent and degree of students' progress (ability and achievement with reference to specific scholastic and non-scholastic areas).
- Continuous evaluation serves to diagnose weakness and permit the teacher to ascertain an individual pupil's strengths and weakness and his needs.
- It helps the teacher to organize effective teaching strategies.
- Continuous and comprehensive evaluation ascertains areas of aptitude and interest. It helps in identifying changes in attitude, character and value pattern.
- It helps in making decisions for the future, regarding choice of subjects, courses and careers.
- It provides information/report on the progress of students in scholastic and non-scholastic areas and thus helps in predicting the future successes of the teacher.

### **Evaluation at lower primary stage**

Informal evaluation by the teacher

The aspects to be covered

- ▶ Health status
- ▶ Curricular areas
- ▶ Manners
- ▶ cleanliness

- ▶ Creative expression in ART, MUSIC, CRAFT
- ▶ No public examination
- ▶ No detention

#### **At upper primary stage**

- ▶ Formal tests to supplement informal evaluation
- ▶ Group evaluation

Aspects to be covered

- ▶ Curricular areas
- ▶ Health status
- ▶ Personal and social qualities
- ▶ Pursuit of activities(literary, cultural, scientific)

No public examination

No detention

#### **Secondary and senior secondary stage**

- ▶ Formal external evaluation to supplement school-based evaluation
- ▶ Continuous and comprehensive school based evaluation with feed-back
- ▶ Evaluation in the context of the average performance of the group

Aspects of evaluation

- ▶ Curricular areas
- ▶ Health status personal and social qualities attitudes, values
- ▶ Pursuit activities
- ▶ First public examination only at the end of class X

### **ROLE OF COMPUTERS IN EDUCATION:**

#### **Uses of Computer in Education, Management and Administration**

Educational management and administration involves two broad areas like educational planning and administration.

Use of Computers in these areas is discussed below.

The management information system where data is recorded, stored, processed and retrieved for decisions regarding management process of planning, organizing and controlling.

#### **Use of Computers in Educational Planning**



1. Very large data can be stored in the computer will be useful for a good planning and decision making.
2. The processing time of the data is greatly reduced.
3. Accuracy of information is better thereby improving the quality of decision.
4. Statistical and operational research techniques can be done with great ease.
5. Use of computers will reduce lot of valuable man power and time.
6. More confidential information can be maintained in a file system there by reducing the chances of brakeage.
7. Forecasting student population at national can be done with great ease using computers.
8. Based on the past data new goals for educational institutions can be set.
9. Budget for a district or a state level can be prepared with ease.
10. Monitoring of various educational programmes based upon cost and benefit analysis will help the planners in increasing educational productivity.

### **Use of Computers in Educational Administration**

Computers can be used extensively for educational administration in the following areas.

1. General administration.
2. Pay roll and financial accounting.
3. Administration of student data.
4. Inventory management.
5. Personal record maintenance.

#### **I. General Administration**

Computers are used for

- i. Collection of Information.
- ii. Information processing.
- iii. Information storing.
- iv. Information retrieval.

#### **II. Pay roll and Financial Accounting.**

- i. Payment of periodical salary
- ii. Maintenance of salary records.
- iii. Calculating D.A, H.R.A, special allowances etc.,
- iv. Deduction on advances made, insurance, tax etc.,
- v. Preparation of Budget.

#### **III. Administration of students' data:**

- i. Preparation of core schedules.

- ii. Computerization of students' attendance.
- iii. Computerization of Academic performance.

#### **IV. Inventory Management:**

Schools are required to maintain physical inventory with proper accounts of records. Use of computers,

- i. Enhances the functioning of school.
- ii. Help in cost accounting.
- iii. Avoidance of excessive & shortage of stocks.

#### **V. Personal Records maintenance:**

- i. Provides information on employees, grade, pay, age etc.,
- ii. Recruitment, Promotion, Transfer etc.

#### **ACTION RESEARCH:**

##### **Meaning of Research:**

Research is a process to study the basic problems which contribute in the area of human knowledge. The research process establishes new truth, finds out facts, formulates new theory and suggests new applications. Random Morey has defined term 'research'. "Research is a systematized effort to gain new knowledge".

Research can be classified according to the purpose. When we want to add knowledge to the field, it is called Basic Research (or) Pure Research. When it is done for immediate use, it can be called practical Research (or) Applied Research. Lehman and Cronbach think that educational research should tend more towards the applied variety. A sub-classification of applied research is ACTION RESEAERCH. It is research undertaken by practitioners so that they may improve their practices.

##### **Meaning and Definition of Action Research:**

The term "Action research" was introduced Stephen M. Corey in 1953. It is defined as "research done by the teacher, on his students in his classroom, to solve the problems he meets in his teaching".

"Research concerned with school problems carried on by school personal to improve school practice is Action Research".- S. Backwell.

Action Research is focused on the immediate application, not on the development of theory. It has placed its emphasis on a problem- here and now in local issues not to schools everywhere. In short, we can say that action research is undertaken to enable school personal to solve their problems immediately, as and when they arise, on the basis of their own researches.



### Importance of Action Research:

- Action Research helps the school to work in scientific and objective lines.
- It helps in bringing about desirable reforms in the system itself.
- The solutions offered by it, are easy to comprehend and adopt.
- It is more suited to implementation of research findings.
- It gives teacher a reassurance when he finds that his colleagues have, similar problems.
- It is very helpful in providing teachers with insight into the nature of educational problems of the research techniques and stimulating them to read the related professional literature.
- It will be of immense help in determining the kinds of change that could be introduced in the curriculum and co-curricular activities.
- It roots out the traditional and mechanical environment of school.
- It helps to raise the level of performance and level of aspiration of the students.

### Steps of Action Research:

The following steps of procedure are involved in Action Research.

#### 1. Identification of the problem:

A teacher should be sensitive towards job-activities. The problem should act objectively while making selection. It is isolated from the broad field. Teacher must realize the significance of the problems and should know how far the working of the system would be influenced after a solution has been found.

#### 2. Defining and Delimiting the problem:

The problem should be defined so that action and goal may be specified. The delimitation of the problem means to specify the problem in terms of class, subject, group and period in which a teacher perceives the problem.

#### 3. Analysing the causes of the problem:

The action researcher makes an attempt to search for the causes of the problem with the help of some evidences. The nature of the causes is also analyzed whether it is under the control or beyond the control of an investigator. This helps in formulating the action hypothesis. Moreover, the causes should be verifiable, specific and authentic.

#### 4. Formulating the Action Hypothesis :

Action hypothesis refers to a tentative assumption that points to the possible solution of the problem. Formulating a hypothesis brings clarity and definiteness to the work of action research. It also gives an idea of the procedure to be adopted for teaching the goal.

### 5. Design for teaching the Action Hypothesis:

Action researcher wants to test the action hypothesis, for which he must design the plan to test the hypothesis. The design of action research is flexible and can be designed at any time according to the convenience of the researcher. In action research, one hypothesis is tested at a time. The design for an action hypothesis involves the following aspects.

- Description of activities and procedures for getting evidence or for collecting data.
- An outline of sources tools or means to execute the design.
- Time required finalising action and completing procedures.

### 6. Evaluation.

Finally, the investigator evaluates the result. To determine how far the goal of the action hypothesis has been realized. If the evaluation reveals that the result is positive, the action hypothesis is accepted, otherwise one may require formulating new hypothesis and repeating the same procedure. The various techniques involved in the evaluation of the action hypothesis are observation, using opinionnaires and questionnaires, interview, check lists and rating scales

### Illustration:

#### 1. The problem:-

The students of class IX Std are not showing good progress in English.

#### 2. Defining and Delimiting:

The students of IX Std commit many spelling errors in English.

#### 3. Analysing the cause:

The possible causes of spelling error committed by students may be:

- a. The students are very careless in written work.
- b. The teacher does not spend much time while checking students' work.
- c. The teacher does not do follow-up work.
- d. The teacher does not do follow -up work.
- e. The students do not give the importance to spelling during their studies.

#### 4. Formulation Action Hypothesis:

If the students are made to do written work in English, systematically and regularly, followed by the teachers' correction and students' practice of correct spelling, their errors will appears.

#### 5. Design for Testing Action Hypothesis:

- i. Determine the amount of work to be given.
- ii. Plan to distribute the work according to the time-table.
- iii. Examine the written work in fixed time.
- iv. Seek the co-operation of his colleague.
- v. Give suggestions for improvement.



### 5.a. Testing : The Teacher

- a) Examines the exercise-books of the students in order to understand how far the spelling errors have been minimized.
- b) Gives written work in spelling to find out students' spelling ability.
- c) Finds out their ability through spelling games.

If the evidence indicates significant improvement in spelling errors in English, there is no need to test the second hypothesis.

### 6. Evaluation

The Evaluation of the action research is done in terms of accepting and rejecting the hypothesis. If the students commit fewer mistakes in spelling the action hypothesis shall be accepted. The conclusions can be drawn in the form of remedial measures for the problem.

### Characteristics of Action Research:

- Action Research is a process for studying practical problems of education.
- It is a scientific procedure for finding out a practical solution of current problems.
- The practitioner can only study his problems.
- The focus is to improve and modify the current practices.
- The individual and group problems are studied.
- Does not contribute in the area of new knowledge.
- Null hypotheses need not be formulated.

### Limitations:

- Action research has limited construction to make to the development of education as science.
- The maximum benefits from research are seldom realized because the conclusions cannot be generalized to other groups.
- Since Action research is to be mainly conducted by teachers themselves who are generally not research workers, it is relatively poor in quality.

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