



## ACTION RESEARCH

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#### Overview

It was stated in the earlier sections that research constitutes a major function of a DIET. As a faculty in the DIET, you are required to have a thorough grounding in *educational research* in general and *action research* in particular. The sections mentioned above are designed to help you in this direction.



#### Objectives

After reading the sections and completing the activities suggested, you would be able to:

1. Derive meaning and implications from research literature available to you
2. Understand and use research methods and procedures in addressing issues in your day-to-day functions
3. Guide pre-service and in-service teachers in undertaking action research



## GENERAL ORIENTATION TO RESEARCH

This section helps you to revisit your understanding of research.



### Objective

After reading this material and performing the activities, you will be able to

1. Define research
2. Identify the characteristics of research
3. Say what educational research means
4. Describe the methodology of research
5. Say what different types of researches are
6. Distinguish between basic, applied and action research
7. Define an action research and differentiate between research and action research
8. Comprehend the scope of action research
9. Describe different steps of action research



### Overview

It is generally thought that research is a highly technical task and hence beyond the reach of a classroom practitioner. Research in its strictest sense may be highly technical. But what is not understood, is that all of us become researchers when we start systematic probing into a given problem. Every classroom teacher is a researcher and every researcher has teacher qualities too. It is the lack of awareness of the process of systematic probing that has kept the teachers and the researchers away from each other.

This unit proposes to introduce you to the concept of research and the methodology of systematic probing. From this background you will understand the meaning, scope and methodology of research. You will also know about reflective practices or 'action research' as it is called popularly.



## Definition



### WHAT IS RESEARCH?

*Research is the application of the scientific method in the study of a problem.* In this process it leads to the establishment of new knowledge. Systematic probing into a situation/event/problem opens up unseen aspects of the problem under consideration. The researcher applies himself/herself to the problem vigorously and in the most objective fashion in order to arrive at conclusions that have a universal value. Research implies thinking, analyzing, relation finding, testing. It is an intellectual exercise. Research in other words is reflective thinking. “A good research worker works diligently, thinks clearly, studies carefully and extensively, observes minutely, collects data painstakingly, analyses data objectively and concludes scientifically and rationally”.

### What kind of research is needed in a DIET?

1. The problem chosen for research should be on the area where research is very much needed or wanted - unexplored areas.
2. Research should lend itself for scientific analysis such that generalization/prediction could be made out of the solution reached.
3. Research should be of use to the community and enrich the knowledge in that area.
4. Research should be relevant and socially significant.
5. Research outcomes should be verifiable and authentic.



## Definition

**What is Educational Research?** *Research that follows the scientific methods of analysis with respect to problems concerning different aspects of education is educational research.* The areas of concern here include curriculum & curriculum treatment, instruction, administration, classroom management, textbooks, evaluation, student qualities, teacher effectiveness and so on.

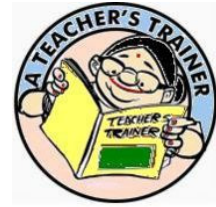
Educational research should be able to provide useful solutions to several concerns in the field of education.



## Reading

Read these material for understanding more about research **GENERL ORIENTATION TO RESEARCH**

- [1]What is Reflective Practice?
- [2]reflective practice
- [3]Reflective Practice and Professional Development
- [4]Process of Reflective Practice



## ACTION RESEARCH IN RELATION TO OTHER TYPES OF RESEARCH



### Objective

This section helps you to

1. Understand what are different types of research in education
2. Understand the relationship between action research and other types of research

### Descriptive Research

It deals with 'what is', describes and interprets what exists at present. The researcher is concerned with conditions or relationships that exist; practices that prevail, processes that are going on; influences that are being felt and trends that are developing. The purposes of descriptive study include

1. studying the present phenomena-their status and trends,
2. providing a basis for planning and formulation of policies,
3. providing a basis for fundamental research.

Major steps in descriptive study are the same as that of scientific method.

### Experimental study

It deals with 'what will be' when all conditions are carefully controlled. In an experimental study two situations which are alike in every respect are considered. Then one element is added or removed from one of the situations. The result of this operation is studied. Any difference that arises as a result of this operation is attributed to the adding or removing of the material. The two situations are compared under controlled conditions. The group on which the experiment is done is called the experimental group. Various steps in a simple experimental Research can be represented thus:



CONTROL GROUP	EXPERIMENTAL GROUP
Pretest	Pretest
No treatment	Application of the experimental factor
Post test	Post Test

## Case study

P. V. Young describes that *case study is a method of exploring and analyzing the life of a social unit, a person, a family, an institution, cultural group or even the entire community.* Case study has its roots in clinical observation. It is diagnostic in nature. It is a form of qualitative analysis involving a very careful and complete observation of a person, a situation or an institution. For recording what is being observed a case-study sheet is developed which documents the identity of the subject, the problem, observations made, planning of remedial action and findings.



### Activity

For what purposes could different types of research be used in context of a DIET? Write one instance for each of the following.

1. Descriptive Study:
2. Experimental Study:
3. Case Study:

## Methodology of Research

Whatever the type of research, it is an in depth study of a problem. Such an analysis has to be done in an objective and systematized manner. Only then the findings of a research would have a universal application. The findings should also be verifiable. The objective way of thinking about a problem is the scientific thinking.

The method of science consists of the following steps:

1. Identification and definition of the problem

2. Formulation of a hypothesis; a human assumption -locating variables - establishing relationships.
3. Collection, organization and analysis of data.
4. Formulation of conclusions.
5. Verification, acceptance or rejection of the hypothesis.

Educational research also employs the same steps in order to study problems specific to education.

## Classification of research



There could be two broad groups in research as the physical sciences.

1. The fundamental/basic/pure research.
2. Applied research → action research

Educational research is essentially looked upon as Applied research. Among the varied aspects of education, curriculum, tests and evaluation, teacher behavior, methodology and such other areas are examined scientifically in an experimental or descriptive type research. The areas of growth and development are studied either as developmental or as case studies.

*Kurt Lewin (1946), Stephen Corey (1953)* advocated a scientific and reflective approach to several local problems in the school set up. This is “action research”. Most of the researches useful and adaptable to classroom practices are in the form of Action Research.

## ACTION RESEARCH

Let us try to know what action research is?



### Overview

Action Research has its origin in the works of the social psychologist Kurt Lewin (1946). He developed the ideas’ of group decision and commitment to improvement at work situations (classroom and administrative). It is an act of analysing a situation leading to certain action for improvement and evaluating the result of the tried out action. Action research is focussed on immediate application. It places the emphasis on the problem here and now, in a school setting. Its findings are to be evaluated in terms of local applicability and improvement in school practices. The whole purpose of Action Research is to involve classroom teachers to attempt to solve their classroom problems.

### A Conceptual Analysis

Action research is a form of self-reflective enquiry undertaken by participants in serial situations in order to improve the rationality and justice of their own social or educational practices , as well as their understanding of practices and the situations in which these practices are carried out.

Groups of participants can be teachers, students, principals, parents and other community members. In education, action research has been employed in school based curriculum development, professional development, school improvement programmes and systems planning and policy development (for example, in relation to policy about classroom rules ,school policies about non-competitive assessment, and state policies about the conduct of school improvement programmes.)

The idea of linking of terms “**action**” and “**research**” highlights the essential feature of the approach : *trying out ideas in practice as a means of improvement* and as a means of *increasing knowledge about curriculum , teaching and learning*. The result is improvement in what happens in the classroom and school. Action research provides away of working which links theory and practice into the one whole: ideas- in- action.

**A reflective practice seeks** to make sense of processes, problems, issues, and constraints made available in strategic action.

It takes account of the variety of perspectives, possible in the social situation and comprehends the issues and circumstances in which they arise.

Reflection leads to the reconstruction of the meaning of school situation and provides the basis for the revised plan. Reflection has evaluative aspect- it asks action researchers to weigh their experience – to judge whether effects and issues which arose were desirable, and suggest ways of proceeding.



## Definition

### According to *Stephen Corey (1953)*

*“Action Research must be taken up by those who may have to change the way they do think as a result of the study singly and in groups. They must use their imagination and creativity constructively to identify the practices that must be changed to meet the needs and demands of modern life, courageously try out those practices that give better promise and methodically and systematically gather evidence to test their worth.”*

### **Mouly is of the opinion that**

*Action Research is an “on the spot research aimed at the solution of an immediate classroom*



problem.”

**Kurt Lewin says,**

*“Action Research is applying scientific thinking to real life problems (classroom problems for teachers) and represents a great improvement over teacher’s subjective judgments and their limited personal experiences.”*

According to **Hammersley, 1993 (p.237)**...

Action researches are small scale and narrowly focussed researches undertaken by teachers in a given context. It has also been referred to as *research into practice by practitioners, for practitioners.*

## Scope of Action Research

Action research is focused on immediate application, not on the development of a theory, not upon general application. It has placed its emphasis on a problem here and now in a local setting. Many Action Research projects are carried out in a classroom by a single teacher. As it becomes more extensive it becomes more similar to other types of educational research. The emphasis is Action Research, not on obtaining generalisable scientific knowledge about educational problems but on obtaining knowledge concerning a specific local problem.

The function of action research therefore, is to combine the research function with teacher growth in such qualities as objective thinking, skill in research processes, ability to work harmoniously with others and develop professional spirit. Quite often, many teachers will not have the time, resources, or technical background to engage in formal research activity but more teachers can be involved in action research activity and model studies may be undertaken for the purpose of trying to improve local classroom practices.



### Key points

#### Characteristic features of Action Research

1. It is Situational.
2. It is a Reflective Inquiry.
3. It is based on Scientific Approach.
4. It is a scientific way of Solving Problems.
5. It is a Small Scale Intervention.
6. It is a way to find Remedies to Overcome Obstacles in Learning.
7. It provides avenues for the teachers to be innovative.
8. It is a unified exercise to bridge a gap between theory and practice.
9. It is a way to develop Self-Confidence in Teachers

10. It is Self-Evaluative.

**Let us differentiate them.....**

The difference between the fundamental or basic research and action research can be summarized as given below against certain criteria.

<b>Difference Between Basic Research and Action Research</b>		
<b>Criteria</b>	<b>Basic Research</b>	<b>Action Research</b>
<b>Objectives</b>	Develop and test educational theory and derive generalizations.	To find solutions to problems in a specific context.
<b>Training</b>	Intensive training is needed in Research Methodology.	Limited training is needed.
<b>Selection of a problem</b>	A wide range of methods are used to select a problem.	Participating teacher identify problems during the teaching-learning processes.
<b>Hypothesis</b>	Highly specific hypotheses are developed.	Specific statement of the problem serves as hypotheses.
<b>Review of Literature</b>	An exhaustive and thorough review of literature is required.	No such thorough review of literature is needed.
<b>Sample</b>	Considerably large sample size is required.	Students studying in the class of a teacher forms sample.
<b>Experimental Design</b>	Well thought experimental design is developed to maintain comparable conditions and reducing error and bias.	Procedures are planned only in general terms.
<b>Analysis of Data</b>	Complex analysis is often called for.	Simple analysis procedures are usually sufficient.
<b>Conclusions</b>	Conclusions may be in the form of generalizations and developing theories.	Findings are local specific.

<b>Application of results</b>	The generalizations have broad applicability	Findings are used immediately in the classroom situations by participating teachers to improve their own practices
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### Four issues in which action research is different

1. It is **not** the usual thing teachers do when think about their teaching. Action research is more systematic and collaborative in collecting evidence on which to base rigorous group reflection.
2. It is **not** simply problem solving. Action research involves problem –solving, not just problem solving. It motivated by a quest to improve and understand the word by changing it and learning how to improve it from the effects of changes made.
3. It is **not** research done on other people. Action research is research by particular people on their own work, to help them improve what they do, including how they work with and for others. Action research treats people as autonomous, responsible agents who participate actively in making their own practices to be more effective. *It does not treat people as objects for research , but encourages people to work together as knowing subjects and agents of change and improvement.*
4. It is **not** ‘ the scientific method’ applied to teaching. Action research is not just about hypotheses-testing or about using data to come to conclusions. Action research is not just about hypotheses-testing or about using data to come to conclusions. Action research is concerned with changing situations, not just interpreting them like in historical sciences. Action research is systematically evolving, a living process changing both the researcher and the situations in which he/she acts; neither the natural sciences nor the historical sciences have their double aim.



### Reflection

#### Are there Steps in Action Research?

1. Identification of the problem
2. Pin-pointing the problem
3. Diagnosing the causes of the problems
4. Formulation of action hypothesis
5. Designing the action plan
6. Implementation of the action programme

Implementation of the action program

*Do you agree with these steps as necessary for an action research? Think it over*



## Assessment

List any three concerns of a DIET lecturer that could be addressed through action research.



## Summary

1. Research is the application of scientific method in the study of a problem issue.
2. Basic research or fundamental research contributes to the development of knowledge/theory.
3. Applied research is socially useful - application of the knowledge generated to social concerns.
4. Action research is useful in solving an immediate, specific problem.
5. Action research is very useful in solving classroom problems.



## Web Resources

For further information you may check the following web resources [1] [Action Research-Major Theories](#)

[2] [What is Action Research?](#)

[3] [Five Phases of Action Research](#)

[4] [STARTING POINTS](#)

[5] [Reasons to Do Action Research](#)



Other relevant web sites

1. [6] [Five Phases of Action Research](#)

1. [7] [STARTING POINTS](#)

1. [8] [Reasons to Do Action Research](#)

1. [9] [Techniques for Gathering Data](#)

1. [10] [Guidelines for Developing a Question](#)

1. [11] [Guidelines for Data Collection](#)

1. [12] [Sample-Improving School Attendance: Organizing a Team Approach.](#)

## Activity Sheet on ACTION RESEARCH IN RELATION TO OTHER TYPE



### THE PROCEDURE OF ACTION RESEARCH



#### Objective

This section helps you to

1. Understand what are the steps in action research
2. Understand how to proceed with an action research

#### Key points about action research

1. Action research is an approach to *improving education* by changing it and learning from the consequences of changes.
2. Action research is *participatory*. It is the research through which people work towards the improvement of their own practices.
3. Action research develops through the self-reflective spiral. A spiral of cycles of planning, acting,(implementing),observing , reflecting..... And then re-planning , further implementation , observing and reflecting.One good way to begin an action research project is to collect some initial data in an area of general interest , then to reflect , and then to make a plan for changed action,. Another way to begin is to make an exploratory change, collect data of what happens, reflect and then build more refined plans for action. In both cases, *issues and understandings*, on the one hand, and *the practices themselves* on the other hand, and the practices themselves on the other , develop and evolve through the action research process.
4. Action research is *collaborative*. It involves those responsible for action in improving it, widening the collaborating group from those directly involved to as many as possible of those affected by the practices concerned.
5. AR establishes *self-critical communities* of people participating and collaborating in all phases of the research process; the planning , the action, the observation and the

- reflection. It aims to build communities of people committed to *enlightening* themselves about the relationship between circumstance, action and consequence in their situation .
6. Action research is a *systematic learning process* in which people act deliberately. It is a process of using critical intelligence to inform own action , and developing it so that our educational action becomes crucial and committed action.
  7. Action Research involves people in *theorizing* about their practices. That is coming to understand the relationships between circumstances, actions and consequences in their own lives. These theories may be *rationales* for practices.
  8. AR requires that people put their practices, ideas and assumptions about institutions to the test by gathering *compelling evidence* which could convince them that their practices/ ideas/ assumptions were wrong.
  9. AR is open minded. It involves not only keeping records which describes what is happening as accurately as possible ,but also *collecting and analyzing our own judgments, reactions, and impressions about what is going on.*
  10. AR involves keeping a *personal record* in which we record our progress and our reflections about two parallel sets of learning (learning about the practices and learning about the process)
  11. AR involves people in making *critical analyses* of the situations (classrooms, schools, systems) in which they work. The initial resistance in changing one's own practices is a conflict between the new practices and accepted practices of the situation. By making a critical analysis of the situation, the action researcher can understand how resistances are rooted in conflicts between competing sets of practice, views of educational perspectives and values, and competing views of educational organization and decision making. This critical understanding will help in overcoming resistances by involving others in the research process, inviting others to explore their practices.
  12. AR starts with *small cycles* of planning, acting, observing and reflecting which can help to define issues, ideas and assumptions more clearly.
  13. AR allows us to give a *reasoned justification* to show how the evidence. We have done and critical reflection we have done have helped us to create a developed, tested and *critically-examined rationale* for what we are doing.
  14. AR allows us to build *records* of our improvement: **(a).** records of changing *activities and practices*,**(b.)** records of the changes in the discourse in which we describe, explain and justify our practices.**(c.)** records of the changes in the social relationships and forms of organization which characterize our practices ,and **(d.)** records of the development in our mastery of action research.



## Overview

### Are there Steps in Action Research?

Following steps are normally found in an action research. You may like to know in detail the way in which an action researcher proceeds with these steps.

1. Identification of the problem
2. Pin-pointing the problem

3. Diagnosing the causes of the problems
4. Formulation of action hypothesis
5. Designing & Implementing the action plan
6. Simple Procedures of analysing data



## Activity

**You may like to study these action research reports and find out whether the steps mentioned above are followed in them.**

**Make your observations mentioning the study title**

- 1.
- 2.
- 3.
- 4.



## Web Resources



For further information you may check the following web resources **THE PROCEDURE OF ACTION RESEARCH**

- [1]Action Research
- [2]An Introduction to Action Research
- [3]Action Research-Action and Research

**View this presentation on an action research study by a teacher [4]**

**Activity Sheet on THE PROCEDURE OF ACTION RESEARCH**

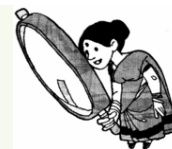


## IDENTIFICATION OF THE PROBLEM

You have read earlier that identifying a problem is the first step in action research.



### Objectives



Take a Close Look

After reading this material and performing the activities listed, you will be able to:

1. Know the different areas in which action research could be undertaken
2. Identify general problems in a school set up/institution suitable for action research
3. Analyze the general problems identified and arrive at a specific/workable/pin-pointed problem for action research.



### Overview

We have now understood what action research means. We have also seen how action research relates itself to classroom practice straightaway. The next question before us is to find out how problems are selected for action research work. The fact that action research does not assume the dimensions of a full time research activity such as fundamental research has its implications for the selections of problems too.

In this section you will know which the broad areas are from where the problems are likely to



emerge and how to pin-point the problem identified. These areas are not exclusive of each other. They may have mutual influence. The final outcome of any classroom based research should contribute to the improvement in the quality of instruction and learning. That is why it becomes necessary to keep the academic goals in mind even while working on problems that do not seem to be directly related to learning issues.

## DIFFERENT AREAS FOR ACTION RESEARCH

Action research, being a scientific method of solving immediate problems in the schools set up, could emerge from any of the following areas.

**ACADEMIC** - Classroom situation, methods of teaching, questioning climate student discipline, problems of disabled children and the like.

**SOCIAL** - late coming, not doing home assignments, poor attendance, lack of co-operation of students, lack of physical amenities and the like

**CURRICULAR** - textbooks, time bound syllabus MLLs, lack of teachers' handbooks, mismatch of age and content, gaps in information given guidance to teachers, arrangement of content, coverage of the subject area etc.

**EVALUATION** - test types (achievement tests, diagnostic tests etc.), periodicity of testing, scoring, giving feedback and the like.

**ADMINISTRATIVE** - planning, training, framing time-table and the like.

**PROFESSIONAL** – Self growth, desirable attitudes, motivation, leadership and the like.

We can further narrow down these areas into some major concerns which might be hindrances in the smooth functioning of the school. Study the following areas of concern.

1. Late submission of assignment by students
2. Consistent low achievement in academic subjects
3. Unruly behavior of the students
4. Pronunciation problems of the students
5. Lack of reading habits among teachers
6. Lack of co-operation among teachers.



### Activity

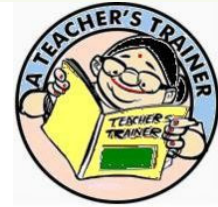
**Study these action research topics conducted by a DIET and classify them into various areas mentioned above.**

Identify

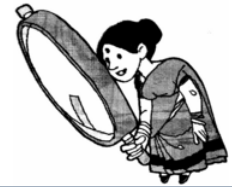
1. Whether there are studies which do not fall into any of these categories?
2. Are there areas in which no studies have been undertaken at the DIET?

[1] Topics of Action Research Studies conducted at DIET Shimoga

**Activity Sheet on Identification of the problem**



## PIN-POINTING THE PROBLEM



A careful study of the above areas will reveal that they are only titles and they do not specify the subjects, the number of low achievers, which group of teacher's etc. Let us now see how a broad area of problem could be made specific. Study the following examples.



### Key points

1. The Problems of action research could emerge from academic, social, curricular, administrative, evaluation and professional areas.
2. There is a need to pin-point the problem by defining clearly each aspect of the problem and recording the symptoms of the problem



### Activity

A) With respect to the pre-service teacher education programme, try to list one pin-pointed problem that could be addressed through action research with respect to the following areas.

Broad Areas for Action Research

1. Academic
2. Social

3. Curricular
4. Evaluation
5. Administrative
6. Professional

**B)** You could complete activity B by downloading the following material  
**Activity Sheet on Pinpointing the Problem**



## E-MEDIA

1. e media
2. Power Point Presentation
3. Documentation of data in Tables/Files
4. Use of e-Mail
5. Locating Resources on the Internet
6. Use of computers for audio- video CDs
7. Creating Forms
8. Handling Hardware
9. Using Multimedia/LCD Projector
10. Analyzing Data
11. Creating Educational Programs
12. ICT in Education

## E-MEDIA



### Overview

As a faculty of DIET, you are aware that ICT in general and E-media in particular have entered school and teacher education in a big way. Not only does the governments want the potential of E-media to be exploited for addressing the issues of elementary education, the private players have entered the field and are investing huge amount of money. It is in this