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ABSTRACT

In order to meet the challenges of the 21st century, we need to take some concrete steps in our Education reform. School has been traditionally a place to learn how to live in and contribute to the society. The real purpose why we run schools or work in schools is to make our children learn. However, with the overload of information and targets to achieve in terms of syllabus completion, results, etc., the learning is lost and children are becoming mere puppets who mug up and vomit before exams.

Teaching is only a form of letting children learn. But it has taken center stage and drive the entire system. It's about time that we shift our focus from teaching to learning; from exam driven curriculum to life learning curriculum. This requires a paradigm shift and the complete arsenal of our system has to be revamped.



Management needs to focus on

- Discussion of VISION
- Decisions with regards to Vision
- Directions to further the Vision

Principal needs to focus on

- Map - mapping and delegating all the work
- Monitor - if everything's working the way its supposed to be
- Motivate - Teachers, Students and Parents

Teachers needs to focus on

- Innovate – Perform research to make learning effective
- Inform – Keep everyone informed
- Inspire – Students to learn and take responsibility

Students needs to focus on

- Learn – Everythings that's taught formally and informally
- Live – Implement Knowledge and Values in their lives and stay happy
- Lead – Take responsibility for their actions and also help others

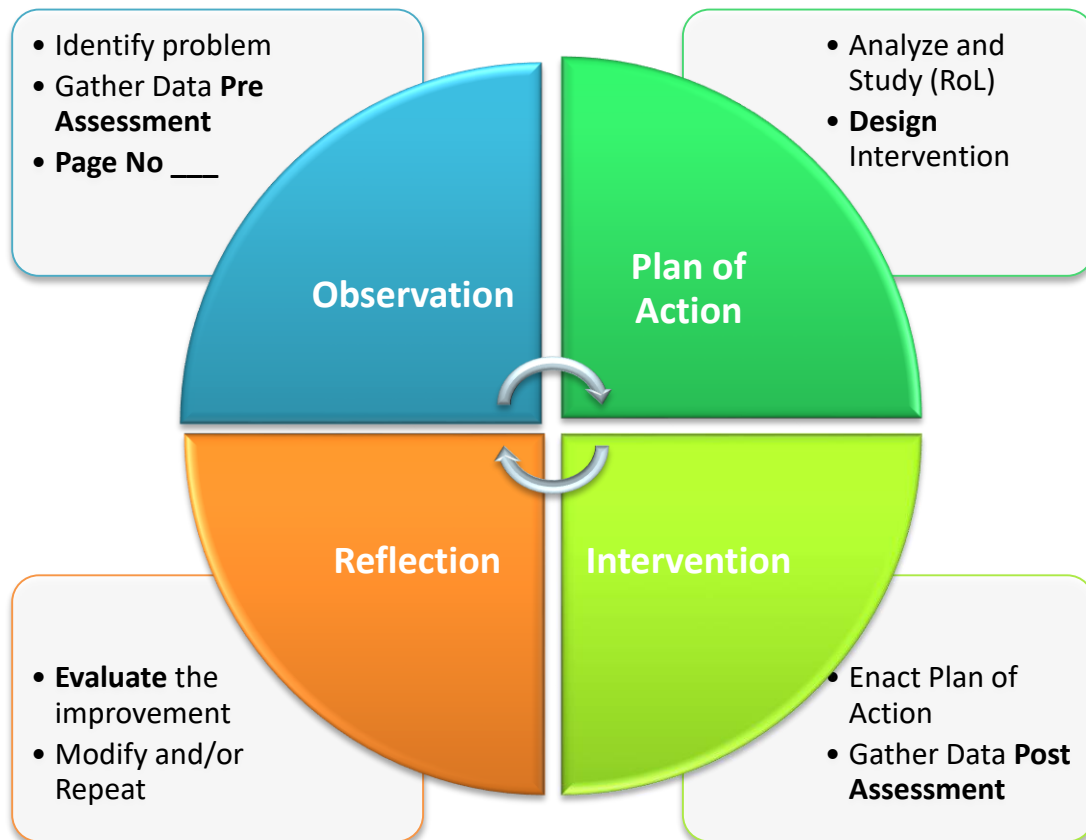
Parents needs to focus on

- Participate – In all the activities in collaboration with school including playing, working, worshipping, coping up in good and bad times.
- Practice – What they like to see in their children when they grow up
- Promote – Identify the talent and abilities of their children and encourage their efforts instead of praising their results.

It is important for everyone to know that educational reform is not the sole responsibility of teachers, but a shared process between management, administrators/principal, teachers, students, and their parents. In this regards, we propose that our schools take up ACTION RESEARCH.

Action research is inquiry or research to improve the quality of an organization and its performance. It aims at making everyone self-sufficient to handle their problems through research and innovation.

It typically is designed and conducted by practitioners who analyze the data to improve their own practice. Action research has the potential to generate long lasting and genuine improvements in school. It gives educators new opportunities to reflect on and asses their teaching; to explore and test new ideas, methods, and material and ensure LEARNING HAPPENS.



CHAPTER I

ACTION RESEARCH

INTRODUCTION

In the field of teaching, it is seen that good teachers and educational leaders do not always deal with problems in a traditional way. They see the importance of dealing with problems and situations. Many times, the problems might be solved with traditional approach. But it often happens that the problems are not so predictable. The nature of problems and the situation in which they arise, calls for a novel approach. Action Research is one such powerful tool which addresses these problems and how they can be resolved effectively.

The goal of Action Research is a positive change in everyday practice in one's own classroom, school, or district. Teachers are not merely considered teachers anymore; they are learners and proactive facilitators in the classroom. Action Research is also about incorporating reflection into the daily teaching routine – the willingness to critically examine one's teaching in order to improve or enhance it so that teachers become empowered to make informed decisions about what to change and what not to change.

Action Research helps in improving the professional experience of teachers, head teachers, and administrators. It gives the freedom to every educator to try out new methods and improve the quality of education, and these methods may bring about improvement in learning and teaching. It leads towards positive quality improvement in the education system.

Action Research helps teachers

- Link prior knowledge to new information.
- Learn from experience (even failures).
- Ask questions and systematically find answers.

(Fueyo & Koorland, 1997)

AIM OF THIS MODULE

The aim of this module is to:

- ✓ Define action research
- ✓ Differentiate action research from formal research
- ✓ Explain the Paradigm Shift from Teaching to Research
- ✓ Explain how action research works in school and classroom;
- ✓ Identify and explain the varieties of action research; and
- ✓ Explain the limitations of action research.
- ✓ Describe Some of the Innovative Methods which can be used for action Research

WHAT IS ACTION RESEARCH

Action Research is known by many names, including participatory research, collaborative inquiry, emancipator research, action learning, and contextual action.

In simple terms, Action Research is “learning by doing”—a group of people identifying a problem, and doing something to resolve it, evaluating their efforts, and if not satisfied, trying again. Action Research is examining one’s own practices through collaborative Inquiry, reflection, and dialogue. Action Research Involves a process of steps used to collect and analyze information in order to increase our understanding of a topic or issue, then you would think of *Action* (change) + *Research* (investigation) as investigating a problem or situation in order to make change happen. When something goes wrong with your lessons, what do you do? If you think about what you are doing and make a change, you are doing Action Research!

Action research is inquiry or research in primarily to improve the quality of an organization and its performance. It typically is designed and conducted by practitioners who analyze the data to improve their own practice. Action research has the potential to generate long lasting and genuine improvements in school. It gives educators new opportunities to reflect on and assess their teaching; to explore and test new ideas, methods, and material; to assess how effective the

new approaches were; to share feedback with fellow team members; and to make decisions about which new approaches to include in the team 's curriculum, instruction, and assessment plans.

While experimental research finds validity in large numbers. In random samples, and in control groups, action research finds validity in the human story, in rich detail, in multiple perspectives.

WHAT ACTION RESEARCH IS NOT

While there are many definitions of what **Action Research IS**, it is important to remember what **Action Research is NOT**:

- 1.** It is **not** the usual things teachers do when they think about their teaching. Action Research is systematic and involves collecting evidence on which to base rigorous reflection.
- 2.** It is **not** just problem-solving. Action Research involves problem-posing, not just problem-solving. It does not start from a view of problems as incurable ailments. It is motivated by a quest to understand the world by changing it and learning how to improve it from the effects of the changes made.
- 3.** It is **not** research 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 does not treat people as objects. It treats people as autonomous, responsible agents who participate actively in making their own histories by knowing what they are doing.

Action research and formal research have some difference. The table below outlines these differences.

CHAPTER - II

ACTION RESEARCH AND FORMAL RESEARCH

TOPIC	FORMAL RESEARCH	ACTION RESEARCH
Training needed by researcher	Extensive	On own or with consultation
Goals of research	Knowledge that is generalizable	Knowledge to apply to the local situation
Method of identifying the problem to be studied	Review of previous research	Problems or goals currently faced
Procedure to literature review	Extensive, using primary sources	More cursory, using secondary sources
Sampling approach	Random or representative sampling	Students or clients with whom they work
Research design	Rigorous control, long time frame	Looser procedures, change during study, quick time frame; control through triangulation
Measurement procedures	Evaluate and pretest measures	Convenient measures or standardized tests
Data analysis	Statistical tests; qualitative techniques	Focus on practical, not statistical significance; present raw data
Application of result	Emphasis on theoretical significance	Emphasis on practical significance

CHARACTERISTICS OF ACTION RESEARCH IN SCHOOLS

1. Action research in schools investigates human actions and social situations which are experienced by teachers as:

- Unacceptable in some respects (problematic);
- Susceptible to change (contingent);
- Requiring a practical response (prescriptive)

Action research is concerned with the everyday practical problems experienced by teachers, rather than the 'theoretical problems' defined by pure researchers within a discipline of knowledge. It may be carried out by the teachers themselves or by someone they commission to carry it out for them.

2. The aim of action-research is to deepen the teacher's understanding (diagnosis) of his problem it therefore adopts an exploratory stance towards any initial definitions of his situation he may hold.

This understanding does not dictate any specific response but it does indicate more generally what sort of response is appropriate. Understanding does not determine appropriate action but appropriate action must be grounded in understanding.

3. Action-research adopts a theoretical stance in which action intended to change the situation is temporarily suspended until a deeper understanding of the practical problem has been achieved

4. Action-research interprets 'what is going on' from the point of view of those acting and interacting in the problem situation, e.g. teachers and pupils, teachers and head teacher:

Events are interpreted as human actions and transactions rather than natural processes subject to the laws of natural science, Actions and transactions are interpreted in terms of the conditions they postulate, i.e. as expressions of a person's.

- Understanding of, and beliefs about, his situation;
- Intentions and goals;
- Choices and decisions;
- Acknowledgement of certain norms, principles, and values in diagnosing setting goals, and choosing courses of action.

What 'is going on' is made intelligible by reference to the subjective meanings ascribed to it by the participants. This is why interviewing and participant observation are important research tools in an action-research context.

5. Since action research looks at a situation from the participants point of view it will describe and explain 'what is going on' in same language as they used; namely, the commonsense language people use to describe and explain human actions and social situations in everyday life.

6. Since action research looks at problem from the point of view of those involved it can only be validated in unconstrained dialogue with them.

7. Since action- research involves unconstrained dialogue between 'researcher' and participants, there must be free information flow between them.

ACTION RESEARCH AND SCHOOL MANAGEMENT

It is important for everyone to know that educational reform is not the sole responsibility of teachers, but a shared process between administrators, teachers, students, and their parents.

Administrators and teachers can find collaborative projects in their own schools and across schools. An administrator can assume a learner's role by finding colleagues with similar interests and working on Action Research projects across their schools. For example, administrators can identify a problem which is common to their schools, then work together to plan and report changes.

Action Research can contribute to their own personal development, better professional practice, and improvements in their school. A supportive learning environment is critical to the Success of any Action Research project. The following guidelines to assist administrators in promoting a learning environment supportive of Action Research:

- Provide sufficient and consistent opportunities in the school day for collaborative Action Research (studying, analyzing student work, dialoguing collaboratively, and analyzing student data to make instructional decisions);
- Build a support system for teachers through a coach or a knowledgeable person of the Action, who can train and help the Teachers for Research.
- Research process, student learning, and instructional practices; set high expectations for faculty and students;
- create a professional library housing professional literature, assessment tools, and other instructional resources for faculty;
- Plan several sharing sessions for faculty to present their Action Research and findings throughout the year; and encourage all faculty to participate, including the principal and assistant principals.

CHAPTER III

THE ACTION RESEARCH PROCESS

Action research can be a powerful tool for teachers as they investigate, assess, and refine their teaching. It doesn't, however, have to be an onerous process that overwhelms an already overstretched teacher. Action research can be as simple as spending five to ten minutes at the end of each school day recording one's observations about the day. These observations can then be revisited and reflected on every few weeks. The goal is to identify a problem in the classroom or teaching method through reflection. In turn, the reflections should lead to new writing and the development of new strategies and solutions to bring into the classroom.

Teachers must use action research in a way that suits their needs and style and not worry about following some rigid plan established by others. This section is intended to guide teachers as they create their own action research plan, but should not be seen as the only map for doing so.

In this lesson, we will discuss the action research process,

After this lesson, you should be able to explain how action research can be implemented,

HOW TO IMPLEMENT ACTION RESEARCH

Teachers who conduct action research are:

Observers – looking and looking again at what happens in the classroom, not necessarily for new information, but thinking about the information they already have;

Questioners – problems encountered in the classroom become questions and opportunities to investigate. Everything that occurs in a classroom can be seen as data to be understood;

Learners-the focus changes from 'what did you teach today?' to "What did you learn?"

Teaching becomes a process to model learning;

The main trigger for any research are questions, there needs to be a question to be asked in order to know what has to be done. Some of the major questions to be asked are:

- What are the internal and external inhibitors or barriers to teachers' attempts to become challengers?
- What does it mean to do our questioning in a collaborative fashion?
- How can we work toward collaborative inquiry that includes a democratic approach that is equitable and consensual rather than merely participatory?
- What are the relationships between and among reflection and action, teaching and research?

HOW TO BEGIN AN ACTION RESEARCH

All good teachers regularly evaluate the impact their work has on student learning, but action research takes this ongoing self-evaluation to the next level. At the heart of action research is the day-to-day work of teaching, and it captures the highlights that teachers rely on to piece together their understanding of their practice in the classroom.

Writing forms the backbone of action research. It is these moments that, when recognized and identified, lead to the questions which lead to new insights. Teachers use journals, logs, notes, and a host of other recording techniques to track their day-to-day work as they explore their practice, writing allows the teacher/researcher to return to their observations and discover patterns and relationships that arise in their teaching. These insights can then be turned into action and tried out in the classroom and again be observed, recorded, and analyzed.

When you conduct action research, you start out with assumptions. These assumptions may be right or wrong. But slowly, you will see how your assumptions shape your decisions and your responses and you become able to contemplate alternate ways of acting. Thus, the insight gained from the process is used to promote better teaching and students learning in that particular educational setting.

Classroom action research is owned and operated by teachers.

- It starts with a problem/question teachers identify that calls for change.
- It tells the story of what teachers do and how teachers interpret what happens.
- It involves collaboration:
- Groups of teachers can share their stories and their perspectives on one another's work
- Groups of teachers can work with a consultant or professor, but they retain ownership of their research.

Action research is a process. Like the writing process, action research is recursive. Planning/teaching/observing/reflecting are interwoven cycles. So what does action research "prove?"

While experimental research finds validity in large numbers, in random samples, and in control groups, action research finds validity in the human story, in rich detail, in multiple perspectives.

The process described in this handbook is based on the ideas of these previous researchers. The process of Action Research begins with a concern or interest from one's own professional context. This concern leads to gathering information and knowledge about the concern.

Based on existing and new information and knowledge, a researchable plan is devised and implemented within one's own professional context. Data on the implemented plan are then collected and analyzed. The findings of the Action Research are shared with colleagues, administrators, and other stakeholders. In an ongoing process, Action Researchers continue to observe, reflect, and plan. Although different researchers may describe these steps of Action Research in slightly different ways,

The steps explained in this handbook are:

- **Observation**
 - Identify problem and pose a question
 - Gather Data **Pre Assessment**
- **Plan of Action**
 - Analyze and Study (RoL)
 - **Design** Intervention/ Create an action plan
- **Intervention**
 - Enact Plan of Action
 - Gather Data **Post Assessment**
- **Reflection**
 - **Evaluate** the improvement
 - Modify and/or Repeat

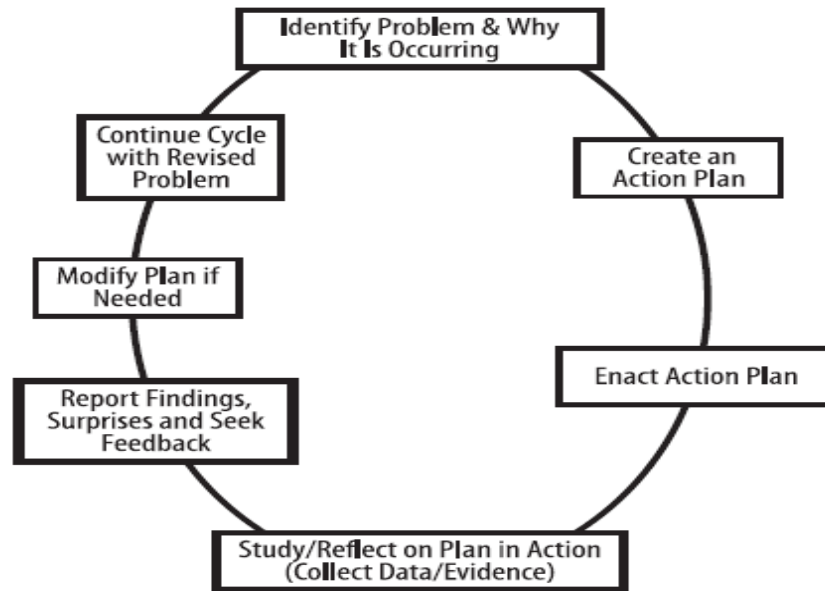
Duration of Action Research

Typically, it will take place over several weeks or months. The length of time needed to observe or demonstrate improvement will depend upon the target of your inquiry. Action Research is an ongoing process, rather than a program. You might complete one phase of your project in a few weeks, evaluate, and start the process over with your new information. These steps can be repeated continuously and applied to any learning situation or problem for continuous improvement in classroom instruction.

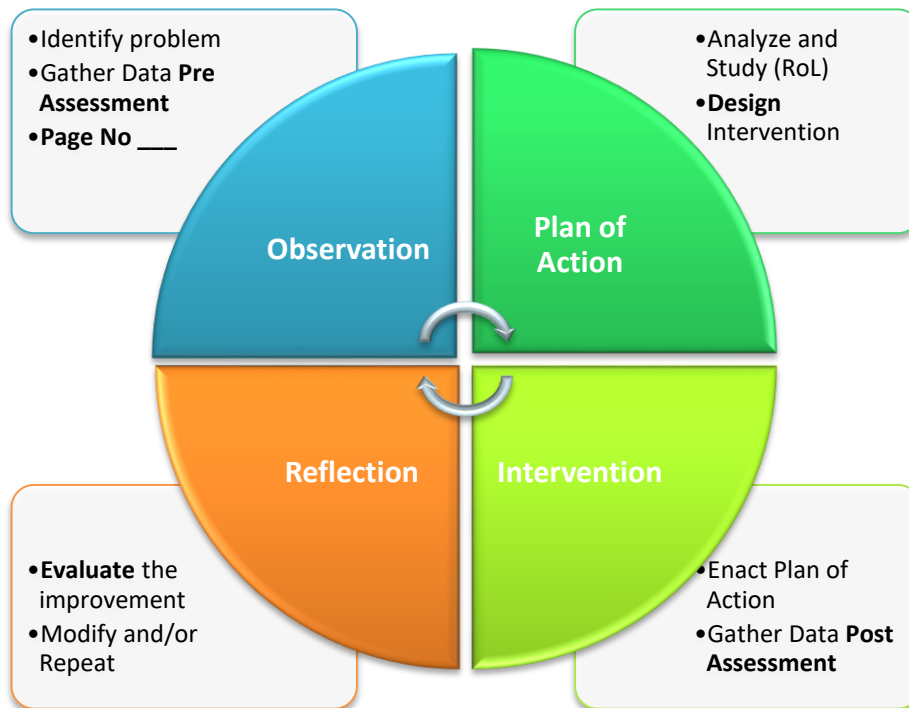
CHAPTER -IV

ACTION RESEARCH CYCLE

Action Research Cycle



Hollingsworth 2001-2005



STEP – A OBSERVATION

1. IDENTIFY A PROBLEM AND POSE A QUESTION

Action Research is an action-oriented reflective practice, which begins from a concern about some aspect of your practice. This leads to focusing on a particular question for investigating. Writing a formal plan for an Action Research project can help to formulate your thoughts. Sources for identifying Action Research concerns may be your own experiences in a professional context, such as interest in trying out a promising practice you have read or heard about. The question may arise from a difficulty you are having such as a need to improve student learning. You may need to seek clarity on an unclear situation, such as how to effectively use an instructional approach.

After you determine the concern, define and describe the problem or situation. Identify possible changes in your teaching that might help resolve it. The problem description should relate to specific teaching practices and be a researchable concept. Use the following guidelines to help you narrow your focus

- Write down some statements of concern about your practice.
- Articulate examples of practice-based concerns that YOU might be able to do something about in a reasonable amount of time.
- Try to specify what it is about the concern that you wish to change. This could be identified as changes in the language used, changes in the activities, changes in social relationships, etc.
 - Describe the problem. Why is it a personal concern to you?
 - What instructional/organizational/supervision changes will you make?
 - What can YOU do about the problem? To find out, talk to colleagues, read, ask students, etc.
 - What CONTROL do you have to solve the problem?

Next, create an Action Research question by examining the problem statement for its relationship to specific teaching and learning practices. The question should be specific and result in an observable problem solving action. You should be able to link the question to specific teaching practices. An important question to ask yourself is whether or not the problem/question is something over which you have influence. Also ask if the change that will come about as a result

of your research is worth your time and effort. (Hollingsworth, 2001-2005) What makes a question suitable for Action Research is its relation to concerns about understanding and improving school practices. The following questions are related to actual experiences of teaching and are intended to improve classroom teaching and learning. These questions are borrowed from accounts of actual Action Research projects undertaken by teachers who had specific concerns about their teaching:

- How can I help my students learn from their own ideas?
- How can I help students relate what they already know to what they are learning in the classroom?
- How can I have students become more independent learners?
- Can small group work help my students to interact more with each other in class?
- Will anchor charts (wall displays) bring about more learning in my classroom?
- How can I come up with higher-level comprehension questions in my class?
- When and how do I use praise in my classroom? (Kanu, Carson & Stansky, 1994)

In formulating the question, you must think about your concern and what outcome you would like to see. These sentence stems will support your thinking:

- In my school ...
- I would like to improve...
- I am perplexed by...
- Some people are unhappy about...
- I'm really curious about...
- I want to learn more about....
- An idea I would like to try out is.....
- Something I think would really make a difference is....
- Something I would like to change is....
- Right now, some areas I am particularly interested in are...

Once you have determined a concern that you can address and make a legitimate change in your classroom, write down your concern/problem in the form of a research question. State what you'll expect to see if the plan works as a research question.

In order for your action plan to resolve the problem, the question must be valid and doable. To ensure that the question meets these criteria, you may ask yourself clarifying questions such as these:

1. What are some areas of interest I want to improve? Example: I am concerned that my students have trouble comprehending expository text.
2. Why do I want to research this problem? Example: Students are unable to read their textbooks and comprehend the information independently.
3. What are some potential solutions? Example: Consult / hire a coach. Find an expert within the school to come to my class. Explicitly teach and model how to read expository text.
4. Which of these possible solutions can I investigate over an eight-week period? Example: Explicitly teach and model how to read expository text.
5. What kinds of evidence do I have or can I find as a baseline? Example: Research journals, observations, tests, worksheets, informal reading assessments
6. Formulate a research question. Example: Does reading comprehension on expository text improve as a result of providing explicit small group instruction for two 20-minute periods two times per week? (Brozo, 2011)

2. GATHER EVIDENCES – PRE-ASSESSMENT DATA

No research is complete without data gathering and analysis. Therefore, in order to show or prove the research, we need to capture AS-IS data before hand. It can be done in two ways:

1. **Qualitative**

It is based on the feedback and expressions of the participants and the observation of the work being researched upon.

2. **Quantitative**

It deals with numerical capturing of data in order to form graphs, trends, etc., Rubrics are designed to record such data on a particular scale.

STEP – B PLAN OF ACTION

3. ANALYZE AND STUDY

The next step going forward is to properly plan your research instead of haphazard actions here and there. However, we must also look for similar research if done already elsewhere.

Therefore, the practitioners/researchers must analyze the observation and the data captured and then perform RoL (Review of Literature). What has been already researched upon or published in regards to this topic so as to get a good foundation before designing our own Intervention or Action Plan. Many researchers often give do's and don't's, further need for research, etc., based on their research. These suggestions might help in formulating our intervention accurately.

4. CREATE AN ACTION PLAN/INTERVENTION

Seeking knowledge to support your research concern should be a deliberate, systematic process of gathering additional information about the concern. This knowledge will help you refine the action focus and form the Action Research plan. There are many sources for acquiring information to help you with your plan. Investigate what others say about your concern and listen to suggestions they may have on alternative approaches. Talk with your students to get a sense of how they view the quality of their classroom experience and their learning success. Consult with fellow educators and, most importantly, examine the professional literature on teaching and learning. School and student records provide additional information such as records of achievement, attendance, and special services for students who are the focus of the Action Research. Consult colleagues about students who are the focus of the research. Consult colleagues and administrators for their input and ideas related to your concern. Do they think your research question is feasible? What support can they provide for your research? (Brozo, 2011).

Electronic Data There are many electronic sources that can provide articles or book chapters with information about your research topic. Such sources include ProQuest, ERIC, and EBSCO.

Sources of Information for Action Research

- School and Student Records
- Colleagues and Administrators
- Professional Development Providers
- Internet Sites of Professional Organizations (i.e., International Reading Association, National Council of Teachers of English)
- Professional Literature

Organizing Your Information

Once you have identified potential sources of information, you will want to organize the information. This will help you to determine if your project is worth your time and effort. It will be useful to create notes for each source that includes:

- Origin of the source (journal article)
- Focus or purpose (investigate the effectiveness of small-group instruction)
- Data collection procedures if relevant
- Results (small-group instruction helped to target needs of the students) (Brozo, 2011)

Summarizing Your Information

After you have gathered and organized information about your research question, it will be helpful to create an organized summary of your different research. For example: Research Concern: Some beginning readers are having difficulty comprehending nonfiction text.

Information Sources:

A brief summary will support your action plan. This does not have to be lengthy, but should provide enough information to help you make your decision on whether your action plan is feasible. Once you have summarized your information, you may see that your original plan needs to be refined. To refine the focus of your research, state your original concern and then restate it based on the information you have found.

Developing the Action Plan

After identifying a research concern, gathering additional information, and refining the focus of the research, the plan of action needs to be developed and implemented. The action plan involves specification of the participants, strategies, available resources, evaluation procedures, and timeline. Using your clarified question and research concern, your action plan should answer these questions:

- Where will the research take place?
- Who will participate in the research?
- What will happen with the participants?
- How will the research be conducted, and what will be the specific sequence of actions?
- When will the research be conducted, and how might it unfold or change over time?

STEP – C INTERVENTION

5. ENACT THE PLAN OF ACTION

Before enacting the plan, the investigator has to be ready with all the data collection related materials and procedures. They have to determine the types of data that need to be collected to lead to meaningful, accurate, and appropriate conclusions regarding your research question. Take advantage of data you usually collect in your normal instruction process. Action Researchers should think critically about how life in the classroom or school can be captured naturally as data and ask themselves these questions:

- What kinds of data do I need to collect in order to answer the research question?
- What kinds of data collection strategies will be used to collect the data I need?
- How do the various data sources collected help in answering my research question?

Think about and describe the methods you will use to collect evidence.

Observe and record what happens as the result of the first action step. Collaboration, talking with other teachers or asking them to observe you and your classroom and give feedback, will offer an additional perspective on your research. Design specific tasks for students that will show changes in their work. Interview selected students. Choose some students who are doing well and some who are not to interview in a group or alone. Use audiotape or videotape to record the interviews so that you can review them and analyze the information provided by the interviews. (Brozo, 2011)

6. COLLECT DATA/ POST ASSESSMENT EVIDENCES

Quantitative and Qualitative Data

The different sources of data will include both quantitative and qualitative data. Quantitative data refers to data that can be measured in numbers, such as length, height, cost, ages, etc. In classroom Action Research, quantitative data might include test scores, student ages, number of discipline referrals, or student attendance rates. Qualitative data, on the other hand, deals with descriptions. Qualitative data can be observed, but not measured numerically.

For example, if you were describing your class, the description would be different if you were using quantitative data than it would if you were using qualitative data. Quantitative = Quantity: 25 students; 15 boys and 10 girls, 60% on Roll; 75% have perfect attendance Qualitative = Quality: friendly, bright, well-behaved, positive school spirit, studious, motivated to read independently.

Data Sources

Compiling multiple sources of information provides a better understanding of what is happening in the classroom. There are many sources for data collection available to the teacher researcher, including written recollections in the forms of diary entries or a reflective journal. These powerful sources of evidence provide a means of recording thoughts, reactions, feelings, and reflections as you implement your action plan. Photographs can also provide a record of the

implementation. While photographs don't record all the actions, they provide a source of reflection upon the event. Student work is another rich source for data collection.

Some sources for data collection for Action Research include the following:

Interviews and focus groups may take place with students, teachers, administrators, or parents. You may keep observation records or checklists of resources, interactions, skills, or classroom practices. Anecdotal records, or informal notes on student behavior and interaction, will be helpful as will be reflective journals written by the teacher, students, or administrator. Making audio or video recordings of lessons, meetings, interviews, and planning sessions will ensure accuracy and make for easier documentation when you are ready to report your findings. A self-assessment by students and by the teacher(s) can add valuable information to your findings.

Artifacts	Observations	Inquiry
Teacher made tests	Field notes	Interviews with students, parents, teachers
Standardized tests	Anecdotal records	Focus groups
Written assignments	Checklists	Surveys/questionnaires
Projects	Video recordings	Attitude scales
Student records	Audio recordings	Self assessments
Lesson plans		
Meeting notes and agendas		
Student portfolios		
Records, attendance, report cards, test reports		

(Adapted from Brozo, 2011)

Reliability and Validity of Data

Reliability refers to the consistency or stability of the data. This is more important with quantitative Action Research, especially if standardized data gathering tools are used. Consistency offers the possibility of replicating the research and generalizing the findings; however, since Action Research is generally case specific, generalizing the findings is not necessarily the goal. Validity is the quality, which decides if what you are researching is of value. Validity refers to the accuracy and meaningfulness of what is collected as evidence in research. Ways to increase the validity of evidence include triangulating data, member checking, and collaboration. (Brozo, 2011)

When deciding on what data to collect and use, select that which is most appropriate for the problem or concern you have identified to research. Consider whether or not the data are easy to obtain and use. Determine if the data are reliable and valid. Then decide how you will organize the data you have collected so that you can analyze it easily. Organize the data in a way that enables you to identify trends, behaviors, and themes.

Interview Techniques

Interviews help in gaining a clear understanding of people's thoughts, actions and views. Glesne (1992) has said that in qualitative inquiry, an interview gives one opportunity to learn about those things that cannot be seen.

Information can be obtained from students either individually or in small groups through an interview.

As with questionnaires, it is important to write interview questions ahead of time and keep them straightforward and directed toward the question for which answers are sought. During the interview process itself, it is important to reassure students that they will not be punished for being candid, to employ good listening skills, and to emphasize how important their ideas are to you. The disadvantages of using interviews are that they are time consuming. The time factor can be reduced if students are interviewed in small groups. It is also frequently difficult to get students to express their true feelings and opinions candidly.

Hollingsworth (2001-2005) suggests the following interview pointers to help you get the most information from your interview

Individual Interviews

1. Start informally, with a little informal conversation.
02. Know your questions so you can "talk them," not read them.
03. Ask "why" questions to get greater depth and detail.
04. Ask "should" questions to get values and beliefs.
05. Ask "What do you think about...." questions to get candid responses.

06. Recall questions aid in remembering events and information.
07. Comparative questions may yield new insight.
08. Experience/behavior questions elicit what the interviewee can do or has done.
09. Demographic questions help to find out how the interviewee describes herself/himself.
10. Open-ended questions are more likely to give genuine information. (Hollingsworth, 2001-2005)

An alternative to individual interviews is Focus Group Interviews. A Focus Group explores a topic through group discussion. The group is comprised of 6-10 participants selected as representative of a class.

The facilitator promotes discussion that will bring out information not tapped through a questionnaire or individual interviews. Use the guidelines on the following page to conduct a successful focus group session.

Focus Group Interviews

1. Pull together Focus Group Students; bring a tape or digital recorder.
2. Bring a set of open-ended questions / topics for the discussion.
3. Remind students that questions are to be discussed by the group, not by individuals.
4. Set time limits. Gather data for your research by interviewing the students about:
 - Their likes and dislikes of the new teaching method.
 - Whether the teaching method has helped them learn more content.
 - Whether the teaching method has made them more interested in the subject/school.
 - Whether the teaching method has made a difference in how they work with their peers.
 - Collect copies of student work before and after implementing the action plan to serve as evidence of their learning.

Observation Techniques

Observation is a way to closely look at teachers' and students' behavior. The procedures and recording devices for observation can vary according to the type of question being asked.

Sometimes, better information is acquired if a specific observation instrument is designed and used. There are essentially four ways to collect information through observation: Ask a colleague (who understands the instruments and can use them effectively) to observe classroom interactions and collect needed information.

- Make an audio recording of a lesson. When verbal behavior of students and teacher is the subject of inquiry, audiotapes work fine.
- Make a video recording of a lesson. For subtler non-verbal behaviors, video recording is better.
- Use 2-column notes. What did you observe?

What does it mean?

Audio or video recording is a good source for data collection because it provides evidence that can be preserved and reviewed. To record information from your observation, whether observed or recorded, these two devices are useful:

Rating Scales shows qualitative description of a limited number of aspects of a thing, or of traits of a person.

Checklist is a prepared list of items. The presence or absence of items is indicated by checking yes or no, or inserting the appropriate word or number may indicate the items, type, or number. This simple device systemizes the recording of observations and helps to assure that the important aspects of the object or act observed are recorded. An example of a checklist for a discussion group is provided on the following page.

STEP – D REFLECTION

7. EVALUATE - ANALYZE AND INTERPRET DATA

After collecting data, take a close look, analyze the information, and share results. Examine the data to find themes and patterns of behavior and performance that answer your research question. Check with students and peers to see if they agree the data say the same thing. You will find that you can easily form your opinion about some quantifiable data. Other data, such as surveys, questionnaires, checklists, and test results, can be recorded in table or graph form. Once all your data are collected, the key to making a significant change in practice is analyzing and reflecting on the evidence you have collected.

Modify and/or Repeat

8. MODIFY AND REPEAT – REFLECTIVE PRACTICE

The difference between simply teaching and becoming a great teacher is reflective practice. The Action Research report is your opportunity to reflect on your research data and results. Action Research is “trying out and reflecting on ideas in practice as a means of improvement and as a means of increasing knowledge.” (Kemmis & McTaggart, 1982)

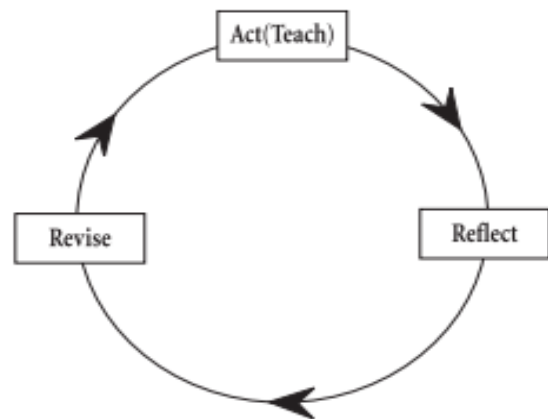
Studying one's own professional work is no straightforward matter and adopting the reflective mode is not simply a cerebral activity.

As we study our teaching, we are studying the images we hold of ourselves as teachers. Where these self images are challenged, questioned and perhaps threatened in the learning process we may experience feelings of instability, anxiety, negativity, even depression. (Dadds 1993: 287)

Reflective practice is not always easy. What if the project did not have the results you expected? As Dadds said, you may experience feelings of anxiety and depression. Whatever the outcome, reflection is critical. Key to effective reflection is that you are reflecting on your own practice. Reflection may be ongoing or a reaction to a specific event or unexpected occurrence.

In the case of Action Research, you are reflecting on a question that arises from your problem or concern. The immediate aim of reflective practice is self or professional development. Reflective practice is enhanced when the reflection is shared and discussed with colleagues who support you and share your concern. The end point of reflection may not be resolution of an issue, but attainment of a better understanding of it.

Good Teaching as Reflective Practice



How is reflective practice related to good teaching and Action Research?

The questions you use to reflect on your Action Research project and prepare your report will relate to the Action Research question you formulated and to the data you collected. Think of something specific to reflect upon, such as student participation, motivation, or increasing student achievement. Things to consider when analyzing your data are:

- How will you assess whether or not your new approach will resolve the problem?
- What do you expect to see?
- What were student responses to your new approach?
- Watch and talk with other teachers (Peer Coaching).

Read through the data to find themes and patterns of behavior and performance that answer your research questions.

- Check with students and peers to see if they agree with the data interpretation.
- What will the revision of the original story about the problem or situation tell?
- Who will you tell it to and how? What surprised you? What are alternative interpretations?

(Hollingsworth, 2001-2005)

Getting a Second Look Through a Critical Friend

If you investigate the work of any teacher researcher who has sustained his or her work over time, you quickly see another person, or many other people, standing in the shadows. Virtually all

teacher research depends on a partner or a group who shares the researchers' passions and provides reassurance when a project bogs down (Hubbard and Power, 1999). The term "critical friend" comes from the work of the Annenberg Institute for School Reform at Brown University. The critical friends process focuses on developing collegial relationships, encouraging reflective practice, and rethinking leadership. Critical in the context of Action Research means important, key, or necessary. Working with a critical friend facilitates reflection through peer observations, refining a teaching process, or consulting about an issue or problem. Critical friends share issues confidentially and seek suggestions for positively overcoming or managing them. Critical friends work together to overcome obstacles and barriers that might limit effective action.

This critical friend can provide an unbiased look at your classroom situation and uncover information you may have missed. He or she helps you reflect on your evidence and focus on your plan without giving you answers. When you work with a critical friend, you need to clarify how you will work together, because a critical friend relationship requires real commitment. A helpful critical friend will pose questions, not "one-up" you by telling of his or her own similar experiences. Despite the name, a critical friend does not criticize to the point of forcing you to defend your actions. A critical friend is not there to offer solutions to your problems, but to listen to your solutions. He or she should ask you for concrete examples and then for the reasons and motives for your actions. A critical friend will help you broaden your thinking by asking if there are other factors you have not considered.

CHAPTER –V

INNOVATIVE METHODS OF TEACHING

For a researcher is very important to think differently, and explore new alternatives to teaching. Being open to new methods and ideas can be crucial in devising new techniques of research and teaching. There are infinite methods to be used and thought about and be implemented like COOPERATIVE LEARNING, FLIPPED CLASSROOMS, BACKWARD TEACHING, STUDENT LED TEACHING and the like. In this section we give some innovative methods of teaching and hope that you design your own going forward.

1. MIND MAP

Mind map can be used by teachers to explain concepts in an innovative way. They are much quicker to make and much easier to remember and review because of their visual quality. Mind maps are also very quick to review, as it is easy to refresh information in your mind just by glancing once. Mind Maps can also effective mnemonics and remembering their shape and structure can provide the cues necessary to remember the information within it. They key notion behind mind mapping is that we learn and remember more effectively by using the full range of visual and sensory tools at our disposal. Pictures, music, color, even touch and smell play a part in our learning armory will help to recollect information for long time; the key is to build up mind maps that make the most of these things building on our own creativity, thinking and cross linking between ideas that exist in our own minds.

As the recent research point that any particular information explained with the help of graph charts make a high impact in the minds of the people and keeping this as the core aspect the teachers may try to picturize the concepts and show the same to the students

- Creates clear understanding
- PowerPoint can be used widely
- Innovative thinking improves

2. HUMOUR AN EFFECTIVE MEDIUM OF TEACHING”

Both by experience and research that using humour in teaching is a very effective tool for both the teacher and student. Humor strengthens the relationship between student and teacher, reduces

stress, makes a course more interesting and if relevant to the subject, may even enhance recall of the material. Humor has the ability to relax people, reduce tension and thereby create an atmosphere conducive for learning and communication. Numerous studies in the field of advertising have noted that humor is the most effective tool for enhancing recall of advertisements, create a humor in the classroom by reading books of jokes and to listen to professional comics, The students should be encouraged to take notes, especially to learn about the professional use of such techniques as exaggeration pauses, and timing much humor lies in observations about real life and truthful situations, humor not only plays an important role in the healing process but is also very important in education.

3. Z TO A APPROACH

Approach attempts to explain the application part of a particular concept first. The teacher should explain the application of a particular concept first and explain the effects of such applications,

- Makes a particular concept clear
- Students develop interest to know exactly the concept
- Creates long lasting memory/correlation of a concept.
- Take quite long time for a teachers to introduce a concept
- Initial difficulty in understanding a particular concept will be encountered

Man drops cannonball and lead weight from the top of the building, Hypothesis for this experiment is both the object will fall at same rate

The cannon ball and lead weight have reached the ground.

Experiment proves the experiment hypotheses correct, two different-sized objects fall at the same rate, this is because the rate of acceleration of an object in a field of force (gravity) is independent of the object's mass (if we ignore wing resistance)

Concept Simulation-reenacts Galileo's experiment of two different objects falling at same rate, The above explain the application of that Galileo's theorem. Here the teacher explains how to objects reach the ground if they are put from a particular distance from ground level. Traditional way of teaching method will be explaining in a manner that the proof or application is explained first and later the theory.

4. MNEMONICS WORDS-WORDS-WORDS APPROACH

Here the teacher is not supposed to talk on a particular concept for a quite long time. But to make it clear to the students he can just go on saying mnemonics or its associated meaning in words.

Here he goes on saying only words instead of sentence, and once they come to a basic understanding of the meaning of a particular concept then the teacher will explain in sentences.

For example in teaching language courses this technique can be used as an effective medium by the teacher to develop word power.

- Dictionary must be used widely
- Word power increases
- Teacher also gets to know many words pertaining to a particular concept.

5. ROLE PLAYING AND SCENARIO ANALYSIS BASED TEACHING

Role playing and scenario analysis can be tried in other specialization too like science and engineering. Science and engineering courses have practical but in support of those practical if students are given a scenario and other options to solve a particular issue, then the students are exposed to decision making in a given environment.

For example, in teaching accounting the role of accountant can be explained by role playing technique. Invoice and bills can be given to students and asked them to assume the role of accountant. Here the real entries pertaining to transactions are made by the students and this is more practical approach to teaching where theory is supplemented by proper practical knowledge. Similar kind of technique can be applied in management, engineering and science courses. The information and communication technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning. In the new paradigm of learning, the role of students is more important than teachers. The concepts of paperless and penless classroom are emerging as an alternative to the old teaching learning method. Nowadays there is demarcation of knowledge and the role of the teacher is changing to that of facilitator. We need to have interactive teaching and this changing role of education is inevitable with the introduction of multimedia technology and the spewing of a technologically-savvy generation of youths.

CHAPTER VI

EXAMPLES OF CLASSROOM ACTION RESEARCH USING VARIOUS TEACHING STRATEGIES

Here is a review of multiple teaching strategies that shows how Action Research can be used to monitor student learning using multiple strategies in various situations.

Addressing Differences in Learning Styles

Problem: A teacher noticed that when reviewing for a test, some students responded rapidly, while others remained quiet. She hypothesized that some students needed longer to think about the questions. **Research Question and Action Plan:** If I change my practice to do two rounds of question reviews, a speed round in which questions and answers were presented in a rapid-fire format, and a second round called “time-to-consider” where students had to wait one full minute before responding, will more students participate in the review?

Data Collection: The teacher checked the number of times each student volunteered to respond.

Results: The students who had previously remained quiet began to volunteer.

Different Kinds of Feedback

Problem: A teacher noticed that students were not trying to improve their work.

Research Question and Action Plan: If I change the kind of feedback I usually give students from negative to positive and direct them to different ways they could revise their work, would they make more effort to improve?

Data Collection: The teacher compared results of tests and assignments before and after the plan was enacted.

Results: Most students improved their work.

Freedom to Choose

Problem: A teacher complained that students were not showing interest in reading.

Research Question and Action Plan: If I permit students to choose what they’d like to read, would their interest improve?

Data Collection: Students kept reading logs and journals as evidence.

Results: Students began to choose to read more when provided a choice of materials of high interest at their reading levels.

Reducing Anxiety

Problem: Some students were exhibiting anxiety and mistrust while going through lessons.

Research Question and Action Plan: If I change my teaching to put a lesson outline and plan on the board before I begin the lesson, would it lessen students' anxiety?

Data Collection: The students kept journals

reflecting on their feelings. These journals reflected a growing sense of calm.

Results: It worked with some students, but others may need a different intervention.

Shy Students

Problem: The teacher noticed that some students were very shy and did not want to participate in class lessons.

Research Question: If I change the structure of discussion methods, will these students participate more?

Action Plan: The teacher decided to put the students in small groups to discuss the lesson content before the large group discussion. She also downplayed competition, and welcomed speculation and questions about confusions as well as "right answers."

Data Collection: The teacher kept notes on students' participation. She also interviewed the students.

Results: The shy students began to participate more.

Motivating Learning

Problem: A teacher noticed that students were not very motivated to engage in the study of history. Research Question and Action Plan: Would using personal anecdotes or current real world examples about the concepts they were studying (such as conflicts and conflict resolution) would make the lesson more valuable to students?

Data Collection: He had students keep journals about what they were learning from traditional lessons and the more connected lessons.

Results: Learning improved.

Using Contracts

Problem: One student is not completing reading assigned for homework.

Research Problem and Action Plan: Would using a contract with the student raise the rate of homework completion? On days that she completed her assignments, she could play games during free time.

Data Collection: The teacher kept records of how much homework was turned in before and after the contract.

Results: The amount of homework completed by that student increased.

Classroom Structure

Problem: The teacher had difficulty getting students engaged in classroom discussion.

Research Question and Plan: Would changing the seating arrangement encourage more students to participate in discussions? He moved students out of single row, front-facing arrangement into a large circle with the teacher as part of the circle for discussion. To get discussions going, he had to use 8 to 10 stimulus questions. He hypothesized that, with greater participation, fewer questions would be needed.

Data Collection: The teacher kept notes on the students' participation and the number of questions.

Results: When he reviewed his data, he found he only needed to use three of the stimulus questions to start the 20-minute discussion period. He kept that arrangement for discussions.

(Hollingsworth, 2001-2005)

TOOLS AND RESOURCES

Action Research Worksheet

Name _____ Date _____

1. Describe your problem, situation, or observation.
 - a. What it is? How did it come about?
 - b. What can YOU do about it? What changes you can make in your teaching?
 - c. If your plan works, what kind of changes are you likely to see?
 - d. What obstacles might arise as you implement your plan?

2. Turn your problem and your plan into a research question.
 - a. If I change my teaching like this _____ how will students _____ ?

3. Outline your specific plan.
 - a. List the specific steps and actions in your plan to resolve the research question.

4. Outline the method of study. (What triangulated data will you collect to get more insight into your question or see if the intervention works?)
 - a. written products
 - b. performance observations
 - c. oral interviews

5. When will you do it? Make a timeline. (Work backwards from the deadline.)

6. Summarize how you'll analyze and report the result of the Action Research project.
 - a. What did you find? What humps, surprises, or paradoxes did you notice? What might you do
 - b. differently next time?
 - c. How will you report what you've learned? (e.g., written report, presentation, etc.) (Hollingsworth, 2001-2005)

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