

Why is action research suitable for education?

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Abstract. Action research is actually suitable for any person who wishes to improve his or her performance; or any group or organization who hopes for doing the same. As a matter of fact, action research is widely used in education, especially by teachers who use it to improve their teaching. Teachers from all over the world, from the United States, Australia, New Zealand to Vietnam, etc have employed action research as a part of their teaching and research. Obviously, action research well matches with education and benefits both teachers and students in their teaching and learning since it meets the need of education and enables continuity in research with its cyclic process. The suitability of action research to education reveals in its nature, characteristics, “circle within circle” process, etc. In order to find a proper answer for the above question, this article will look at all aspects concerning action research including definitions, advantages, steps, etc to see the importance and the benefits of action research to education.

1. Education setting and research

Traditionally, research in education intends to bring useful changes to either teachers' teaching or students' learning or both. Educators as teacher researchers often wish to carry out research within their classrooms or schools to improve their teaching, to assess a newly developed educational theory or to implement and evaluate an educational plan. According to Hopkins [1] a basis for the selection of a classroom research by teachers centers around the following criteria:

- The teacher's primary role is to teach and any research project must not interfere with or disrupt this commitment;
- The method of data collection should not be too demanding on the teacher's time;

- The methodology used must be reliable enough to allow teachers to formulate hypotheses confidently and develop strategies applicable to the classroom situation;
- The teacher should be committed to the research problem under study;
- Teachers must follow ethical procedures when carrying out research; and
- Classroom research where possible should adopt a perspective where all members of a school community build and share a common vision.

In the era of teaching as research, teacher researchers have adopted term “action research” to refer to their particular approach to classroom research. So far, action research has proved its suitability to education and become more and more important in education organizations.

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2. Definitions of action research

Kurt Lewin, a German social psychologist, has been credited with the development of the idea of action research. He first found that experimental methods, in many cases, were inadequate and unsatisfactory. He then tried to seek for a method that based on people's real-world experience; from that time on, action research has entered the world of researchers.

According to Kurt Lewin [2], action research is "a comparative research on the conditions and effects of various forms of social action and research leading to social action"; this type of research uses "a spiral step," each of which is "composed of a circle of planning, action and fact-finding about the result of the action".

Also discussing about action research, Carr and Kemmis [3] pay much attention to the purposes of action research when they define it as "a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices and the situations in which the practices are carried out".

On the other hand, looking at the nature of action research, O'Brien [4] asserts that although action research has been referred to by different names such as participatory research, collaborative inquiry, emancipatory research, action learning or contextual action research, it is truly understood as "learning by doing" namely, a group of people encounter a problem; they do something to resolve it; they then see how successful their efforts are and if they are not satisfied with the result they can try it again.

O'Brien's view is shared by Dick [5] when he states that "action research is a natural way of acting and researching at the same time". To make it clearer, Dick affirms that action research is a true reflection of its names as it is intended to achieve both action and research at the same time. It is critically suitable for educational situations where teachers wish to bring about action in the form of change or

improvement in their teaching and at the same time develop an understanding which informs the change and is an addition to what is known.

Also concerning educational action research, Carr and Kemmis [6] put their general definition of action research into education setting as "action research is a form of self-reflective inquiry that can be utilized by teachers in order to improve the rationality and justice of (i) their own practices, (ii) their understanding of these practices and (iii) the situations in which these practices are carried out. Obviously, the role of action research in education has been acknowledged for a long time when Hutchinson and Whitehouse [7], Lomax [8] claim that action research is a research that "concerns with broader curriculum issues, and often with the administration and management of school and institutional change." Glickman [9] says that action research in education setting is a study conducted by teacher researchers to improve problems in their classrooms. In addition, Calhoun [10] explains action research as a fancy research when she says that "let's study what's happening in our school and decide how to make it a better place".

In short, it is possible to say that action research can be looked at as a professional development tool since it tries to enhance the capacity of teachers as generator of professional knowledge in contrast to enhancing their capacity to apply someone else's knowledge. (Burns [11]).

3. Purposes of using action research in education

Burns [11] acknowledges action research as an influential tool for school and classroom investigation. He claims that purposes of action research in education fall broadly into categories that reflect action research as:

- A means of remedying problems in a specific situations or somewhat improving a given set of circumstances.

- A means of in-service training by equipping the teachers with new skills and methods, sharpening analytical powers and heightening self-awareness.

- A means of injecting additional or innovatory approaches to teaching and learning into an ongoing system which normally inhibits innovation and change.

- A means of improving the normally poor communications between the practising teachers and the academic researchers and of remedying the failure of traditional research to give clear prescriptions.

- A means of providing a preferable alternative to the more subjective, impressionistic approach to problem-solving in the classroom.

4. Characteristics of action research

Hitherto, many scholars have attempted to characterize action research in terms of a school-based research. From Carr and Kemmis's [3] definition, McDonough [12] proposes four characteristics of 'pure' action research as follows:

- It is participant-driven and reflective;
- It is collaborative;
- It leads to change and the improvement of practice not just knowledge in itself; and
- It is context-specific.

This is because an action research is usually implemented in a specific classroom by a particular teacher or group of teachers who work together (and in collaboration with students) to pursue a change or improvement in their teaching and learning issues.

Kemmis and Mc Taggart [13] argue that the three defining characteristics of action research are:

- It is carried out by practitioners (classroom teachers) rather than outside researchers;
- It is collaborative; and

- It aims at changing things.

Especially, they stress that the momentum for carrying out an action research is to change the system. This assertion is different from Cohen and Manion [14] when they identify collaboration as an important feature of action research.

Relatively different, Borgias and Schuler [15] describe components of action research as the "Five C's":

- Commitment: Time commitment should be carefully considered by participants of action research since it takes them time to get acquaintance with other participants, think about change, try new approach, collect data, interpret results, etc.

- Collaboration: In an action research all participants are equal to each others in terms of giving ideas, suggestions or anything that leads to success of the change.

- Concern: In the research process, participants will build up a group of "critical friends" who trust each other and the value of the project.

- Consideration: As it is mentioned above, reflective practice is a mindful review of a professional research like action research. It demands concentration and careful consideration as one seeks patterns and relationships that will create meaning within the investigation.

- Change: For humans, especially teachers, change is continuing and it is a significant element in remaining their effectiveness.

Briefly speaking, Creswell [16] proposes six key characteristics of action research as:

- A practical focus;
- The educator-researcher's own practices;
- Collaboration;
- A dynamic process;
- A plan of action and; and
- Sharing research.

Creswell asserts that understanding the above characteristics will help teachers better

design their own study to read, evaluate and use an action research study published in literature. Particularly, action research aims at addressing an actual problem in a specific education setting namely the teacher researchers are studying a practical issue that will benefit education. Besides, teacher researchers engage in action research first and foremost because of their own situation rather than someone else's practice. In this sense, they engage in "participatory" or "self-reflective teaching"; namely, they reflect on what they have learnt and what they can do to improve their own educational situation. Moreover, in the research development, researchers collaborate with one another and all co-participants in an action research is referred to as collaborative team including teachers, students, administrators and even parents and stakeholders. All of them involve in a dynamic process or exactly a "spiral of activities" in which they go back and forth between reflection about a problem, data collection and action. Creswell also maintains that at a certain stage of the process, in order to respond to the problem studied, action researchers will formulate an either formal or informal action plan which will engage few individual or the entire community into research. Especially, action research is different from other type of research in terms of sharing the results. Traditionally, researchers report their investigation in journals or book publications but action researchers usually first present their research to teachers and other educational officials.

In short, during their studies, scholars may provide different opinions about action research; some of them say that collaboration is the defining characteristic of action research while others insist that publication is an important one. However, although the above characteristics may slightly different from one another, they all acknowledge action research as a powerful tool for teachers to find solutions for problems in their own education settings, or to change or improve some of their educational issues. Personally speaking, the author of this

paper finds that change is a key feature of action research since action research is used in real educational situations focusing on solving real problems in education and at the end of each study; change must take place quickly or holistically.

5. "Circle within circle" process of an action research

Steps in action research vary from different points of view as Creswell [16] asserts that "action research is a dynamic, flexible process" and there is "no blueprint exists for how to proceed." Hence, it is really impossible to assert this or that researcher is right with exact four, five, six, seven or eight steps in their action research. Sometimes, it is hard to define a clear cut between the steps and the number of steps in action research may vary depending on different points of view held by researchers.

Traditionally, Lewin's [2] model of action research involves a cyclic sequence including two major phases: diagnosis and therapeutic. These two phases are then divided into seven substages as follows:

- Stage 1: In this stage, problem or just general idea about state of affair a participant wish to change or improve is identified, evaluated or formulated.
- Stage 2: This stage is the time for fact finding so that a fully drawn picture of the situation is presented to help the researcher clarify the nature of the problem.
- Stage 3: This stage is related and synthesized with the critical review of the problem in stage two. It aims at reviewing research literature to discover what can be learnt from comparable studies, their purposes, procedures and problems they come across come across. Usually, in this stage, the researcher generates hypotheses which attempt to enlighten some of the facts of the problem.
- Stage 4: This is the stage where the researcher starts to gather relevant information

to test hypotheses proposed in the previous stage. However, it is important to note that this testing of hypotheses is not statistical testing but an action seeing whether the evidence is compatible with the hypotheses. Lewin also suggests that even when one has finished testing hypotheses he should keep the status of “hypotheses” rather than “conclusions” as he may encounter situations where these hypotheses do not apply.

- Stage 5: At this stage, teachers and other participants in collaborative team will discuss, negotiate and made decisions on the selection of research procedures including material choice, teaching methods, allocations of tasks, etc.

- Stage 6: This stage get participants involved in the realization of the action plan.

They determine circumstances and methods of data collection, classification and analysis; they also together monitor the task and consider the choice of evaluative procedures.

- Stage 7: This stage includes the interpretation of data collected and the overall evaluation of the research. At this stage, the cycle of research is likely to be repeated. At the end of each cycle, outcomes of the research are studied, some suggestions are proposed and test, etc. The projected is finally reported to the public.

Sharing the view with Lewin’s idea of the repeating cycles of action research, Kemmis [17] has developed a simple model of the cyclical nature of the typical action research process. He asserts that each cycle of an action research has four steps: plan, act, observe and reflect.

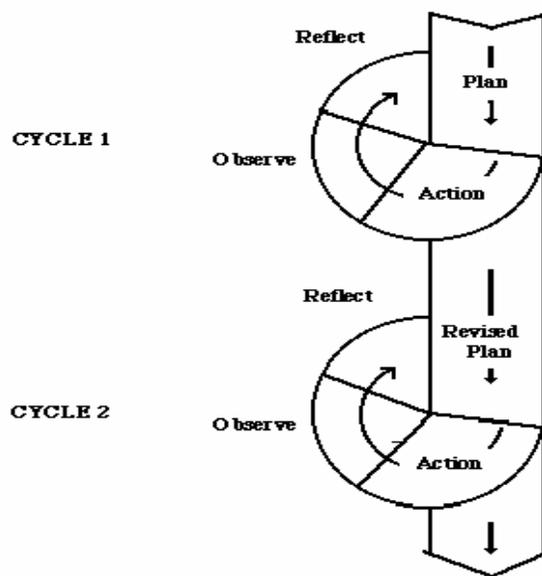


Figure 1. Simple action research mode.

Slightly different, Susman [18] identifies five steps to be implemented in an action research as follows:

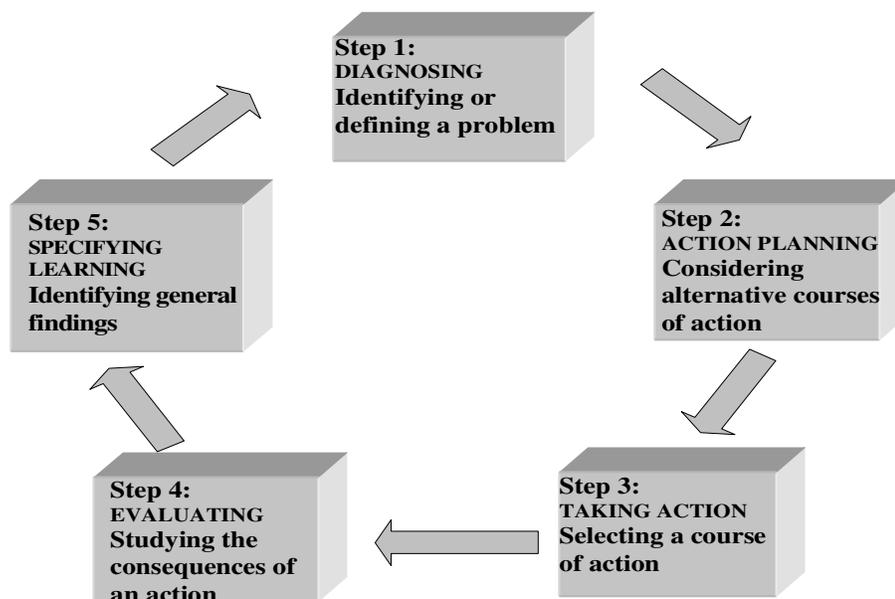


Figure 2. Detailed action research mode.

Concerning action research as activity research, Nunan [19] argues that the seven steps in the action research cycle are:

- Step 1: Initiation - A problem triggers the idea of action research
- Step 2: Preliminary investigation - Baseline data are collected to help understand the nature of the problem.
- Step 3: Hypotheses - A hypothesis is formulated after reviewing the initial data.
- Step 4: Intervention - A number of strategies are devised and applied.
- Step 5: Evaluation - An assessment is carried out to evaluate the intervention. Some steps may be repeated.
- Step 6: Dissemination - A report of the research is published. Ideas emerged from the research are shared.
- Step 7: Follow-up - Alternative solutions for the problem are continually investigated.

To make it simple, Gay and Airasian [20] propose the basic steps in action research as follows:

- Step 1: Identify topic or issue to study;
 - Step 2: Collect data related to the chosen topic or issue;
 - Step 3: Analyze and interpret the collected data; and
 - Step 4: Carry out action planning, which represents the application of the action research results.
- In contrast, Creswell [16] looks at procedure of action research as detail process with 8 steps as:
- Step 1: Determine if action research is the best design to use;
 - Step 2: Identify a problem to study;
 - Step 3: Locate resources to help address the problem;
 - Step 4: Identify information to be needed;
 - Step 5: Implement the data collection;
 - Step 6: Analyze the data;
 - Step 7: Develop a plan for action; and
 - Step 8: Implement the plan and reflect.

In brief, these above processes of action research are different from one another since they are either basic, simple or elaborate models. During the research, one may find a models either more effective or less suitable than the other ones depending of particular situations and education settings.

6. Types of action research

According to O'Brien [4], the development of action research has witnessed four main "streams" that have emerged as: (i) Traditional action research, (ii) Contextual action research (Action learning), (iii) Radical action research and (iv) Educational action research. Namely,

Traditional action research is originated from Lewin's work within organizations. It tends toward conservative, general maintaining the status quo with regards to organization power structures. "The growth importance of labour-management relation led to the application of action research in area of organization development".

"Contextual action research, also known as action learning, is stemmed from Trist's work on relations between organizations. This approach stresses on participants' act as project designers or co-researchers and structural relations among actors in a social environment (context)".

"Radical action research has its roots in Marxian "dialectical materialism" and it centers

around emancipation and the overcoming of power imbalances". The two branches of this school is Participatory Action Research and Feminist Action Research.

"Educational action research is founded after John Dewey, an American educational philosopher, who held that professional educators should become involved in community problem-solving". Naturally, it concentrates on development of curriculum, professional improvement, and applying learning in a social context.

From a different point of view, Creswell [16] argues that there are two main types of action research as follows:

- Practical action research
- Participatory action research

Practical action research is used in situations in which teacher researchers "seek to enhance the practice of education through the systematic study of a local problem." It usually involves a small-case research project, narrowly directs at a specific problem or issue and is undertaken by individual teachers or teams within a particular education setting.

Participatory action research is usually implemented in larger scale to improve "the quality of people's organisation, communities and family lives". Namely, it has a "social and community orientation" and it focuses on research that "contributes to emancipation or change in our society".

Table 1. Two types of action research

TWO TYPES OF ACTION RESEARCH	
Practical action research	Participatory action research
<ul style="list-style-type: none"> - Studying local practices - Involving individual or team-base inquiry - Focusing on teacher development and student learning - Implementing a plan of action - Leading to the teacher-as-researcher 	<ul style="list-style-type: none"> - Studying social issues that constrain individual lives - Emphasizing "equal" collaboration - Focusing on "life-enhancing" change - Resulting in the emancipated researchers

7. Benefits of action research to education

Teachers as researcher and students as change-receiver profit much from action research. When looking at educational dimension of action research, Gay and Airasian [20] prove benefits resulted from the application of action research to education as follows:

- Teachers investigate their own practice in new ways, looking deeper in what they and their student actually do and fail to do.
- Teachers develop a deeper understanding of students, the teacher learning process and their role in the education of both teachers and students.
- Teachers are viewed as equal partners in deciding what works best and what needs improvement in their classroom or classrooms.
- In most cases, solutions for identified problems are arrived cooperatively among teachers.
- Teachers are often more committed to action research because they identify the areas they view as problematical and in need of change.
- Action research is an ongoing process and its strategies can be widely applied.
- Professional development and school improvement are core aspects for any teacher who engages in action research.

- Teacher reflection can be conducted individually or in a school-based team composed of students, teachers and administrators.

Sharing the view with Borgia and Schuler [15], Mills [21] admits the importance of action research in education by adding that action research:

- Encourages change in schools;
- Fosters a democratic approach to education;
- Empowers individuals through collaboration on projects;
- Positions teachers and other educators as learners who seek to narrow the gap between practice and their vision education;
- Encourages educators to reflect on their practice; and
- Promotes a process of testing new ideas.

8. Action research in research paradigm

According to O'Brien [4], in the past several centuries, action research was situated in positivist paradigm as follows:

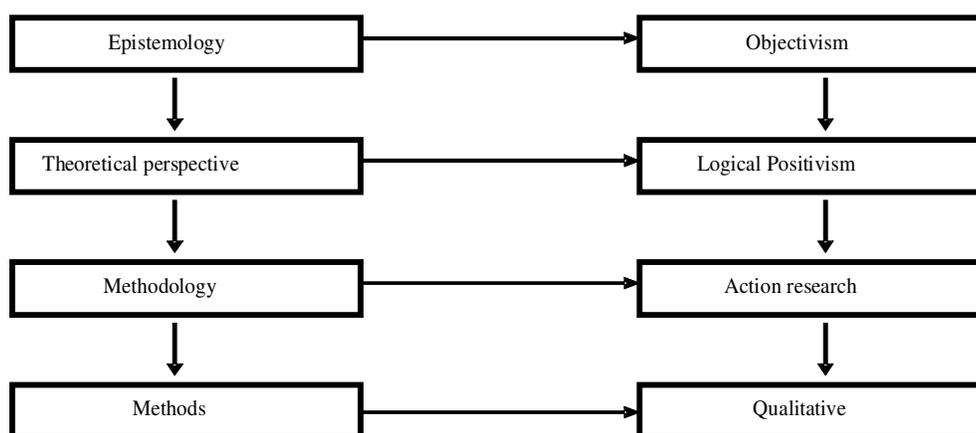


Figure 3. Action research in traditional research paradigm.

This paradigm is understandable basing on a number of principles: a belief in an objective reality, knowledge of which is only gained from sense data that can be directly experienced and verified between independent observers. Phenomena are subject to natural laws that humans discover in a logical manner through empirical testing, using inductive and deductive hypotheses derived from a body of scientific theory. Its methods rely heavily on quantitative measures, with relationships among variables commonly shown by mathematical means.

ositivism, used in scientific and applied research, has been considered the antithesis of the principles of action research (Susman and Evered [22], Winter, [23]).

However, over the last half century, a new research paradigm “characterized by a belief in a socially constructed, subjectively-based reality” has emerged in social science. Thus, action research, which still keeps hold of the ideals of researcher objectivity, is now situated in interpretive paradigm (O’Brien [4]) as follows:

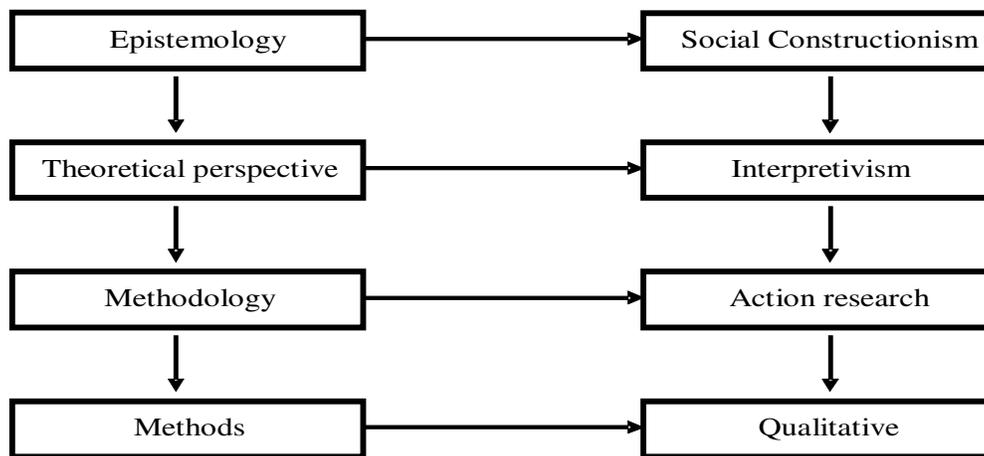


Figure 4. Action research in modern research paradigm.

9. Conclusion

In summary, although some people may critique that action research is an informal research since teachers are not academic researchers, it is widely believed that action research is extremely suitable for education as its main purpose is to help teachers as researchers solve their teaching problems “in action”. It allows teachers to learn about their teaching at the same time that they improve their teaching. They are able to do this because action research has a cyclic process. Teachers notice what they do with what results. They learn from this. They apply their new learning to plan improvements. They try it out. They notice what happens, thus repeating

the cycle. Briefly, action research is so suitable to education as it is a process of exploration in which teachers explore such things as themselves as an educators, their lives or unique perspectives of their students, the structure and practices of educational systems in order to bring positive change to their schools and communities.

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Tại sao lại nói nghiên cứu tìm giải pháp phù hợp với lĩnh vực giáo dục?

Trần Thị Thu Hiền

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Nghiên cứu tìm giải pháp (Nghiên cứu hành động) thực ra phù hợp với bất cứ ai, bất cứ tổ chức nào muốn sử dụng loại hình nghiên cứu này nhằm nâng cao chất lượng công việc của mình. Nghiên cứu tìm giải pháp được các giáo viên trên khắp thế giới sử dụng như một phần quan trọng trong công tác giảng dạy và nghiên cứu. Thực tế cho thấy, hình thức nghiên cứu này rất phù hợp với lĩnh vực giáo dục và mang lại lợi ích cho cả giáo viên và sinh viên trong việc giảng dạy và học tập của họ vì nó đáp ứng được nhu cầu của ngành giáo dục và đảm bảo tính liên tục trong nghiên cứu với tiến trình nối tiếp và tuần hoàn của nó. Để tìm một câu trả lời thấu đáo cho câu hỏi trên, bài báo này sẽ đi sâu tìm hiểu tất cả các mặt liên quan đến nghiên cứu tìm giải pháp như các khái niệm, những ưu điểm, các bước tiến hành, ... để thấy được vai trò quan trọng cũng những lợi ích mà nghiên cứu tìm giải pháp mang lại cho lĩnh vực giáo dục.