Action Research: A New Look

Jashim Uddin Ahmed[*]

ABSTRACT

In this study an attempt has been made to answer the question "What is Action Research?" giving an overview of its processes and principles, stating when it is appropriate to use, and situating it within a praxis research paradigm. The definition and evolution of the approach is described, including the various kinds of action research being used today. The action research process and its nature have been discussed from different scholars' point of view. This article also seeks to add a new dimension to, and way of thinking about, the cyclical process underlying action research and its relationship to problems and learning issues. The nature of action research highlights six different key principles as well as situates it in a research paradigm followed by different types of action research along with its characteristic issues and ethical considerations. Finally, this study has revealed that action research is deliberate and solution-oriented investigation that is group or personally owned and conducted.

1. INTRODUCTION

1.1 Background

'Research' is a particular form of enquiry. It is not possible to do research without having a problem, which is required to be solved, or a question, which needs to be answered (Ahmed and Huda 2006). Easterby-Smith, Thorpe and Lowe (1999:9) stressed "research is always hedged about with uncertainty and risk." Morgan (1983) saw it as part of a wider process that constitutes and renders a subject amenable to study in a

---

distinctive way. However, it is concerned with seeking solutions to problems or answers to questions. Gillham (2000: 2) offered the following definition of research:

> "Research is about creating new knowledge, whether the disciplines - history, medicine, physics, social work. The raw material of research is *evidence*, which then has to be made sense of."

Similarly, Marshall and Rossman (1995) argued that research is a process of trying to gain a better understanding of the complexities. Bassey (1999: 38) offered the definition of scientific research as "systematic, critical and self-critical enquiry, which aims to contribute to the advancement of knowledge and wisdom." Similarly, Mason (1996: 4) agreed that it should be "systematically and rigorously conducted." These qualities are apparently much of what Bassey (1999) and Mason (1996) understood by "systematic". Research dealt with the discovery of answers to "who, what, when, where, how" questions rather than the "why" questions. As Phillips and Pugh (1994: 45) put it:

> "…. research aims to re-orientate our thinking, to make us question what we think we do know, and to focus on new aspects of our complex reality."

As a bare minimum we may tentatively define research as an inquiry carried out to secure information for solving problems. Whether the research is simple or complex, sophisticated or primitive, scientific or non-scientific, useful or useless depends on its objectives, its design, and the skill and integrity with which it is conducted (Ahmad and Huda 2006).

According to Brydon-Miller, Greenwood and Maguire (2003), action research has a complex history because it is not a single academic discipline but an approach to research that has emerged over time from a broad range of fields. It is often uniquely identified by its dual goal of both improving the organization participating in the research project, usually referred to as client organization, and at the same time generating knowledge. Although typical application is limited, if any, to studying the control on the environment, the action research practitioner is expected to apply intervention on this environment. Typical instances are the studies of a synchronous groupware support effects on process improvement groups conducted in a service organization by Kock and McQueen (1995); and the research on the participatory development and introduction of an expert system in a welding plant conducted by Candlin and Wright (1991).

1.2 Definitions

Action research is a wide, polyvalent and a controversial concept (Drummond and Themessl-Huber 2007; Rolfsen and Knutstad 2007). This research, as commonly defined, combines action and reflection with intent to change practice and theory (Carr and Kemmis 1986). Action research is a unique research strategy (Grant 2007). "It involves people working to improve their skills, techniques, and strategies" (Ferrance 2000: 3). It is simply 'learning by doing' what Wadsworth (1997) has described as 'do-it-yourself social science'- a group of people identify a problem, do something to resolve it, see how successful their efforts were, and if not satisfied, try again. Action research has been described 'as a way of generating knowledge about a social system whole, at the same time, trying to change it' (Elden and Chisholm 1993: 121). It is also known as participatory research, collaborative inquiry, emancipatory-research, action learning and research, but all are variations on a theme. While this is the essence of the approach, there are other key attributes of action research that differentiate it from common problem-solving activities that we all engage in every day. Carr and Kemmis (1986:162) gave little explicit guidance on the design of action research and provide a classic definition:

> "Action research is simply 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."

A more succinct definition is:

> "Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process " (Gilmore, Krantz and Ramirez 1986).

We find Kemmis and McTaggart (1988: 5) definition to be generally very helpful:

> "Action research is a form of collective, self-reflective inquiry that participants in social situations undertake to improve: (1) the rationality and justice of their own social or educational practices; (2) the participants' understanding of these practices and the situations in which they carry out these practices".

What separates this type of research from general professional practices, consulting, or daily problem-solving is the emphasis on scientific study, which is to say the researcher studies the problem systematically and ensures the intervention is informed by theoretical considerations. Much of the researcher's time is spent on refining the methodological tools to suit the exigencies of the situation, and on collecting, analysing, and presenting data on an ongoing, cyclical basis.

Several attributes separate action research from other types of research practices. Primary is its focus on turning the people involved into researchers too - people learn best, and more willingly apply what they have learned, when they do it themselves. As Grant (2007: 272) saw it as "process is interactive across multiple levels: between researcher and participants; emerging (students) and established (supervisors) researchers; and also as we, the researchers, reflect and 'interact' with the process and our developing selves." It also has a social dimension - the research takes place in real-world situations, and aims to solve real problems. Finally, the initiating researcher, unlike in other disciplines, makes no attempt to remain objective, but openly acknowledges their bias to the other participants.

2. EVOLUTION OF ACTION RESEARCH

Theory of action research is not new (Dick, Stringer and Huxham 2009). While numerous authors noted that the intellectual roots of action research can be traced back to the ideas of Dewey (1916), "there is ample evidence to suggest that Collier had developed his own very practical approach to action research quite early." According to Cooke (1999: 93):

> "Collier was writing as early as 1917 of the need for social science to inform action in the New York, People's Institute, where he was working as a community development activist, adding that 'The Institutes' role is action, not talk; experimental sociology in action (Kelly 1983: 86). In 1918, Collier wrote of the model community centres set up by the People's Institute as 'laboratories of method' (Kelly 1983: 86), and in 1933 of the Indians and their lands becoming, 'pioneers in the supreme new American adventure now being tried under the leadership of the President" (Philp1977: 187).

Collier also appeared to be the first person to have coined the term, action research, in an academic publication. Collier's article, 'United States Administration as a Laboratory of Ethnic Relations,' appeared in *Social Research* a year before Lewin's(1946) paper was published. Kurt Zadek Lewin (1890 - 1947) is considered the 'father' of action research. Lewin as a German social and experimental psychologist, was concerned about social problems, and focused on participative group processes for addressing conflict, crises, and change, generally within organizations. Lewin (1946) first coined the term 'action research' in paper "Action Research and Minority Problems", characterizing Action Research as "a comparative research on the conditions and effects of various forms of social action and research leading to social action", using a process of "a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action" (1946: 38).

Eric Trist (1909-1993), another major contributor to the field during immediate post-war era, was a social psychiatrist whose group was engaged in applied social research, initially for the civil repatriation of German prisoners of war. A distinctive thrust of action research has also developed after World War II in Great Britain at the Tavistock Institute of Human Relations in London as a groundbreaking method to deal with sociological and psychological disorders arising from prison camps and war battlefields (Fox 1990; Miller and Rose 2001; Rapoport 1970). Eric Trist and his colleagues (Tommy Wilson, Melanie Klein, John Bowlby, Donald Winnicott, Wilfred Bion and Jock Sutherland) tended to focus more on large-scale, multi-organizational problems. Both Lewin and Trist applied their research to systemic change in and between organizations. They emphasized direct professional - client collaboration and affirmed the role of group relations as basis for problem-solving. Both were avid proponents of the principle that decisions are best implemented by those who help make them (Gustavsen, 2008).

Although there is some controversy about the origins of action research, it has been considered a distinctive form of research since the early 1940s. Lewin K. is generally regarded as one of its pioneers (Argyris Putnam and Smith 1985; Checkland 1981) and the first person to use the term "action research" to refer to a specific research approach in which the researcher generates new social knowledge about a social system, while at the same time attempts to change it (Lewin 1946; Peters and Robinson 1984). Early published material suggested that action research grew from a desire of researchers to deal with important social problems. However, shortly after its early development in the late 1940s, action research begun to be used in large scale to deal with intra-organizational and work life problems. Most of the action research practice in the second half of the 20th century has continued and expanded this organizational and work life focus, and one of the major topics of action research has been the issue of "job satisfaction" and its dependence upon several aspects of work situations (Gustavsen 1993). One of the reasons for the emergence of action research and its consequent use in the Information System field (Baskerville and Wood-Harper 1996) is the recognition that a social system can be more deeply understood if the researcher is part of the socio-technical system being studied, which can be achieved through applying positive intervention on the system. This involvement is also believed to foster cooperation between researcher and those who are being studied, information exchange, and commitment towards both research quality and organizational development. This situation was illustrated by Eric Trist (Fox 1990) in one of the earliest studies with the characteristics of action research, conducted in Austria by Paul Felix Lazarsfeld (1901–1976) and Marie Jahoda (1907-2001), a project on long-term unemployment in a textile village outside Vienna whose workers had become unemployed overnight. The researchers had found that in order to get access to people and relevant research information, they had to clearly show that they were doing something in the villagers' interest. In doing so they eventually changed those people's own view about the system that was believed to have caused them to be unemployed, improved their relationship with management, and eventually led workers and management through a process of cooperative solution of mutual problems.

3. ACTION RESEARCH PROCESS

Lewin described action research 'as a way of generating knowledge about a social system while, at the same time, attempting to change it' (Lewin 1945, as quoted in Hart and Bond, 1995: 13). Thereby, Lewin established two basic elements of action research - generating knowledge and changing social systems. In order to do so, Lewin proposed a cyclical process that constitutes an essential feature of every modern approach to action research (Waterman, Tillen, Dickson and Koning 2001). Lewin's process was cyclical, involving a "non-linear pattern of planning, acting, observing, and reflecting on the changes in the social situations" (Noffke and Stevenson 1995: 2). Kemmis developed a simple model of the cyclical nature of the typical action research process (Figure 1). Each cycle has four steps: plan, act, observe, and reflect.
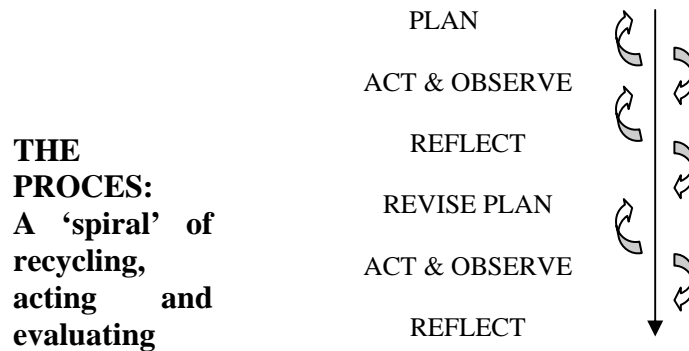
THE PROCES: A 'spiral' of recycling, acting and evaluating

PLAN

ACT & OBSERVE

REFLECT

REVISE PLAN

ACT & OBSERVE

REFLECT

Figure: 1 Simple Action Research Model

Source: *A Teacher's Guide to Classroom Research* (Hopkins 1985).

This Figure (Figure 1) is based on Kurt Lewin's work, explicated by Hopkins(1985) and Kemmis and McTaggart (1988). It is a simple: 'look, think, act', helpful model of the continuous and iterative process. It involves research and development, intellectual inquiry and practical improvement, reflection and action.
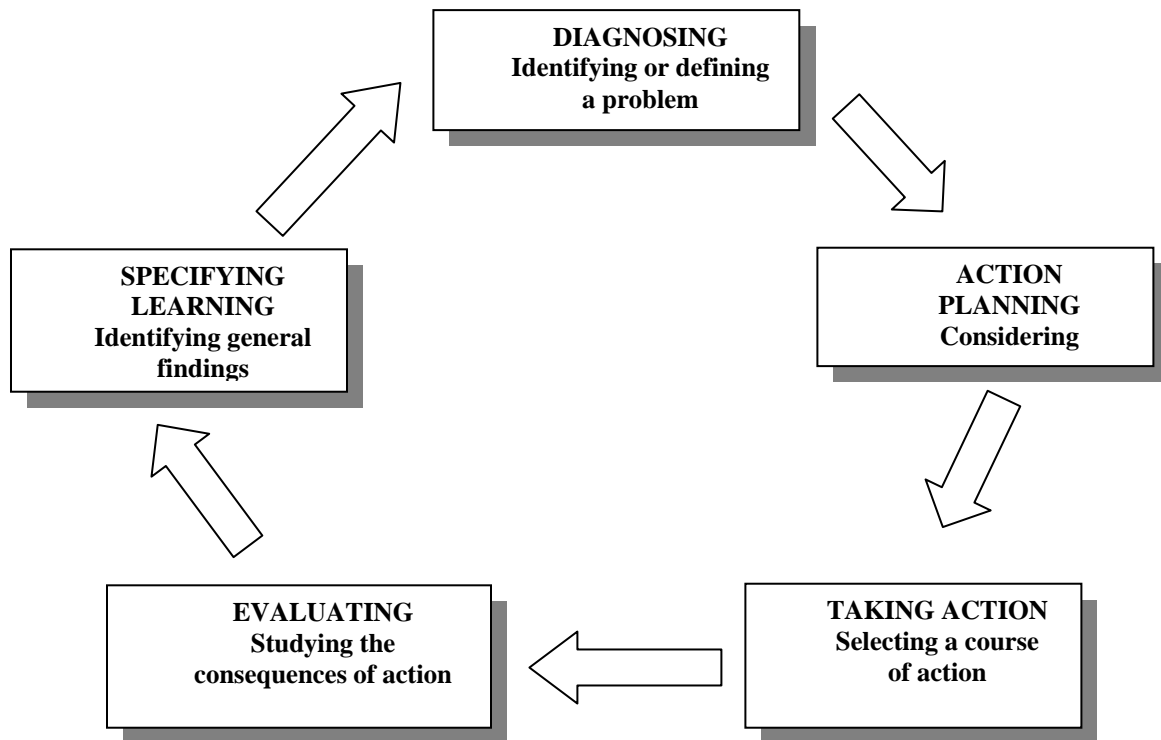
Figure: 2 Detailed Action Research Model: Action Research

Source: *A Sociotechnical Systems Perspective* (Susman 1983)

Susman (1983) gave a somewhat more elaborated listing. He distinguished five phases to be conducted within each research cycle (Figure 2). This is followed by a collective postulation of several possible solutions, from which a single plan of action emerges and is implemented. Data on the results of the intervention are collected and analyzed, and the findings are interpreted in light of how successful the action has been. At this point, the problem is re-assessed and the process begins another cycle. This process continues until the problem is resolved. Therefore, the cyclical approach was identified as one of action research's key characteristics, applying the cycle in practice is a significant challenge for most researchers and practitioners (Drummond and Themessl-Huber 2007: 433).

4. NATURE OF ACTION RESEARCH

According to Brydon-Miller, Greenwood and Maguire (2003: 11) action research is "a work in progress" research. In the action research, we are continuing to go deeper into an interesting era of discovering each

Action Research: A New Look   **24**   *By J.U. Ahmed*

other's traditions, experiences and defining cultural 'takes' on the nature of action research (Wadsworth 2006). What gives action research its unique flavour is the set of principles that guide the research. Winter (1989) provided a comprehensive overview of six key principles.

4.1 Reflective Critique

An account of a situation, for example - notes, transcripts or official documents, will make implicit claims to be authoritative, i.e., it implies that it is factual and true. However, truth in a social setting is relative to the teller. The principle of reflective critique ensures people to reflect on issues and processes and to make the interpretations, biases, assumptions and concerns explicit, upon which judgments are made (Doyle 2009). In this way, practical accounts can emerge as theoretical considerations (www.actionresearch.net; www.wikipedia.org).

4.2 Dialectical Critique

Reality, particularly social reality, is consensually validated. It is shared through language. Phenomena are conceptualized in dialogue; therefore a dialectical critique is required to understand the set of relationships both between the phenomenon and its context, and between the elements constituting the phenomenon. The key elements to focus attention are those constituent elements that are unstable, or in opposition to one another. The key elements are most likely to create changes (www.actionresearch.net; www.wikipedia.org).

4.3 Collaborative Resource

As the term suggests, it is an emerging action research approach to conducting inquiry in organisations, with the aim of "generating new insights that can simultaneously serve both action and the creation of new theoretical development" (Adler, Shani and Styhre 2004: 359). Greenwood and Levin (1998) saw this type of research-as social research carried out by a team encompassing a professional action researcher and members of an organization or community seeking to improve their situation. The principle of collaborative resource presupposes that each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants. It strives to avoid the skewing of credibility stemming from the prior status of an idea-holder. It especially makes possible the insights gleaned from noting of the contradictions both between many viewpoints and within a single viewpoint.

4.4 Risk

The change process potentially threatens all previously established ways of doing things, thus creating psychic fears among the practitioners. One of the more prominent fears comes from the risk to ego, stemming from open discussion of one's interpretations, ideas, and judgments. Initiators of action research will use this principle to allay others' fears and invite participation by pointing out that they, too, will be subject to the same process, and that whatever the outcome, learning will take place.

4.5 Plural Structure

The nature of the research embodies a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interpretations. This plural structure of inquiry requires a plural text for reporting. This means that there will be many accounts made explicit, with commentaries on their contradictions, and a range of options for action presented. A report, therefore, acts as a support for ongoing discussion among collaborators, rather than a final conclusion of fact.

4.6. Theory, Practice, Transformation

For action researchers, theory informs practice, practice refines theory, in a continuous transformation (Dick, Stringer and Huxham 2009). In any setting, people's actions are based on implicitly held assumptions, theories and hypotheses, and with every observed result, theoretical knowledge is enhanced. "Theory and practice are interlinked" (Dick, Stringer and Huxham 2009: 6). The two are intertwined aspects of a single change process. It is up to the researchers to make explicit the theoretical justifications for the actions, and to question the bases of those justifications. The ensuing practical applications that follow, are subjected to further analysis, in a transformative cycle that continuously alternates emphasis between theory and practice.

5. When Action Research is Used?

Action research is used in real situations, rather than in contrived, experimental studies, since its primary focus is on solving real problems. It can, however, be used by social scientists for preliminary or pilot research, especially when the situation is too ambiguous to frame a precise research question. Mostly, though, in accordance with its principles, it is chosen when circumstances require flexibility, the involvement of the people in the research, or change must take place quickly or holistically.

It is often the case that those who apply this approach are practitioners who wish to improve understanding of their practice, social change activists trying to mount an action campaign, or more likely, academics who have been invited into an organization (or other domain) by decision-makers aware of a problem requiring action research, but lacking the requisite methodological knowledge to deal with it.

6. SITUATING ACTION RESEARCH IN A RESEARCH PARADIGM

6.1 Positivist Paradigm

The main research paradigm for the past several centuries has been that of Logical Positivism. This paradigm is based on a number of principles, including: 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. Positivism, used in scientific and applied research, has been considered by many to be the antithesis of the principles of action research (Susman and Evered 1978; Winter 1989).

6.2 Interpretive Paradigm

Over the last half century, a new research paradigm has emerged in the social sciences to break out of the constraints imposed by positivism. With its emphasis on the relationship between socially-engendered concept formation and language, it can be referred to as the interpretive paradigm. Containing such qualitative methodological approaches as phenomenology, ethnography, and hermeneutics, it is characterized by a belief in a socially constructed, subjectively-based reality, one that is influenced by culture and history. Nonetheless it still retains the ideals of researcher objectivity, and researcher as passive collector and expert interpreter of data.

6.3 Paradigm of Praxis

Though sharing a number of perspectives with the interpretive paradigm, and making considerable use of its related qualitative methodologies, there are some researchers who feel that neither it nor the positivist paradigms are sufficient epistemological structures under which to place action research (Lather 1986; Morley 1991). Rather, a paradigm of Praxis is seen as where the main affinities lie. Praxis, a term used by Aristotle (384 BC-322 BC), is the art of acting upon the conditions one faces in order to change them. It deals with the disciplines and activities predominant in the ethical and political lives of people. Aristotle contrasted this with Theoria - those sciences and activities that are concerned with knowing for its own sake. Both are equally needed he thought. That knowledge is derived from practice, and practice informed by knowledge, in an ongoing process, is a cornerstone of action research. Action researchers also reject the notion of researcher neutrality, understanding that the most active researcher is often one who has most at stake in resolving a problematic situation.

7. TYPES OF ACTION RESEARCH

By the mid-1970s, the field had evolved, revealing four main 'streams' that had emerged: traditional, action learning (or contextual research), radical, and educational action research.

7.1 Traditional Action Research

Traditional Action Research stemmed from Lewin's work within organizations and encompasses the concepts and practices of Field Theory, Group Dynamics, T-Groups, and the Clinical Model. Lewin valued action research as a way of learning about organizations through his efforts trying to change them, to make them more responsive to employee needs. He saw action research as a way to strengthen democratic principles in the unsettled years after World War II, and this connection of action research with equality and justice has continued as the methodology has developed (Wilkinson 1996). The growing importance of labour-management relations led to the application of action research where the focus is on organisational developing solutions and organisational issues (Schein 1995), such as IT-enable change (MCDonagh and Coghlan 2001), continuous improvement (Coghlan and Coughlan 2003), and operations management (Coughlan and Coghlan 2002). This traditional approach tends toward the conservative, generally maintaining the status quo with regards to organizational power structures.

7.2. Action Learning Research

Action Learning is an approach derived from Trist's work on relations between organizations. This research, entails reconstituting the structural relations among actors in a social environment[1]; domain-based, in that it tries to involve all affected parties and stakeholders; holographic, as each participant understands the working of the whole; and it stresses that participants act as project designers and co-researchers. The concept of organizational ecology is a frame of reference for thinking about the workplace issues. It highlights a complex web of organizational factors that, in combination, influence informal communication, interaction, and learning patterns. Specifically, proposes the concepts of "dynamic constraint" and "dynamic harmony" to

---

[1] **The Lewin's Equation, $B=f(P, E)$, is a psychological equation of behavior developed by Kurt Lewin. It states that behavior is a function of the person and his or her environment.**

explain why organizational interventions involving manipulation of only social or physical factors often fail to achieve their desired objectives (http://www.onepine.info).

7.3 Radical Action Research

The Radical stream, which has its roots in Marxian 'dialectical materialism' and the praxis orientations of Antonio Gramsci (1891-1937), has a strong focus on emancipation and the overcoming of power imbalances. Other thinkers in Marxists philosophy have had recourse to the original texts of Marx and Engels and have created other Marxist philosophical projects and concepts, which present alternatives to dialectical materialism (Mercado-Martínez 2002).   Many Marxist theorists has criticized dialectical materialism including Marxist theorists and Marxist philosophers, Althusser (1918-1990) and Antonio Gramsci. They proposed a Marxist "philosophy of praxis", instead. Participatory Action Research, which is often found in liberation theology (Brydon-Miller, Greenwood and Maguire (2003) and international development circles and Feminist Action Research both strive for social transformation through new relationship, better laws, and improved institutions (Reid 2004).

7.4 Educational Action Research

A fourth stream of Educational Action Research has its foundations in the writings of John Dewey (1859-1952), the great American educational philosopher of the 1920s and 30s, whose thoughts and ideas have been greatly influential in the United States and around the world. They believed that professional educators should become involved in community problem-solving. Dewey's most significant writings were: *The Reflex Arc Concept in Psychology* (1896), a critique of a standard psychological concept and the basis of all Dewey's further work; *Democracy and Education* (1916), Dewy's celebrated work on progressive education; *Human Nature and Conduct* (1922), and a study of the role of habit in human behavior. Its practitioners, not surprisingly, operate mainly out of educational institutions, and focus on development of curriculum, professional development, and applying learning in a social context (Kemmis and McTaggart 1988). Educational action research is the busiest area of action research (Dick 2006). It was first introduced as a methodology in education research in the mid-1950s (Corey 1953). Over fifty years back, Corey (1953) sees that the scientific method in education would bring about change because educators would be involved in both the research and the application of information. Corey summed up much of the thought behind this fledgling branch of inquiry.

> "We are convinced that the disposition to study the consequences of our own teaching is more likely to change and improve our practices than is reading about what someone else has discovered about teaching." (Corey 1953: 70).

Corey believed that the value of action research is in the change that occurs in everyday practice rather than the generalization to a broader audience. He saw the need for teachers and researchers to work together. However, in the mid 1950s, action research was attacked as unscientific, little more than common sense and the work of amateurs (McFarlan and Stansell 1993). Interest in action research waned over the next few years as experiments with research designs and quantitative data collection became the norm. By the 1970s we saw again the emergence of action research. Education practitioners questioned the applicability of scientific research designs and methodologies as a means to solve education issues. Mills (2003) noted it as a systemic inquiry conducted by teachers, administrators, counselors, or others with a vested interest in the teaching and learning process, for the purpose of gathering data about how their particular schools operate, how they teach, and how students learn.

The practice of action research is again visible and seen to hold great value. It is now often seen as a tool for professional development and the improvement of classroom practice, bringing a greater focus on the teacher than before (Noffke and Stevenson 1995; Kosha 2005). It is increasingly becoming a tool for school reform, as its very individual focus allows for a new engagement in educational change. It emphasizes the involvement of teachers in problems in their own classrooms and has as its primary goal the in-service training and development of the teacher rather than the acquisition of general knowledge in the field of education Borg1981).

Carr and Kemmis (1986) argue for action research as 'critical educational science'. Therefore, in education it covers a range of activities from self-evaluation through to group collaborative research ([t] Ebbutt 1985; Kelly 1985). It is often the case that university-based action researchers work with primary and secondary school teachers and students on community projects. As Weiler (2007: 5) concludes, "the benefits of action research can exist on many levels including: political, structural, and technical aspects of teaching. Regardless of the teacher transformation or lack of it, deep self-reflection usually accompanies the process. Engaging in action research is a complex process that often leads to ambiguous results."

8. CHARACTERISTICS OF ACTION RESEARCH

Brydon-Miller, Greenwood and Maguire (2003: 11) stressed that "action research has a complex history because it is not a single academic discipline but an approach to research that has emerged over time from a broad range of fields." One main characteristic, and strength, of action research becomes clear: it suggests intervention carried out in a way that may be beneficial to the organization participating in the research study. Heikkinen Huttunen, and Syrjälä (2007:7) emphasized the importance of arriving at some measure of "goodness" of action research. Although they take a pragmatist perspective on the quality of action research, focusing on the notion of "workability" of the results of action research, the importance of ensuring quality is central to their argument: "We certainly should not take lightly the question of quality assessment" (p. 7). Similarly, Moghaddam (2007: 236) suggested, "validity refers to the reasons we have for believing truth claims." Action research recognizes that even casual observation affects a system and therefore takes this effect inside its scope (Lindoln and Guba 1985). Previous work suggests that this distinctive characteristic of action research leads to the development of a stronger linkage between organizations and research centers and to organizational development and improvement (Ledford and Susan 1993; Sommer 1987). Nevertheless, it has been the target of severe criticism from positivists, who typically view experimental and survey research as the only "valid" modes of scientific inquiry. Across the different flavours of action research, Rolfsen and Knutstad (2007) found five key characteristics of this type of research. These are:

8.1 Practical: The first characteristic simply has to do with the aim of any action research project to change the organization.

8.2 Research-based: The second characteristic makes action research different from consultancy; the work was based on the former research on teams, both in education and in the own former research projects and literature on teams.

8.3 Participatory: Thirdly, it is connected to the way of working. A participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which they believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their local

communities Cornwall and Jewkes 1995; Reason and Bradbury 2001). McTaggar(1991:172) believe that "participatory action research is concerned simultaneously with changing both individuals and the culture of the groups, institutions, and societies to which they belong"

8.4 Democratic: Fourthly, it is ideologically connected to roots as action researchers raised in the Scandinavian industrial democracy tradition (Greenwood and Levin 1998). It typically focuses on structural issues in working life and regional co-operation and development (Fricke and Totterdill 2004), while the CARPR (Centre for Action Research in Professional Practice) approach at the University of Bath, UK places its emphasis on the person engaging in the inquiry (Reason 2003).

8.5 Dialogue between insiders and outsiders: The last characteristic is based on a view that new knowledge grows out of a dialogue (Friedman and Rogers 2009) between outsiders with general knowledge, and insiders with local knowledge (Herr and Anderson 2005). Generally, action researchers are outsider who acts as facilitators of the action and reflection within an organisation. In this context, it is meaningful to talk about the action researcher and the client system such as those within the organisation who are engaging in the action research in collaboration with the external action researcher. Greenwood and Levin (1998) refer to the action researcher as the "friendly outsider". In this process, this is particularly connected to the process of redefining the content of teams, making it meaningful and useful for the different actors.

These five characteristics are closely connected to Greenwood and Levin's (1998) three-point definition of action research: action, research, and participation.

9. ETHICAL CONSIDERATIONS

Action research requires different skills and methods but also more resources and a different use of resources than conventional research (Buchy and Ahmed 2007). Because action research is carried out in real-world circumstances, and involves close and open communication among the people involved, the researchers must pay close attention to ethical considerations in the conduct of their work. Winter (1996) listed a number of principles. These are: (a) the relevant persons, committees and authorities must be consulted, and making sure that the principles guiding the work are accepted by all in advance, (b) all participants must be approved to influence the work, and the person who do not wish to participate must be respected, (c) the progress of the work must be transparent to everyone and there should be an opportunity for suggestions from others, (d) before making observations, permission must be obtained and as same as should be done before examining documents produced for other purposes, (e) before publishing descriptions of others' work and points of view the person must be negotiated with who are concerned with the process, (f) the researcher must agree to maintain confidentiality, (g) decisions made about the direction of the research and the probable outcomes are collective, (h) researchers are explicit about the nature of the research process from the beginning, including all personal biases and interests, and (i) the outside researcher and the initial design team must create a process that maximizes the opportunities for involvement of all participants.

10. CONCLUSION

This paper presents action research as a methodological approach in solving social problems. Throughout the paper, the principles and procedures of this type of research, and epistemological underpinnings along with the evolution of the practice, were described. Action research is deliberate, solution-oriented investigation that is group or personally owned and conducted. Spiraling cycles of problem identification, systematic data collection, reflection, analysis, data-driven action taken, and, finally, problem redefinition characterize it.

Finally, action research will move from the organization of enlightenment to the organization of action, through the exposure of aspects of social order, which frustrate change.

REFERENCES

Adler, N., A.B. Shani, and A. Styhre. 2004. *Collaboration Research in Organizations*. London: Sage.

Ahmed, J.U. and S.M.S. Huda. 2006. An Overview of Robert Stake, Robert K. Yin, Norman K. Denzin and Nigel Fielding's Contributions to Social Research. *SEU Journal of Business Studies,* 2 (1): 25-33.

Argyris, C., R. Putnam, and D.M. Smith. 1985. *Action Science*. San Francisco, CA: Jossey-Bass.

Bassey, M. 1999. *Case Study Research in Educational Settings*. Buckingham: Open University Press.

Baskerville, R. and T.Wood-Harper. 1996. A Critical Perspective on Action Research as a Method for Information System Research. *Journal of Information Technology*, 11 (3): 235-246.

Borg, W. 1981. *Applying Educational Research: A Practical Guide For Teachers*. New York: Longman.

Bradbury, H. and P. Reason. 2001. Conclusion: Broadening the Bandwidth of Validity: Issues and Choice-points for Improving the Quality of Action Research. In: P. Reason & H. Bradbury (Eds.) 2001, *Handbook of action research: Participative inquiry and practice* (pp. 447-456). London: Sage.

Brydon-Miller, M., D. Greenwood, and P. Maguire. 2003. Why Action Research? *Action Research,* 1 (1): 9-28.

Buchy, M. and S. Ahmed. 2007. Social Learning, Academics and NGOs: Can the Collaborative Formula Work? *Action Research*, 5 (4): 358-377.

Candlin, D.B. and S. Wright. 1991. Managing the Introduction of Expert Systems. *International Journal of Operations and Production Management*, 12 (1): 46-59.

Carr, W. and S. Kemmis. 1986. *Becoming Critical: Education, Knowledge and Action Research*. London: Falmer Press.

Checkland, P. 1981. *Systems Thinking, Systems Practice*. New York: John Wiley & Sons.

Coghlan, D. and P. Coughlan. 2003. Acquiring the Capacity for Operational Improvement: An Action Research Opportunity. *Human Resource Planning*, 26 (2): 30-38.

Coughlan, P. and D. Coghlan. 2002. Action Research for Operations Management. *International Journal of Operations and Production Management*, 22 (2): 220-240.

Cooke, B. 1999. Writing The Left Out Of Management Theory: The Historiography Of The Management Of Change. *Organization,* 6 (1): 81–105.

Corey, S.M. 1953. *Action Research to Improve School Practices.* New York: Teachers College Press.

Cornwall, A. and R. Jewkes. 1995. What Is Participatory Research? *Social Science & Medicine,* 41 (12): 1667–1676.

Dick, B., E. Stringer, and C. Huxham. 2009. Theory in Action Research. *Action Research*, 7 (1): 5-12.

Dick, B. 2006. Action research literature 2004-2006: Themes and Trends. *Action Research*, 4 (4): 439-458.

Dewey, J. 1916. *Democracy and Education*. New York: The Free Press.

Dewey. J. 1896. The Reflex Arc Concept in Psychology. *Psychological Review*, 3: 357-370.

Doyle, M. 2007. A Reflexive Critique Of Learner-Managed Learning: An Emerging Curriculum Model For A Foundation Degree. *Reflective Practice*, 8 (2): 193-207.

Drummond, J.S. and M. Themessl-Huber. 2007. The Cyclical Process Of Action Research: The Contribution Of Gilles Deleuze. *Action Research*, 5 (4): 430-448.

Easterby-Smith, M., R. Thorpe, and A.Lowe. 1999. *Management Research: An Introduction*. London: Sage.

Ebbutt, D. 1985. *Educational act Issues in Educational Qualitative Methods*. London: Falmer Press.

Elden, M. and R. Chisholm. 1993. Emerging Varieties Of Action Research. *Human Relations*, 46 (2): 121-141.

Ferrance, E. 2000. *Action Research*. Providence, RI: Northeast and Islands Regional Educational Laboratory at Brown University.

Fox, W.M. 1990. An Interview with Eric Trist, Father of the Sociotechnical Systems Approach. *The Journal of Applied Behavioural Science*, 26 (2): 259-279.

Friedman, V.J and T. Rogers. 2009. There Is Nothing So Theoretical As Good Action Research. *Action Research*, 7 (1): 31- 47.

Fricke, W. and P. Totterdill. 2004. *Action Research in Workplace Innovation and Regional Development*. Amsterdam: John Benjamins.

Grant, S. 2007. Learning through 'being' and 'doing'. *Action Research*, 5 (3): 265-274.

Greenwood, D. and M. Levin. 1998. *Introduction to action research: Social research for social change*. Thousand Oaks. CA: Sage.

Gillham, B. 2000. *Case Study Research Methods*. London: Continuum.

Gilmore, T., J. Krantz, and R. Ramirez. 1986. Action Based Modes Of Inquiry And The Hostresearcher Relationship. *Consultation*, 5 (3): 160-176.

Gustavsen, B. 2008. Action Research, Practical Challenges And The Formation Of Theory. *Action Research*, 6 (4):421-437.

Gustavsen, B. 1993. Action Research and the Generation of Knowledge. *Human Relations*, 46 (11): 1361-1365.

Herr, K. and G.L. Anderson. 2005. *The Action Research Dissertation*. Thousand Oaks: Sage.

Hart, E. and M. Bond. 1995. *Action research for health and social care: A guide to practice*. Buckingham: Open University Press.

Heron, J. 1996. *Co-operative inquiry: Research Into The Human Condition.* London: Sage.

Heikkinen, H.L.T., R. Huttunen, and L. Syrjälä. 2007. Action Research As Narrative: Five Principles For Validation. *Educational Action Research*, 15 (1): 5-19.

Hopkins, D. 1985. *A Teacher's Guide to Classroom Research*. Philadelphia: Open University Press.

Kelly, A. 1985. Action Research: What Is It And What Can It Do? In: R. G. Burgess (Ed.). 1985, *Issues in Educational Research: Qualitative Methods*. London: Falmer Press.

Kelly, L.C. 1983. *The Assault On Assimilation*. Albuquerque: University of New Mexico.

Kemmis, S. and R. McTaggart. 1988. *The Action Research Planner*. Victoria, Australia: Deakin University Press.

Kock Jr., N.F. and R.J. McQueen. 1995. Integrating Groupware Technology into a Business Process Improvement Framework. *Information Technology & People*, 8 (4): 19-34.

Kock Jr., N.F., R.J. McQueen, and C.T. Fernandes. 1995. Information Systems Research in Organisations: An Action Research Approach. *Brazilian Journal of Contemporary Management*, 1 (4): 155-175.

Kosha, V. 2005. *Action Research For Improving Practice: A Practical Guide*. London: Paul Chapman.

Lather, P. 1986. Research as Praxis. *Harvard Educational Review*, 56 (3): 257-77

Ledford, G.E. and A.M. Susan. 1993. Looking Backward and Forward at Action Research. *Human Relations*, 46 (1): 143-173.

Lewin, K. 1946. Action Research and Minority Problems. *Journal of Social Issues*, 2 (4): 4-46.

Lincoln, Y.S. and E.G. Guba. 1985. *Naturalistic Inquiry*. Beverly Hills, CA: Sage.

Marshall, C. and G.B. Rossman. 1995. *Designing Qualitative Research*. Newbury Park, CA: Sage.

Mason, J. 1996. *Qualitative Researching*. London: Sage.

McDonagh, J. and D. Coghlan. 2001. The Art of Clinical Inquiry in IT-enabled Change. In: P. Reason and H. Bradbury (Eds.). 2001, *Handbook of Action Research,* 372-378. London: Sage.

McTaggart, R. 1991. Principles for Participatory Action Research. *Adult Education Quarterly*, 41 (3): 168–187.

Mercado-Martínez, F.J. 2002. Qualitative Research in Latin America: Critical Perspectives on Health. *International Journal of Qualitative Methods*, 1 (1): 61-73.

Mills, G. 2003. *Action Research: A guide for the teacher researcher*. Upper Saddle River, NJ: Merrill/Prentice Hall.

Miller, P. and N. Rose. 2001. The Tavistock Programme: The Government Of Subjectivity And Social Life. In: M. Wetherell, S. Taylor, and S.J. Yates (Eds.). 2001, *Discourse theory and practice* (pp. 158–165). London: Sage.

Moghaddam, A. 2007. Action Research: A Spiral Inquiry For Valid And Useful Knowledge. *Alberta Journal of Educational Research*, 53 (2): 228-239.

Morgan, G. 1983. *Beyond Method: Strategies for Social Research.* Thousand Oaks: Sage.

Noffke, S.E. and R. B. Stevenson. 1995. *Educational Action Research: Becoming Practically Critical*. New York: Teachers College Press.

Phillips, E.M., and D. S. Pugh. 1994. *How to Get a PhD*. Milton Keynes: Open University Press.

Philp, K.R. 1977. *John Collier's Crusade for Indian Reform*, *1920–1954*. Tucson: University of Arizona Press.

Peters, M. and V. Robinson. 1984. The Origins and Status of Action Research. *The Journal of Applied Behavioral Science,* 20(2): 113-124.

Rapoport, R.N. 1970. Three Dilemmas in Action Research. *Human Relations*, 23 (6): 499-513.

Reason, P. 2003. Action Research and the Single Case: A Reply to Bjorn Gustavsen and Davydd Greenwood. *Concept and Transformation*, 8 (3): 281-294.

Reason, P. and H. Bradbury. 2001. *Handbook Of Action Research*: *Participative Inquiry And Practice*. London: Sage.

Reid, C. 2004. Advancing Women's Social Justice Agendas: A Feminist Action Research Framework. *International Journal of Qualitative Methods*, 3 (3): 1-22.

Rolfsen, M., and G. Knutstad. 2007. Transforming Management Fashions Into Praxis: Action Research Project In Auto Parts. *Action Research*, 5 (4): 341-357.

Schein, E.H. 1995. Process Consultation, Action Research and Clinical Inquiry: Are they the Same*? Journal of Managerial Psychology*, 10 (6): 14-19.

Shaw, I.F. 1999. *Qualitative Research*. London: Sage.

Silverman, D. 2000. *Doing Qualitative Research: A Practical Handbook.* London: Sage.

Sommer, R. 1987. An Experimental Investigation of the Action Research Approach. *The Journal of Applied Behavioral Science*, 23 (2): 185-199.

Susman, G. 1983. Action Research: A Socio-Technical Systems Perspective. In: Morgan, G. (Ed.). 1983, *Beyond Method: Strategies for social research*, 95-113. Newbury Park: Sage.

Wadsworth, Y. 2006. Roots of Action Research and Self-Reliance Thinking in Rabindranath Tagore: A Prologue. *Action Research*, 4 (2): 227-229.

Wadsworth, Y. 1997. *Do It Yourself Social Research* (2nd Ed.). Crows Nest, NSW: Allen & Unwin.

Waterman, H., D. Tillen, R. Dickson, and K. de Koning. 2001. Action Research: A Systematic Review and Guidance for Assessment. *Health Technology Assessment*, 5 (23): Executive Summary.

Weiler, J. 2007. Who Gets It?: Engaging In Action Research In Zimbabwe. *Action Research*, 5 (2): 139-159.

Wilkinson, M.B. 1996. *Action Research for People and Organizational Change.* Brisbane: Queensland University of Technology.

*****