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## **Notes for Contributors**

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Tables, illustrations, tables and captions should accompany all papers. However, these should be kept to a minimum.

**THE NATURE OF ACTION RESEARCH AND THE VARIETY OF USES TO WHICH IT CAN BE PUT IN TEACHER EDUCATION IN ZIMBABWE.**

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**ABSTRACT**

*This article reviews literature on Action Research with the objective of establishing the rationale and purposes served by Action Research in Teacher Education Programmes. The major characteristics of Action Research are highlighted as a means of sensitising student-teachers, teachers and teacher educators in Zimbabwe to the need to exploit the opportunities for systematic self-study offered through Action Research. In addition, the relevance of Action Research to project work in teacher preparation in Zimbabwe is brought to the fore.*

**1.0 Introduction**

Action research aims at obtaining precise knowledge for a particular situation and purpose. In education, action research can be undertaken by: a classroom teacher who wants to improve the teaching-learning situation; teachers who work cooperatively within a school and teachers working alongside researchers in a sustained relationship (Cohen and Manion, 1994).

The main purpose of action research is the enhancement of professional development in the school situation. According to Hopkins (1985:41), action research is capable of making teachers "increasingly competent and autonomous in professional judgement." Through reflective study of their everyday activities, teachers improve their own practice by using action research as disciplined enquiry. Rudduck (1985:293) asserts that:

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Research offers a way of structuring a familiar situation that allows the teacher to explore in depth, gain new insights, set new goals and achieve new levels of competence and confidence. In this way the teacher has a sense of professional progress that he or she is making.

Rudduck goes further to say that research generates professional excitement and liberates curiosity. All this goes a long way to bringing about improvement which implies change for the better in the teachers' professional development and curriculum development, rather than it being done by outsiders.

Ebbutt and Elliot (1985) in Wallace (1987) consider action research as a "button-up" rather than 'top-down' view of teacher development. This means that teachers should be regarded as having greater control and, therefore, contributing more to what is considered as valid educational knowledge. In the case of student teachers, once they are exposed to action research during pre-service training, we can be almost certain that research would then become part of them and excite them as they reflect upon their practice in pursuing their teaching career.

This paper seeks to examine the nature of action research and how this knowledge can be used in teacher education in an effort to develop skills to undertake this type of research which helps in bridging the gap between theories learnt at college and actual classroom practice.

### 2.0 Defining Action Research

Action research is not a method or technique but an approach with a practical and problem solving emphasis. It is carried out by practitioners, with or without the assistance of outsiders, in order to gain greater understanding of their own practice over a period of time (Bell, 1987). Action research has proved particularly attractive to educators because of its practical nature. Halsey (1972) in Wallace (1987:98) defines action research as "a small scale intervention in the functioning of the real world. ....and the close examination of the effects of such interventions." This implies that by intervening, teachers become learners since they take the

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responsibility of investigating their own practice with the aim of improving personal theories (McNiff, 1993).

Carr and Kemmis (1986:164) present the agreed upon definition on action research as:

Educational action research is a term used to describe a family of activities in curriculum development, professional development, school improvement programmes and systems planning and policy development. These activities have in common the identification of strategies of planned action which are implemented, and then systematically submitted to observation, reflection and change. Participants in the action being considered are integrally involved in all of these activities.

Action research, here, is viewed as a voluntary activity undertaken by a practitioner who has to be fully involved in order to improve the educational enterprise. According to Kemmis (1986) in Wood (1988:137), action research is: a participative and collaborative process.... others cannot action research our practices, understandings and situations for us, we can only action research ourselves.

This means that actual practice is an indispensable component of action research. Through self-reflection, teachers get to know themselves better.

There are many terms which are linked to action research and these include teacher as researcher, self-monitoring teachers, teaching as research and reflective practitioner. These terms reflect a break from the traditional transmission style in which the teacher delivers content through chalk and talk and through the 'apprentice model' in teacher education (Lucas, 1988). This leads us to a historic review of action research and a brief comparison between traditional research paradigms and action research as an ideal approach for educators.

### 3.0 The Origin of Action Research

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According to Wallace (1987:99), action research originated in the United States and was possibly coined by Collier (1945) who used research to inform action aimed at improving the quality of life for the Indian community. Collier believed that through collaborative enterprise where scientists, administrators and lay people worked together in quick responses to real needs, more was learnt than "what would have been the case through detached specialised science which did not involve all partners." The idea of action research was further developed by Kurt Lewin who also emphasized the principle of collaboration to overcome a sense of isolation. Carr and Kemmis (1986) describe Lewin's process of action research in terms of a spiral of steps, each of which is composed of a circle of planning, fact-finding and execution.

Lewin's ideas spread rapidly and Corey, Dean of Teachers' College, Columbia University, encouraged educational practitioners to undertake action research to improve their own practices. Corey, in Wallace (1987) asserts that the teacher does not have to read about these practices but engages in them and learns from what he does. In Britain, the Humanities Curriculum Project (HCP) prepared the way for the development of action research. Stenhouse (1975) the project director, did much to promote the idea of teacher as researcher, where focus shifted from the institution into the classroom (McNiff, 1993).

The teacher as researcher model influenced Elliot and Adelman, directors of the Fort Teaching Project, who collaborated with teachers attempting to explore their practices. According to Elliot and Adelman (1976) in Wallace (1987:104): the fundamental aim of this new conception of action research was both to contribute to an understanding and solution of the practical problems faced by teachers and to the development of a theory of teaching.

This kind of thinking, which emanated from Stenhouse's work, can be viewed as a paradigm shift in research on teaching. "Interest centred on the practices of teachers, and there was an initiative to take the lid off the black box of teachers' practices" (Eggleston et al 1976 cited by McNiff, 1993:15). By engaging in their own research, teachers develop their professional

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judgement and move towards emancipation and autonomy (Hopkins, 1985).

The paradigm shift was a welcome innovation from the dominant process-product linear approach whereby change was introduced by external agents.

Keiny and Dreyfus (1989) see this emerging paradigm as being based on the teachers' role in bringing about innovations in the context and practice of teaching according to specific needs conceived by teachers. Hopkins (1985:24) says that the teacher as researcher movement stands in direct contrast to the contemporary approach to education which tends to equate school to factories which operate on a rational input-output basis, with pupils as raw materials, teachers as mechanics, the curriculum as the productive process and the school leaders as factory managers.

This traditional paradigm, according to Hopkins, was inappropriate in helping teachers to improve their teaching.

Stenhouse's contribution in the Humanities Project was highly original in that he developed a curriculum which addressed teachers as pragmatic sceptics rather than rational adopters. Elliot (1987:162) suggested that teachers could handle controversial issues using the following procedural principles.

- (a) Discussion rather than instruction should be the core activity in the classroom.
- (b) Divergence of view should be protected.
- (c) Procedural neutrality should be the criterion governing the teacher's role.
- (d) Teachers have responsibility for quality and standards in learning.

Basing on the above principles, teachers collected data which they used for formulating and testing hypotheses. Teachers were encouraged to share and generate hypotheses collaboratively since, Stenhouse argued, work in school involved groups. The Humanities Project contributed significantly to the

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development of teachers as researchers model in which teachers develop themselves and the curriculum by means of cycles of action research (Elliot, 1987).

### 4.0 Characteristics of Action Research

#### 4.1 Action research as a participative and collaborative process

There are two general approaches to action research, namely, individual and collaborative (Wood, 1988). Although a teacher who works alone might have the advantage of doing the research at a time most productive and convenient, he or she has to draw on his or her resources and experiences. In Zimbabwe, where action research is still in its infancy, teachers might as well begin by collaboratively devising strategies for emancipating themselves from "structures of domination" (Elliot 1987:164). According to Carr and Kemmis (1986), emancipatory action research is the only true action research. Cooperation is a necessity according to Slavin et al (1989), who point out that from the promotive groups to the modern corporate boardroom, those who succeed are the ones who can solve problems while working with others.

Advocates of action research emphasise and encourage cooperation since it is felt that not much can be achieved by one person involved in changing his or her ideas and practices (Cohen and Manion, 1994). According to Wood (1988:137), collaborative action research is based on the underlying assumptions that:

- teachers work best on problems they have identified for themselves.
- teachers become more effective when encouraged to examine and assess their own work and then consider ways of working differently.
- teachers can help each other by working collaboratively.

By receiving the critical perspectives of their colleagues, Wood suggests that teachers broaden the awareness of their options and possibilities.

Collaboration is viewed as being capable of providing teachers with the

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necessary moral support and encouragement that they need to reduce the feeling of isolation.

Elliot (1987) says institutionalisation and utilisation of action research in schools helps to reduce the dependence of teacher groups on external facilitators. If facilitation responsibilities are given to school based staff who are trained action researchers, as they reflect upon their practices they also start to refine the theory of action research. This means that for effective collaboration to take place, senior teachers have to be trained in action research techniques. This is a challenge to teacher educators in Zimbabwe to mount in-service courses on action research for school heads and mentors so that they can collaborate meaningfully with student teachers on teaching practice as they carry out their CDS projects.

By working collaboratively, teachers set a good example for student teachers and this helps them to gain deeper understanding of what group work feels like in the classroom. Lucas (1988:65) says that:

Teachers should learn to work in groups if they wish their pupils to do the same because by working through problems in groups it is possible to foresee the hurdles that pupils come up against.

Lucas further suggests that inter-personal relationships should become an essential element in the learning of student teachers whose programmes emphasise an inquiry perspective. The dialogical nature of action research provides the ongoing support and encouragement that teachers need in order to remain dedicated to their projects. Action research as a methodical, professional approach to classroom improvement has to be supported by the relevant institutions and each teacher involved has to do it and talk about it if he or she wants to understand its power and possibilities for use (McNiff, 1993).

Action research enjoys the benefits of sharing, which is an important element in professional development. Wallace (1987:105) says that:

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Action research is the process through which teachers collaborate in evaluating their practice jointly, raising awareness of their personal theory; articulating a shared conception of values; ...recording their work in a form which is available to and understandable by other teachers; and thus developing a shared theory of teaching by researching practice.

Because teachers' problems are often shared with other teachers, action research has tended to become cooperative. Group interaction is regarded as an important characteristic of action research. According to Cohen and Manion (1994:192), improvement of practice is only possible when teachers change their attitudes and behaviour, and one way to bring about this change is through "pressure from the group with which one works". Many teachers involved in action research meet regularly in support groups to refine their research techniques (Wood, 1988). Through group discussions, unforeseen consequences of the research are clarified as the individual explains his or her thinking about the project (Kemmis and McTaggart, 1988).

### 4.2. The cyclical phases of action research

Kemmis (1981) in Wood (1988:136) identifies four cyclical 'moments' or steps necessary in undertaking action research as follows:

- to develop a plan of action to improve what is already happening;
- to act to implement the plan;
- to observe the effects of action in the context in which it occurs; and
- to reflect on these effects as a basis for further planning; subsequent action and so on, through a succession of cycles.

The above phases of planning, acting, observation and reflection should be seen as cyclical, dynamic and changing. These moments should not be viewed as independent of one another, but should be seen as steps in a

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spiralling sequence of action research. The spiral of cycles helps in bringing about the immediately desired change unlike in the traditional research approach. According to Cohen and Manion (1994:192):

the step-by-step process is constantly monitored....so that the ensuing feedback may be translated into modifications, directional changes, redefinitions, as necessary, so as to bring about lasting benefit to the ongoing process itself as is the purpose for more traditionally oriented research.

The above quotation indicates the ongoing nature of action research. Data collected may generate further hypotheses and modified principles etc, as the practitioner moves towards greater understanding and improvement of practice (Bell, 1987). In action research there is immediate application of findings, unlike in the traditional approach where research results gather dust on the library shelves. This makes action research a suitable procedure in improving classroom work.

The nature of the phases of action research gives it significant characteristics of flexibility and adaptability (Cohen and Manion, 1994). These qualities are reflected in the changes that may take place during the implementation of action research. However, for there to be smooth movement round the spiral, the researchers's concerns need to be particularly narrow (Ashcroft and Griffiths, 1989). This implies that topics for action research should be specific, clearly identified and not too ambitious. Immediate evaluation and long term reflection can only be possible when the researcher takes up a small scale topic which is viable and intrinsically motivating.

Another important feature of action research is that the task is not finished when the project ends. The participants continue to review, evaluate and improve practice. According to Carr and Kemmis (1986:185):

a single loop of planning, acting, observing and reflecting is only a beginning: if the process stops there it would not be regarded as action research at all.

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The four steps of action research, which should be taken as moments in a spiralling sequence, are discussed below.

### 4.2.1 The Plan

In action research plans for action should be designed to be flexible and not rigid and unchanging. During this planning stage the teacher identifies the action and activities which might lead to an improvement in a given context. If the research topic is a simple and straight forward question, the plan of action to be developed "should encourage the teacher to think and act beyond her present constraints and past solutions" (Wood, 1988:139). Teachers should collaborate during the planning process so as to clarify the research question and to broaden the planning options. Carr and Kemmis (1986), who talk of the essential dialectic relationship between retrospective explanation and prospective, suggest that the plan is prospective to action and is retrospectively constructed on the basis of reflection. The nature of action research is such that it consists of a self-reflective spiral whereby individuals and groups conducting the research are committed to changing the world. This is much more than the positivistic and interpretive approaches which merely seek to understand the world. In action research, each of the four moments "looks back" to the previous moment for justification, and "looks forward" to the next moment for its realisation" (Carr and Kemmis, 1986:186).

### 4.2.2 Action

During this phase, the initial plan is put into action. In the case of a teacher running into unexpected problems, the plan may have to be altered. The plan being applied should produce some change in the teacher's classroom practice and should bring an understanding of the current situation. Carr and Kemmis (1986) regard action as essentially risky but once again retrospectively guided by past reflection and prospectively guided toward the next phase, which is observation. The critical thinking that goes on helps the researcher to evaluate problems and effects to the action and therefore safeguard him or her from groping in the dark.

### 4.2.3 Observation

In action research, the investigator does not only observe lessons, but takes action on what is witnessed. Wragg (1994) says there are two principal types of action research, whose distinction is diffuse, where observation plays a role. The first type is largely "rational - reactive" whereby the researcher focuses on a particular problem in the classroom. The teacher then draws a programme to react to what has been discovered.

The second type is more intuitive-proactive' whereby the teacher thinks he or she knows what needs to be done and then implements an intervention programme. Classrooms are then visited so as to observe how well the new programme is progressing. In curriculum development, the proactive kind of action research is often used. Teachers feel that they know intuitively what needs to be done, so they use their imagination to devise a new programme and then carry out action research after the innovation to find out what happened. "This research is usually based on someone's bright idea for improvement, often on intuitive grounds" (Wragg 1994:112)

Observing what is happening and recording these results is vital for the reflection phase. Observation 'looks back' on the action being taken and is prospective to the next moment in the cycle, which is reflection (Carr and Kemmis, 1986). Observation, according to Hopkins (1985), appears to be the pivotal activity that plays a vital role of linking together the reflection for the individual teacher and the collaborating groups of teachers undertaking action research.

Classroom observation can be done by making notes, tape and video recordings, slides, photographs, checklists, observing pupils' exercise books etc. A fellow member of the action research team could be asked to come and observe lessons and then make his or her own notes and recordings which can later be discussed with the researcher. Student teachers can use tape recordings since they are cheap, convenient and reliable. One way of observing changes that have occurred in an action research project is by

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keeping a diary or daily journal. Zeichner, in Wood (1988) says that the journal should record changes in the teacher as a practitioner and in action research work itself. The journal is important for reflection purposes since it enables the teacher to recall exactly what happened. Other forms of data collection include the interview and questionnaires.

The fact that action research relies heavily on observation and behavioural data makes it empirical in nature. Although it is eclectic in the choice of methodology, action research is more qualitatively oriented because of its emphasis on observation and interviews (Wallace, 1987). According to Cohen and Manion (1994:192):

information is collected, shared, discussed, recorded in some way, evaluated and acted upon and that from time to time, this sequence of events forms the basis of reviews of progress.

The above quotation shows that action research is a more relaxed approach whereby methods of collecting data cannot be prescribed as in experimental research. An example can be given of an infant class where the teacher can start action research on assessing the effectiveness of using group work to promote active learning. Such a research can change to a focus on the effects of lack of communication skills to express ideas during collaborative learning.

### 4.2.4 Reflection

Walker (1989:3) says that:

Reflection is an important human activity in which people recapture their experience, think about it, mull over it, and evaluate it. It is this working with experience that is important in learning.

Since action research provides a learning experience for teachers, reflecting on action that has occurred helps them to understand what happened and why it happened that way. Teachers need to collaborate during this phase in order to get a wider range of ideas on whether to design a new plan of action

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or to alter the current plan until it is felt that change has occurred. Once the self-reflective spiral of cycles of planning, acting, observing and reflecting is completed, then there is replanning, further action, further observation and further reflection (Carr and Kemmis, 1986).

It is not possible to exhaust all the qualities of action research in this discussion. What is important to note is that, as its name suggests, action and research are integrated and take place simultaneously (Cohen and Manion, 1994). Bless and Higson-Smith (1995) say that action research is an ongoing process whereby research guides and evaluates action while action keeps research relevant, initiates further research and implements research findings. This implies that action research is an ongoing learning experience for those participating in it.

### 5.0 How action research can be used in Teacher Education

Teacher educators in Zimbabwe are faced with a challenge to cultivate a conception of critical thinking derived from Habermas (Carr and Kemmis, 1986). These two authors go further to say that practice is informed, committed action, namely, praxis. This means that the practitioner has to make wise judgements since action research might transform and inform the practical theory' which initially informed it. This philosophy seems quite relevant to teacher education in Zimbabwe where student teachers should be trained never to sheepishly accept all the theories learnt without being critical. According to Ashcroft and Griffiths (1980:136): students must learn to use a variety of observation and research techniques to enable them to monitor and reflect on their own and other people's actions.

This implies that student teachers must be taught action research in order to inculcate the skills, attitudes and understanding necessary for reflective teaching. Rudduck (1985) suggests that the theory-practice debate in teacher education should seriously consider research as a powerful and natural bridge between the two. By bridging the knowledge-action gap, action research leads to professional and personal development of teachers.

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The Curriculum Depth Study (CDS), in the primary teachers' colleges in this country, provides fertile ground for student teachers on teaching practice to carry out action research. Unfortunately this is hampered by several constraints. One of them is that lecturers lack experience and expertise in action research, except a few who had access to higher degree programmes recently. As a result, such lecturers who have not had exposure to action research cannot effectively supervise CDS unless they first do in-service training so that they begin to appreciate the need for teacher as researcher approach in improving practice. The Department of Teacher Education could do well by mounting workshops where lecturers would get a deeper understanding of action research so that they adopt the reflective teaching approaches in order to pass on the same skills to their students.

That there is not much being done about action research here in Zimbabwe was revealed by Professor Gebeda, the external examiner for Nyadire Teachers' College in 1997, when he commented that:

Action research does not seem to be understood well yet. This is not unique to Nyadire but general in tertiary education at this stage (p4).

This means that deliberate efforts should be made in all teachers' colleges in order to expose students to action research. There is need to revisit the Professional studies Syllabuses A, B, and C in primary colleges so as to inject the component of action research in its true manner. This can be done by including a topic on action research in PSA so that it can then be focused on in various subject areas where CDS is carried out. Since CDS is now the only project in most primary teachers' colleges, there is need to pay more attention to it and to give it its rightful place.

Action research can be used to close what Hopkins (1985) refers to as the performance gap between what is and what could be. This gap between curriculum in action and curriculum as intention can be illustrated by the following six questions:

- What did the pupils actually do?

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- What were they learning?
- How worthwhile was it?
- What did I do?
- What did I learn?
- What do I intend to do now? (Hopkins, 1985:48)

By critically reflecting on their teaching, basing on the above questions, student teachers can come up with topics for CDS which can be conducted as an action research which leads them to improve on their existing behaviours towards a desired change. Rudduck (1985) in Lucas (1988:56) suggests that "a teacher needs to make the everyday job problematic by looking at it with fresh eyes". Action research can therefore be said to be a useful transition from the traditional mechanical way of imparting knowledge to a habit of reflection-on-action which results in better decisions and better actions. Once attitudes and habits supportive to research have been developed, student teachers will tend to continue to take action research as part and parcel of their solutions to immediate problems after they have completed their pre-service training. Taken in this light, action research can be said to enhance the status of the teaching profession.

According to Cohen and Manion (1994:194) action research is appropriate "whenever specific knowledge is required for a specific problem in a specific situation; or when a new approach is to be grafted onto an existing system".

Cohen and Manion go on to propose several occasions when action research can be used as an appropriate method in the classroom or school situation. These include teaching methods; learning strategies; evaluative procedures; attitudes and values; and in-service development of teachers. All these suggested areas are quite relevant in teacher education in Zimbabwe, where student teachers, qualified teachers, lecturers and administrators can undertake action research to improve their practice.

## 6.0 Conclusion

In this discussion, it has been proposed that the nature of action research is such that it enhances the teacher's personal and professional development. This is echoed by Noffke (1997:306) who says that personally, action research leads to:

greater self knowledge and fulfilment in one's own practice and development of personal relationships through researching together.

By examining and reflecting on their practices teachers become more actively involved in their professional development.

A lot still has to be done in teacher education in Zimbabwe so that lecturers, student teachers and qualified teachers get more involved in action research. The process of critical enquiry should permeate the professional and personal lives all those involved in teacher education so that they continue to enjoy the benefits of action research as a life long learning experience through teamwork. The aim of teacher education should be to create what Carr and Kemmis (1986:184) refer to as "a self critical community of action researchers who are committed to the improvement of education...."

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