JAQMER
journal of action qualitative & mixed methods research
Volume 4, Number 1, 2025
Eylem Magazine Qualitative & Mixed Methods Research (JAQMER)

Editorial

Experimental action research as the preferred methodology in social, behavioral, health and human sciences

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To cite this article:

Gunbayi, I. (2025). Experimental action research as the preferred methodology in social, behavioral, health and human sciences. *Journal of Action Qualitative & Mixed Methods Research,* Volume 4 (Issue 1), 1-12
DOI: 10.5281/zenodo.17491395

www.jaqmeronline.com

Article Information: *Received: February 20th, 2025 Revised: March 7th, 2025 Accepted: March 17th, 2025*

Abstract. The aim of this editorial is to reveal that experimental action research (EAR) is more suitable than randomized controlled experimental trials (RCTs) for social sciences, nursing, midwifery application, behavioral, health and human sciences. In this editorial based on philosophy and methodological perspectives of Guba (1981), Lincoln & Guba (1985), Habermas (1987), Gunbayi & Sorm (2018), Whitehead & Schneider (2013), Gunbayi (2020a,b), Lewin (1946) and Marrow (1969), the positivist philosophy underlying RCTs is criticized, and it is claimed that action research is much more related contextually and appropriate in terms participants and ethics. This editorial is based on the analysis of mixed methods research, social paradigms, knowledge constitutive interests and EAR and supports the claims that EAR is much more suitable for the complexity of human centered disciplines.

Keywords: Action research, randomized controlled trials, social, behavioral, health and human sciences

Introduction

Research methodologies precede methodology and shape the way knowledge is produced and understood across different disciplines. The dominant positivist approach, as seen in RCTs, emphasizes objectivity, control, and generalizability (Cohen, Mannion, & Morrison, 2018). However, such methods may fail to reveal the complexities of human behavior and social interactions, particularly in fields such as social sciences, nursing, midwifery, and human sciences. In contrast, action research based on constructivist and interpretive paradigms enables practical problem solving and engagement of participants.

Due to its ability to establish a bridge between theory and practice and promoting the engagement of participants, EAR has emerged as a preferred methodology in social, behavioral, health and human sciences disciplines. Rooted in the studies of Lewin (1946), action research is a cyclical and iterative approach, combining doing experiments and problem solving in real life contexts. Different from classical experimental study, EAR generally isolating variables in controlled settings put forward cooperation with stakeholders to develop and apply interventions related to complex social and health problems (Reason & Bradbury, 2008).

In behavioral sciences, action research has gained priority in encouraging to plan changes of behavior and social transformation (Kemmis & McTaggart, 2005). Similarly, this methodology has been widely accepted to improve patient check-in outputs and health care services via participatory and iterative strategies (Baum, MacDougall, & Smith, 2006). Being considered applicability and priority on practical

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and hermeneutic interests, experimental action research (EAR) is consistent with the fact and increasing popularity that scientific research should be both rigid and sensitive to social needs.

This editorial inquiries about the importance of EAR as the preferred methodology in the fields of social, behavioral, health and human sciences and scrutinize epistemological basis, methodological principles and practical applications. Scrutinizing basic studies and theoretical perspectives, the influence of EAR on future studies and applications are discussed while emphasizing the cons and pros of EAR:

Methodology

This article uses a qualitative descriptive analysis based on literature review, which represents a subtype of systematic review methodology. An interpretive paradigm-based literature review is often defined as a systematic approach to identifying, collecting, and synthesizing existing research (Gunbayi, 2020b; Baumeister & Leary, 1997; Cooper, 1998). Therefore, the purpose of this article is to explore the limitations of RCTs and present a persuasive approach for the acceptance of EAR as the preferred methodology based on subheadings:

1. Positivism and hermeneutics: Theoretical foundations,
2. Social paradigms and research design,
3. Experimental action research in mixed methods approaches,
4. Limitations and applications of randomized controlled trials,
5. Ethical and practical advantages of action research.

Results

Based on a literature review of EAR as the preferred methodology in social, behavioral, health and human sciences, this chapter covers positivism and hermeneutics: theoretical foundations, social paradigms and research design, EAR in mixed methods approaches, limitations of randomized controlled trials, and the practical and ethical advantages of action research.

Positivism and hermeneutics: Theoretical foundations

Lincoln & Guba (1985), criticize positivism, due to its approach of not being humanist as it considers participants as subjects. They claim that action research with anti-positivist methodology considers interactive and humanist sides of social research. Similarly, Habermas (1987) distinguishes technical, practical/ hermeneutics and emancipatory knowledge constitute interests and claims that positivist and post-positivist methods prioritize technical control apart from practical and emancipatory interests which are very important in social and health sciences.

The debate between positivism and interpretivism takes place in the center of philosophical debates on research paradigms in human sciences, social sciences and health sciences. While positivism is based on empirical observation and quantification and seeks objective realities, constructivism prioritizes subjective meanings and human experiences (Lincoln & Guba, 1985). The difference between those paradigms is especially important in disciplines such as social research and the study health services in which social interaction and contextual complexities are searched through empirical approaches (Guba & Lincoln, 1994; Habermas, 1987).

Positivism is based on scientific universal realities and experiments originating from the studies of Auguste Comte ([1848] 2009) in which he claimed that the application of scientific methods just as in natural sciences should be adopted to social sciences. According to positivism the best way of getting knowledge is by means of observable realities, randomized controlled experiments or trials and statistical analysis (Bryman, 2016).

The basic principles of positivism can be outlined below:

- Objectivity and generalizability: The research should be objective, free from the researcher's bias and aim to uncover universal laws.
- Causality and deductive reasoning: Causal relationships can be established through structured methods, such as randomized controlled trials (RCTs).
- Quantitative methods: Surveys, experiments, and standardized measurements are preferred to produce reliable and reproducible results (Cartwright, 2011; Cohen et al., 2018; Durkheim, [1895] 1982).

However, opponents argue that positivism reduces human experiences to mere variables and ignores the contextual, social, and cultural dimensions of behavior (Guba, 1981; Lincoln & Guba, 1985). Especially in health and education sciences, the point of view of positivism is unable to take cultural effects and ethical issues into consideration (Greenhalgh, et all, 2014).

Interpretivism has emerged as a critic of positivist reduction in terms of emphasizing the constructivist nature of subjective and social worlds. Interpretivist researchers claim that human behaviors are shaped by means of beliefs and social interaction, which cannot be apprehended via hard data and objective methods of positivism adequately (Weber, 1949).

The basic principles of interpretivism can be outlined below:

- Socially constructed reality: Knowledge is shaped by individual and cultural interpretations rather than universal laws.
- Understanding instead of predicting: The goal of research is to understand experiences rather than just predicting behavior.
- Qualitative methods: Methods such as ethnography, phenomenology, narrative analysis and case studies are essential for capturing human experiences in depth (Berger & Luckmann, 1966; Denzin & Lincoln, 2018; Guba, 1981; Guba & Lincoln, 1994).

Interpretivism aligns with critical and emancipatory paradigms, such as action research, emancipatory and participatory research and critical discourse analysis, which aim to empower individuals and communities (Freire, 1972). Scholars like Habermas (1987) emphasize that social research should also serve emancipatory interests, allowing individuals to challenge power structures rather than just being the subject of study.

Habermas (1987) presents a tripartite model of knowledge, arguing that positivism is limited to technical control and interests, while human inquiry requires practical and emancipatory interests:

- Technical interest (Positivist or Post-positivist): Focuses on estimation and control using empirical data and structured methodologies (e.g., medical RCTs).
- Practical interest (Interpretive): The case emphasizes understanding social interactions using qualitative approaches such as case study, phenomenology and ethnography (e.g., patient narratives in healthcare research).
- Emancipatory interest (Critical Theory): Aims to challenge oppression and promote social transformation (e.g., emancipatory or participatory action research in marginalized communities).

Habermas's critique of positivism argues that research should not only define or explain but also empower individuals and challenge social inequalities (Gunbayi, 2020b; Habermas, 1987).

The debate of positivism and interpretivism continues to shape mixed methods research in which researchers bring together validity and generalizability of quantitative research with the depth of qualitative research (Creswell & Plano Clark, 2017). For example, in health and social policy, evidence-based medicine is based on positivist principles, while patient-centered approaches align with interpretive emancipatory perspectives (Greenhalgh et al., 2014).

In spite of their differences, some researchers defend pragmatism, claiming that combining positivist and constructivist methods enables them to deal with complex problems in a complementary way (Tashakkori & Teddlie, 2010).

Social paradigms and research design

Gunbayi & Sorm (2018) outline four paradigms guiding social research: functionalist, interpretive, radical humanist and radical structuralist. Even though RCTs are compatible with radical structuralist and functionalist paradigms focusing on predictability and controlling, action research is much more compatible with radical humanist and interpretive paradigms prioritizing construction of meaning, contextual understanding and social transformation. The participatory nature of action research empowers researchers, participants and stakeholders by encouraging knowledge constitution, ethical and sensitive to context (Gunbayi, 2020a).

Research in social sciences and health services are oriented by different paradigms shaping epistemological and methodological preferences. Gunbayi & Sorm (2018) categorize social research paradigms under four headings.

- *Functionalist paradigm focuses* on stability, predictability, control, measurement and generalizable knowledge.
- *Interpretive paradigm* is based on trying to understand meanings in specific contexts and social interactions.
- *Radical humanist paradigm* focuses on subjectivity, empowering and social transformation.
- Radical structuralist paradigm focuses on analysis of structural relations in objective social world and assumes that social change takes place revolutionary and rapid changes.

Therefore, while RCTs are compatible with radical structuralist and functionalist paradigms and emphasize the importance of objectivity, causality and control, action research based on interpretive and radical humanist paradigms prioritizes contextual understanding, participation and social transformation (Gunbayi, 2020a).

RCTs are generally regarded as golden standard to test interventions or trials in medical and psychological research (Gunbayi, 2020a). Those trials based on positivism via randomized controlled trials and statistical analysis are designed for causal determination (Cohen et al, 2018). The basis principals of RCTs based on radical structuralist and functionalist paradigms can be outlined below:

- *Objectivity and generalizability:* RCTs try to establish universal laws, minimizing bias and subjectivity.
- *Causal Determination:* RCTs attempt to isolate cause-and-effect relationships using randomization and control groups.
- *Standardization and Reproducibility:* Interventions are standardized to ensure that the findings can be replicated across different populations.

- *Prediction and Control:* RCTs support evidence-based decision-making in healthcare and policy by adhering to fixed protocols (Bonell et al., 2012; Bryman, 2016; Cartwright, 2011; Greenhalgh et al., 2014).

In contrast to RCTs, action research (AR) is participatory an emancipatory approach focusing on understanding and developing practices in real social world (Reason & Bradbury, 2008). AR based on interpretivism and critical theory accepts participants mutual in research, encourage production of transformative knowledge and is sensitive to context (Kemmis & McTaggart, 2005).

The basic principles of action research in interpretive and radical humanist paradigms can be outlined below:

- *Contextual understanding:* AR focuses on knowledge in case more than universal laws.
- *Participant engagement:* Practitioners and stakeholders actively shape the research process, making it more ethically sound and socially relevant.
- *Flexibility and reflexivity:* Unlike RCTs, AR allows adaptation and iteration based on emerging insights.
- *Empowerment and social transformation:* AR compatible with radical humanist paradigm aims to empower marginal voices and direct social transformation (Carr & Kemmis, 1986; Freire, 1972; Gunbayi, 2020a; McNiff, 2013)

Even though action research is to a great extent sensitive to context and participatory, critics claim that action research is open to researcher's values and prejudges and lack of generalizability (Denzin & Lincoln, 2018). Additionally, some policy makers and financial foundations prefer RCTs as they put evidence which are measurable and standardized (Greenhalgh et al., 2014).

Table 1.

Comparison of RCTs and action research in research design

Face	**Randomized Controlled Trials (RCTs)**	**Action Research (AR)**
Paradigm	Radical Structuralist & Functionalist	Interpretive & Radical Humanist
Ontology	Objective reality exists independently	Reality is socially constructed
Epistemology	Positivist, empirical, reductionist	Constructivist, participatory, critical
Methodology	Experimental, statistical, fixed protocols	Iterative, flexible, dialogical
Control & Flexibility	High control, low flexibility	Low control, high flexibility
Ethical Considerations	Control groups may be denied interventions	Inclusive and participatory ethics
Application	Medical research, policy testing	Community-based research, education reform

Though RCTs and action research are seen opposite, conventionally some researchers defend pluralism in methodology, adopt both those approaches to balance level of rigor. For example:

- Hybrid designs: Understanding patient experiences by combining RCTs with qualitative methods (e.g., interviews and focus groups.
- Participatory RCTs: Engaging stakeholders in trial design to enhance ethical validity and real-world applicability.
- Iterative experimentation: Using RCTs to test interventions and then using action research cycles to improve their implementation (Cornish & Gillespie, 2009; Greenhalgh et al., 2014; Tashakkori & Teddlie, 2010).

Thus, by integrating positivist and interpretive approaches, researchers can develop more holistic, ethical, and context-aware methodologies in social sciences, healthcare, and policy research.

Experimental action research (EAR) in mixed methods approaches

Whitehead & Schneider (2013) mentions about the ability of integrating quantitative data with qualitative by emphasizing the importance of mixed methods research in nursing and midwifery. Action research as a type of mixed methods research is suitable for especially applied science as permits cycles of iterative planning, action, observation and reflection (Gunbayi, 2020a). By combining empirical data with experienced knowledge, action research increases both the validity and applicability of findings.

Mixed methods research has gained an increasing recognition in nursing, midwifery and education fields due to integrating the validity of quantitative phase and the depth and rigor of qualitative phase (Whitehead & Schneider, 2013). Therefore, EAR comes forward as a hybrid approach combining experimental methodologies like RCTs with iterative and participatory cycles of action research (Gunbayi, 2020a).

This approach is especially beneficial for applied sciences in which findings are required for application in real life contexts. While RCTs supply empirical validity, action research guarantees the level of adaptiveness and relatedness, which makes EAR a pragmatic bridge between those two paradigms (Reason & Bradbury, 2008).

Mixed methods research integrates quantitative and qualitative approaches in order to increase validity, depth and applicability of research findings (Creswell & Plano Clark, 2017). Whitehead & Schneider (2013) emphasize suitability mixed methods research in nursing and midwifery studies due to permitting to integrate quantitative statistical analysis with qualitative in-depth analysis.

EAR, a mixed methods study, supplies both causal inferences and adaptation sensitive to context by integrating the structured experiments of RCTs with iterative cycles of action research (Kemmis & McTaggart, 2005). This combination enables testing of interventions seriously via experimental design and the development of interventions dynamically via the principles of action research (Greenhalgh et al, 2014).

Table 2.

Comparing RCTs, action research, and experimental action research

Face	Randomized Controlled Trials (RCTs)	Action Research (AR)	Experimental Action Research (EAR)
Paradigm	Positivist, Functionalist	Interpreter, Participant	Pragmatist, Integrative
Epistemology	Objective, empirical verification	Subjective, socially constructed knowledge	Combination of both
Methodology	Controlled experiments, randomization	Iterative planning, action, and reflection cycles	Experimental validation with iterative refinement
Control and Adaptability	High control, low adaptability	Low control, high adaptability	Balanced control and adaptability
Application	Health care trials, policy research	Education, social sciences, community-based research	Applied health, nursing, social intervention programs
Ethical Considerations	Control groups' likely to be denied for interventions	Ethical participatory participation	Combines ethical validity with empirical rigor

While RCTs puts high level of validity, the results cannot be applied and generalized in real social life contexts (Cartwright, 2011). However, action research focuses on real social life contexts but lacks controlled validity (Bryman, 2016).

EAR ensures empirical validity by integrating two approaches; controlled experiments confirm whether an intervention is effective (Bonell et al, 2012) and contextually adaptive and iterative cycles enable reflection of participants based on interventions and improvements according to contextual needs (Gunbayi, 2020a).

EAR follows a parallel iterative cycle with Lewin's (1956) action research while adding experimental elements:

1. Planning: The definition of a problem, designing of an intervention
2. Action (Implementation Phase): Carrying out the intervention, collecting quantitative and qualitative data
3. Observation: The analysis of the effectiveness of the intervention via both statistical analysis and reflections of participants
4. Reflection and regulation: Changing intervention based on real social life complexities and then re-testing.

This cycle enables both scientific quantitative validity and what is in practice (qualitative confirmation).

Limitations and applications of randomized controlled trials

While RCTs are accepted as golden standard in medical and psychological research, they have significant limitations in nursing and social sciences. Those limitations include ethical shortcomings, limited ecological validity, challenges in applications, limited generalizability, methodological rigidity, barriers in practice in social sciences and the risk of publication bias.

Ethical shortcomings: One of the basic shortcomings of RCTs is the rejection of potentially beneficial treatments for controlled groups. When an effective intervention is expected, excluding it can be accepted unethical, especially in healthcare and social research. Besides, the use of placebo in clinical experiments may cause ethical dilemmas as standard treatments have already been present. Additionally, getting informed consent form may not always be easy because the total explanation of research conditions can affect participant behaviors and may cause results with biases (Guba & Lincoln, 1994; Emanuel, Wendler & Grady, 2000; Miller & Brody, 2003).

Limited ecological validity: RCTs are carried out in high randomized controlled settings in which they may not reflect the complexities of real social life. In social sciences, real social life settings include more than one interrelated variable which cannot be controlled completely with an experimental design. Moreover, interventions tested in a context cannot be generalized to one another setting due to cultural and structural differences (Cohen et al, 2018; Cartwright & Hardie, 2012; Pawson & Tilley, 1997).

Challenges in applications: RCTs require substantial financial and logistical resources, which makes them costly and time-consuming. This problem is especially visible in large scale studies in which keeping especially finance and participants controlled becomes difficult and of concern. Additionally, socio-economic conditions and external factors such as environmental effects and changes in policy may cause a change which is difficult to control. Moreover, high level of separation rates and inconsistency of participants may affect results, which reduces the reliability of findings (Deaton & Cartwright, 2018; Hernan & Robins, 2016).

Limited generalizability: RCTs use rigid criteria such as including and excluding criteria, which may usually limit the variations of study populations. Therefore, results may not be generalized to more extended populations in social and healthcare research. Many RCTs focus on short terms results rather than long term effects, which may cause drawbacks in understanding the sustainable effect of the

intervention. Results specific to context are difficult to generalize since interventions effective in one region or demography will not be able to output similar results (Cartwright, 2011).

Methodological rigidity: The structuralized and controlled nature of RCTs may limit their adaptability to emergent research questions. Many studies follow standard protocols which do not allow modifications based on results during the research. This limitation is especially a problem in social and healthcare research in which conditions change dynamically, and more flexible methodologies are required. Besides, some RCTs may not be able to capture complex interventions which require iterative and changes specific to context (Fives, et al, 2015; Craig et al, 2008; Greenhalgh et al, 2014).

Barriers in practice in social sciences: Randomized controls can be difficult to use in social sciences. Randomizing individuals and groups according to treatment and control groups are encountered with resistance especially in education and policy research. Moreover, blinding participants and researchers in behavioral and social interventions is difficult, which increases the risk of biases. One another difficulty is that the individuals in control group will be likely to expose to intervention accidentally, which may reduce effect size (Cook & Campbell, 1979; Shadish, Cook, & Campbell., 2002).

The risk of publication bias: While the acceptance rate for publication is high for RCTs revealing statistically significant results, the studies with null and insignificant findings may not be accepted for publication. This publication bias may distort the evidence available and cause overestimation of the effectiveness of intervention more than what is real (Dwan et al., 2013; Ioannidis, 2005).

Ethical and practical advantages of action research

Action research is naturally collaborative and includes participants for defining problems, intervention and evaluation processes. This is suitable with ethical necessity of respecting participants instead of regarding them as passive subjects (Lincoln & Guba, 1985). In nursing and midwifery, action research supports evidence-based practices and patient centered care via enabling the real timed improvement of interventions by healthcare personnel (Whitehead & Schneider, 2013).

Action Research (AR) is a participatory and collective approach including stakeholders to problem defining, intervention and evaluation and supplying ethically strong research results related to context (Reason & Bradbury, 2008). In contrast to RCTs prioritizing control and generalizability, AR encourages adaptation, inclusiveness and the improvement of real time interventions (McNiff & Whitehead, 2011).

In the fields of healthcare, nursing and midwifery AR has been accepted as a valuable instrument based on evidence as it accepts participants mutual creators instead of passive subjects. This ethical compulsory takes care of practical limitations related to RCTs while developing patient centered care (Lincoln & Guba, 1985; Whitehead & Schneider, 2013).

RCTs emphasize standardization, randomized and controlled in order to guarantee high level of validity (Bonell et al, 2012). Thereby, this rigidity limits the application in real life healthcare settings in which the needs of patients' clinical conditions are generally dynamic (Greenhalgh et al, 2014). In contrast, AR permits iterative changes based on the feedbacks of stakeholders, integrates the complexities of real social world life, ensures the applicability of interventions in practice and sensitive to context and subsequently closes the gap between research and practice, which makes the care more suitable for healthcare personnel who seek quick healing for patients (Kemmis & McTaggart, 2005; McNiff & Whitehead, 2011; Whitehead & Schneider, 2013).

RCTs ensure rigid research control in which participants are generally treated as passive subjects (Cartwright, 2011). This hierarchy structure may cause insecurity in social based research and healthcare research, which reduces the participation of participants (Brydon-Miller, Greenwood & Maguire, 2003).In contrast, AR includes participants as an active collaboratives in research process, increases

participation to higher levels, trust and harmony, supports more meaningful data and encourages teamwork among different disciplines, which ensures the effectiveness of health care services in which partnership among nurses, doctors and patients is critical (Greenwood & Levin, 2007; Reason & Bradbury, 2001; Whitehead & Schneider, 2013).

RCTs prioritize scientific objectivity instead of participant autonomy, which causes ethical dilemmas (Lincoln & Guba, 1985). An important concern is that excluding control groups from beneficial interventions causes problems related to justice and the rights of patients (Bonell et al, 2012). On the other hand, AR empowers participants by including them in decision making process which enables implementation of research with humans rather than subjects (McNiff & Whitehead, 2011), AR also respects autonomy, becomes as a more ethical approach in settings where collaborative healthcare and strengthening of patients are necessary (Baum et al, 2006) and so reduces the ethical risks to lowest level related to randomized controlled due to improving interventions via all participants' shaping interventions actively (Kemmis & McTaggart, 2005).

It is necessary that ethical research in healthcare services, nursing and midwifery should prioritize welfare of patients rather than rigid experimental controls. While RCTs delay the treatment for controlled groups, AR ensures that all participants should benefit from treatment of continuous interventions (Greenhalgh et al, 2014). An example for ethics in nursing can be demonstrated as follows: a limitation of RCTs is the necessity of excluding the controlled group getting a standard treatment although the findings related to new treatment of wound care are quite effective. In contrast, one of the advantages of AR has the capacity of letting nurses regulate treatment dynamically and thus all patients can reach potential benefits (Whitehead & Schneider, 2013).

While RCTs continue to be a golden standard for establishing causality, their practical and ethical limitations make them less suitable for disciplines based on dynamic practices such as nursing and midwifery. The hybrid approach like EAR combines empirical rigidity of RCTs and collaborative and applicable nature of AR, ensures scientific rigor and preserves ethical integrity, puts applicable insights in healthcare settings () and supplies ethical respect for participants and goodness and justice in clinical trials (Baum et al, 2006; Bonell et al, 2012; Greenwood & Levin, 2007; Tashakkori & Teddlie, 2010).

Results and Discussion

The ongoing discussion between positivism and interpretivism continues to take place in center in social, behavioral, health and human sciences due to pros and cons peculiar to those two paradigms. Positivism ensures structure, objectivity and generalizability, but often ignores the complexity of human nature. In contrast, interpretivism values context, meaning and subjectivity but are criticized often due to lack of replicability and generalizability. This epistemological division underlines the need for methodological pluralism to balance scientific rigor and humanist research (Gunbayi, 2020a; Gunbayi,2020b; Gunbayi, & Sorm, 2018; Marrow, 1969).

RCTs have been accepted as golden standard to establish causality in scientific research. However, their applications in social sciences, nursing and human sciences bring together difficulties such as ethical dilemmas, concerns for ecological validity, inapplicability or limited applicability. Those limitations require the integration of alternative methodologies such as qualitative research, mixed methods approach based on observations to capture the complexity of social and healthcare problems in real world life.

RCTs and action research represent opposite methodological approaches based on different paradigms. RCTs which are based on radical structuralist and functionalist paradigms, emphasize causality, predictability and objectivity but usually oversimplify complex social phenomena. On the contrary, action research based on interpretivism and radical humanism priorities context, participation and social transformation, but lacks generalizability and control which take place in the nature of experimental research. As research fields expand, combining both experimental rigidity and the integrity of

participants may ensure comprehensive and context related findings (Gunbayi, 2020a; Gunbayi,2020b; Gunbayi, & Sorm, 2018; Marrow, 1969).

EAR emerges as a middle applicable ground which combines the empirical rigidity of RCTs with the participant flexibility of AR. This methodology is especially suitable for healthcare, nursing and education disciplines in which interventions are based on evidence but also sensitive to context. EAR ensures scientific reliability as well as letting iterative improvements based on real social life insights (Gunbayi, 2020a). EAR increases the validity of interventions, ethical soundness and applicability of interventions by integrating experimental and participatory elements, which ensures EAR a valuable approach for researchers in applied sciences.

EAR offers notable, ethical and practical advantages, especially for healthcare services, nursing and social sciences, more than RCTs. EAR also emerges as a suitable methodology for patient centered healthcare by integrating stakeholders as co-researchers, encouraging ethical inclusiveness and applicability to real social life. While RCTs are still important for establishing causality, their rigid structures and ethical limitations often limit their applicability in dynamic settings which are suitable for practice. The fact that mixed methods research approaches like EAR become more and more popular points to a trend towards more comprehensive, ethical and practical research paradigms (Whitehead & Schneider, 2013). (Whitehead & Schneider, 2013).

As Lewin (1946) claimed, "No action without research; no research without action" and ERA requires controlled research for the effectiveness of various techniques in similar social contexts. Experimental approach in the different variations of action research has the most important potential to develop and improve scientific knowledge. Under suitable conditions EAR ensures the definite tests of certain hypothesis. Moreover, EAR is the most complex and rigid type of action research to implement (Marrow, 1969).

In summary, EAR provides a more context-sensitive, ethically sound, and practically relevant research approach in the social sciences, nursing, midwifery, and human sciences. By acknowledging the complexity of human experiences and encouraging participatory participation, EAR addresses the limitations of RCTs. Benefiting from the theoretical perspectives of Guba (1981); Lincoln & Guba (1985), Habermas (1987), Gunbayi and Sorm (2018), Whitehead and Schneider (2013), Gunbayi (2020a,b), and Marrow (1969), this paper emphasizes the necessity of methodological pluralism and underscores the superiority of experimental action research in applied disciplines.

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Conflicts of interest

No conflicts of interest are declared by the author.

Author Contribution

Corresponding author Ilhan Gunbayi: Conceptualization, data refinement, research, methodology, original drafting, review, and editing

Conflict of Interest Statement

This research has not received any specific grants from funding agencies in the public, commercial, or non-profit sectors.

Ethics Approval

In the writing process of the study titled **"Experimental action research as the preferred methodology in social, behavioral, health and human sciences** ", scientific, ethical and citation rules were followed; It is committed by the author of this study that no falsification has been done on the data collected. It accepts that "Journal of Action Qualitative &; Mixed Methods Research and Editor" has no responsibility for all ethical violations that may be encountered, that all responsibility belongs to the author and that the study has not been submitted to any other academic publication environment for evaluation.

Institutional review board (IRB) approval

Institutional Review Board (IRB) is not required for this research.

Data Availability Statement

Anonymized data from this study can be used upon request jaqmer.editor@gmail.com