

Editorial

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

Ilhan Gunbayi*

To cite this article:

Gunbayi, I. (2025).
Experimental action research as
the preferred methodology in
social, behavioral, health and
human sciences. *Journal Action
Qualitative & Mixed Methods
Research*, Volume 4 (Issue 1),
1-12
DOI: 10.5281/zenodo.14851067

www.jaqmeronline.com

Article Info: Received: February 20th, 2025

Revised: March 7th, 2025

Accepted: March 17th, 2025

Abstract. This editorial argues that experimental action research is more suitable than randomized controlled experimental research for social sciences, nursing, midwifery practice, behavioral, health and humanities. Drawing upon philosophical and methodological perspectives from Guba (1981), Lincoln and Guba (1985), Habermas (1987), Gunbayi and Sorm (2018), Whitehead and Schneider (2013), and Gunbayi (2020a,b), this article critiques the positivist paradigm underlying randomized controlled trials (RCTs) and advocates for action research as a more contextually relevant, participatory, and ethically sound approach. The discussion is grounded in an analysis of mixed methods research, social paradigms, and knowledge-constitutive interests, supporting the claim that experimental action research better aligns with the complexities of human-centric disciplines.

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

Introduction

Research methodologies shape the way knowledge is produced and understood within various disciplines. The dominant positivist approach, as seen in RCTs, emphasizes objectivity, control, and generalizability (Cohen, Mannion, & Morrison, 2018). However, such methods may fail to capture the complexity of human behavior and social interactions, particularly in fields like social sciences, nursing, midwifery, and humanities. In contrast, experimental action research, rooted in constructivist and interpretive paradigms, facilitates practical problem-solving and participatory engagement (Gunbayi, 2020a).

Experimental action research has emerged as a preferred methodology in social, behavioral, health, and human sciences due to its ability to bridge theory and practice while fostering participatory engagement. Rooted in the work of Lewin (1946), action research is a cyclical and iterative approach that integrates experimentation with problem-solving in real-world settings. Unlike traditional experimental research, which often isolates variables in controlled environments, experimental action research emphasizes collaboration with stakeholders to co-develop and implement interventions that address complex social and health challenges (Reason & Bradbury, 2008).

In the behavioral sciences, action research has been instrumental in designing interventions that promote behavior change and social transformation (Kemmis & McTaggart, 2005). Similarly, in health sciences, this methodology has been widely adopted to improve patient outcomes and healthcare delivery through participatory and iterative strategies (Baum, MacDougall, & Smith, 2006). Given its adaptability and

* Corresponding author: Akdeniz University, Turkey, jaqmer.editor@gmail.com, ORCID: 0000-0001-7139-0200

emphasis on contextual relevance, experimental action research aligns with the growing recognition that scientific inquiry must be both rigorous and responsive to societal needs.

This article explores the significance of experimental action research as a preferred methodology in these fields, examining its epistemological foundations, methodological principles, and practical applications. Through a review of key studies and theoretical perspectives, I highlight the strengths and limitations of this approach while discussing its implications for future research and practice.

Methodology

This article employs a qualitative descriptive analysis based on a literature review, which represents a variation of the systematic review methodology. A literature review, based on interpretive paradigm, is generally defined as a systematic approach to identifying, collecting, and synthesizing existing research (Gunbayi, 2020b; Baumeister & Leary, 1997; Cooper, 1998). Thus, the aim of this article is to explore the limitations of RCTs and presents a compelling case for adopting experimental action research as the preferred methodology based on sub-titles:

1. Positivism vs. interpretivism: theoretical underpinnings,
2. Social paradigms and research design,
3. Experimental action research in mixed methods approaches,
4. Limitations of randomized controlled trials and the practical,
5. Ethical advantages of action research.

Findings

Based on literature review on experimental action research as the preferred methodology in social, behavioral, health and human sciences, this section covers positivism vs. interpretivism: theoretical underpinnings, social paradigms and research design, experimental action research in mixed methods approaches, limitations of randomized controlled trials and the practical and ethical advantages of action research.

Positivism vs. interpretivism: Theoretical underpinnings

Lincoln and Guba (1985) critique positivism for its dehumanizing approach to research, treating individuals as "subjects" rather than active participants. They argue that anti-positivist methodologies, such as action research, recognize the interactive and humanistic aspects of inquiry. Similarly, Habermas (1987) distinguishes between technical, practical, and emancipatory knowledge-constitutive interests, contending that positivist methods prioritize technical control at the expense of practical and emancipatory insights crucial in social sciences and healthcare research.

The debate between positivism and interpretivism is central to philosophical discussions on research paradigms in the social sciences, healthcare, and humanities. Positivism, grounded in empirical observation and quantification, seeks objective truths, whereas interpretivism emphasizes subjective meaning and human experiences (Lincoln & Guba, 1985). The contrast between these paradigms is particularly significant in fields like social research and healthcare, where human interactions and contextual complexities challenge purely empirical approaches (Guba & Lincoln, 1994; Habermas, 1987).

Positivism is rooted in scientific realism and empiricism, originating from the works of Auguste Comte ([1848] 2009), who argued that scientific methods should be applied to social phenomena just as they are in the natural sciences. According to positivism, knowledge is best obtained through observable facts, controlled experiments, and statistical analyses (Bryman, 2016).

Key Assumptions of Positivism can be summarized as below:

- Objectivity and generalizability: Research should be independent of the researcher's bias, aiming 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 favored for producing reliable and replicable results (Cartwright, 2011; Cohen et al, 2018; Durkheim, [1895] 1982).

However, critics argue that positivism reduces human experiences to mere variables, overlooking the contextual, social, and cultural dimensions of behavior (Guba, 1981; Lincoln & Guba, 1985). Particularly in fields like healthcare and education, positivist methodologies fail to account for patient perspectives, cultural influences, and ethical considerations (Greenhalgh, Howick & Maskrey, 2014).

Interpretivism emerged as a critique of positivist reductionism, emphasizing the subjective and socially constructed nature of reality. Interpretivists argue that human behavior is shaped by meanings, beliefs, and social contexts, which cannot be fully understood through rigid, objective methods (Weber, 1949). Key Assumptions of interpretivism can be summarized as below:

- Reality as socially constructed: Knowledge is shaped by individual and cultural interpretations, rather than universal laws.
- Understanding over prediction: The goal of research is to understand experiences rather than merely predict behaviors.
- Qualitative methods: Methods such as ethnography, phenomenology, 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, which aim to empower individuals and communities (Freire, 1972). Scholars such as Habermas (1987) emphasize that social inquiry should serve emancipatory interests, allowing individuals to challenge power structures rather than simply being subjects of study.

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

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

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

The positivism vs. interpretivism debate continues to influence mixed methods research, where scholars integrate quantitative rigor with qualitative depth (Creswell & Plano Clark, 2017). In healthcare and social policy, for example, evidence-based medicine relies on positivist principles, while patient-centered approaches align with interpretivist perspectives (Greenhalgh et al., 2014).

Despite their differences, some researchers advocate for pragmatism, arguing that combining positivist and interpretivist methods allows for a more holistic understanding of complex issues (Tashakkori & Teddlie, 2010).

Social paradigms and research design

Gunbayi and Sorm (2018) outline four paradigms guiding social research: functionalist, interpretive, radical humanist, and radical structuralist. While RCTs align with radical structuralist and functionalist paradigms, which emphasizes predictability and control, action research is more compatible with the interpretive and radical humanist paradigms that prioritize meaning-making, contextual understanding, and social transformation. Action research's participatory nature empowers practitioners and stakeholders, fostering ethical and context-sensitive knowledge production (Gunbayi, 2020a).

Research in social sciences and healthcare is guided by distinct paradigms that shape epistemological and methodological choices. Gunbayi and Sorm (2018) classify social research paradigms into four categories:

1. *Functionalist Paradigm* – focuses on stability, predictability, and generalizable knowledge.
2. *Interpretive Paradigm* – seeks to understand meanings and human interactions in specific contexts.
3. *Radical Humanist Paradigm* – emphasizes subjectivity, empowerment, and social transformation.
4. *Radical Structuralist Paradigm* – focuses on the examination of structural relationships within the objective social world and assumes that social change will occur with revolutionary and rapid changes.

Within this framework, randomized controlled trials (RCTs) align with the radical structuralist and functionalist paradigm, emphasizing objectivity, causality, and control, whereas action research fits within the interpretive and radical humanist paradigms, prioritizing contextual understanding, participation, and social change (Gunbayi, 2020a).

RCTs are widely regarded as the gold standard for testing interventions in medical and psychological research (Cartwright, 2011). Rooted in positivism, they are designed to establish causal relationships through controlled experiments and statistical analyses (Cohen et al, 2018).

Key Features of RCTs within the radical structuralist and the functionalist paradigm can be summarized as follows:

- *Objectivity and generalizability:* RCTs seek to generate universal laws by minimizing bias and subjectivity.
- *Causal Determination:* Using randomization and control groups, RCTs attempt to isolate cause-and-effect relationships.
- *Standardization and Replicability:* Interventions are standardized to ensure that findings can be replicated across different populations.
- *Prediction and Control:* By adhering to fixed protocols, RCTs support evidence-based decision-making in healthcare and policy (Bonell et al., 2012; Bryman, 2016; Cartwright, 2011; Greenhalgh et al., 2014).

Unlike RCTs, action research (AR) is an iterative, emancipatory or participatory approach that focuses on understanding and improving real-world practices (Reason & Bradbury, 2008). Rooted in

interpretivism and critical theory, AR engages participants as co-researchers, fostering context-sensitive and transformative knowledge production (Kemmis & McTaggart, 2005).

Key Features of action research within the interpretive and radical humanist paradigms can be summarized as follows:

- *Contextual understanding:* AR emphasizes situated knowledge rather than universal laws.
- *Participant involvement:* Practitioners and stakeholders actively shape the research process, making it more ethically sound and socially relevant.
- *Flexibility and reflexivity:* Unlike RCTs, AR allows for adaptation and iteration based on emerging insights.
- *Empowerment and social transformation:* Aligned with the radical humanist paradigm, AR seeks to empower marginalized voices and drive social change (Carr & Kemmis, 1986; Freire, 1972; Gunbayi, 2020a; McNiff, 2013).

While action research is highly contextual and participatory, critics argue that it lacks generalizability and is vulnerable to researcher bias (Denzin & Lincoln, 2018). Additionally, some policymakers and funding bodies prefer RCTs, as they offer quantifiable and standardized evidence (Greenhalgh et al., 2014).

Table 1.

Comparing RCTs and action research in research design

Aspect	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 trials, policy testing	Community-based research, education reform

While RCTs and action research are traditionally seen as oppositional, some researchers advocate for methodological pluralism, integrating both approaches to balance rigor and relevance (Creswell & Plano Clark, 2017). For example:

- *Hybrid designs:* Combining RCTs with qualitative methods (e.g., interviews and focus groups) to understand patient experiences (Tashakkori & Teddlie, 2010).
- *Participatory RCTs:* Involving stakeholders in trial design to increase ethical validity and real-world applicability (Cornish & Gillespie, 2009).
- *Iterative experimentation:* Using RCTs to test interventions, followed by action research cycles to refine their implementation (Greenhalgh et al., 2014).

By integrating positivist and interpretivist approaches, researchers can develop more holistic, ethical, and context-sensitive methodologies in social sciences, healthcare, and policy research.

Experimental action research in mixed methods approaches

Whitehead and Schneider (2013) highlight the value of mixed methods research in nursing and midwifery, emphasizing its ability to integrate quantitative and qualitative insights. Action research, as a form of mixed methods research, allows for iterative cycles of planning, action, observation, and reflection, making it particularly relevant for applied fields (Gunbayi, 2020a). By combining empirical data with experiential knowledge, action research enhances both the validity and applicability of findings in practice-based disciplines.

Mixed methods research has gained increasing recognition in applied disciplines such as healthcare, nursing, midwifery, and education, as it effectively integrates quantitative rigor with qualitative depth (Whitehead & Schneider, 2013). Within this framework, Experimental action research (EAR) emerges as a hybrid approach that combines experimental methodologies (such as RCTs) with participatory, iterative cycles of action research (AR) (Gunbayi, 2020a).

This approach is particularly useful in practice-based disciplines, where the application of findings in real-world settings is essential. While RCTs provide empirical validation, action research ensures adaptability and relevance, making experimental action research (EAR) a pragmatic bridge between the two paradigms (Reason & Bradbury, 2008).

Mixed methods research combines quantitative and qualitative approaches to enhance validity, depth, and applicability of research findings (Creswell & Plano Clark, 2017). Whitehead and Schneider (2013) emphasize that mixed methods designs are particularly valuable in nursing and midwifery research, as they allow for the integration of statistical analysis (quantitative) with experiential insights (qualitative).

Experimental action research (EAR) integrates RCTs' structured experimentation with action research's iterative cycles, enabling both causal inference and context-sensitive adaptation (Kemmis & McTaggart, 2005). This combination ensures that interventions are tested rigorously (through experimental design) while also evolving dynamically (through action research principles) (Greenhalgh et al., 2014).

Table 2.

Comparing RCTs, action research, and experimental action research

Aspect	Randomized Controlled Trials (RCTs)	Action Research (AR)	Experimental Action Research (EAR)
Paradigm	Positivist, Functionalist	Interpretivist, Participatory	Pragmatist, Integrative
Epistemology	Objective, empirical validation	Subjective, socially constructed knowledge	Combination of both
Methodology	Controlled experiments, randomization	Iterative cycles of planning, action, and reflection	Experimental validation with iterative refinement
Control vs. Adaptability	High control, low adaptability	Low control, high adaptability	Balanced control and adaptability
Application	Healthcare trials, policy research	Education, social sciences, community-based research	Applied healthcare, nursing, social intervention programs
Ethical Considerations	Control groups may be denied interventions	Ethical participatory engagement	Combines ethical validity with empirical rigor

While RCTs offer high internal validity, they often lack external validity, meaning that results may not generalize well to real-world settings (Cartwright, 2011). Action Research, on the other hand, focuses on real-world applications but lacks the controlled rigor of RCTs (Bryman, 2016).

By integrating both approaches, EAR ensures empirical validity: experimental control confirms whether an intervention is effective (Bonell et al., 2012) and contextual adaptability: iterative cycles allow interventions to be refined based on participant feedback and contextual needs (Gunbayi, 2020a).

EAR follows a cyclical approach, aligning with Lewin's (1946) model of action research while incorporating experimental elements:

1. Planning – Identifying the problem, designing an intervention (informed by RCT frameworks),
2. Action (Implementation Phase) – Conducting the intervention, collecting quantitative and qualitative data,
3. Observation – Assessing intervention effectiveness through both statistical analysis and participant reflections,
4. Reflection & adjustment – Modifying the intervention based on real-world complexities, then retesting.

This cycle ensures both scientific rigor (quantitative validation) and practical relevance (qualitative adaptation) (Tashakkori & Teddlie, 2010).

Limitations of randomized controlled trials

While RCTs are considered the gold standard in medical and psychological research, they pose significant limitations in social sciences, nursing, and humanities. These limitations include ethical concerns, issues with ecological validity, challenges in implementation, lack of generalizability, and methodological rigidity.

Ethical concerns: One of the primary ethical concerns in RCTs is the denial of potentially beneficial treatments to control groups. When an intervention is expected to be effective, withholding it may be considered unethical, especially in healthcare and social research (Guba & Lincoln, 1994). In addition, the use of placebos in clinical trials raises ethical dilemmas when established treatments are already available (Emanuel, Wendler & Grady, 2000). Furthermore, obtaining informed consent may not always be straightforward, as full disclosure of research conditions can influence participant behavior, leading to biased results (Miller & Brody, 2003).

Limited ecological validity: RCTs are often conducted in highly controlled environments that may not reflect real-world complexities (Cohen et al., 2018). In the social sciences, real-life settings involve multiple interacting variables that cannot be fully controlled in an experimental design (Cartwright & Hardie, 2012). Additionally, interventions tested in one context may not be applicable in another due to cultural or structural differences (Pawson & Tilley, 1997).

Challenges in implementation: RCTs require substantial financial and logistical resources, making them costly and time-consuming (Deaton & Cartwright, 2018). This issue is particularly pronounced in large-scale studies where funding and participant retention become major concerns. Furthermore, external factors such as socioeconomic status, environmental influences, and policy changes can introduce variability that is difficult to control. Additionally, high dropout rates and participant non-compliance can distort results, reducing the reliability of findings (Hernan & Robins, 2016).

Limited generalizability: RCTs often use strict inclusion and exclusion criteria, which can limit the diversity of study populations. As a result, findings may not generalize to broader populations, particularly in social science and healthcare research. Many RCTs also focus on short-term outcomes rather than long-term effects, leading to gaps in understanding the sustained impact of interventions. Context-specific results further challenge generalizability, as interventions effective in one region or demographic may not yield similar outcomes in different settings (Cartwright, 2011).

Rigidity and lack of adaptability: The structured nature of RCTs can hinder their ability to adapt to evolving research questions. Many trials follow fixed protocols that do not allow for mid-study adjustments based on emerging findings (Allyn et al, 2015). This limitation is particularly problematic

in healthcare and social sciences, where conditions change dynamically, requiring more flexible research methodologies (Greenhalgh et al., 2014). Additionally, some RCTs may fail to capture complex interventions that require iterative and context-specific modifications (Craig et al., 2008).

Practical barriers in social science research: In social sciences, randomization itself can be challenging. Assigning individuals or communities to treatment and control groups is often met with resistance, particularly in education and policy research. Additionally, blinding participants and researchers is difficult in behavioral and social interventions, increasing the risk of bias (Shadish, Cook, & Campbell, 2002). Another challenge is intervention contamination, where individuals in the control group may be inadvertently exposed to the intervention, thereby weakening the effect size (Cook & Campbell, 1979).

Risk of Publication Bias: RCTs that yield statistically significant results are more likely to be published, while studies with null or negative findings may remain unpublished (Dwan et al., 2013). This publication bias can distort the available evidence and lead to an overestimation of intervention effectiveness (Ioannidis, 2005).

The practical and ethical advantages of action research

Action research, by contrast, is inherently collaborative, engaging stakeholders in problem identification, intervention, and evaluation. This aligns with the ethical imperative to respect participants as co-creators of knowledge rather than passive subjects (Lincoln & Guba, 1985). In nursing and midwifery, action research supports evidence-based practice by allowing healthcare professionals to refine interventions in real-time, enhancing patient-centered care (Whitehead & Schneider, 2013).

Action research (AR) is a collaborative, participatory approach that engages stakeholders in problem identification, intervention, and evaluation, ensuring context-relevant and ethically sound research outcomes (Reason & Bradbury, 2008). In contrast to randomized controlled trials (RCTs), which prioritize control and generalizability, AR fosters adaptability, inclusivity, and real-time intervention refinement (McNiff & Whitehead, 2011).

In healthcare, nursing, and midwifery, AR has been recognized as a valuable tool for evidence-based practice, particularly because it respects participants as co-creators of knowledge rather than passive subjects (Lincoln & Guba, 1985). This ethical imperative enhances patient-centered care while also addressing practical limitations associated with RCTs (Whitehead & Schneider, 2013).

RCTs emphasize standardization, randomization, and controlled conditions to ensure high internal validity (Bonell et al., 2012). However, this rigidity often limits their applicability to real-world healthcare settings, where patient needs and clinical conditions are dynamic (Greenhalgh et al., 2014). In contrast, AR allows for iterative modifications based on ongoing stakeholder feedback (Kemmis & McTaggart, 2005), integrates real-world complexities, ensuring that interventions are practically feasible and context-sensitive (McNiff & Whitehead, 2011) and bridges the gap between research and practice, making it more suitable for healthcare professionals seeking immediate improvements in patient care (Whitehead & Schneider, 2013).

RCTs maintain strict researcher control, with participants often treated as passive subjects (Cartwright, 2011). This hierarchical structure can lead to mistrust and reduced participant engagement, particularly in community-based and healthcare research (Brydon-Miller, Greenwood & Maguire, 2003). In contrast, AR involves participants as active collaborators in the research process (Reason & Bradbury, 2001), enhances engagement, trust, and compliance, leading to higher retention rates and more meaningful data (Greenwood & Levin, 2007) and encourages interdisciplinary teamwork, making it particularly effective in healthcare settings where collaboration among nurses, doctors, and patients is crucial (Whitehead & Schneider, 2013).

RCTs often prioritize scientific objectivity over participant autonomy, sometimes leading to ethical dilemmas (Lincoln & Guba, 1985). One major concern is the withholding of beneficial interventions from control groups, raising questions about fairness and patient rights (Bonell et al., 2012). AR, on the other hand empowers participants by involving them in decision-making, ensuring that research is conducted with rather than on people (McNiff & Whitehead, 2011), respects autonomy and agency, making it a more ethical approach in settings where collaborative care and patient empowerment are essential (Baum et al., 2006) and minimizes ethical risks associated with randomization, as all participants actively shape and refine interventions (Kemmis & McTaggart, 2005).

In healthcare, nursing, and midwifery, ethical research demands that patient welfare is prioritized over rigid experimental control. While RCTs may delay treatment for control groups, AR ensures that all participants benefit from continuous intervention improvements (Greenhalgh et al., 2014). An example in nursing ethics can be illustrated as follows: One limitation of randomized controlled trials (RCTs) is that they necessitate the inclusion of a control group receiving standard care, even when preliminary findings suggest that the new wound care treatment may be highly effective. Conversely, an advantage of action research (AR) is its capacity to allow nurses to dynamically adjust treatments, ensuring that all patients have access to potential benefits as they emerge (Whitehead & Schneider, 2013).

While RCTs remain the gold standard for establishing causality, their practical and ethical limitations make them less suitable for dynamic, practice-based disciplines like nursing and midwifery (Bonell et al., 2012). A hybrid approach, such as Experimental Action Research (EAR), combines the empirical rigor of RCTs with the collaborative, adaptive nature of AR, ensuring scientific credibility while maintaining ethical integrity (Tashakkori & Teddlie, 2010), actionable insights that are immediately applicable in healthcare settings (Greenwood & Levin, 2007) and ethical respect for participants, ensuring beneficence and justice in clinical trials (Baum et al., 2006).

Conclusion and Discussion

The ongoing debate between positivism and interpretivism remains central in the social, behavioral, health, and human sciences, as each paradigm offers unique strengths and limitations. Positivism provides structure, objectivity, and generalizability but often overlooks the complexities of human experiences. In contrast, interpretivism values context, meaning, and subjectivity yet is frequently criticized for its lack of replicability and generalizability. This epistemological divide underscores the need for methodological pluralism to balance scientific rigor with humanistic inquiry (Marrow, 1969).

Randomized controlled trials (RCTs) have long been regarded as the gold standard for establishing causality in scientific research. However, their application in social sciences, nursing, and humanities presents significant challenges, including ethical dilemmas, ecological validity concerns, implementation difficulties, and limited adaptability. These constraints necessitate the integration of alternative methodologies, such as qualitative research, mixed methods approaches, and observational studies, to capture the complexity of real-world social and healthcare issues.

RCTs and action research represent contrasting methodological approaches, each rooted in distinct paradigms. RCTs, aligned with radical structuralist and functionalist paradigm, emphasize objectivity, causality, and predictability, yet they often oversimplify complex social phenomena. Conversely, action research, founded in interpretivism and radical humanism, prioritizes context, participation, and social transformation but lacks generalizability and control inherent in experimental designs. As research fields evolve, incorporating both experimental rigor and participatory engagement can lead to more comprehensive and contextually relevant findings (Marrow, 1969).

Experimental action research (EAR) emerges as a viable middle ground, combining the empirical rigor of RCTs with the participatory flexibility of action research. This methodology is particularly relevant in healthcare, nursing, and education, where evidence-based yet context-sensitive interventions are necessary. EAR ensures scientific credibility while allowing for iterative refinements based on real-

world insights (Gunbayi, 2020a). By integrating experimental and participatory research elements, EAR enhances validity, ethical soundness, and the applicability of interventions, making it a valuable approach for mixed methods researchers in practice-based fields.

Action research offers notable ethical and practical advantages over RCTs, particularly in healthcare, nursing, and social sciences. By involving stakeholders as co-researchers, it fosters ethical inclusivity and real-world adaptability, making it a more suitable methodology for patient-centered care. While RCTs remain crucial for establishing causality, their rigid structure and ethical constraints often limit their applicability in dynamic, practice-oriented settings. The growing recognition of participatory, mixed methods approaches like EAR signifies a shift toward more inclusive, ethical, and practice-informed research paradigms (Whitehead & Schneider, 2013).

As Lewin (1946) asserted, "No action without research; no research without action", and experimental action research necessitates a controlled investigation into the comparative effectiveness of various techniques within nearly identical social contexts. Among the different forms of action research, the experimental approach holds the greatest potential for advancing scientific knowledge. Under favorable conditions, it enables the definitive testing of specific hypotheses. However, it is also the most challenging form of action research to implement successfully (Marrow, 1969).

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

References

- Allyn Fives, Daniel W. Russell, John Canavan, Rena Lyons, Patricia Eaton, Carmel Devaney, Noreen Kearns & Aoife O'Brien (2015) The ethics of randomized controlled trials in social settings: can social trials be scientifically promising and must there be equipoise? *International Journal of Research & Method in Education*, 38:1, 56-71.
- Baum, F., MacDougall, C., & Smith, D. (2006). Participatory action research. *Journal of Epidemiology & Community Health*, 60(10), 854-857.
- Baumeister, R.F. & Leary, M.R. (1997). Writing narrative literature reviews. *Review of General Psychology*, 1, 311-320.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Penguin Books.
- Bonell, C., Fletcher, A., Morton, M., Lorenc, T., & Moore, L. (2012). Realist randomized controlled trials: A new approach to evaluating complex public health interventions. *Social Science & Medicine*, 75 (12), 2299-2306.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Brydon-Miller, M., Greenwood, D., & Maguire, P. (2003). Why action research? *Action Research*, 1(1), 9-28.
- Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, knowledge, and action research*. Routledge.
- Cartwright, N. (2011). A philosopher's view of the long road from RCTs to effectiveness. *The Lancet*, 377(9775), 1400-1401.
- Cartwright, N., & Hardie, J. (2012). *Evidence-based policy: A practical guide to doing it better*. Oxford University Press.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.

- Comte, A. ([1848] 2009). *A general view of positivism*. Cambridge University Press.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. Houghton Mifflin, Boston.
- Cooper, H. M. (1998). *Synthesizing Research: A Guide for Literature Reviews*. New York, NY, USA: Sage.
- Cornish, F., & Gillespie, A. (2009). A pragmatist approach to the problem of knowledge in health psychology. *Journal of Health Psychology, 14*(6), 800-809.
- Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., & Petticrew, M. (2008). Developing and evaluating complex interventions: The new Medical Research Council guidance. *BMJ, 337*, a1655.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.
- Deaton, A., & Cartwright, N. (2018). Understanding and misunderstanding randomized controlled trials. *Social Science & Medicine, 210*, 2-21.
- Denzin, N. K., & Lincoln, Y. S. (2018). *The SAGE handbook of qualitative research* (5th ed.). Los Angeles, CA: Sage.
- Dwan, K., Gamble, C., Williamson, P. R., & Kirkham, J. J. (2013). Systematic review of the empirical evidence of study publication bias and outcome reporting bias- An Updated Review. *PLoS ONE, 8*(7), e66844
- Durkheim, E. ([1895] 1982). *The rules of sociological method*. The Free Press.
- Emanuel, E. J., Wendler, D., & Grady, C. (2000). What makes clinical research ethical? *JAMA, 283*(20), 2701-2711.
- Flyvbjerg, B. (2001). *Making social science matter: Why social inquiry fails and how it can succeed again*. Cambridge University Press.
- Freire, P. (1972), *Pedagogy of the Oppressed*. Harmondsworth: Penguin.
- Greenhalgh, T., Howick, J. and Maskrey, N. (2014) Evidence Based Medicine: A Movement in Crisis? *BMJ, 348*, g3725-g3725.
- Greenwood, D. J., & Levin, M. (2011). *Introduction to action research: Social research for social change*. SAGE Publications, Inc.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal, 29*, 75-92.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* Sage Publications, Inc., Thousand Oaks, 105-117.
- Gunbayi, I. (2020a). Action research as a mixed methods research: Definition, philosophy, types, process, political and ethical issues, and pros and cons. *Journal of Mixed Methods Studies, 2*, 16-25.
- Gunbayi, I. (2020b). Knowledge-constitutive interests and social paradigms in guiding mixed methods research (MMR). *Journal of Mixed Methods Studies, 1*, 44-56.
- Gunbayı, İ., & Sorm, S. (2018). Social paradigms in guiding social research design: The functional, interpretive, radical humanist and radical structural paradigms. *International Journal on New Trends in Education and Their Implications, 9*(2), 57-76.
- Habermas, J. (1987). *Knowledge and Human Interests*. Boston: Polity Press
- Hernan, M. A., & Robins, J. M. (2016). Using big data to emulate a target trial when a randomized trial is not available. *American Journal of Epidemiology, 183*(8), 758-764.
- Ioannidis, J. P. (2005). Why most published research findings are false. *PLoS Medicine, 2*(8), e124.
- Kemmis, S., & McTaggart, R. (2005). Participatory action research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed., pp. 559-604), Sage, Thousand Oaks.
- Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues, 2*(4), 34-46.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

- Marrow, A. J. (1969). *The Practical Theorist: The Life and Work of Kurt Lewin*. Basic Books, Inc.
- McNiff, J. (2013). *Action research: Principles and practice* (3rd ed.). Routledge.
- McNiff, J., & Whitehead, J. (2011). *All you need to know about action research*. 2nd Edition, Sage Publications, London.
- Miller, F. G., & Brody, H. (2003). A critique of clinical equipoise: Therapeutic misconception in the ethics of clinical trials. *The Hastings Center Report*, 33(3), 19-28.
- Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. Sage Publications, Inc.
- Reason, P., & Bradbury, H. (2008). *The SAGE handbook of action research: Participative inquiry and practice*. Sage.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton, Mifflin and Company.
- Tashakkori, A., & Teddlie, C. (2010). *SAGE handbook of mixed methods in social & behavioral research* (2nd ed.). SAGE Publications, Inc., Thousand Oaks.
- Weber, M. (1949). *The methodology of the social sciences*. Free Press.
- Whitehead, D., & Schneider, Z. (2013). *Mixed-Methods Research in Nursing and Midwifery Research: Methods and Appraisal for Evidence-Based Practice*. In Z. Schneider, & D. Whitehead (Eds.), *Mixed Methods Research* (4th ed., pp. 263-284). Elsevier-Mosby.

Conflicts of Interest

No conflict of interest has been declared by the author.

Author Contribution

Corresponding author Ilhan Gunbayi: Conceptualization, data curation, investigation, methodology, writing original draft, review & editing

Declaration of Competing Interest

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-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**”, the rules of scientific, ethical and citation were followed; it was undertaken by the author of this study that no falsification was made on the collected data. “Journal of Action Qualitative & Mixed Methods Research and Editor” had no responsibility for all ethical violations to be encountered, and all responsibility belongs to the author and that the study was not submitted for evaluation to any other academic publishing environment.

Institutional review board (IRB) approval

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

Data Availability Statement

Anonymised data from this study can be made available on request from jaqmer.editor@gmail.com