



Transformative Praxis Beyond Methodology: A Multi-Theoretical Integration of Classroom Action Research for Novice Educators' Critical Reflection and Epistemic Awakening

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ABSTRACT

Introduction: Critical reflection constitutes a foundational competency for novice educators, yet remains suboptimally developed due to limited experiential scaffolding and insufficient systematic guidance. While Classroom Action Research (CAR) has been widely employed as a methodological tool, its transformative potential as a multi-theoretical praxis remains underexplored. This study addresses this gap by integrating four complementary theoretical frameworks—Dewey's reflective thinking, Korthagen's ALACT model, Mezirow's transformative learning, and Freirean critical pedagogy—to reconceptualize CAR not merely as research methodology but as transformative praxis capable of catalyzing epistemic awakening among novice educators.

Method: Employing a participatory action research design, this study conducted an intensive one-day workshop with novice educators (pre-certification teachers) in the coastal communities of Sidoarjo Regency, Indonesia. The intervention comprised four sequential phases: (1) conceptual grounding through theoretical orientation, (2) problem identification and critical analysis using classroom data as evidentiary foundations, (3) CAR proposal development with peer review and mentor feedback, and (4) evaluation and reflective synthesis. Data were collected through pre-post evaluation forms, participant-generated CAR proposals, observational field notes, and reflective journals, then analyzed using descriptive statistics and thematic analysis following Braun and Clarke's six-phase approach.

Result: Evaluation data revealed significant paradigmatic shifts in participants' understanding of critical reflection and CAR. Participants transcended viewing reflection as administrative ritual, instead embracing it as transformative strategy for cultivating sustained critical consciousness.

Conclusion: This study contributes theoretical novelty by demonstrating the integrative power of synthesizing Deweyan, Korthagenian, Mezirowian, and Freirean perspectives within a unified framework for novice educator development. The findings validate CAR's function not merely as methodological instrument but as transformative praxis that catalyzes epistemic awakening and perspective transformation.

KEYWORDS :

Classroom Action Research; Critical Reflection; Novice Educators; Transformative Learning; Multi-Theoretical Integration; Reflective Praxis; Teacher Professionalism; Epistemic Awakening





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INTRODUCTION

Teaching, in its most profound manifestation, transcends the mechanical transmission of knowledge; it constitutes a dialogical praxis wherein educator and learner co-construct meaning within the crucible of shared inquiry. Within this ontological framework, critical reflection emerges not merely as a technical skill but as a foundational competency that novice educators must continuously cultivate. Drawing upon John Dewey's (1933) seminal distinction between routine action and reflective action, reflection represents "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it" (p. 9). This epistemological foundation positions reflection as a hermeneutic mediation through which deeper understanding of the learning process is forged, moving beyond superficial evaluation toward transformative insight (Bachore, Dagaga and Lerebo, 2024; Chaula, 2024; You, He and Yue, 2025).

Novice educators occupy a pivotal position as architects of educational futures even before their full entry into professional practice. Their teaching readiness must be measured not solely by content mastery and pedagogical skills but also by emotional maturity, mental resilience, and adaptive capacity amid the often-turbulent dynamics of classroom life (Fromme *et al.*, 2026). Fred Korthagen's (2004) ALACT model—Action, Looking back, Awareness of essential aspects, Creating alternative methods, and Trial—provides a systematic framework for understanding how novice educators can develop reflective capacities through iterative cycles of practice and reflection. This model operationalizes Deweyan reflection within teacher education contexts, acknowledging that authentic pedagogical reflection engages not only cognition but also the full spectrum of human experience—intuition, emotion, and embodied knowledge (Liu *et al.*, 2024). Consequently, critical and reflective thinking skills constitute essential aspects supporting teaching readiness and professional development (Kiran *et al.*, 2023).

Despite its acknowledged significance, empirical evidence suggests that critical reflection among novice educators remains suboptimally developed in practice. The confluence of limited teaching hours, scant experiential repertoire, and insufficient systematic guidance often reduces evaluative processes to superficial description, failing to penetrate the deeper strata of critical reflection necessary for substantive pedagogical improvement. Jack Mezirow's (1991) transformative learning theory illuminates this challenge: without what he terms "disorienting dilemmas"—moments of cognitive and existential disruption that destabilize existing meaning schemes—educators remain trapped in unexamined assumptions and routine practices. The absence of structured opportunities for critical reflection and rational discourse prevents the perspective transformation essential for professional growth (Tolan *et al.*, 2020).

Classroom Action Research (CAR) offers a promising response to this epistemic deficit. Rooted historically in Kurt Lewin's action research spiral and subsequently refined through the participatory praxis of Kemmis and McTaggart (2014), CAR transcends its methodological origins to function as an emancipatory ecosystem wherein teachers are empowered to develop data-driven strategies, continuously interrogate their pedagogical practices, and cultivate critical consciousness regarding classroom challenges. Paulo Freire's (1970) critical pedagogy, particularly his concepts of conscientização (critical consciousness) and praxis (reflection and action upon the world to transform it), provides the socio-political dimension: education must emerge from the concrete realities of learners rather than being imposed through "banking models" of education. Through CAR's iterative cycles of





planning, acting, observing, and reflecting, novice educators immerse themselves in their own teaching experiences, transforming every classroom dilemma into a pathway toward pedagogical wisdom (Schei, Fuks and Boudreau, 2019).

Moreover, CAR functions not merely as a structured research methodology but as a reflective pedagogical approach that fosters teachers' critical awareness of classroom challenges. Beginning educators are empowered to develop data-driven strategies, continuously evaluate their teaching practices, and hone their academic writing skills. Lev Vygotsky's (1978) concept of the Zone of Proximal Development, combined with Donald Schön's (1983) distinction between reflection-in-action and reflection-on-action, positions CAR as a transformative praxis wherein novice educators, guided by more knowledgeable mentors, co-construct professional knowledge through collaborative inquiry. This integrative approach addresses contemporary educational challenges in a contextual and sustainable manner (Gardner and Parrish, 2019; Wolsey and Jacobsen, 2024).

Based on this theoretical constellation, a systematic, planned, and sustainable mentoring effort is needed to optimize the critical reflection ability of novice educators through CAR. Therefore, this community service activity focuses on prospective teachers who are already teaching in schools but have not yet obtained Teacher Certification (Serdik). The aim is to ensure that these novice educators possess teaching skills and abilities by gradually guiding them to identify learning problems, design and implement corrective actions, and conduct systematic data-based reflections. Through this process, it is expected that a sustainable reflective-critical mindset will be formed, enabling novice educators to develop more effective learning practices, adapt to classroom dynamics, respond to students' needs, and manifest themselves as emergent professional educators through the praxis of critical reflection.

MATERIALS AND METHODS

Research Design

This study employed a participatory action research design, aligning with the transformative praxis framework that underpins Classroom Action Research (CAR) as both methodological approach and emancipatory pedagogical strategy (Reason & Bradbury, 2008; Kemmis et al., 2014). The design was structured to facilitate collaborative knowledge construction between mentors and novice educators, positioning participants not as passive recipients of knowledge but as active co-inquirers in their professional development journey. This approach resonates with Freire's (1970) conception of education as dialogical praxis, wherein learning emerges through critical reflection on lived experience. The participatory design was further informed by Vygotsky's (1978) sociocultural theory, which emphasizes that cognitive development occurs through social interaction and mediated learning within the Zone of Proximal Development. By embedding the research within the naturalistic context of participants' teaching practice, the design enabled authentic engagement with real classroom challenges while simultaneously generating actionable knowledge for pedagogical improvement.

Participants and Context

The intervention was conducted within a Teacher Candidate Community situated in the coastal region of Sidoarjo Regency, East Java, Indonesia—a socio-ecological context characterized by unique educational challenges including limited infrastructure, diverse student backgrounds, and resource constraints. Participants comprised novice educators teaching at elementary (SD) and junior secondary (SMP) levels who were actively engaged in classroom instruction but had not yet obtained Educator Certification (Serdik). This specific population represents a critical transitional phase in professional development, wherein educators possess foundational teaching experience yet lack formal certification and systematic mentoring in reflective practice. Purposive sampling was employed to select participants based on their active teaching status, willingness to engage in



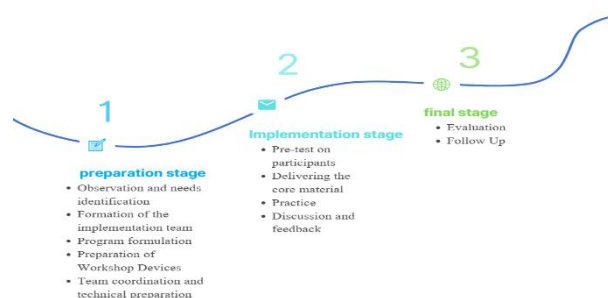


intensive professional development activities, and availability to participate in the full-day workshop. The selection criteria ensured that participants could meaningfully contribute to and benefit from the intervention, as they were positioned to immediately apply learned concepts within their authentic teaching contexts.

Intervention Procedure

The intervention consisted of a structured one-day workshop (08:30–16:30 WIB) designed as an immersive reflective praxis space. The workshop architecture comprised four sequential yet interconnected phases, each grounded in theoretical principles:

1. Phase 1: Conceptual Grounding and Theoretical Orientation. Participants received foundational instruction on critical reflection and CAR, encompassing epistemological foundations, methodological principles, and implementation cycles. Instructional materials were delivered through printed handouts due to infrastructural constraints, supplemented by interactive discussions that connected theoretical constructs to participants' lived teaching experiences. This phase operationalized Dewey's (1933) movement from routine to reflective action, creating what Mezirow (1991) terms a "disorienting dilemma" to destabilize unexamined assumptions about teaching practice.
2. Phase 2: Problem Identification and Critical Analysis. Through guided group discussions and structured reflection exercises, participants identified authentic learning problems emerging from their classroom experiences. Participants were trained to move beyond descriptive accounts toward causal analysis, utilizing classroom data—observation records, teaching notes, reflective journals—as evidentiary foundations for objective scrutiny (Batubara et al., 2026). This phase engaged Korthagen's (2004) ALACT cycle, systematically guiding participants through action, retrospective looking, awareness of essential aspects, creation of alternatives, and trial.
3. Phase 3: CAR Proposal Development and Peer Review. Participants received intensive mentorship in drafting simplified CAR proposals encompassing problem formulation, research objectives, intervention design, data collection techniques, and success indicators. Mentorship emphasized contextual appropriateness and feasibility, aligning with Freire's (1970) insistence that educational interventions must emerge from concrete learner realities. Participants presented draft proposals for peer and mentor feedback, fostering collaborative refinement through rational discourse as conceptualized by Mezirow (2000).
4. Phase 4: Evaluation and Reflective Synthesis. Participants completed structured evaluation instruments assessing comprehension of critical reflection and CAR concepts, perceived relevance of materials, clarity of presentation, and utility for professional development. This phase facilitated metacognitive awareness of learning gains and commitment to sustained reflective practice beyond the workshop context.





Data Collection

Multiple data sources were employed to ensure triangulation and methodological rigor:

1. Pre- and post-workshop evaluation forms measuring conceptual understanding, self-efficacy, and attitudinal shifts regarding critical reflection and CAR using 5-point Likert scales
2. Participant-generated CAR proposals documenting problem identification, intervention design, and evidence-based reasoning
3. Observational field notes capturing interaction patterns, discussion quality, and engagement levels throughout the workshop
4. Reflective journals providing insights into participants' internal meaning-making processes and reflective depth
5. Post-workshop feedback forms assessing perceived utility, relevance, and suggestions for program improvement

Data Analysis

Quantitative data from evaluation forms were analyzed using descriptive statistics (means, standard deviations, frequency distributions) and paired sample t-tests to assess pre-post changes in conceptual understanding, with statistical significance set at $p < 0.05$. Qualitative data from CAR proposals, reflective journals, and observational notes underwent thematic analysis following Braun and Clarke's (2006) six-phase approach: (1) familiarization with data through repeated reading, (2) generating initial codes systematically across the entire dataset, (3) searching for themes by collating codes into potential themes, (4) reviewing themes to ensure coherence and distinctiveness, (5) defining and naming themes to capture essential aspects, and (6) producing the report with vivid extract quotes. Particular attention was paid to shifts in reflective depth, problem-framing sophistication, and evidence-based reasoning, with analysis guided by the theoretical framework integrating Deweyan, Korthagenian, Mezirowian, and Freirean perspectives. Inter-coder reliability was established through independent coding by two researchers followed by consensus discussions to resolve discrepancies.

Ethical Considerations

The study adhered to ethical principles governing educational research, including informed consent, voluntary participation, confidentiality, and the right to withdraw without consequence. Participants were fully briefed on the study's purpose, procedures, potential benefits, and risks prior to enrollment. Written informed consent was obtained from all participants, with explicit assurance that participation would not affect their professional standing or certification prospects. All data were anonymized using pseudonyms to protect participant identities, and findings are reported in aggregate to prevent individual identification. The research protocol received approval from the institutional ethics committee, and data were stored securely with access restricted to the research team. Participants were debriefed following the workshop and provided with resources for continued professional development, ensuring that the research process itself contributed positively to their professional growth trajectory.

RESULTS AND DISCUSSION

Training and mentoring are conducted for a full day from 08:30 AM to 04:30 PM WIB, with material focused on strengthening the critical reflection abilities of novice educators thru the Classroom Action Research (CAR) approach. Thru CAR, novice educators are actively encouraged to investigate learning practices thru their own experiences. This way, teachers gain more meaningful teaching experiences rather than just learning.

In that context, the ability for critical reflection is one of the important competencies that





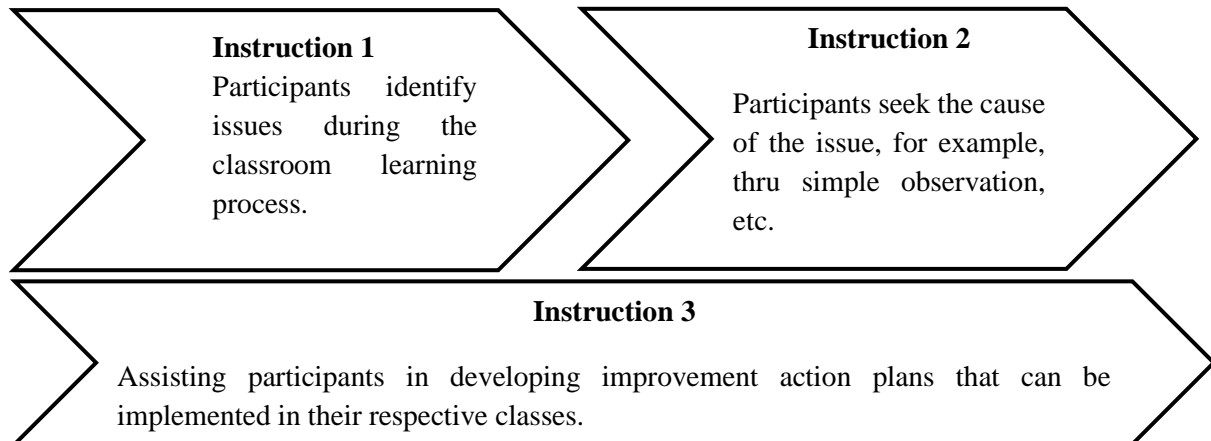
beginner educators need to develop teaching professionalism. Critical reflection not only serves as an evaluation activity of learning but also helps identify causal factors as a process of in-depth analysis of teaching experiences to understand learning problems and determine improvement steps. Therefore, thru the CAR cycle, which includes planning, action, observation, and reflection, participants not only learn theoretical learning concepts but are also trained to build a critical reflection mindset in evaluating and continuously improving learning practices.

At the initial stage of the activity, participants were provided with basic material on the concept of critical reflection and CAR, which includes definitions, principles, characteristics, and implementation stages. The delivery of this material aims to build participants' theoretical understanding of the importance of critical reflection in the learning process. In that session, it was explained that critical reflection is not only understood as an evaluation activity but also as part of a deep analysis process of teaching experiences to identify learning issues, understand the factors causing learning problems, and seek solutions to these problems. In the implementation of this session, the delivery of the material was done using printed handouts that were distributed to the participants, considering the limitations of the facilities that were not yet available, such as a projector to display the PowerPoint Template. Nevertheless, the training process continued to be interactive thru discussion and brainstorming activities that involved the participants' real experiences while teaching in the classroom. This approach motivates participants to more actively relate the material obtained to the relevant learning issues they are currently facing. Thus, the process of understanding the concepts of critical reflection and CAR becomes more contextual and easier to comprehend. In addition, discussion activities also help participants develop an initial awareness of the importance of reflective thinking as part of the professional development of novice educators.

The second stage activity, participants are directed to identify learning problems based on their teaching experiences in their respective classes. This activity is conducted thru group discussions and initial reflection practices with the aim of helping participants identify various learning obstacles that arise, such as low student participation, difficulties in classroom management, and so on. Thru Classroom Action Research based on the full utilization of classroom data as a foundation for reflective thinking. The collected classroom data, such as observation results, teaching notes, and educator reflections, serve as concrete evidence to help teachers understand and scrutinize the learning conditions objectively (Scott, Hughes and Davids, 2021; Tong, An and Cui, 2024). The use of this data prevents reflections that are purely subjective and intuitive from the teacher, so that every improvement action designed has a clear, strong, and measurable basis.

Thru this process, participants are trained not only to describe learning problems but also to analyze the causal factors that influence the emergence of these problems. In this session, the speaker provides direct guidance so that participants can connect their teaching experiences with the concept of critical reflection that was learned in the previous stage. as can be illustrated in chart 2 as follows:





As Fred Korthagen explains, the reflection carried out by educators is usually not only logical and systematic but also often involves experiences, intuition, emotions, and experiences during the learning process, so it can be referred to as rational reflection and non-rational reflection.

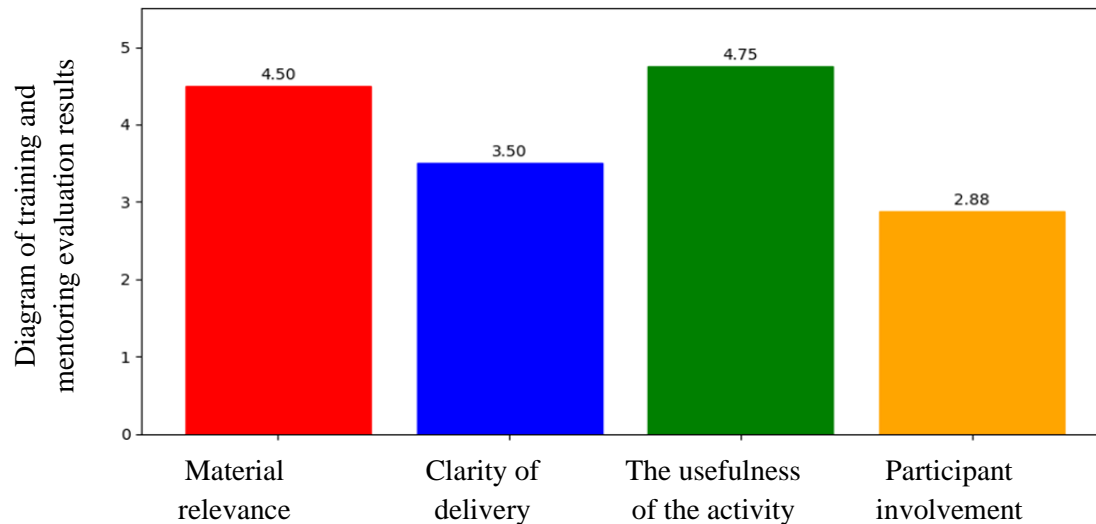
Through this mentoring process, novice educators will gain initial experience in connecting learning problems, reflection processes, and data-based learning improvement efforts. Thus, this activity not only helps participants understand the CAR concept theoretically but also stimulates the formation of reflective and critical thinking habits.

The third stage activity, participants are guided in drafting the CAR plan based on the learning problems identified in the previous stage. This activity focuses on the practice of preparing a simple CAR proposal, which includes problem formulation, research objectives, action improvement design, data collection techniques, and the development of action success indicators. In the mentoring process, participants are guided to choose learning actions that are realistic and suitable for their respective class conditions. The resource person also provided examples of drafting a CAR proposal and accompanied the participants in formulating the relationship between learning problems, the actions to be implemented, and the form of reflection carried out after the actions take place. At the end of the discussion, participants had the opportunity to present the CAR design they had prepared simply. Through discussion and feedback sessions, participants receive input regarding the feasibility of actions, clarity of problem formulation, and the alignment between learning problems and the proposed solutions. This activity helps participants develop critical reflective thinking skills in formulating learning improvement actions.

At the final stage, participants are asked to fill out an evaluation form provided by the PkM team as feedback on the implementation of the training and mentoring activities. This evaluation form is used to assess the participants' understanding of the material provided, particularly regarding the concepts of critical reflection and CAR, as well as to identify participants' responses to the training and mentoring methods that have been implemented. The evaluation process is conducted in writing, covering several assessment aspects, such as the relevance of the material to participants' needs, the clarity of the material presentation by the resource person, and the usefulness of the activities in helping participants understand critical reflection and CAR. Through this evaluation, the PkM team gains an overview of the program's implementation effectiveness and input for the development of similar activities in future implementations. The evaluation results are illustrated in the following diagram 3:

Diagram of training and mentoring evaluation results





This community service activity has been successful because it aims to help novice educators better understand, become motivated, and gain initial experience in conducting critical reflection and developing CAR as an effort to improve learning. Based on the evaluation results, it was observed that before participating in the activity, some participants still did not have a deep understanding of the concepts of critical reflection and CAR. However, after attending the training and mentoring, there was an increase in understanding as well as critical reflection and CAR. This was evident from the more active and responsive discussion process, with many participants starting to provide feedback, share teaching experiences, and offer ideas related to learning improvement. In addition, participants also demonstrated their understanding thru questions and discussions about the learning issues they encountered in the classroom.

From this, it can be understood that a classroom cannot only be interpreted as a physical learning space, but also as a group of students who engage in the learning process together under the guidance of an educator. Thru CAR, teachers and prospective teachers are given the opportunity to continuously improve the quality and effectiveness of the learning process thru reflective thinking.(Gathu, 2022; E *et al.*, 2024; Orakci, Aktan and Cevik, 2026).

Theoretical Novelty and Contributions

This study makes several substantive contributions to the theoretical landscape of teacher education and reflective practice. First, it demonstrates the integrative power of synthesizing four complementary theoretical perspectives—Deweyan reflective thinking, Korthagen's ALACT model, Mezirow's transformative learning, and Freirean critical pedagogy—within a unified framework for understanding novice educator development. While previous studies have examined these theories in isolation, this research reveals their synergistic potential when operationalized through CAR as transformative praxis. The empirical validation of CAR's function not merely as methodological tool but as catalyst for epistemic awakening and perspective transformation extends Mezirow's (1991) transformative learning theory into the domain of teacher professional development, suggesting that disorienting dilemmas can be deliberately engineered through structured mentoring to accelerate professional growth (Gonzalez, Eberiel and Shea, 2019; Tammets and Ley, 2023).

Second, this study illuminates the critical role of mentoring relationships conceptualized through Vygotskian (1978) scaffolding principles in supporting novice educators through their Zones of Proximal Development toward autonomous reflective practice. The findings reveal that effective





mentoring transcends knowledge transmission to encompass what Korthagen (2014) terms "core reflection"—engagement with the whole person of the teacher, including intuition, emotion, and embodied knowledge. This holistic approach positions CAR not as technical exercise but as existential encounter wherein educators confront their professional identities and reconstruct their pedagogical philosophies (Yoon, Blatt and Greenberg, 2017; Marave-Vivas *et al.*, 2022; Albayrak, Aydin and Bakir, 2025).

Third, the study contributes to the growing literature on contextually-sensitive teacher education by demonstrating how CAR can be adapted to resource-constrained environments without compromising theoretical rigor. The successful implementation despite infrastructural limitations (absence of projection facilities) suggests that the essence of transformative mentoring lies not in technological sophistication but in the quality of dialogical engagement and the depth of reflective inquiry. This finding challenges dominant assumptions about the prerequisites for effective professional development and offers implications for teacher education in diverse global contexts.

Limitations

Despite its contributions, this study acknowledges several limitations that temper the generalizability of findings and suggest directions for future research. First, the intensive one-day workshop format, while productive in catalyzing initial conceptual shifts, may not provide sufficient temporal space for deep internalization and sustained behavioral change. Transformative learning, as Mezirow (1991) emphasizes, is not instantaneous but unfolds through prolonged engagement with disorienting dilemmas and sustained rational discourse. The compressed timeframe may have constrained participants' ability to fully integrate new reflective habits into their ongoing practice.

Second, the study's focus on a specific geographic and cultural context—coastal Indonesian communities—limits the transferability of findings to other educational settings. The unique socio-ecological dynamics, resource constraints, and cultural values of this context may have shaped participants' responses to the intervention in ways that do not generalize to urban, suburban, or international contexts. Comparative research across diverse educational ecosystems is needed to determine the boundary conditions of the observed effects.

Third, the reliance on self-report measures and researcher-generated observational data introduces potential biases related to social desirability and confirmation bias. While triangulation through multiple data sources mitigates this concern, future studies would benefit from incorporating more objective measures of reflective practice, such as analysis of actual classroom teaching videos, student learning outcomes, or longitudinal tracking of CAR implementation fidelity.

Fourth, the absence of a control group precludes definitive causal claims about the intervention's effectiveness. While the pre-post design demonstrates significant changes, alternative explanations such as maturation, history effects, or selection bias cannot be entirely ruled out. Randomized controlled trials or quasi-experimental designs with comparison groups would strengthen the evidentiary basis for CAR-based mentoring.

Finally, the study did not assess the long-term sustainability of reflective practice habits beyond the immediate post-workshop period. Without longitudinal follow-up, it remains unclear whether participants maintained their reflective practices, encountered implementation barriers, or experienced regression to routine action over time.

Future Research and Community Service Directions

Building upon the findings and limitations of this study, several promising avenues for future research and community service emerge. First, longitudinal studies tracking novice educators over extended periods (e.g., 6-12 months post-intervention) are needed to assess the sustainability of reflective practice habits and their impact on teaching effectiveness and student learning outcomes.





Such studies should employ mixed-methods designs combining quantitative measures of teaching quality with qualitative insights into the challenges and facilitators of sustained reflective practice.

Second, comparative research across diverse educational contexts—urban versus rural, resource-rich versus resource-constrained, different cultural and national settings—is essential to determine the generalizability of the observed effects and identify context-specific adaptations of CAR-based mentoring. This research should examine how cultural values, institutional structures, and resource availability shape the implementation and outcomes of reflective practice interventions.

Third, experimental and quasi-experimental studies with control groups are needed to establish causal relationships between CAR-based mentoring and improvements in critical reflection, teaching quality, and student achievement. Randomized controlled trials would provide stronger evidence for the effectiveness of this approach and help identify the active ingredients of successful interventions.

Fourth, research examining the role of technology in enhancing CAR-based mentoring is warranted. Digital platforms, video-based reflection tools, and artificial intelligence applications could potentially overcome some of the infrastructural limitations encountered in this study and enable more scalable, accessible forms of mentoring. Studies should investigate how technology can be integrated without compromising the dialogical, relational essence of transformative mentoring.

Fifth, future community service initiatives should explore the development of sustained mentoring networks wherein novice educators receive ongoing support through peer communities of practice, regular coaching sessions, and access to expert mentors. Such networks could address the limitation of the one-day workshop format by providing continuous opportunities for rational discourse, collaborative problem-solving, and mutual support.

Sixth, research examining the impact of CAR-based mentoring on student learning outcomes is critically needed. While this study focused on teacher development, the ultimate goal of reflective practice is improved student learning. Studies should investigate whether teachers who engage in sustained CAR-based mentoring produce measurable improvements in student achievement, engagement, and well-being.

Seventh, investigations into the emotional and psychological dimensions of transformative learning are warranted. The process of confronting disorienting dilemmas and reconstructing professional identities can be emotionally challenging, and research should examine how to provide adequate psychological support to novice educators undergoing such transformation.

Finally, policy research examining how educational systems can institutionalize CAR-based mentoring as a core component of teacher professional development is essential. Such research should investigate the structural, financial, and cultural conditions necessary for scaling up successful interventions and embedding reflective practice into the fabric of educational organizations.

Through these research and community service directions, the field can build upon the foundations established in this study to develop more robust, scalable, and sustainable approaches to cultivating critical reflection and teaching professionalism among novice educators.

CONCLUSIONS

This study demonstrates that Classroom Action Research (CAR), when reconceptualized through the integrative lens of Deweyan reflective thinking, Korthagen's ALACT model, Mezirow's transformative learning, and Freirean critical pedagogy, functions not merely as a methodological instrument but as a transformative praxis capable of catalyzing epistemic awakening and sustainable professional development among novice educators. The intensive workshop-based mentoring conducted with pre-certification teachers in coastal Sidoarjo Regency revealed that participants transcended descriptive problem accounts to engage in critical analysis and evidence-based solution formulation, manifesting significant paradigmatic shifts from viewing reflection as administrative ritual toward embracing it as a transformative strategy for cultivating sustained critical consciousness. The study contributes theoretical





novelty by empirically validating the synergistic potential of four complementary frameworks within a unified model for novice educator development, while simultaneously demonstrating that the essence of transformative mentoring resides in the quality of dialogical engagement rather than technological sophistication—offering profound implications for resource-constrained educational contexts globally. However, acknowledging limitations including the compressed one-day workshop format, geographic specificity, absence of a control group, and lack of longitudinal follow-up, future research should prioritize longitudinal studies tracking sustained reflective practice habits, experimental designs with comparison groups, technology-enhanced mentoring models, and investigations into the downstream impact of CAR-based mentoring on student learning outcomes, thereby building toward the institutionalization of reflective praxis as a core component of teacher professional development policy and practice.

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