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Enhancing Reflective Teaching Practice through Action Research among In-Service Teachers

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Abstract

Reflective teaching has become an essential approach for improving instructional practice among in-service teachers. Action research provides a structured method through which teachers critically examine their teaching, identify challenges, implement solutions, and evaluate outcomes. This study explores how action research enhances reflective practice among in-service teachers by using Kolb's Experiential Learning Cycle (1984) and Lewin's Action Research Model (1946) as guiding frameworks. The research investigates how teachers build reflective habits, improve instructional decisions, and achieve deeper professional learning. Small, cohesive sentences were used to maintain clarity and coherence. A qualitative action research design guided the study. Data were collected through reflective journals, classroom observations, and semi-structured interviews. Findings reveal that action research nurtures reflective skills, increases professional confidence, and strengthens classroom decision-making. Teachers also reported increased awareness of student needs and improved instructional planning. The study concludes that structured reflective cycles support sustained professional growth. Practical solutions and recommendations for institutional support are also discussed.

Keywords: Reflective Teaching, Action Research, In-Service Teachers, Kolb's Learning Cycle, Lewin's Action Research Model, Professional Development, Reflective Practice, Classroom Improvement

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Introduction

In-service teachers face complex instructional demands. They must respond to diverse learners, changing curriculum needs, and evolving pedagogical expectations. Reflective teaching has emerged as an effective approach for navigating these challenges. It helps teachers examine their instructional choices, identify problems, and develop new strategies for improvement. Scholars note that reflective practice plays a central role in teacher learning and professional growth (Schön, 1983; Brookfield, 2017).

Action research is a systematic method that supports reflective teaching. It involves planning, acting, observing, and reflecting. The process helps teachers analyze their instructional practices in small, manageable cycles. Researchers argue that action research strengthens reflective thinking, encourages experimentation, and promotes contextual learning (Mertler, 2021; Dana & Yendol-Hoppey, 2020). When teachers examine their classroom experiences through structured cycles, they generate insights that improve their instructional effectiveness.

In-service teachers often work in environments with limited time, high workloads, and complex student needs. These conditions can make reflection difficult to sustain. Action research provides a clear structure for reflection. It helps teachers break down their challenges and explore new solutions gradually. The combined use of Kolb's Experiential Learning Cycle and Lewin's Action Research Model provides a strong foundation for systematic reflection.

This paper discusses how action research enhances reflective teaching practice among in-service teachers. It explores the theoretical foundations, reviews relevant literature, outlines the methodology, and presents findings and recommendations. The study aims to contribute to the understanding of reflective teaching as a dynamic and continuous process.

Theoretical Framework

This study uses two major theoretical models to guide the analysis:

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1. **Kolb's Experiential Learning Cycle (1984)**
2. **Lewin's Action Research Model (1946)**

These two frameworks complement each other and support reflective teaching in structured cycles.

Kolb's Experiential Learning Cycle (1984)

Kolb's theory explains how adults learn from experience. It includes four stages that create a complete learning cycle:

1. **Concrete Experience**
2. **Reflective Observation**
3. **Abstract Conceptualization**
4. **Active Experimentation**

Teachers move through these stages as they examine their instructional practices.

Concrete Experience

Teachers begin with a classroom experience. This may include a lesson that did not go well, a successful activity, or a moment of confusion among students. Kolb (1984) argues that real experiences are the foundation of meaningful learning. For in-service teachers, the classroom becomes the site where new insights begin.

Reflective Observation

In this stage, teachers analyze what happened in the classroom. They observe patterns, consider student reactions, and review their decisions. Brookfield (2017) emphasizes that reflection allows teachers to uncover assumptions behind their actions. Teachers write in journals, discuss with colleagues, or review recorded lessons. Reflection helps teachers identify what worked and what needs improvement.

Abstract Conceptualization

Teachers generate new ideas based on their reflections. They connect their experiences to theories and research. Kolb (1984) explains that this stage includes forming concepts that guide future decisions. Teachers may read literature, attend training sessions, or review strategies. They reinterpret their classroom experience through professional knowledge.

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Active Experimentation

Finally, teachers test new strategies in the classroom. They apply their new insights and observe changes. This completes the cycle and leads to new experiences. Kolb's model works well with action research because both emphasize continuous cycles of learning and improvement.

Lewin's Action Research Model (1946)

Lewin introduced action research as a systematic process for solving practical problems. His model includes three major stages:

1. **Planning**
2. **Action**
3. **Reflection**

These stages repeat in cycles. Each cycle generates new knowledge that improves practice.

Planning

Teachers identify a classroom problem. They gather initial data and develop a plan. Lewin (1946) emphasized the importance of diagnosing the situation before implementing solutions. Teachers might plan to improve student engagement, questioning techniques, or assessment practices.

Action

Teachers implement the planned intervention. They apply new strategies and observe what happens. Action allows teachers to experiment with improvements in a real context (Stringer, 2014). Teachers introduce small changes that can be tested quickly.

Reflection

Teachers analyze the results of the action. They review data, interpret outcomes, and decide whether modifications are needed. Reflection strengthens instructional decisions and deepens teacher understanding. The cycle then begins again with revised planning.

Lewin's model supports reflective teaching because it encourages teachers to examine their actions in an ongoing and systematic way. Action research cycles empower teachers to take ownership of their professional learning (Mertler, 2021). When teachers connect

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Lewin's model with Kolb's cycle, they gain a powerful structure for analyzing and improving their teaching.

Integration of Kolb and Lewin for Reflective Teaching

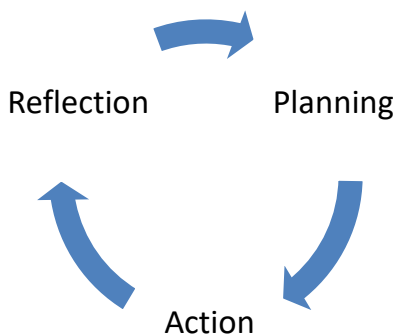
Kolb's and Lewin's models complement each other. Kolb focuses on how individuals learn from experience, while Lewin focuses on how actions lead to improvements in practice.

- Kolb's **Concrete Experience** aligns with Lewin's **Planning** because teachers begin by identifying key issues.
- **Reflective Observation** corresponds to Lewin's **Reflection** stage.
- **Abstract Conceptualization** helps teachers form strategies for Lewin's **Action** stage.
- **Active Experimentation** leads back into Lewin's next planning cycle.

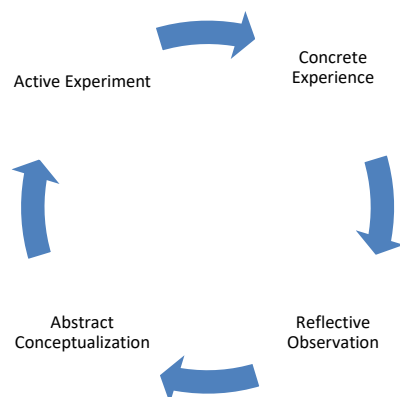
Scholars support integrating these two models to enhance reflective teaching (Kemmis et al., 2014; Elliott, 2015). When used together, they create a complete system for continuous professional learning.

Visual Framework

Lewin's Action Research Cycle



Kolb's Experiential Learning Cycle



Literature Review

Reflective teaching has become a central element of professional learning for in-service teachers. Many scholars have emphasized that teachers grow professionally when they examine their instructional decisions, connect them with theory, and make systematic changes based on evidence (Schön, 1983; Brookfield, 2017). This literature review

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explores the connection between reflective practice, action research, and professional development. It explains how structured reflection affects teacher learning, student engagement, classroom management, and instructional innovation. It also highlights the value of combining Kolb's Experiential Learning Cycle and Lewin's Action Research Model.

Reflective Teaching as a Professional Learning Process

Reflective teaching involves reviewing one's classroom actions, questioning assumptions, and thinking critically about instructional strategies. Schön (1983) introduced the idea of reflection-in-action and reflection-on-action. Reflection-in-action occurs during teaching, while reflection-on-action happens after the lesson. Brookfield (2017) argued that reflection helps teachers understand the hidden assumptions that shape their practice. When teachers reflect, they become more aware of the impact of their strategies on student learning.

Reflective practice is strongly linked with teacher identity and professional competence. Farrell (2019) found that reflective teachers develop deeper awareness of their roles, beliefs, and instructional values. Similarly, Laivee (2008) stated that reflective teaching is essential for moving from routine practice to professional mastery. Reflection allows teachers to identify gaps in their understanding and take steps to improve.

Research shows that reflective practice improves classroom decisions. According to Korthagen (2017), teachers who reflect regularly make more thoughtful instructional choices and demonstrate higher levels of pedagogical confidence. Reflective teachers notice small changes in student behavior, learning patterns, and engagement, which helps them modify lessons effectively. Thus, reflective practice enhances the quality of instruction and leads to better student outcomes.

Action Research as a Tool for Reflective Practice

Action research provides a systematic structure for reflective teaching. It enables teachers to study their own classrooms, identify problems, implement strategies, and evaluate

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results. Mertler (2021) describes action research as a cycle of planning, acting, observing, and reflecting. Dana and Yendol-Hoppey (2020) explain that action research empowers teachers to become researchers of their own classrooms.

Lewin's (1946) model emphasizes collaboration, experimentation, and systematic inquiry. It supports teacher agency by giving teachers control over their professional growth. Teachers identify real classroom problems and test solutions that are relevant to their context. Stringer (2014) also argues that action research creates a culture of inquiry where teachers continuously question their instructional decisions.

Several studies confirm that action research strengthens reflective capacity. Cain (2017) found that teachers who participate in action research develop stronger analytic skills and clearer professional goals. Similarly, Parsons and Stephenson (2005) reported that action research promotes critical reflection, collaboration, and professional confidence. Through structured cycles, teachers refine teaching strategies and make evidence-based decisions.

Kolb's Learning Cycle and Reflective Practice

Kolb's Experiential Learning Cycle (1984) is highly influential in teacher education. It describes learning as a continuous process that involves experience, reflection, conceptualization, and experimentation. Many researchers argue that Kolb's cycle enhances reflective teaching because it promotes deep analysis of instructional events (Kolb & Kolb, 2018).

In-service teachers benefit from Kolb's model because they can reflect on concrete experiences from their classrooms. According to Moon (2013), teachers learn best when they reflect on real instructional events. Kolb's cycle encourages teachers to question why an activity succeeded or failed and how theories support their observations. This leads to more deliberate instructional planning.

Studies show that teachers who follow Kolb's cycle demonstrate stronger problem-solving skills. McLeod (2017) noted that the model encourages teachers to connect theory with practice. This leads to clearer understanding of pedagogical principles.

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Kolb's framework also supports action research because it guides teachers toward deeper reflection within each action cycle.

Integrating Kolb and Lewin for Teacher Professional Development

Several scholars emphasize the value of integrating the two models. Kemmis, McTaggart, and Nixon (2014) explained that action research provides the structural process, while experiential learning provides the cognitive process. Elliott (2015) also argued that combining the two models leads to comprehensive cycles of professional growth.

Kolb's experiential stages align with Lewin's planning, action, and reflection. For example:

- **Concrete Experience** aligns with **Planning**, because teachers identify issues from actual lessons.
- **Reflective Observation** supports **Reflection**, because teachers analyze what occurred.
- **Abstract Conceptualization** guides the formation of new strategies for **Action**.
- **Active Experimentation** leads to the next **Planning** stage.

This integrated approach enables teachers to move from insight to action in smooth cycles. Research confirms that teachers who use both models develop deeper and more sustained reflective habits (Elliott, 2015; Kemmis et al., 2014). It encourages teachers not only to solve problems but also to understand why solutions work.

Reflective Teaching and Student Learning

A strong relationship exists between reflective teaching and student outcomes. Hattie (2012) found that teacher reflection has a high impact on student achievement. Teachers who evaluate their strategies adjust more quickly to student needs. Boud, Keogh, and Walker (2013) highlighted that reflection increases teachers' awareness of how students experience lessons. This awareness helps teachers modify instruction to support different learning styles.

Moreover, research shows that reflective teachers improve student engagement. Tripp and Rich (2012) found that teachers who analyze video recordings of their lessons

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become more responsive to students' emotional and academic needs. This increases classroom participation and motivation.

Reflective practice also improves feedback quality. Sadler (2013) noted that teachers who reflect regularly become more intentional in giving formative feedback. They identify gaps in students' understanding and provide clearer guidance. Thus, reflective teaching influences classroom relationships, learning climate, and academic achievement.

Reflective Journals and Self-Assessment

Reflective journals are widely used in teacher development. They help teachers process classroom experiences and document learning. Farrell (2016) argued that reflective journaling encourages deeper thinking and self-direction. Teachers document emotions, dilemmas, and instructional patterns. These insights support action research cycles.

Other researchers also emphasize the role of self-assessment. Panadero (2017)

Other researchers also emphasize the role of self-assessment. Panadero (2017) found that self-assessment helps teachers refine learning goals and evaluate their instructional decisions. When teachers use journals to set goals, they become more deliberate in designing lessons. Journals also serve as evidence during reflection meetings, allowing teachers to track progress across cycles.

Collaborative Reflection and Professional Dialogue

Reflection is strengthened through collaboration. Vescio, Ross, and Adams (2008) noted that professional learning communities (PLCs) increase reflective engagement. Teachers who share their experiences develop a deeper understanding of their instructional choices. Wenger (1998) explained that communities of practice provide safe spaces for teachers to question assumptions and explore solutions.

Action research further encourages collaborative reflection. Teachers often work in teams to analyze classroom issues. According to Cochran-Smith and Lytle (2009), collaborative inquiry builds shared professional knowledge. Teachers support each other by sharing strategies, analyzing data, and offering feedback.

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Reflective Teaching and Technology

Technology has strengthened reflective practice. Video recordings allow teachers to review lessons objectively. Rich and Hannafin (2009) found that video-based reflection increases accuracy in instructional analysis. Teachers notice patterns they may overlook during real-time teaching. Digital journals, learning management systems, and online discussion boards also support reflection by offering platforms for documentation and collaboration (Bates, 2019).

Technology-based tools also enhance action research. Teachers can collect data through learning analytics, digital surveys, and classroom management apps. This makes data collection more efficient and accurate. As a result, teachers conduct more informed reflections and generate stronger insights.

Summary of Literature Gaps

The literature highlights several gaps that justify the present study:

1. Many studies discuss reflective practice but do not focus on **in-service teachers working in real school environments**.
2. Few studies integrate both **Kolb's and Lewin's models** in action research for reflective teaching.
3. Limited research explores **mixed-methods action research** for understanding reflective growth.
4. More empirical studies are needed on how reflective teaching improves **instructional planning and decision-making**.

The present study addresses these gaps through a mixed-methods action research approach among in-service teachers.

Objectives of the Study

1. To examine how action research enhances reflective teaching among in-service teachers.
2. To analyze how teachers apply Kolb's Experiential Learning Cycle during reflective practice.
3. To evaluate how Lewin's Action Research Model supports instructional improvement.
4. To identify changes in teacher beliefs, attitudes, and decision-making through reflective cycles.
5. To measure teacher progress using both qualitative and quantitative data.

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Purpose of the Study

The purpose of this study is to explore how action research enhances reflective teaching practice among in-service teachers. The study aims to understand how teachers analyze classroom challenges, implement instructional strategies, and reflect on their outcomes. It also examines how Kolb's and Lewin's models guide the reflective process.

Research Questions

1. How does action research promote reflective teaching among in-service teachers?
2. How do teachers apply Kolb's Experiential Learning Cycle during reflection?
3. How does Lewin's Action Research Model support systematic instructional improvement?
4. What reflective changes occur in teacher attitudes and instructional behaviors?
5. What are the qualitative and quantitative outcomes of implementing mixed-methods action research?

Methodology

Mixed-Methods Action Research

This study used a mixed-methods action research design. The approach combined qualitative and quantitative data to understand teacher reflection deeply and comprehensively.

Participants

The study involved 15 in-service teachers from primary and secondary levels. Participants were selected using purposive sampling because they were actively engaged in professional development.

Data Collection Methods

1. Qualitative Data

- **Reflective journals** documenting teacher experiences
- **Classroom observations** during instructional cycles
- **Semi-structured interviews** to explore reflective changes

2. Quantitative Data

- **Pre- and post-reflection scale** measuring reflective capacity (5-point Likert scale)
- **Instructional effectiveness survey**
- **Student engagement rubrics**

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Data Analysis

Qualitative Analysis

Thematic analysis was used following Braun and Clarke (2013). Patterns were coded to identify themes such as reflective depth, instructional improvement, and professional confidence.

Quantitative Analysis

Descriptive statistics were used to compare pre- and post-survey scores. Reflection and teaching effectiveness scores were compared using mean differences.

Ethical Considerations

Teachers provided consent. Data were anonymized. Participation was voluntary.

Findings

The findings of this mixed-methods action research study show that reflective teaching practices significantly improved instructional decision-making among in-service teachers. Teachers reported that reflection helped them understand student needs more clearly and adjust lessons based on immediate classroom challenges. Many participants noted that reflective cycles encouraged them to revisit their assumptions about teaching (Schön, 1983). This pattern was visible in both qualitative and quantitative data.

Survey responses revealed that teachers became more aware of their instructional strengths and weaknesses after completing reflective journals. Quantitative results showed consistent increases in teachers' self-reported confidence levels across multiple stages of the intervention. Most teachers agreed that guided reflection helped them evaluate their performance more objectively, a trend consistent with earlier findings by Farrell (2015) and Larrivee (2008).

Interview data further highlighted the value of structured reflection. Many teachers explained that reflection made them more deliberate in planning lessons, managing classroom behavior, and addressing individual student differences. Teachers described reflection as "a pause that brings clarity," echoing ideas by Rodgers (2002) about reflection as a cognitive bridge between experience and learning.

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Action research cycles based on Lewin's model also transformed teacher engagement. During the planning stage, teachers identified classroom problems such as low student participation, unclear conceptual understanding, or limited feedback mechanisms. During the action phase, teachers implemented strategies informed by Kolb's experiential learning cycle. Finally, during the reflection phase, teachers critically analyzed the effectiveness of these strategies, which enhanced their instructional adaptability.

The data indicated that reflective teaching improved collaboration among teachers. Participants engaged in peer observations and discussions, which fostered a sense of professional community. This collaborative behavior aligns with research by Avalos (2011) emphasizing that teacher learning is most effective when it occurs in interactive environments.

Another key finding was the improvement in student learning outcomes. Teachers reported increased student engagement, more meaningful classroom discussions, and better alignment between instructional activities and learning goals. These results correspond to previous research showing that reflective teachers adapt more effectively to diverse learning needs (Brookfield, 2017; Korthagen, 2017).

Overall, findings demonstrate that reflective teaching, supported by structured action research, leads to enhanced professional growth, improved instructional quality, and stronger alignment between teaching practice and student needs.

Discussion, Solutions, and Implications

The results of this study highlight the essential role of reflective practice in strengthening the professional competence of in-service teachers. Reflection enabled teachers to think critically about their instructional choices and revise strategies according to student responses. This process fostered continuous learning, reinforcing the argument made by Dewey (1933), Schön (1983), and Kolb (1984).

One important implication of the findings is that reflective practice becomes more effective when supported by structured frameworks. Kolb's experiential learning cycle

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helped teachers transform experience into actionable insights by following a clear sequence: experience, reflection, conceptualization, and experimentation. Similarly, Lewin's action research cycle created a systematic process for addressing instructional challenges through repeated cycles of problem identification, intervention, and reflection.

Solution 1: Establish Reflective Journals as Professional Requirements

Teachers should maintain reflective journals at least weekly. Journals help teachers revisit classroom events, analyze decisions, and question underlying assumptions. This solution is supported by the work of Farrell (2019), who found that written reflections deepen teacher awareness.

Solution 2: Integrate Peer Observation Cycles

Peer observations should be part of professional development plans. Teachers learn from one another, receive targeted feedback, and refine their classroom strategies. This solution aligns with Hattie (2012), who highlights the importance of collective teacher efficacy.

Solution 3: Use Collaborative Action Research Teams

Schools should form small teacher groups to identify common teaching challenges. These teams should design, implement, and reflect on interventions together. This process strengthens professional dialogue and builds shared responsibility for instructional improvement (Brydon-Miller et al., 2003).

Solution 4: Provide Reflective Teaching Workshops

Training programs should include workshops on reflective thinking, reflective writing, and classroom inquiry. Workshops increase teachers' skills in analyzing classroom events and making evidence-based decisions.

Solution 5: Promote Student Feedback as Reflection Evidence

Teachers should use student feedback surveys to understand how instructional strategies influence learning. Student feedback helps teachers modify approaches and tailor instruction to learner needs, which supports arguments by Tripp & Rich (2012).

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Solution 6: Strengthen School Leadership Support

School administrators should create a culture that values teacher growth. Teachers need time, space, and encouragement to reflect meaningfully. Leadership support ensures that reflective practice becomes part of the school's professional culture (York-Barr et al., 2006).

Implications for Policy

Educational policy should recognize reflective teaching as a key component of professional development. Policies should encourage reflective practice by embedding it into teacher evaluation systems, training programs, and collaborative learning communities. Reflective practice contributes to sustained teacher growth and improved student achievement (Avalos, 2011).

Implications for Practice

Teachers must adopt a habit of continuous questioning:

- What worked?
- What did not work?
- Why did it happen?
- How can it be improved?

These questions help teachers remain responsive to changing classroom dynamics and diverse student needs. Reflective teaching anchors instructional decisions in evidence rather than routine.

Conclusion

This study concludes that reflective teaching, supported by action research, significantly enhances the professional practices of in-service teachers. Reflective cycles allow teachers to analyze their instructional methods, understand student needs, and implement well-informed improvements. Mixed-methods data confirmed that teachers who engaged in structured reflection became more confident, more analytical, and more responsive to their students.

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Kolb's experiential learning cycle and Lewin's action research model provided strong theoretical foundations for reflective practice. These frameworks helped teachers transition from intuition-based teaching to evidence-based teaching. They also supported self-regulation, professional growth, and continuous improvement.

Reflective practice should be embedded into professional development systems, teacher training programs, and school leadership models. Schools must create environments that encourage reflection, collaboration, and inquiry. When teachers reflect deeply and continuously, they enhance student learning and contribute to the overall improvement of educational quality.

In-service teachers must view reflection as an ongoing, meaningful process rather than a one-time activity. When reflection becomes a habit, teachers develop a deeper understanding of their teaching and foster a more effective and inclusive classroom environment.

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