

EXPLORING THE EXPERIENCES AND CHALLENGES OF B.ED STUDENT-TEACHERS: IMPLEMENTING ACTION RESEARCH TO ENHANCE PROFESSIONAL DEVELOPMENT

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Abstract

This study explores how action research can bridge the gap between theoretical learning and practical teaching, and support professional development among B.Ed. student-teachers at private universities in Karachi. This research explores the experiences of student-teachers through in-depth semi-structured interviews. It identifies barriers in implementing action research: time management, as students struggle to allocate enough time for research; insufficient research skills, as many feel unprepared to design or conduct research; difficulty applying findings in classrooms, making it hard to translate theory into practice; and fear of failure, which leads to hesitation and reduced participation. Based on these findings, actionable strategies are proposed, including enhanced research training, dedicated time for research, collaborative action research projects, and stronger integration of action research into the curriculum to improve its quality in teacher education. The study aims to foster ongoing professional development among future educators, preparing them for the challenges of an evolving educational landscape.

Introduction:

Action research is increasingly recognized as a component of modern teacher-education programs because it helps teachers systematically investigate their own practice, identify classroom problems, and make informed improvements (Mertler, 2024). In teacher-education settings, AR is a bridge between theory and practice, supporting reflective teaching and enabling pre-service teachers to understand how instructional decisions affect student learning (Altrichter, 2020). For B.Ed. student-teachers, engaging in AR encourages them to question their assumptions, try new strategies, and reflect deeply on their own professional growth (Zandee, & Coghlan, 2025).

Action research is a powerful tool for professional development (Coughlan, & Coghlan, 2023). It allows educators to examine their teaching, try new strategies, and adjust practices using real-classroom. In Pakistan, AR integration in B.Ed. programs remains inconsistent. Limited classroom exposure, minimal institutional support, and low research confidence among student-teachers make the process even more difficult (Shaukat et al., 2021; \

). Although AR has the potential to enhance teaching quality and build reflective professional identity, its success largely depends on the level of guidance and opportunities provided during teacher training (Hussain & Ejaz, 2023).

Given these issues, this study explores how B.Ed. student-teachers understand, experience, and implement action research in their real classroom where they are teaching, and how these experiences contribute to their professional development. Through this comprehensive exploration, the study hopes to provide valuable insights into the role of action research in shaping the growth and effectiveness of future educators.

Background of the Study

The problem exist the traditional approach to teacher education programs in Pakistan is that emphasize theoretical knowledge while neglecting practical teaching skills. As a result, student-teachers are not prepared to meet classroom demands and face challenges in applying theory to practice. The gap needs to be addressed to ensure student-teachers gain the skills required for teaching and professional growth.

Action research is a cyclical process that involves identifying a problem in practice, systematically investigating it, implementing changes, and reflecting on the results (Rumiantsev, et al, 2024). Many researchers have highlighted the need for action research to address this issue. According to Berku (2025), action research allows teachers to reflect on their practices, identify problems, and test solutions. AR support continuous improvement and bridge the theory-practice gap by involving teachers in inquiry and action research within teacher education, leading to improved outcomes (Berku 2025). Globally, it has been suggested that action research should not be a one-off academic exercise but a sustained, supported, and reflective practice embedded in teacher training to enhance professional growth and classroom effectiveness (Horbačauskienė, J., 2025)

According to the literature, the suitable solution is to integrate action research into B.Ed. Curricula are supported by mentoring, guidance, and opportunities for reflection and ensures that student-teachers not only learn about action research theoretically but also apply it in real classroom situations. 2024; Berku, 2025; Hashmi, 2024; Horbačauskienė, 2025).

The study explores B.Ed. student-teachers perceptions of action research, its challenges in classroom implementation, and its influence on their professional development.

Research Objectives:

- To explore B.Ed. student-teachers perceptions of action research in their B.Ed. Program.
- To identify the challenges faced by B.Ed. student-teachers in implementing action research in their classrooms.
- To assess the influence of action research on B.Ed. student-teachers professional development.

Research Questions:

1. What are the perception of B.Ed. student-teachers about action research in B.Ed. program?
2. What challenges do B.Ed. student-teachers face when implementing action research in real classrooms?
3. How do B.Ed. Student-teachers perceive the influence of action research on their professional development?

Problem Statement:

In Pakistan, teacher education programs often lack a strong focus on action research, creating a gap in student-teachers ability to apply theoretical knowledge in real classroom settings. (Iqbal, S., & Ali, A., 2024). This gap results in insufficient practical skills, leaving new teachers unprepared to meet students' diverse needs and to manage classroom dynamics. (Hashmi, K., 2024) As a result, many student- teachers struggle with adapting their knowledge to meet the diverse needs of students and manage classroom dynamics effectively (Khan, H, et al, 2021)

Rationale:

Action research as a part of a teacher education program in bridging the gap between theoretical knowledge and classroom practice. Action research helps student-teachers recognize issues, apply solutions, and evaluate their teaching, leading to continuous improvement. (Rumiantsev

et al., 2024; Berku, 2025). This approach equips student-teachers with practical skills, enhancing their effectiveness in real-world classroom settings and supporting their professional development (Khan, H, et al, 2021)

Research Assumptions:

This study assumes that action research is often a one-time activity in teacher education rather than an ongoing practice. It assumes that student-teachers might lack confidence, time management, and resources to apply action research effectively in the real classroom. It also assumes that the effective implementation of action research by student-teachers would lead to improvements in teaching practices, which in turn would enhance student learning outcomes and classroom dynamics.

Significance of the Study:

The study expands the theoretical understanding of how action research can connect abstract teaching theories with real-world classroom practices. Enhances the preparedness of student-teachers to address classroom challenges and engage in continuous improvement. This study supports the development of B.Ed. Programs that promote ongoing professional growth among student-teachers through action research, encouraging them to reflect on and improve their teaching practices. This research gives evidence-based suggestions to the policy-makers to improve the effectiveness and application of action research in teacher education programs, so that it becomes more beneficial to the professional growth of the student-teachers.

Scope of the Study:

This study focuses on B.Ed. student-teachers who have completed an action research project as part of their B.Ed. program in private Universities of Karachi and those student-teachers are teaching in secondary schools of Karachi. Using semi-structured open-ended interviews to collect data from 12 participants. The study completed within approximately four months. Thematic analysis used to identify key themes and patterns in the interview data, which helped in understanding the

action research and its challenges and influence of action research on student-teachers professional development.

Limitations:

This study focuses on a limited number of B.Ed. (2.5 and 1.5 yr.) student-teachers from the selected five private universities in Karachi. As a result, the findings may not be generalizable to all student-teachers across Pakistan or other educational settings. This study explores the perceptions and experiences of student-teachers in only five private universities, which may not fully represent the perspectives of those in public universities or other regions of Pakistan. This study's approximately 4-months timeline may limit the ability to gather a larger sample or conduct longitudinal analysis, which will prevent the further understanding of the long-term impact of action research on the professional growth of student-teachers. As the study relies on qualitative data from semi-structured interviews, there may be a degree of subjectivity in participants' responses, which could affect the consistency and objectivity of the findings.

Ethical Considerations:

All the participants were aware of the purpose of the study and gave written consent to the study. The privacy of the participants is guaranteed by keeping all the information anonymous and storing it in a secure environment. Participation was voluntary, and participants withdrew at any time without penalty. Data collected, analyzed, and reported honestly and accurately.

Operational Definitions

Action Research

Literature Definition: Action Research is a reflective, cyclical process in which educators can identify issues, conduct inquiries, apply solutions, and assess results to enhance teaching practices (Kemmis and McTaggart, 2004).

Applied Definition: This study defines action research as B.Ed. student-teachers better their

teaching by reflection, identifying challenges, and implementing solutions based on the completion of a project and the depth of their reflections.

Professional Development

Literature Definition Professional development enhances educators' skills and knowledge, improves teaching practices, and enables educators to adapt to educational demands (Desimone, 2009).

Applied Definition: In this study, professional development refers to the growth in teaching effectiveness, reflective thinking, and problem-solving skills of the B.Ed. Student-teachers engage with action research.

Literature Review:

Action research as a methodological framework for the integration of practical problem solving and scientific analysis Most frequent practice of action research is in the areas of education, organizations and social science where practitioners gets chance to improve their practices and contribute in new knowledge for future action (Panhwar et al., 2023).

Action Research is a process that involves several steps: educators identify challenges in their practice, systematically use inquiry to propose and test a solution, and, ultimately, evaluate the effectiveness of the solution. This process motivates educators and student teachers to think critically about their role as teachers and transform their practices for the benefit of their students (Khan, 2021; Rehman, Lashari & Abbas, 2023). In Pakistan, action research is identified as a vital tool for bridging the gap between theoretical knowledge taught in B.Ed. Programs and the practical application of this knowledge in real-world classrooms (Muhammad, 2024; Siming et al., 2015).

One of the major challenges in teacher education in Pakistan is the persistent gap between theoretical learning and classroom practice (Fayaz et al., 2023; Lashari & Umrani. 2023). In Pakistan traditionally emphasized theoretical instruction without sufficiently preparing student-teachers for

the realities of classroom teaching (Rehman, Lashari & Abbas, 2023). This disconnect impedes the development of reflective, innovative teaching practices essential to effective teaching in modern classrooms (Jilani et al., 2024). Although action research has not been fully adopted due to insufficient sustained support, mentoring, and incorporation into teaching practices (Hashmi, 2024).

Coughlan and Coughlan (2023) also highlight that although Pakistani teachers for its potential to drive professional development through action research, its influence is often limited by a lack of support, mentorship, and guidance. Numerous studies have highlighted the role of action research in teachers' professional development. It involves reflective practice that leads to the development of understanding and improvement in practice. Action research is considered a vital component of professional development for both pre-service and in-service teachers (Nawab, 2023). For prospective teachers, it serves as a bridge between their pre-service teacher education and in-service continuous professional development. Action researcher generates knowledge through interpretation, reflection, and action in the field (Fayaz et al., 2023). Understanding the context and its parameters, helps generate contextual knowledge, which is seen as important for bringing about improvement. Studies have shown that action research has a key role in the empowerment and transformation of individuals, groups, and coalitions leading to professional development (Niemi, 2019).

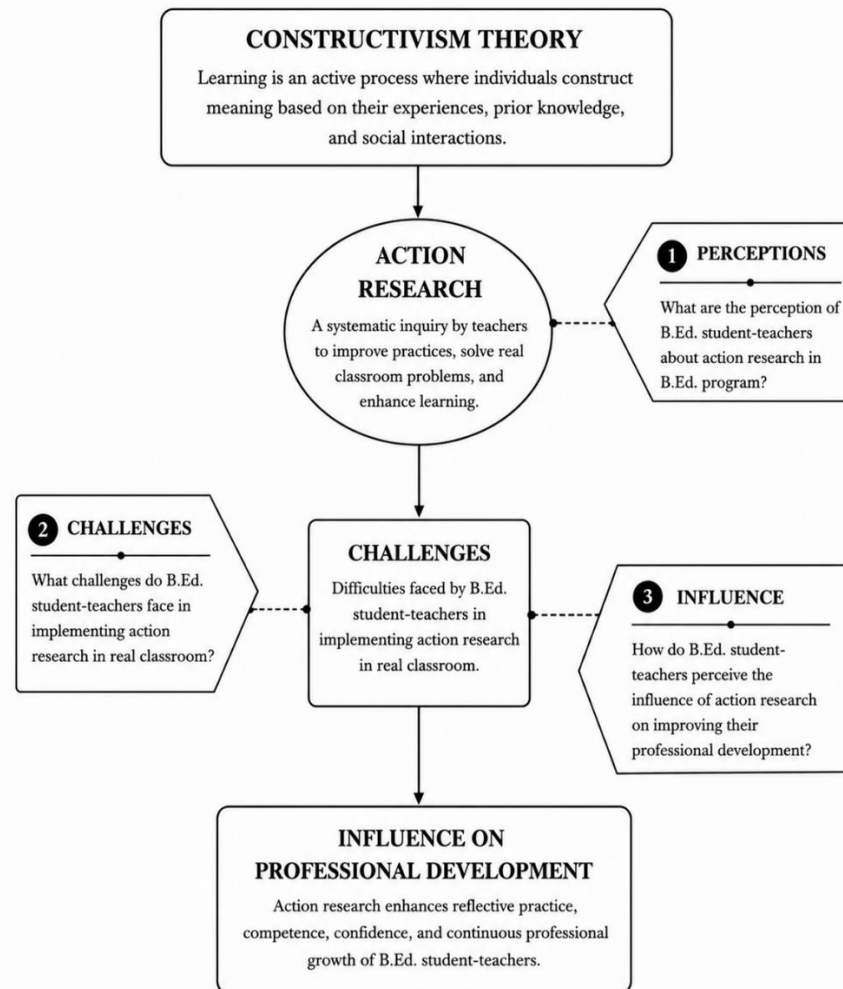
In this way, action research is a forum for practitioners to experiment with teaching innovations, evaluate them, and adapt their practice in response (Hargreaves, 2025; Lashari & Umrani, 2023) also contend that action research is at the heart of developing a culture of continuous professional learning and educational improvement, fundamental to maintaining innovative education practice.

The literature shows that action research effectively bridges theory and practice, promoting reflective teaching, professional growth, and classroom innovation. In Pakistan, its

implementation in B.Ed. programs remains limited due to lack of mentorship, institutional support, and continuous engagement (Muhammad, 2024; Hashmi, 2024). International studies highlight its role in fostering teacher autonomy, experimentation, and collaborative problem-solving (Hargreaves, 2025; Berku, 2025;

Morgan, 2024). Despite its potential, the success of action research depends on structured guidance, contextual understanding, and iterative reflection (Nawab, 2023; Dusty, 2024). Overall, it is a valuable tool for professional development, but practical challenges often limit its full impact.

Theoretical Framework:



This study aligns with constructivist theory by examining how teachers interpret and make sense of their own experiences regarding challenges in implementing action research (Piaget, 1954; Vygotsky, 1978). It shows that teachers actively construct understanding of their practice and obstacles, even when the focus is on perceptions

rather than direct interventions (Abdul Hameed Panhwar et al., 2023).

In teacher education, action research fits this idea because it encourages student-teachers to investigate their own classrooms, reflect on what works and what does not, and make changes based on their observations. By doing action research, student-teachers gain a better understanding of

teaching and learn how to apply it in real situations (Piaget, 1973; Vygotsky, 1978). This process helps them improve their teaching, adapt to different classroom challenges, and grow professionally.

Research methodology:

This research which seeks to understand the experiences of B.Ed. student-teachers challenges and the influence of action research on their professional development. A qualitative research approach used to understand the participants' experiences about action research (Patton, 2015). Semi-structured interviews held to gather detailed and meaningful information. These interviews allowed for open-ended responses and deeper insights into the participants' experiences (Kvale & Brinkmann, 2009). The primary data source were B.Ed. student-teachers from five private universities in Karachi, who have done research project (action research) as part of their curriculum and they are teaching in school as well. Participants selected using purposive sampling, targeting B.Ed. student-teachers who have done research and experience with action research in their teaching practice (Creswell, 2013). A sample size of 12 B.Ed. student-teachers (2.5 and 1.5 year) chosen to provide rich, in-depth insights (Creswell, 2013).

The data analyzed using thematic analysis (Braun & Clarke, 2006) to used semi verbatim transcript. This involved identifying and analyzing key themes and patterns in the data to understand the experiences and perceptions of participants.

Data Analyses:

Based on the interview responses the following key themes emerged:

Theme 1: Understanding and Conceptualizing of Action Research

The first theme is regarding the understanding and conceptualizing of action research. The students-teachers lived experiences about action research.

Participant (B.Ed. Student-teacher) said,

"My understanding about action research is that the purpose of research is to find out various problems we are facing into classrooms and find solution towards it by diving deep into the problem".

Second participant said, *"Action research is about improving our teaching by identifying problems in our own practice, testing solutions, and reflecting on the results. It's a cycle of continuous improvement, where we use data from our own teaching to make informed changes".*

Participants (B.Ed. Student-teacher) said, *"Action research is a way for teachers to analyze and improve their teaching practices by identifying problems in their teaching methods, experimenting with solutions, and then reflecting on the outcomes. In our B.Ed. program, we are taught the basics of action research in theory, and then we are expected to apply it our real classroom issues."*

Another Student said, *"Action research is a tool for teachers to critically reflect on and improve their own teaching practices. It is crucial in developing a more reflective teaching style".*

Participant response on this question, *"Action research is a process of actively seeking solutions to problems in the classroom by testing different strategies and then reflecting on the outcomes. We identify an issue, collect data on it, experiment with changes, and observe the results".*

The result shows that student-teachers generally understand action research as a way to identify problems in the classroom, try out different solutions, and reflect on the results. They described it as a cycle that helps them improve their teaching by collecting information from their own classroom and making changes based on that data. This means that student-teachers see action research mainly as a practical tool for solving teaching problems and becoming more reflective. However, when compared to the deeper and more detailed descriptions found in research literature where action research as a systematic, process their understanding still seems basic and mostly focused on the main idea rather than the full process. This matters because having only a simple understanding may make it harder for them to apply action research properly during their practicum. A stronger understanding can help

them become confident teachers who can use action research to improve their teaching in meaningful and effective ways.

Theme 2: The Gap between the theory and practices:

Action research is an ideal method for improving teaching practices; its actual implementation in the classroom is far more complex.

Participant replied, "I think the gap between theory and practice is much wider than I expected. In theory, action research seems like a fantastic way to improve our teaching, but in the classroom, things do not always go as planned. We might have a brilliant idea in theory, but then the reality of classroom dynamics students' varying levels of understanding, behavior, and engagement makes it hard to implement effectively".

Participant said, "In theory, it is well explained, but I think the practical application part could use more emphasis. We are given a basic overview of methods, but more support on how to implement the research would be helpful."

Student said, "Action research is a powerful tool. We have to identify a problem and conduct research to address it. It's integrated well, but I do think we need more support in applying it, especially in terms of refining our data collection and analysis skills."

Another student said, I think it is useful, but I feel it could have not been better integrated into the real classroom"

Action research is a powerful tool for modifying teaching techniques; yet, introducing it in the classroom has proven difficult at times. The participants observed a mismatch between theory and practice. One participant stated that, while action research is a practical approach in theory, the realities of most classrooms (i.e., levels of student engagement and classroom behavior) make it challenging to implement. Even though they were familiar with this approach in their studies, participants noted inadequate support for conducting action research effectively, particularly in data collection and analysis. In practice, however, the ideal of action research as a systematic, reflective cycle is rarely achieved. It is not a trivial matter; for good action research can only happen with the correct theory applied, and

without guidance, such benefits may well go untapped.

Theme 3: Challenges Faced in Implementing Action Research in Real Classroom:

Participant's response regarding challenging action research implementation in real classroom.

Student-teachers said, "Time constraints a major challenge. Between teaching, preparing lessons, and conducting research, it often felt like I was juggling too much. "

Student said, "The difficult part for me was seeing results. Action research is meant to show improvement through experimentation, but results did not come immediately. I tried new strategies, but the classroom dynamics did not change. It was frustrating because, in theory, you're supposed to see improvements, but in practice, it takes time for strategies to have an effect."

Although I learned the theory, applying it in a real classroom felt confusing. Student said that, "Initially, I struggled to fully understand each step of the action research cycle planning, acting, observing, and reflecting. I was unsure how to move from identifying a problem to developing a workable action plan."

Lack of Guidance is also a challenge for B.Ed. Student-teachers, the participant replied:

"While implementing action research, I often felt that I needed support from my mentor teacher or university supervisor. Without regular feedback, I was not always confident about whether my chosen strategies or data collection tools were appropriate. This lack of guidance sometimes made the process feel isolating and stressful." Student said, "Honestly, I was overwhelmed by the workload. Teaching in a real classroom is exhausting, and when we are trying to conduct research. Sometimes I felt like I was just trying to keep up with the teaching duties and did not have the time or energy to focus on the research. The pressure to perform well in both areas made me question if I was doing the research the way I was supposed to."

Student-teachers said, "The process of conducting action research, from identifying problems to collecting data and implementing changes, can be complex, particularly for those who are unfamiliar with research methods. The entire action research process often felt like

an additional burden on top of other responsibilities, making it overwhelming."

Participant said, *"One more challenge was staying objective while observing and analyzing student behavior. Because I was both the teacher and the researcher, it was hard to separate my expectations from what was actually happening. This sometimes made me question whether I was interpreting the data fairly."*

Participants encounter multiple obstacles when integrating research into their practice. Reported challenges include time constraints and heavy workloads, as integrating teaching and research responsibilities can become burdensome. Participants also remarked that the lack of mentor support contributed to the stress of the process and the feeling of working in a vacuum. Some participants found the collecting and analyzing of data and maintaining observing student behavior some challenges as well. The student-teachers experiences contrasted with the ideal action research model in the literature, which recognizes the importance of feedback, multiple cycles, and a clearly defined process for each step of the research cycle. This is significant because action research is premised on a solid theoretical understanding of its principles as well as its practical application. The lack of adequate guidance and mentor support led to the student-teachers feeling overwhelmed. This also meant that the action research process was not able to yield its potential benefits to improve teaching and learning.

Theme 4: Influence of Action Research on Professional Development

A key theme is the role of action research in fostering on professional growth. Students found that continuous reflection on their teaching methods helped them develop into more adaptable and thoughtful educators.

"Action research has really helped me reflect. But not perfectly implemented in a real classroom, it is time-consuming, and yes, it influences professional development."

Participant replied positively, *"Engaging in action research has made me more aware of my teaching style. I used to follow a one-size-fits-all approach, but now I'm more responsive to my students' needs."*

Some students highlighted that action research helped identify areas for improvement in their teaching practices.

"I feel more confident now. At first, I wasn't sure if it would be practical, but after learning about how easy changes can make a huge impact, I am more inclined to consider using it. It's made me very adaptable, responsive to students."

Another participant said, *"Yes, it definitely has. I have started incorporating more student-centered strategies, like group work and peer teaching, which I didn't use much before. The action research process helped me realize that these methods engage students better and improve their understanding of the material."* Research is a powerful tool because it makes us knowledgeable in a way that feels extraordinary. Student said, *"Research has helped me a lot, like the sea the more you explore, the more you learn. The knowledge you gain makes you a better person. I have noticed that many people in Pakistan do not know much about research, or if they do, they do not read much about it. Research makes us very knowledgeable and confident."*

Students view action research as an opportunity for self-evaluation and improvement, contributing to their overall professional development.

Student said, *"Action research is about evaluating and improving my own teaching but just in one course we don't be expert it's a continuous process and in B.Ed. level there should be more interactive action research course redesign for the betterment of student-teachers"*

The result shows that action research plays an important role in students' professional growth, mainly by helping them reflect on their teaching and understand their students better. Student-teachers shared that through continuous reflection, became more confident, more aware of their teaching style, and more willing to try new strategies that meet students' needs. It was recognized that even minor adjustments in teaching methods could lead to improvements in student learning outcomes Compared to traditional teaching, where teachers often follow fixed methods without much self-evaluation, action research encouraged a more flexible and student-centered approach. This matters because professional development do not attain through

theories alone; it obtain through continual practice, reflection, and refinement. The participants indicate that although action research is important, one course is insufficient, they advocate for the B.Ed. program the inclusion of additional and more hands-on interactive training for action research to facilitate professional development.

Discussion

Action research in teacher education is important because it helps connect theory to practice. Through problem solving, testing out solutions, and reflecting on results, student-teachers formulate effective teaching strategies based on real-life experiences. To recognize the importance of action research, one must examine its theoretical framework, scope of practical impact, and peculiar challenges of classroom practice.

Understanding and Conceptualizing Action Research

The data suggests that the understanding and conceptualizing action research is improving teaching practices through a reflective, systematic approach. It empowers teachers to confront classroom difficulties, test solutions, and evaluate on outcomes, promoting ongoing professional development. (Cohen, L., et al, 2017).It means seeing teaching as a dynamic process where teachers engage in ongoing inquiry and reflection. (Cornish, F., 2023) .This understanding empowers teachers to take ownership of their professional development. It fosters an improvement, promoting student-centered learning and long-term success. (Coughlan, P., & Coughlan, D. 2023)

The constructive outcomes of practice state unequivocally: action research champions the pliability of teaching within the frameworks of student needs. It highlights the critical role of teacher self-determination in professional growth, and, in relation to this, prioritizes, more singular, reflective mechanisms. From a policy perspective, it suggests the educational system needs to make reflective inquiry a foundational element of

teacher initial training and continuous professional development.

The Gap between Theory and Practice

The gap between theory and practice in action research is important because it constrains the possibility of its positive application in real classroom setting. This gap illustrates the difference between models present in the literature and the often-unpredictable realities of the classroom. (Austin, C. H. 2025) To address this, it is essential to adapt theoretical models to suit real-world classroom environments better. Bridging the gap between theory and practice is vital for maximizing the influence of action research, ensuring it becomes a more effective and accessible tool for teachers. (Berku, D. W. 2025). Bridging this gap contributes to the practicality and flexibility of action research and to its potential to transform teaching and professional development in diverse contexts.

This study adds to the literature by identifying the need for adaptable models that account for interactions within classroom dynamics. Theoretically, this calls for adaptable frameworks; practically, it suggests equipping teachers with tools to adapt theory to their specific contexts.

Challenges in Implementing Action Research in Real Classrooms:

Challenges such as time constraints and lack of guidance hinder the successful application of action research, limiting its impact on teaching practices (Zandee, D. P., & Coughlan, D. 2025).The literature discusses how external factors, such as class size and workload, hinder effective implementation of action research (Bialen, V. 2025).

These challenges reflect broader systemic issues, such as inadequate teacher training and a lack of institutional support, which must be addressed for action research to succeed (Moskalets, O., & Tsapro, G. 2025).Theoretically, action research models should address these practical barriers, while in practice; teachers need more support and training. Policy wise, educational systems must provide the necessary resources and institutional

backing for successful implementation of action research.

Influence of Action Research on Professional Development

Action research develops self-reflective and flexible educators, resulting in better learning plans and their implementation. (Hashmi, K., 2024) The methodology prompts teachers to reflect on practice and make changes based on classroom experiences. The results indicate that action research develops teaching methods and enhances professionalism. By conducting action research, teachers can close the gap between what they know and what they do in their classrooms, making teaching innovative and flexible.

The findings align with constructivism, highlighting that active participation enhances learning (Vygotsky, 1978). Action research, as practiced within the activity, promotes lifelong learning and the development of skills that enhance teaching.

This study's findings are consistent with the existing literature that positions action research as a catalyst for teaching and professional development. The literature suggests that action research enables educators to enhance their teaching through reflection and incremental improvements. This study extends existing knowledge by highlighting the importance of institutional support in managing time and emotional demands. In theoretical terms, the findings demonstrate the efficacy of action research in teacher education. Overall, action research is a key driver of strengthening teaching practices and professional growth, though several challenges limit its full implementation. These results align closely with the broader literature, which consistently identifies action research as an essential tool for teacher learning, reflective practice, and ongoing improvement.

Conclusion:

In conclusion, this study highlights the understanding of action research; their practical application of it remains limited. Despite challenges such as time management, the gap

between theory and practice, and the complexity of the research process. Despite these obstacles, action research positively contributed to their professional growth by promoting reflection, adaptability, and student-centered teaching. Overall, meaningful integration of action research in teacher education requires stronger practical support, continuous guidance, and improved curriculum design to enhance the competence and confidence of future teachers.

Recommendations:

- Institutions to organize workshops on data collection, analysis, and research design to support student-teachers and strengthen their research skills.
- School leaders promote collaborative research by allowing student-teachers to work in small groups, share experiences, and solve problems.
- Encourage student-teachers to apply action research throughout their careers to continuously enhance and refine their teaching practices and foster ongoing professional growth.

Recommendations for future Researchers:

- Future research to explore how action research applies in different classroom settings, such as urban versus rural schools or classrooms with diverse student populations, and whether methods need to be adapted.
- Future researchers to explore how action research integrated into both pre-service teacher training programs and ongoing professional development for in-service teachers.
- Future research to examine the benefits of collaborative action research in addressing classroom challenges and promoting community-based learning through professional learning communities (PLCs)

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