

Exemplars Of Action Research: A Research Supervisor's Story And Lessons Learnt

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Abstract

Despite its potential benefits, action research has been underutilized in many countries. In Pakistan, action is not only underutilized but also underestimated by educational researchers. As a result, the importance of having the skills to supervise action research is often overlooked. Action research has emerged as a noteworthy approach in the field of education that aims to bring about practical and meaningful changes in classroom practices. This study explores the experiences of four batches of student-teachers who conducted action research projects under the supervision of the lead researcher of this study. The study investigates the benefits and challenges of implementing action research in the classroom and the impact of the teacher educator's supervision on the student-teachers' research process. The results reveal that the student-teachers' participation in action research projects allowed them to develop a deeper understanding of their own teaching practices, and to identify areas of improvement in their classroom instruction. The lead researcher's supervision was found to be critical in providing guidance and support to the student-teachers throughout the research process, as well as in enhancing their research and writing skills.

Keywords: action research, teacher education, supervision, student-teachers, qualitative research.

Introduction

Action research is a powerful tool for improving education and generating practical knowledge. This methodology allows for a collaborative approach to problem-solving, where researchers and practitioners work together to generate solutions to specific problems. Despite its potential benefits, action research has been underutilized in many countries. In Pakistan, action is not only underutilized but also underestimated by educational researchers. As a result, the importance of having the skills to supervise action research has often been overlooked by both research supervisors and

student-teachers in teacher education institutes. Supervising action research is a challenging task that requires specific skills and expertise that is acquired not only through readings but also by facing challenges of practical life.

The theoretical framework for this study was based on the concept of social constructivism, which emphasizes the importance of active engagement and collaboration in learning (Vygotsky, 1978). Action research is grounded in this theoretical framework as it involves active engagement and collaboration between the researcher and the participants (Kemmis et al.,

2014). Additionally, the process of reflective practice, which is central to action research, is based on the idea that knowledge is constructed through personal experiences and reflection (Schön, 1983).

Action research is a well-established research methodology that has been used in various fields, including education, to improve the quality of learning and teaching (Kemmis, McTaggart, & Nixon, 2014). However, despite its potential benefits, it is often underutilized and underestimated as a research approach (Denscombe, 2014). This is because action research requires a specific set of skills and knowledge that many researchers and educators may lack (Sagor, 2005). As a result, it is important to have skilled supervisors who can guide and support students in their action research studies.

Previous studies have highlighted the underutilization and underestimation of action research as a research methodology in Pakistan's education system. Ahmad, Din and Shukri (2017) found that action research was not widely used in Pakistani universities, and there was a lack of awareness and understanding of the methodology among educators. Similarly, Rashid and Hameed (2019) found that action research was not being utilized effectively in Pakistan's education system due to the lack of understanding and expertise among educators. These studies highlight the need for further research and emphasis on action research in Pakistan's education system.

Several empirical studies have explored the use of action research in the field of education and the role of supervisors in supporting students' action research studies. For example, a study conducted by Bingham and Sidorkin (2004) found that students who received guidance and support from a skilled supervisor were more likely to complete their action research projects successfully.

Another study by McNiff and Whitehead (2010) highlighted the importance of developing critical reflection skills in students to help them identify their own biases and assumptions. Critical thinking is most significant skill in academic context to analyze the context and progress ahead (Zehra, Lashari & Naz, 2023).

In Pakistan, a study by Khalid (2013) found that action research was underutilized in the field of education due to the lack of understanding and training among educators. Another study by Sabir, Bano, and Bilal (2019) emphasized the importance of developing supervisory skills to support students' action research projects. A study by Susa and Araragi (2014) explored the role of supervisors in supporting students' action research projects in Japan. The study highlighted the importance of developing a collaborative relationship between the supervisor and the student to ensure the success of the project. Thus Kemmis and McTaggart (2005) identified the importance of developing critical reflection skills in students and the role of supervisors in guiding this process.

Overall, these empirical studies highlight the importance of skilled supervisors in supporting students' action research studies and the need for developing critical reflection skills in students. The theoretical framework of social constructivism supports the active engagement and collaboration required in action research, while the process of reflective practice is essential to the construction of knowledge. This report presents a story of the lead researcher and highlights exemplars of action research, challenges faced by both student-teachers and lead researcher and how she strived to acquire expertise in action research. The research presented exemplars of action research and highlighted successful techniques to conduct action research and to successfully confront challenges that arise in the course of action.

Reconnaissance

During the initial assessment, several important factors emerged regarding the students' abilities and challenges, as well as the overall university context, which impacted the successful adoption of action research.

After studying a course on doing action research, the Bachelor of Education (BEd) students enrolled in a 4 year-BEd or 1.5 year – BEd, demonstrated a strong understanding of the theoretical concepts behind action research as taught in the course. However, translating this theoretical knowledge into practical application within real classrooms proved to be a significant hurdle for many. The transition from theory to real-world teaching settings presented difficulties due to the complexities of actual classroom dynamics. Adapting and customizing action research methods to fit these complexities posed a considerable challenge. To overcome these challenges, the supervisor invited field experts to support students who had prior experience in action research projects. This external assistance played a crucial role in bridging the gap between theory and practice, enabling students to grasp effective strategies and practical approaches. It is important to note that the university had recently introduced action research into its curriculum. For most students, this was their first exposure to this approach, which contributed to the initial difficulties they faced. The unfamiliarity with the nuances of action research, combined with limited prior exposure, steepened the learning curve. Consequently, students encountered obstacles in seamlessly integrating action research into their teaching practices.

The broader educational landscape also influenced the adoption of action research. The predominant emphasis on traditional teaching and assessment methods, along with time

constraints set by the curriculum, posed additional challenges. These factors limited students' ability to fully engage in the action research process and conduct thorough investigations. Additionally, gaining acceptance from schools to conduct action research within their classrooms presented another dimension of complexity. Convincing schools of the benefits of action research and obtaining the necessary permissions was an aspect that required careful negotiation.

Research Context

This study was conducted at the College of Education, New Horizon University (pseudonym) over a period of three years. For the past 25 years, New Horizon University has been regarded for research excellence in the fields of medical and engineering. In 2018, the university received an approval for establishing a department of social sciences while in September 2019, College of Education. Bachelor of Education (BEd-Honors), offered at the College of Education, is a four years program that enable potential candidates to join it after completing their intermediate or A-Level certificate which focuses on developing student-teachers' expertise in teaching at least two subjects at secondary level. The 1.5 year-BEd is parallel program offered at the College of Education which allows student-teachers to join after completing their Masters. This program focuses on developing student-teachers' expertise in teaching at least two subjects at higher-secondary level. Action research project is a course that every student takes as a partial requirement to complete the BEd programs. The student-teachers work under a research supervisor and plan and conduct a small scale action research. This paper presents supervisory experiences of the lead researched during the period of 2020 to 2023.

Methodology

The lead researcher worked with 12 students from four batches, which included Batch 1 (2020): 03 students; Batch 2 (2021): 05 students; Batch 3 (2022): 02 students; and Batch 4 (2023): 02 students. She adopted the following steps to assist student-teachers to conduct action research:

1. Step 1: School placements: The lead researcher negotiated with the private/public schools available in the city and placed each student-teacher in a school to conduct action research. The timelines for conducting action research studies were mutually decided by the school principal, lead research and student-teachers. The students acquired consents from the school administration and the research participants.
2. Step 2: Supporting students to acquire knowledge and expertise: Once the placements were organized, the lead researcher taught a 03 credit hours course on Doing Action Research. In this course, she introduced them to reflective journaling and reflective practice by inviting external experts as guest speakers, which helped them identifying a research problem and planning, conducting and reporting action research.
3. Step 3: Establishing Action Research Team: To ensure that the research study was conducted in a collaborative manner, the lead researcher and student-teachers worked on team development. This involved chalking out roles of the supervisor (lead researcher), the critical friend (knowledgeable and expert teacher from the school), the action researcher (student-teacher) and the cooperating teacher (supervising teacher from the school). Each member of the team had a specific role to play, and this helped to
4. Step 4: Classroom Experience and Reflective Journaling: The lead researcher sent students to schools to teach in assigned classes. She guided them to be vigilance and wear critical lens in the classroom while they were taught to observe the critical incidents. Critical incidents are important moments or events that happen in the classroom that provide insight into the issue being investigated. The student-teachers recorded critical incidents in their reflective journals and reflected upon them. Some critical incidents influenced many issues which were identified as pattern forming incidents that had potential to create complex problems and could hamper the process of teaching and learning within the classroom. With the pattern forming incidents, a list of problems was created and prioritized based on the complexity and urgency of the problems.
5. Step 4: Proposal Development: Based on the reflection and prioritization, student-teachers selected a complex classroom issue to be resolved and prepared a research proposal. They presented a research proposal in front of a panel of experts.
6. Step 5: Conducting Action Research: Once the proposal was approved student-teachers conducted an action research in their assigned schools and classes. Throughout the research process, the lead

ensure that the research study was conducted effectively. Once the team was established, the lead researcher guided student-teachers in their action research cycles each of which involved plan, act, observe, and reflect.

researcher observed change through student-teachers' action research cycles and provided feedback (after they had completed a research cycle), feed-concurrent (during the course of action), and feed-forward (to plan the next cycles) to improve their research study.

7. **Step 6: Presenting Research Report:** The lead researcher guided students to complete the action research report and once the reports were finalized, the lead researcher arranged a viva voce so that student-teachers can present their action research reports in front of the panel of experts and answer questions asked by the experts.

Research Report

Exemplars of Action Research

Action research cases, considered as exemplars of action research are presented below. Names of student-teachers used in these cases are pseudonym.

Exemplars: Batch I (2020)

Description of Case 1: Nisha, a Montessori directress, was concerned about the handwriting skills of her pre-nursery students. As part of her 1.5-year B.Ed (Hons) program, she decided to conduct an action research study to improve students' handwriting skills. Nisha challenged the traditional approach of teaching certain letters first and instead identified three letters - L, O, and C - that she believed would be comparatively effective as students pick sound of these letters first than the letters A, B and C. Throughout the research process, Nisha maintained a reflective journal and worked closely with her cooperating teacher to analyze data and reflect on the outcomes. By the end of the study, Nisha

observed significant improvements in her students' handwriting skills, particularly for those who previously struggled.

Nisha's research adds to the existing practices of handwriting skill development in early years and has practical implications for Montessori directresses and early years' educators. Her findings suggest that teaching certain letters first may not be as effective as previously thought and that alternative strategies can be used to improve handwriting skills. By incorporating Nisha's strategies into their teaching practices, educators can help their students develop better handwriting skills and ultimately improve their academic performance.

Description of Case 2: Shela, a B.Ed (Hons) student-teacher, aimed to develop reading skills among children during the COVID-19 pandemic when schools were closed. She worked with seven children and used a graded reading approach by selecting age-appropriate books and creating a reading schedule. Shela also involved the parents and provided them with guidance on supporting their children's reading development. She observed a significant improvement in the children's reading skills and found that they showed more interest in reading, and the parents had developed a reading habit themselves. The study highlights the importance of developing a reading culture at home, especially during a crisis such as the pandemic. The study also shows the effectiveness of the graded reading approach in developing reading skills among young children. Shela encountered some initial difficulties in motivating the children to read but she learned the significance of involving parents in the process and providing them with support and guidance. Overall, the study demonstrates the potential of developing a reading culture at home and the benefits of using a graded reading approach in improving children's reading skills.

Description of Case 3: Rabia, an English language teacher, aimed to enhance the writing skills of her intermediate students. She implemented the "Burger Technique" and other writing strategies to help her students express themselves better in writing. The Burger Technique involves structuring a paragraph like a burger, with the topic sentence and concluding sentence acting as the top and bottom bun, respectively, and the supporting details serving as the "fillings" in between. Rabia gradually increased the complexity of the writing tasks, while still using the Burger Technique, and used other strategies such as mind mapping and brainstorming to help her students organize their ideas before writing.

To evaluate the effectiveness of her approach, Rabia used a pre-test/post-test design and collected data through classroom observations and student feedback. The results of the study were promising, as Rabia found that her students' writing skills had significantly improved after the intervention. Her students gained confidence in their writing abilities and were able to express themselves more effectively in written form.

Rabia's action research contributes to the practices on writing instruction and provides evidence-based strategies for enhancing students' writing skills. The study highlights the importance of incorporating innovative and effective teaching strategies to promote student learning and success.

Exemplars: Batch 2 (2021)

Description of Case 4: Shaheen, a science teacher, conducted an action research study to enhance her students' understanding of complex scientific concepts using a constructivist teaching approach. The study was conducted in a religious school in Karachi, Pakistan, with separate

sections for boys and girls. Shaheen developed a variety of constructivist learning approaches and used group work, hands-on activities, and real-world examples to engage her students. She collected data on her students' engagement, participation, and understanding of scientific concepts over three cycles of three lessons each. At the end of the study, Shaheen observed a significant improvement in her students' knowledge and understanding of scientific concepts. They were more engaged, participated more actively in discussions, and showed a greater willingness to explore and experiment with scientific concepts on their own. The study showed the potential of constructivist teaching approaches to enhance students' understanding of scientific concepts and provided valuable insights into their effective implementation in the classroom.

Description of Case 5: Nabeela conducted a study titled "Incorporating STEAM education to enhance critical thinking skills by creating constructivist classrooms in Classes VI to VIII" in a public school in Karachi, Pakistan. The school lacked basic resources such as whiteboards, projectors, and computers. Nabeela developed low-cost STEM projects to enhance critical thinking skills in students through STEAM education and constructivist learning approaches. The study was conducted in three cycles with three lessons in each, and Nabeela observed changes in students' learning outcomes. Despite the school's resource limitations, Nabeela's research showed promise in enhancing problem-solving, creativity, and innovation skills in students through hands-on projects.

Overall, Nabeela's study contributes to the classroom practice on STEAM education and constructivist learning approaches and provides valuable insights for educators looking to

implement such approaches in resource-limited settings.

Description of Case 6: Joseph conducted a study on enhancing students' understanding of science concepts through project-based learning approaches in a chain of private schools in Karachi, Pakistan. The study was conducted with 250 students in grades VI to VIII. The classrooms were equipped with basic resources such as whiteboards, projectors, and computers. Joseph conducted the study in three cycles to observe the change in students' learning outcomes. The study showed positive outcomes, with students demonstrating a higher level of engagement in the project-based learning activities, leading to an increased understanding of science concepts. Additionally, students showed a greater level of interest and curiosity in science, and they were more motivated to learn. However, the study faced challenges, including the limited time available for project-based learning activities due to the school's curriculum and schedule, and the need for additional resources such as science kits and materials for the students. Despite these challenges, Joseph's study demonstrated the effectiveness of project-based learning in enhancing students' understanding of science concepts. The positive outcomes of the study highlight the potential benefits of incorporating project-based learning into science education in Pakistan.

Description of Case 7: Fatima conducted a study on improving mathematical concepts of grade 3 to 5 students using different manipulatives in a public school located in Karachi, Pakistan. Despite the lack of resources, she worked hard to prepare activities based on manipulatives and observed an increase in student participation and learning outcomes. However, Fatima faced several challenges, including the lack of resources and variability in student abilities. To

overcome these challenges, she used improvised and differentiated instruction to provide additional support to struggling students. Overall, Fatima's research highlights the importance of using innovative teaching methods to enhance student learning in challenging environments. Despite the limited resources, her dedication and hard work yielded positive outcomes, demonstrating that manipulatives can be an effective way to improve mathematical concepts. By adapting to the needs of students and being creative and resourceful, teachers can overcome challenges and provide quality education to students. Fatima's study emphasizes the need for more resources and support for teachers to improve the quality of education in government schools in Pakistan.

Description of Case 8: Naheed's study investigated the impact of classroom seating layouts on participation and assessment performance of class 7 students. Her research in a private school in Rawalpindi, Pakistan, showed that circular seating arrangements led to better outcomes compared to rows or U-shape. This finding is a valuable insight for teachers and administrators in creating conducive learning environments. However, Naheed faced some challenges during her research. Her lack of organization and timeliness resulted in incomplete plans, delayed work, and missed meetings. As a supervisor, the lead researcher had to come up with strategies to help her complete her work on time and meet the required standards. This experience taught the importance of effective communication and setting clear expectations from the start of the research process. Despite these challenges, Naheed's study highlights the significance of classroom design in student learning outcomes. The study provides a starting point for further research into effective classroom seating arrangements that could enhance student participation and performance in other settings.

Overall, Naheed's research demonstrates the importance of being organized and timely in research and the potential benefits of investigating classroom design in improving student learning.

Exemplars: Batch 3 (2022)

Description of Case 9: Shahid was a principal at an intermediate college, and he noticed that the students of grades IX to XII had poor oracy skills in English language, which hampered their communication skills and hindered their overall academic performance. Therefore, he decided to take the initiative to improve students' oracy skills in English language by conducting action research. Shahid implemented various strategies, such as providing regular practice sessions, conducting group discussions, role-playing, and organizing public speaking events. He also hired a language coach to work with the students individually and help them improve their grammar and pronunciation.

The result of his research showed significant improvement in students' oracy skills, and the overall academic performance of students improved as well. The students became more confident in their communication skills, and their overall personality development was noticeable. The college also witnessed a positive change in the college culture, and the initiative taken by Shahid was appreciated by the college administration, staff, and parents.

Description of Case 10: Fazila was a dental hygienist by profession, and she chose to conduct her action research on incorporating dental hygiene among primary school students through their science curriculum. Fazila realized that there was a lack of awareness among primary school children about dental hygiene, and it led to

oral health issues at a later stage. Therefore, she decided to conduct research on how to incorporate dental hygiene education in the science curriculum of primary school.

Fazila implemented various strategies such as interactive lectures, demonstrations, and hands-on activities. She also created interactive worksheets, quizzes, and games to make learning fun and engaging for the children. She worked closely with the science teachers and provided them with the necessary training and resources to implement her curriculum in their classes.

The result of her research showed significant improvement in students' knowledge and awareness of dental hygiene. The students became more conscious of their oral health and started practicing good dental hygiene habits. The school administration and parents appreciated her efforts, and the initiative taken by Fazila had a positive impact on the overall health of the students.

Exemplar 4: Batch 4 (2023)

Description of Case 11: Sabrina's action research project focused on using writing to improve students' understanding of mathematics. The study was conducted in a school where students struggled with mathematical concepts and lacked self-efficacy. The study aimed to investigate whether different forms of writing could enhance critical thinking skills, improve understanding of mathematical concepts, and increase motivation towards the subject.

The first cycle of the study involved expository writing, where students were asked to explain the mathematical concepts they were learning. However, the students struggled with this task as they were not used to writing in mathematics and English was not their first language. Sabrina

adapted the study by implementing different forms of writing, including expressive and exploratory writing.

By the end of the study, the students had shown significant improvement in their understanding of mathematical concepts, and their motivation towards the subject had increased. This was a positive outcome and highlighted the importance of incorporating writing in mathematics education.

Overall, this action research project demonstrated the importance of using innovative teaching methods to enhance students' understanding and motivation towards mathematics. It also highlighted the challenges of implementing research in a multilingual setting and the need for appropriate support and resources to overcome these challenges.

Description of Case 12: Yasmeen conducted action research to investigate the effectiveness of the Content and Language Integrated Lessons (CLIL) approach in enhancing students' language proficiency and content knowledge. She conducted the study in a secondary school where English was not the primary language of instruction, and the students had a low proficiency level in English, which was affecting their performance in other subjects, particularly science and mathematics. She implemented the CLIL approach in three cycles, where she introduced science and mathematics lessons in English, and the students were encouraged to communicate in English during the lessons. In the first cycle, the students struggled to understand the lessons, and their performance was below average. However, in subsequent cycles, Yasmeen made the lessons more interactive and provided additional language support, such as vocabulary lists and language scaffolds, resulting in a gradual improvement in students' performance and language proficiency. Yasmeen concluded that the CLIL approach is effective in

improving students' language proficiency and content knowledge, and she recommends its implementation in other subjects to provide students with a holistic learning experience. This study highlights the importance of adopting teaching approaches that promote language learning and subject knowledge simultaneously. It also emphasizes the need for language support to enable students to understand subject matter better.

Research Outcomes

The efficacy of innovative teaching approaches among student-teachers was the driving force. Throughout the cases, a diverse range of strategies, such as the "Burger Technique" for writing (Case 3), graded reading to enhance reading skills (Case 2), and the implementation of project-based learning for science education (Cases 4, 5, and 8), showcased the transformative potential of non-traditional methodologies. These approaches not only succeeded in engaging students but also succeeded in deepening their comprehension of complex concepts, underlining the substantial impact of innovation on the educational landscape. Another effective strategy that was well utilized during the action research was reflective practice. Regular journaling (Case 1) and the iterative process of refining teaching strategies (Cases 4, 5, 8, and 11) highlighted the value of self-reflection in elevating pedagogical approaches. The ability to critically assess teaching methods, adapt them in response to insights, and continually enhance practices was deep in these cases, underscoring the role of self-analysis in achieving more effective teaching methodologies and ultimately better results.

Another insight collected from multiple cases was the importance of adopting a learner-centered approach to teaching and learning. The cases consistently highlighted the benefits of tailoring the educational experience to match the unique needs and capacities of students. By

involving students in active discussions, collaborative group work, and hands-on activities, student-teachers witnessed a noticeable surge in engagement levels and a marked improvement in learning outcomes. This student-centric approach was notably reflected in Cases 4, 6, 8, 11, and 12, where the emphasis on student participation served as a catalyst for enhanced educational experiences. Collaboration emerged as an essential element underpinning the success of action research projects. Cases that connected with the power of collaboration, whether with parents (Case 2), cooperating teachers (Case 1), language coaches (Case 9), or science educators (Case 10), witnessed the enrichment of the learning journey. The involvement of various stakeholders not only contributed to a more comprehensive understanding of students' learning environments but also provided essential support structures that elevated the caliber of research outcomes.

However, resource constraints posed significant challenges across multiple cases, as limitations in materials, technology, and basic classroom resources became apparent. Notably, student-teachers such as Nabeela (Case 5) and Fatima (Case 7) showcased remarkable resourcefulness by adapting their strategies to align with the available resources. Their ability to creatively navigate these limitations highlighted the pivotal role of ingenuity in surmounting resource-related hurdles. Communication and effective time management emerged as recurring challenges, as exemplified in Naheed's case (Case 8), where initial organizational shortcomings resulted in delays and missed milestones. The significance of transparent communication and well-defined expectations came to the forefront as indispensable elements for the seamless execution of research initiatives. The details of a multilingual context emerged as a challenge in cases such as Yasmeen's (Case 12), where teaching in languages not native to students

necessitated strategic adjustments in teaching methodologies to accommodate varying levels of language proficiency. This observation emphasizes the importance of providing language support to facilitate meaningful learning experiences in diverse linguistic settings. While the majority of cases reported enhanced motivation and engagement among students, certain instances encountered initial resistance to novel approaches, as evidenced in Case 11. Mitigating this challenge required the implementation of strategies that nurtured intrinsic motivation, including involving students in decision-making processes and cultivating an environment that bolstered their confidence.

Some students exhibited a lack of essential skills and knowledge required for proficiently planning, conducting, and analyzing an action research project. Even though the guest speaker sessions, organized during the action research process, contributed to student-teachers' knowledge and skills, the lead researcher had to make additional effort to provide guidance to student-teachers on research methodologies, data collection techniques, and analysis methods. The expectations to develop a robust research design and the selection of appropriate methodologies to increase reasonable complexity in the research process provided challenge for novice researcher. During the phases of data collection and analysis, students encountered challenges such as concerns related to selection of participants, data quality, and data analysis techniques. The interpretation of research findings and the derivation of meaningful conclusions proved daunting for students, especially when confronted with difficult results. Numerous students faced difficulties in eloquently articulating their research findings, both in written reports and oral presentations. The lead researcher's assistance was instrumental in aiding students in designing action research, analysis of data and in establishing connections between findings and

research objectives. Unannounced holidays due to uncertain political conditions in the city or university-wide activities also posed challenges for student-teachers to cope with time management issues that resulted in modifications in the research process. This challenged to maintain student-teachers' motivation and enthusiasm throughout the research journey, particularly those who in the face of obstacles or setbacks. The lead researcher played a pivotal role in providing encouragement and aiding students in maintaining their focus on research objectives.

Lessons Learnt

Action research projects, much like the field of education itself, can encounter unexpected twists and turns. Thus, being adaptable and receptive to changing plans, timelines, and strategies has emerged as an essential skillset. This adaptability ensures that the researcher remain resilient and continue to progress despite the shifting circumstances they may encounter. Cultivating resilience among student-teachers has emerged as a significant lesson. Empowering student-teachers through ownership of their research has a transformative impact. By encouraging them to assume ownership, a sense of pride, responsibility, and intrinsic motivation is nurtured. This approach enables them to make decisions, learn from their experiences, and foster unwavering confidence in their research capabilities.

Engaging in active listening has been a pivotal practice in my supervisory role. By genuinely hearing and understanding the concerns, ideas, and aspirations of student-teachers, establishing a non-judgmental and open space for student-teachers to articulate their thoughts has enabled the action research supervisors to align their mentorship more effectively with their unique goals. The art of balancing support with fostering independent thinking has been considered a

cornerstone. Encouraging students in active interaction with the supervisor to explore innovative solutions fosters student-teachers growth as both researchers and educators. This balance ensures that they benefit from mentorship while also honing their capacity to think critically and creatively. Building a supportive community among student-teachers has been transformative. By fostering an environment of peer learning, collaboration, and the exchange of ideas, the lead researcher witnessed how sharing experiences and insights nurtures a culture of continuous learning and growth. This community-centric approach has bolstered their confidence and created a platform for collective knowledge enhancement.

Conclusion

In conclusion, supervising multiple batches of action research projects has been a rewarding journey for the lead researcher that has highlighted key lessons, challenges, and recommendations for effective guidance. The supervisor's role goes beyond oversight to become a catalyst for growth, discovery, and meaningful change in student-teachers' educational journeys. Challenges such as aligning goals with contexts, navigating resource constraints, and managing expectations are integral to the process of action research. These challenges shape student-teachers into resilient researchers and educators capable of addressing real-world educational issues. Action research emerges as more than an academic exercise as it is a pathway to elevate teaching and learning. The exemplars of action research demonstrate that evidence-based strategies drive meaningful change in education. They reveal the potential to transform teaching methods, elevate student engagement, and promote holistic development. In essence, supervising action research projects is an empowering journey for both student-teachers and supervisors. The present study calls upon educators and institutions to recognize action

research's potential and embrace it as a cornerstone of educational excellence.

Recommendations

Based on the wealth of experiences and insights acquired through supervising four batches of action research projects, the following recommendations are made for those who would like to conduct or supervise action research:

Developing skills and empowering ownership among students: Encourage a sense of ownership and autonomy among student-teachers in their research projects. Empower them to make decisions, experiment with innovative solutions, and embrace the learning journey that action research offers. Provide an initial orientation session to familiarize student-teachers with the fundamentals of action research, its stages, and best practices. Offer professional development sessions that focus on honing research and writing skills. Equipping student-teachers with the tools to conduct comprehensive literature reviews, gather and analyze data, and effectively communicate research findings will greatly enhance the quality of their action research projects. Finally, acknowledge and celebrate the achievements, big or small, of student-teachers throughout their action research journey. Recognizing their progress reinforces their commitment and motivates them to strive for excellence.

Guidance through Regular Monitoring: Establish a system for consistent monitoring and progress assessment. Regular check-ins and feedback sessions with student-teachers will keep them aligned with their research goals and provide opportunities for timely adjustments and refinements. Promote regular reflection among student-teachers. Encourage them to evaluate their experiences, challenges, and triumphs. This practice cultivates self-awareness, helps identify

areas for improvement, and fuels ongoing learning.

Cultivate supportive community: Develop partnerships with schools where student-teachers can implement their action research projects. Collaborating with practicing educators provides valuable insights into the practical challenges faced in real classroom settings. This hands-on experience enhances the relevance and applicability of the research. As a supervisor, adopt a mindset of continuous improvement in the way action research is facilitated. Regularly evaluate mentoring approach, seek feedback from student-teachers, and explore new methods to optimize the learning experience.

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