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## **Action Research in the Teacher Candidate Clinical Experience**

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**Action Research in the Teacher Candidate Clinical Experience**

Krystal Kooiker

Capstone Project: An Action Research Project

Northwestern College, Orange City, Iowa

### **Abstract**

The purpose of this action research project was to determine the impact of explicit action research training during teacher candidates' clinical experience with the hope of increasing their self-efficacy as reflective practitioners. The researcher utilized a qualitative action research methodology with a phenomenological design during the student teaching seminar capstone course. Participants were taken step-by-step through the action research process while they applied their personally designed project in their clinical experience setting over the course of a semester. The research was conducted to analyze teacher candidates' perceived self-efficacy as action researchers, their use of collaboration with supervisors and peers, and their impressions of the value of action research in their future classrooms. The findings showed that although students were initially overwhelmed with the action research due to time and work concerns, they enjoyed the process as it allowed them to focus on trying something new. Most teacher candidates collaborated with peers during the action research process. All teacher candidates interviewed saw the value of action research in their future classrooms. This research was conducted to show the importance of action research in pre-service teacher training. This study could provide information and encouragement to other teacher preparation programs.

*Keywords:* action research, teacher preparation program, clinical experience, teacher candidate, reflective practitioner

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### **Action Research in the Teacher Candidate Clinical Experience**

“Teaching is an evolving process that is inherently based on improving and learning to become a better practitioner” (Monem & Cramer, 2022, p. 13). This evolving process starts already in clinical experience during a teacher preparation program.

A pre-service teacher candidate’s journey often ends with clinical experience in an authentic setting, sometimes referred to as student teaching; however, not all teacher preparation programs utilize the same activities and assessments during clinical experience to gauge effectiveness. Teacher preparation programs hope to produce teachers who possess not only knowledge of content and pedagogy, but also the ability to create an environment of inquiry, problem-solving, and discovery with high levels of self-efficacy and a desire for lifelong learning. Teacher preparation programs seek to mold reflective practitioners. Action research is an essential skill for the reflective practitioner. According to Corey (1953), “We are convinced that the disposition to study . . . the consequences of our own teaching is more likely to change and improve our practices than is reading about what someone else has discovered of his teaching” (p. 70). While action research is not new to clinical experiences, due to the overwhelming expectations of clinical experience, action research is sometimes overlooked or avoided as a form of assessment for teacher preparation programs. However, action research promotes lifelong learning through the development of analytical thinking and problem-solving. The problem is preservice teachers are completing their teacher preparation programs and starting their first teaching positions with little knowledge of how action research can add to their development as reflective practitioners and lifelong learners. New teachers can experience overwhelming issues that arise in their classroom and can be at a loss on how to find solutions and where to start.

The purpose of this action research study is to describe the experiences of student teaching candidates explicitly trained in action research methodology as reflective practitioners who will be implementing action research in their clinical experience setting. According to Black (2020), future teachers will need to assist their students in developing the skills needed to be “agents of change in a rapidly changing, globally interconnected, competitive, and technological world” (p. 47-48). To accomplish this lofty goal, teacher candidates will need the skills to reflect on teaching and learning through action research to improve teaching practices to benefit all learners. This action research project will allow teacher candidates to practice action research and collaborative reflection supported by fellow students, cooperating teachers, and university supervisors while considering perceived challenges and impacts on self-efficacy.

Resources for this action research project were collected from the DeWitt Library at Northwestern College, the Luther Library at Midland University, and the researcher’s personal library. Studies considered involved practicing teachers as researchers, action research specific to teacher preparation programs, and potential challenges and barriers to implementing action research in teacher preparation programs. These studies uncovered a background in educational action research, current trends, and potential challenges.

The researcher found the training in action research methodology and subsequent project to be beneficial in improving the self-efficacy of teacher candidates. Learning how to reflect in pre-service years can help candidates understand the importance of wonder, the benefits of collaboration, and the influence small changes can have on learning outcomes for students. According to Smith et al. (2016), critical reflection is a necessary component for teachers as they navigate situations in their future careers. Action research in clinical experience allows pre-

service teachers to practice reflection in a collaborative environment contributing to building self-efficacy and lifelong learning.

The researcher has organized the literature review by key themes. The literature review will begin by briefly explaining the action research process. Next the literature review will review studies on teachers as researchers. Then the literature review will uncover the importance of action research in robust teacher preparation programs. Finally, the literature review will focus on the challenges and barriers of implementing action research during clinical experience.

## **Review of the Literature**

### **Definitions of Action Research**

Action research is the connection between theory and practice which helps to build teacher's competence as reflective practitioners. The teacher is empowered through observing and investigating within their own classroom, taking manageable and research-based action, and evaluating the results of the action on student learning and classroom environment (Anwar, 2016, p. 107). The focus of action research is the active search for knowledge and improvement: "Action research is an inquiry undertaken with rigour and knowledge, so as to constantly refine praxis" (Goodnough, 2011, as cited in Black, 2021). Action research is a method to continuously and intentionally improve teaching.

The general principles of action research include identifying a problem of practice that an educator would like to explore, gathering background knowledge through a consideration and evaluation of existing research related to the problem of practice, designing a plan for change and determining a method of data collection, collecting the data, analyzing the data, and sharing interpretations with others before the cycle is repeated (Efron & Ravid, 2013). The action research cycle provides a framework to make meaningful and manageable changes to support the quality of students' learning experience. In the process, teachers become better reflective practitioners who see the importance of actively seeking improvements through research, application, support, and collaboration for the good of all students (Anwar, 2016).

### **Teachers as Researchers**

Teachers regularly participate in critical reflection within their own classrooms regardless of training on the action research framework. However, through intentionality in the critical reflection process and the active connections between theory and practice, teachers can benefit from the collection and analysis of data focused on a specific problem of practice. Critical



reflection in teaching practice necessitates a daily habit in which teachers collect relevant data, make meaningful changes, and seek to understand what works and what does not in their specific settings along with reasons why. This habit of critical reflection will help teachers to consider meaningful practices as this is “how knowledge and experience through the art of teaching are created” (McNiff & Whitehead, 2010, as cited in Barbre & Buckner, 2013). An action research cycle allows for teachers to try new things in their own context, collect specific and meaningful data, evaluate what happens, and once again try something new.

McIntyre (2005, as cited in Cain, et al., 2019) explains a disconnect between general research and the kind of knowledge that practicing teachers need. A teacher’s daily tasks include addressing specific needs and unique characteristics dependent on many factors including class, individual students, and context. Despite this disconnect between research and practice, when teachers are able to use research to inform their thinking while also incorporating professional judgement, personal experience, and their own classroom context, research can have positive effects on the classroom environment and student learning. In this way, teachers participate in classroom-based action research to inform their decisions. Cain et al. (2019) argue that research can be used by practitioners to add to inquiry and discussion which can help in the decision-making process. Research can also be used to inform teachers’ reflection and professional conversations. According to Godfrey and Brown (2019 as cited in Cain, et al., 2019), “To improve practice, it is necessary to attend to the minutiae of everyday teaching interactions *and* to the decisions that underpin such interactions, *and* to the channels of communication that allow ideas to be introduced, challenged, refined and adopted” (p. 1084). Research can be used as a guide for teachers’ own action research but should not be used as the only source for informed practice. Situationally dependent application is also necessary.

In an article specifically targeted toward middle school teachers as researchers, Monem and Cramer (2022) address the difficulties of traditional educational research in middle school classrooms while recommending a more flexible and realistic form of research through action research. “Because of its flexibility, action research can fill the gap between theory and practice by providing a vehicle to use evidence-based strategies to solve classroom challenges” (Monem & Cramer, 2022, p. 5). Action research involves implementing the practical knowledge of theory while continuing daily teaching.

In this way, action research is not an extra task but an integrated part of teaching tasks. Action research is an intentional, highly personalized, conscious decision based on a problem of practice in the individual classroom used to investigate and positively impact learning and behaviors. Teachers have the autonomy to cater the research and subsequent action to their individual schools, classrooms, and students (Monem & Cramer, 2022). Monem and Cramer (2022) based their action research on the characteristics of successful middle schools provided by the Association for Middle Level Education (AMLE). The AMLE calls for a challenging, curriculum that is exploratory, integrative, and diverse; purposeful learning opportunities that are active and democratic; and ongoing assessments that both measure and promote learning (Bishop & Harrison, 2021). To provide these essential attributes, middle school teacher must practice critical reflection. Middle school teachers participating in flexible and purposeful action research projects within their own classroom can gather information from students with regards to their learning, behaviors, culture, and perceptions of education (Monem & Cramer, 2022). The teacher as action researcher and reflective practitioner allows an environment where students experience intentional instruction based on best practices designed for students within a teacher’s own classroom (Monem & Cramer, 2022).

Not all teachers view themselves as researching practitioners or see the long-term benefits of implementing action research in their own classrooms. This lack of self-efficacy as research practitioners could be due to lack of knowledge, limited time to consider existing research studies or confidence to take on even small-scale classroom-based projects (Chudasama, 2021). In a study about teachers' perceptions of themselves as researchers, Chudasama (2021) found many teachers initially viewed research as time-consuming extra work. After conversations and whole-school training sessions, teachers began to see the value of practitioner research as timesaving and collaborative. Chudasama (2021) found that when teachers conducted action research relatable to their current practice with opportunities for collaborative reflection, teachers became more confident in their abilities as researching practitioners.

Although action research has been shown to have positive impacts on classroom decision making, conducting action research can be overwhelming for teachers who already have a large amount of other teaching responsibilities (Olson & Labov, 2014). When teachers are trained how to integrate action research within their daily teaching responsibilities, they can become more reflective practitioners as they make decisions for their own classrooms. Benson-O'Connor (2020) completed a study in which six teachers at the graduate level completed action research including data collection and analysis of student reflections. Teacher researchers designed action research projects including math journaling and digital citizenship instruction. The study found action research is a powerful form of evidence-based professional development that also encourages teacher leadership (Benson-O'Connor, 2020).

In the same theme of action research as a mode of encouraging teacher leadership, Fonger et al. (2017) considered how teachers can work together using action research as a mode of conversation for exchanges of professional knowledge beneficial to the wider teacher

community. Fonger et al. (2017) focused on the benefits of implementing action research in math classes with the teacher as both participant and collaborator. The researchers found the need for teachers to advocate for their needs including time to uncover shared problems, the opportunity to participate in meaningful action research as either a researcher or a collaborator, and the occasion to share findings with potential benefits in both short-term and long-term practice. Fonger et al., (2017) offered the following next steps for teacher researchers: reflect, be open, start local, share goals, and network. While independent research and autonomy are important as a reflective practitioner, Fonger et al. (2017) added that collaborative work between teachers, researchers, and school stakeholders can have favorable outcomes for all parties involved.

### **Action Research in Teacher Preparation Programs**

Action research training and practice in teacher preparation programs allows student teachers the opportunity to practice applying and analyzing research-based decisions with the support of a cooperating teacher and university supervisors. Action research is implemented with the hope that student teachers will see how to continue action research seamlessly and intentionally in their future classrooms. Action research in teacher preparation programs allow opportunities for student teachers to participate in meaningful inquiry and to actively reflect on the answer that action research and data collection can provide (Barbre & Buckner, 2013). Student teachers who apply and improve skills of reflective practitioners will become full-time teachers who are reflective practitioners.

In another study, Anwar (2016) applied an action research course for teacher candidates explicitly teaching the action research methodology and allowing for application with supervision in a field-based experience. After the methodology instruction and practice, teacher candidates reported being able to reflect on their beliefs about change and understanding of data

assessment. Anwar (2016) found teacher candidates reported a significant perceived benefit of faculty support allowing them to more thoroughly evaluate their practice and the changes that they made in their clinical experience placement. As a result of this study, Anwar (2016) concluded the goal of action research is to create learning that is sustainable while offering teacher candidates the ability to create their own learning long after their clinical experience is complete. In addition, Anwar (2016) stated that skills in intentional critical reflection help to shift the role of teacher from “knowledge producer to problem solver” (p. 114). In a similar study, Hong and Lawrence (2011) found that ensuring teacher researchers had the knowledge and skills to continually and critically reflect on their practice increased teacher quality. Teacher education candidates were better able to develop an understanding of their own teaching. In addition, Hong and Lawrence (2011) found teachers shared their findings with colleagues in schools through collaborative interactions promoting a wider impact outside their own classrooms.

Additional studies considered the benefits of collaboration for student teachers participating in action research during clinical experiences. In a study on the impact of action research on a cooperating teacher/student teacher relationship during student teaching, Hagen (2022) found that through collaborative action research, cooperating teachers and student teachers formed relationships they perceived as authentic, comfortable, and collaborative. While the relationship between a mentor and mentee in student teaching or clinical experience has been proven to be based on the mutual rapport, Hagen (2022) sought to prove that a collaborative action research project could provide a framework to build stronger relationship and more meaningful partnership based on a shared interest. In a clinical experience placement, action research can and should be a collaborative process (Hagen, 2022). Collaborative action research

provides an avenue for student teachers to try new things with meaningful discussions to consider problems of practice, to identify possible solutions, to collect data, and to analyze results. Collaborative action research projects allow for natural opportunities for student teachers and cooperating teachers to communicate with each other in meaningful ways regarding teaching practices and student learning (Hagen, 2022). Collaborative action research allows the student teachers to actively discuss their wonders and uncertainties with a cooperating teacher and try new things in a supportive environment (Hagen, 2022).

To further explain the value of action research on student teaching partnerships, Hagen (2022) studied the implementation of action research during clinical experience in a music classroom considering how cooperating teachers believed collaborative action research impacted their mentoring relationship. The results of the study showed collaboration on the action research project allowed the cooperating teacher and student teacher to develop a more thorough understanding of each other due to the increased purposeful communication. One cooperating teacher reported strong feelings of mutual respect, value, and trust. Another cooperating teacher commented on the unforeseen benefit of more conversations about teaching in general as she worked collaboratively with her student teacher which she wished she would have experienced with a previous, more challenging student teacher. Both cooperating teachers and student teachers found a more equal and positive relationship through the collaborative process in action research (Hagen, 2022).

### **Challenges and Barriers of Implementing Action Research during Clinical Experience**

While action research in teacher preparation programs can be a valuable experience positively impacting teaching practices and student outcomes, Black (2020) stated that action research is a complex, flexible, and at times messy process. Black (2020) evaluated the

challenges and benefits of implementing an action research project in a course for pre-service educators. From the perspective of teacher educators, the rigid structure of a teacher preparation program created a barrier to implementation. During clinical experience, teacher candidates are expected to complete many tasks along with teaching. In addition, clinical experience for pre-service educators required many mentor teachers and faculty some of whom had limited familiarity with the action research process. Black (2020) found the mentor teachers varied from semester to semester at the university of study. Because of the inconsistency in mentors and faculty, a specific training for action research methodology and support was often unrealistic.

When considering the implementation of action research from the perspective of a teacher candidate participating in clinical experience, Black (2020) found the limited time in a semester of clinical experience to be an additional barrier. Action research can often bring about more questions requiring multiple action research cycles. Due to the limited time, when the action research leads to new questions and subsequently to a new cycle, teacher candidates are unable to continue their inquiry and may not see the full value of the experience. The action research cycle requires the process of revisiting, reflecting, and refining practice with intentionality (Creswell & Poth, 2018). Oftentimes, teacher candidates do not have enough time within their placement setting to perform this process well. Overall, Black (2020) found the time and structure of teacher preparation caused difficulties especially with creating meaningful and consistent projects of high quality. Due to this issue, several teacher candidates reported that they failed to see the connection between theory and practice as they were unable to continue their inquiry beyond a single action research cycle.

In a study focused on the depth and breadth of reflection during clinical experience, Duchi et al. (2023) evaluated the problem-oriented learning community and action research

cycles in a semester-long student teacher experience and course in the Netherlands. The researchers found seven different levels of reflection displayed by student teachers. Several students did not see the value of action research and felt it was forced upon them. The second group were able to reflect in a personal way but lacked the appreciation for a deeper critical thinking that could leave a lasting impact on teaching practice and underutilized the learning community. The third group was able to begin interacting with others as a part of their reflection process. The fourth group applied their reflections to other people's insights, perspectives, and values with some consideration of the impact on society as a whole. The fifth group was able to consider a deeper level of analysis including self-awareness in addition to relationships with other people and the impact of decisions in directing and guiding personal development. The sixth group was able to move beyond self to a deeper analysis of the impactful decisions on the learning community and society as a whole. The reflections of this group were deep and societally engaged. The seventh group engaged in reflection that became too complex, confusing, and occasionally self-destructive causing overwhelm and frustrations rather than the impact of change. This study found when student teachers were able to engage with each other and cooperating teachers, reflection was beneficial; however, when students were not as well supported, they tended to not see the value of reflection or to over-reflect when placing one's faith in absolute results which are not always possible in an action research cycle. Duchi et al. (2023) warn that teacher educators and mentors implementing action research in teacher preparation programs must first practice and be comfortable with structured reflection of appropriate breadth and depth before attempting to mentor student teachers to do the same with lackluster support.



When evaluating action research in a student teaching experience, according to Barbre and Buckner (2013), “increasing instructional effectiveness does not occur in a vacuum” (p. 1). Instructional improvement requires changes in approach with a collection of data to determine the effectiveness of teaching through a practice of critical reflection. Over time and through practice, critical reflection can become a habit of mind for teachers empowering them to make informed decision about their classroom. Critical reflection considers theory and practice as two parts of instruction that occur together requiring a systematic approach of experiential learning (Barbre & Buckner, 2013). Barbre and Buckner (2013) argue that with training on action research methodology, student teachers can purposefully apply theory, collect data, and make informed decisions.

While Barbre and Buckner (2013) had generally positive impressions of action research in student teachers, the researchers consider several constraints of the student teacher that make action research seem overwhelming. A lack of familiarity with curriculum and teaching responsibilities can cause student teachers to avoid the action research process. In addition, cooperating teachers who are not specifically trained in action research may struggle to assist student teachers with gathering data and making sense of it in a meaningful way. Feedback and support are needed. Finally, the action research methodology training required would also place a temporary burden on student teachers. Barbre and Buckner (2013) emphasize the benefits of learning and practicing action research in student teaching experiences: “There are many reasons for teacher attrition, but we contend that one of them is the fact that student teachers do not slow down and take a deep, hard, and perhaps slightly pained look at who they are professionally and then work to improve” (p. 5). While the researchers acknowledged the barriers and challenges to implementation, they concluded that the amount of work and time required to learn about action

research and critical reflection is minimal in comparison with the long-term benefits in their careers as educators (Barbre & Buckner, 2013).

### **Summary**

A review of the research provides an understanding of the need for teachers who are reflective practitioners and lifelong learners willing to make informed decisions for the benefit of students. However, many teachers are not provided with explicit training on the action research process prior to participation in a master's program. The benefits of implementing action research in clinical experience has been well-researched, but many barriers still exist. One of the lesser researched barriers is the self-efficacy of teacher candidates after participating in explicit training. Action research requires a teacher candidate to be vulnerable and make mistakes. Depending on the placement context, theory and practice may not align well which can make the action research process feel like a failure to those expecting absolute results. In a high-stress situation of clinical experience, teacher candidates many avoid taking chances and making the informed decisions to continue learning.

Through the review of research, a theme of collaboration was found. "Although action research is individualized, it includes a critical collaborative component. Teachers collaborate with other stakeholders to share ideas and discuss findings" (Monem & Cramer, 2022, p. 6). Collaboration in learning communities of student teachers, their peers, cooperating teachers, and university supervisors can help to demonstrate that learning is not complete upon graduation from a teacher preparation program or teacher certification. Hong and Lawrence (2011) suggest that knowledge is not simply passed down from professors, cooperating teachers, or other authority figures to teacher candidates or new teachers. Instead, knowledge is constructed through social interaction in a community of learners long after formal education. Learning

continues through collaborative reflection. Action research is a framework for this collaborative reflection.

With explicit training in action research incorporated into course work, opportunities to practice action research in an authentic setting, and support of a community of learners, teacher candidates can develop long-term skills and habits as reflective practitioners. Through this action research, the researcher will be able to determine the perceived benefit of explicit integrated training and ongoing support and collaboration on pre-service teacher's self-efficacy with regard to action research.

### Methods

The questions addressed through this action research are related to teacher candidates' perceived self-efficacy after explicit action research training.

- How does explicit instruction in action research methodology during clinical experience impact teacher candidate's self-efficacy as reflective practitioners?
- What impact does a collaborative support system have on teacher candidate's perceived self-efficacy in action research during clinical experience?
- After explicit training and collaborative support, what value do teacher candidates see in action research in their future teaching careers?

This study used a qualitative action research methodology with a phenomenological design due to the human experience of the teacher candidates who were participants in the study. The independent variable in this study was the explicit training and support provided by university supervisors and peers within the context of the Student Teaching Seminar course. While teacher candidates had varying placements depending on endorsement areas, all teacher candidates were required to attend the Student Teaching Seminar course and to complete the action research project in a similar but flexible timeline. Dependent variables were the teacher candidates own action research decisions and implementation as well as teacher candidate's perception of themselves as researchers and reflective practitioners.

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required to attend the Student Teaching Seminar course and to complete the action research project in a similar but flexible timeline. Dependent variables were the teacher candidates own action research decisions and implementation as well as teacher candidate's perception of themselves as researchers and reflective practitioners.

### **Participants**

This action research study took place in a student teaching seminar course offered in a teacher preparation program at a four-year college in the Midwest during the Spring 2024 semester. This course is the capstone course for teacher candidates. The intention of the course is to encourage teacher candidates' growth as reflective practitioners and to provide support during their final clinical experience prior to certification. Teacher candidates meet one night a month for three hours each meeting during their student teaching placements with a total of four meetings. The course included 22 pre-service candidates working on various endorsements including six Secondary Education majors of various content areas, three Elementary Education majors, eight participants with a K-12 endorsement, and five Special Education majors. Eleven teacher candidates were assigned to one clinical experience placement lasting 16 weeks. Due to requirements for experience in both elementary and secondary for physical education, vocal music, instrumental music, and K-12 Special Education programs, eleven teacher candidates were assigned to two placements each lasting eight weeks. All 22 participants received explicit training on action research methodology.

### **Data Collection**

The researcher collected data from a short survey (see Appendix A) conducted during the second course meeting, transcribed discussions during the third course meeting after the implementation and data collection process, and a final survey (see Appendix B) after the action

research was presented to peers and colleagues during the final course meeting. All survey questions were reviewed by other university supervisors for validity and reliability and adjusted as necessary to reflect the research questions. Survey data were collected using Google Forms. Discussions were recorded using the Voice Memos app on iPads and transcribed by the researcher.

An application for Educational Practice Exemption was submitted to and approved by the Northwestern College Institutional Review Board. This action research project met the following criteria for exemption: the research was conducted in established or commonly accepted educational settings and involved normal educational practices, the research was unlikely to adversely impact student learning, and the research was unlikely to adversely impact teacher assessment. All data were stored on a private locked computer within the classroom setting and only shared for educational purposes. All identifiers were removed from participants data.

### **Procedures**

The action research methodology implementation included explicit training provided by two university professors as well as supportive conversations with other university supervisors and peers. The first course session occurred after every participant had been at their student teaching placement for at least one full week. Training began with a review of the Interstate Teacher Assessment and Support Consortium (InTASC) Model Core Teaching Standards and Learning Progressions upon which the entire teacher preparation program is based. These standards include learner development, learner differences, learning environments, content knowledge, application of content, assessment, planning for instruction, instructional strategies, professional learning and ethical practice, leadership and collaboration. Teacher candidates used the InTASC standards to develop wonders and questions concerning their current student

teaching placements.

After the review of InTASC standards, teacher candidates were introduced to the power of questioning and problems of practice with a specific model of an action research project previously performed by the researcher in a K-12 setting. This model of action research was used to discuss the development of problems of practice, methodology steps, data collection, analysis of the data, and evaluation of next steps. Teacher candidates were assigned the task of observing the students in their placement to uncover a manageable and specific problem of practice. After finding a broad problem of practice, teacher candidates were tasked with finding peer-reviewed journals to refine their problem of practice and find possible interventions to test in their clinical practice setting.

In the second course meeting, teacher candidates brought action research project ideas to share with peers. At this point in the explicit instruction, the researcher's model of action research was again utilized to discuss forms of data that could be collected in a K-12 setting. Teacher candidates considered their problem of practice and how they would collect multiple forms of data to show the effectiveness of an intervention in their clinical experience placements. Teacher candidates were able to discuss their methodology with peers and support each other with suggestions for intervention and/or data collection. University supervisors were also present to provide support and to answer clarifying questions. Teacher candidates set goals for applying their targeted intervention prior to the next course meeting.

The initial short survey was given during the second course meeting after teacher candidates had defined a problem of practice and a manageable and specific intervention to address the problem of practice. The survey data was collected using Google Forms (see Appendix A). This survey was given after teacher candidates had collected information from

peer-reviewed journals on their problem of practice and possible intervention. The teacher candidates were asked to respond to the following: 1). Describe your comfortability with action research at this point in you. 2). How might you experience with action research in this setting impact your future classroom.

In the third course meeting, teacher candidates considered the implications of action research and the impact of the action research cycle. Teacher candidates were given time to discuss their action research projects with a group of peers of their choice. Teacher candidates selected groups of peers with whom to share their action research. These groupings were not assigned by endorsement area. Each member of the group described their problem of practice, intervention, and data collection; explored the strengths and challenges of the process; discussed the analysis and possible next steps; and provided feedback and support to peers. These discussions were recorded using student iPads and transcribed by the researcher. Due to the timeline of the clinical experiences and split placements for K-12 endorsements, not all teacher candidates were able to apply the next steps in the placement where they conducted their action research. Teacher candidates were given instructions to create a presentation of their action research which was shared at the final course meeting.

At the final course meeting, university supervisors, cooperating teachers, and current students who will participate in their final clinical experience during the next semester were invited to an open poster session where teacher candidates displayed and discussed their action research projects. After the open poster session, teacher candidates completed a follow up survey regarding the impact of action research on their self-efficacy and reflective practice. This survey asked teacher candidates to reflect on their learning about action research and their specific study, their use of human resources as support, and their perceived self-efficacy in the action



research process and their views on the value of action research (see Appendix B). Within the survey, teacher candidates were asked to provide words of advice for future teacher candidates regarding the process.

## Findings

### Data Analysis

#### *Initial Action Research Survey*

To gain perspective on teacher candidate initial impressions of action research during explicit instruction in action research methodology, teacher candidates completed a short survey in the second course meeting. This survey began to address Research Question #1: “How does explicit instruction in action research methodology during clinical experience impact teacher candidate’s self-efficacy as reflective practitioners?” At this point in the semester, teacher candidates had been introduced to the project, had reviewed and discussed a model provided by the researcher, had chosen a problem of practice, and had found peer-reviewed journals to guide their interventions. The survey included two questions regarding their comfortability with the action research process and how their experiences in the clinical experience setting might impact their future classrooms. The researcher was able to analyze the responses regarding comfortability with action research and code and categorize responses into four levels: very comfortable, moderately comfortable, uncertain, and not comfortable.

Out of the 22 teacher candidates, seven candidates reported being very comfortable with the action research project. Two of these teacher candidates explained their comfortability was due to the ease of implementation in the class they chose. Four of these teacher candidates mentioned their excitement or eagerness for the action research implementation with three candidates mentioning specific reasons for their positive impressions. The first of these teacher candidates felt the project helped them to get into the experience and to be hands on from the beginning of the placement. They mentioned eagerness to see how their future career would go. A second candidate had already done a small “trial run” with one class. This candidate’s

eagerness was in seeing how their students evolved as learners through the intervention. The third candidate revealed that action research would be a natural process that would happen anyway in a classroom. They were eager to collect data after their classroom improvement. An additional teacher candidate reported being very comfortable because they had the opportunity to get to know their students and ask questions. This candidate reported being very comfortable with trying something new.

Five teacher candidates recorded responses that could be categorized as moderately comfortable. Two of these teacher candidates reported that they had a plan for action research and were actively seeking journal articles. A third candidate mentioned having an action research plan and all materials needed to implement the plan with some uncertainties on a data collection tool. The final two candidates in this category reported initial wariness with action research project until they were able to spend more time talking with a cooperating teacher and noticing specific problems or issues in their clinical placement setting.

Six teacher candidates detailed responses that could be categorized as uncertain. These candidates mentioned being nervous, uncertain, or anxious due to this being their first experience with action research, unknown student responses, or the complexity of this project.

Four candidates fell into the category of not comfortable with the action research. Three of these teacher candidates had chosen a specific intervention, but they were not confident with how they would implement the action research plan in their current placements. The first teacher candidate mentioned overwhelm with the full semester project and vagueness of the instructions with concerns about missing necessary details. This teacher candidate mentioned that they may be overthinking it; however, they wanted to have a more descriptive list of directions. A second teacher candidate mentioned they felt they had a good understanding of the action research

process when viewing projects of others, but they felt the implementation of their own project would be very hard because they were unsure of how to stick to one idea for implementation. A third teacher candidate reported ideas of what would be beneficial to students but a major concern with implementing ideas. The fourth teacher candidate reported being very uncomfortable with the project due to their split placement. Because they had not met the students at their second placement yet, they were concerned with not knowing what would be beneficial to the new set of students in their second placement.

The second survey question asked how action research in clinical experience settings might impact teacher candidate's future classroom. Participants interpreted this question in one of two ways: the impact of action research in general and the impact of their specific intervention. For this action research project, the researcher chose to focus on responses that consider action research in general rather than specific interventions as these responses were more relevant to the research questions and preserved anonymity of participants. Twelve responses considered the general action research process in future classrooms highlighting trying new things, looking for research and evidence-based interventions, and being more aware of and acting on issues in their future classroom. To support trying new things, one candidate reported, "I hope it provides me with more avenues to find information to apply, and a more open mind to trying different 'out-there' ideas." Another candidate wrote, "I purposely chose something that I have been very interested in implementing in my future classroom. Doing this in student teaching is allowing me the opportunity to test and refine in a setting where I can lean on and bounce ideas off of an experienced teacher." One teacher candidate who disclosed the importance of research-based interventions stated, "I think that this is how I should approach a lot of things I want to implement in my classroom. I should always look for research on a subject

or strategy before implementing it... Taking data on it and seeing how it affects the classroom is very important.” Another candidate stated, “Being able to have some actual data to back up what I’ve heard all throughout my undergrad classes will be able to prove the importance...” Finally, a teaching candidate who mentioned being aware and acting on issues communicated, “I am already thinking about ideas I can try. I think having this background knowledge will help me be better prepared in the future. I would like to think I will act on something quicker when I start to notice it in the classroom.” Another candidate explained, “I think it will benefit me because I will already be familiar with watching for the problems and then using what I know, along with the research to find ways to resolve the issues.”

### ***Transcribed Group Discussion***

The mid-semester group discussion built in a collaborative support system with prompts created to allow students to discuss their action research progress and challenges and reveal their perceived self-efficacy. This discussion intended to address Research Question #2: “What impact does a collaborative support system have on teacher candidate’s perceived self-efficacy in action research during clinical experience?”. With the assistance of another university supervisor, the researcher divided responses thematically to establish overarching perceptions of the discussion. While prescribed prompts were provided to guide discussion topics, common themes developed organically. Using VoiceMemo on school-provided iPads, five groups of teacher candidates recorded their answers and subsequent discussion based on the following prompts:

1. Describe your Problem of Practice (PoP), intervention, and data collection.
2. Explore strengths(roses) and challenges (thorns) in the process.
3. Discuss data analysis and next steps.
4. Provide feedback and support to peers.

Recordings were airdropped directly to the researcher. The researcher transcribed the discussions before color-coding categories and subcategories. Data was segmented and moved into a spreadsheet to further structure and analyze themes. Headings on the spreadsheet included data collection types and limitations as well critiques of the action research process.

### **Data Collection Types and Limitations.**

Due to the large range of student teaching placements and endorsement areas, teacher candidates' action research projects varied greatly. Despite the variation of projects, the researcher was able to narrow discussion topics to two subthemes: numerical data challenges and data inconsistencies or barriers to data collection.

*Numerical Data.* The group discussions showed that many teacher candidates initially planned on collecting numerical data in the form of behavior tally counts, time gained or lost after interventions, or test scores. Several of these teacher candidates found that their initial numerical data collection method did not fit the intervention as well as other observational or survey data. For example, in Group 1, a teacher candidate using math manipulatives to increase test scores found her pre- and post-assessment showed little improvement and realized through the discussion that her pre-assessment focused mainly on one-step problems while her post-assessment included more two-step problems. In addition, not all students completed the assessments in the time allotted, so data was inconsistent. However, she also collected student self-assessment on their engagement while using math manipulative and found these results to reflect more accurately what was happening in the classroom. In Group 2, a teacher candidate provided vocabulary tests with visuals to an English Learner in a school with no supportive services for English Learners. While she was anticipating scores to go up significantly on the vocabulary tests, she found a more obvious positive difference in the student's self-reported

confidence level and enjoyment of learning new vocabulary. In Group 3, a teacher candidate created group activities for students after PE class while they waited for their teachers to arrive. This teacher candidate intended to record the decrease in transition time but mentioned the numerical data was inconsistent due to reliance on the arrival of the teacher. While the timing of transitions was difficult to measure due to uncontrollable variables, the teacher candidate found elementary students looked forward to the structured activities and left PE class more relaxed, regulated, and happy according to the reports of other teachers. This teacher reported that the intervention was successful but not in the numerical way he had initially intended. In Group 4, a teacher candidate implemented journaling with specific prompts about emotional regulation. This teacher candidate sought to decrease the number of behaviors and kept a behavior log. This teacher found that while the number of behaviors did not decrease, the severity of behaviors decreased.

***Data Inconsistencies or Barriers to Data Collection.*** Another barrier in the data collection occurred when data was not easy to collect or was interventions were not consistently assessed. Several teacher candidates mentioned issues with not being able to do daily or even weekly data collection due to many uncontrollable factors in a classroom that is not yet their own. In Group 1, a teacher candidate mentioned she believes the increase in scores would have happened regardless of her intervention so making meaning of the data without a sample group who was not receiving the intervention as a comparison was difficult for her. In the same group, a teacher candidate focusing on the implementation of self-regulation strategies found counting redirections difficult to do while trying to teach at the same time. In Group 2, a teacher candidate began by collecting observational data on sticky notes, but soon became overwhelmed and had to change how data was collected and organized using a spreadsheet. She found herself making

easily forgotten mental notes when teaching which she felt may have biased her data. In Group 3, a teacher candidate found they were collecting survey data for the data collection but also using incorporating student feedback through the survey as the intervention. In this way, they had difficulty interpreting data because the “product was in the process.” Group 4 included several teacher candidates with split placements. This discussion was completed the week many of these candidates were moving to their second placement. Because of this, a few participants who planned to implement their action research in their second placement did not have data collected and were frustrated with their differing timeline and subsequent lack of data to analyze at this point.

**Critiques of the Action Research Process.** Apart from teacher candidates in split placements who had not yet begun their action research, many teacher candidates found a strength in finding a single problem of practice on which to focus. Teacher candidates found that collecting data consistently and collecting meaningful data that truly measured their intervention’s success was their biggest challenges. Several teacher candidates found their interventions were successful but in ways that differed from what they were initially hoping. One teacher candidate mentioned they had wished they had not seen the previous semester’s action research project because they felt it made them focus too much on the end goal and less on the process.

Overall, students enjoyed the process of action research as shown in the following comments: “Strengths that I had... I guess I enjoyed it...I wasn’t a huge fan of the data, but I liked trying something and making it a point of focusing on what I was doing and how it affected the classroom transitions and just everything in general.” and “It made me try something I otherwise might not have tried, but I think it was helpful.” Group 3 mentioned they especially



enjoyed checking back in with instructors and peers and having a chance to give and receive verbal feedback at seminar because the process felt overwhelming at the beginning.

### *Final Survey Data*

The final survey which teacher candidates completed the night of their full action research presentations was collected using Google Forms. Sixteen out of the 22 starting participants completed the survey. The survey (see Appendix B) was divided into three sections: reflections on the action research process, resource utilization, and self-efficacy.

**Reflections on Action Research Process.** When teacher candidates were asked to describe the most important thing(s) they learned about action research, the responses were split into two categories: developing purpose in the classroom and understanding the process of action research.

**Purposefulness in the Classroom.** Eight teacher candidates focused on the importance of purposefulness in the classroom with comments about the importance of trying new things and asking question. One teacher candidate stated, “I learned about the importance of trying new things in your classroom. With learning new things, the importance of research and not just trying something new to try it.” Similarly, another teacher candidate wrote, “I learned that action research is a good way to keep mindful of the things going on in your classroom. I feel as though it is essentially a structured, organized way to learn about your own classroom and applying/learning more about best practices.” Additionally, a teacher candidate described, “The most important things I learned include the importance of asking questions and acting on them. There are many things I have questions about involving students and the classroom and doing action research is helpful in answering those questions in an easy but effective way.” Other teacher candidates had similar responses involving asking questions and trying new things as a

learning process and benefit to both the teacher and the students.

*Understanding the Action Research Process.* Eight candidates described their learning involving the process of action research. Teacher candidates mentioned the importance of focusing on the process rather than the conclusion: “When you are engaging in research of an action, you have to go in knowing that it has the possibility of changing throughout...With action research, you need to be ready to let it unfold as it goes!” Another teacher candidates responded with the following: “The most important things I learned about action research this semester is to not begin my research with an end goal in mind. I came into my project fully expecting my action to have a positive impact on my students’ grades and it did not.” Additionally, teacher candidates emphasized the importance of data, “I learned to really trust the data. Through dissecting the data that I collected I found it really comforting to not make things bigger than they were and to really just analyze what was actually there.” This candidate went on to say, “Data is data and other factors that may have influence it are not included when dissecting it.” Finally, teacher candidates mentioned realizing that data collection should not be focused on being right: “I learned that it is almost more important to familiarize yourself with the process of performing research and not being successful than worrying more about getting the “correct’ information.”

#### **Opportunities for Collaboration.**

Teacher candidates were asked to describe their use of supervisors, cooperating teachers, peers, and other outside supports as resources during their action research process. Seven teacher candidates responded that they did not use their cooperating teacher or university supervisor as a resource. None of these responses detailed additional information as to why. Nine teacher candidates detailed their use of cooperating teachers and/or university supervisors as support.

One teacher candidate commented, “I used my cooperating teacher a lot...I loved getting to work with my cooperating teacher in a positive way. We both wanted what was best for the student and each other.” Another teacher candidate explained, “Yes! I used my cooperating teacher as a resource daily! She always helped me and gave me guidance when I asked.” Yet another candidate mentioned, “I used my cooperating teacher as a resource for the project. She was flexible with me in allowing me to work one on one with a student throughout the day. She also helped me in choosing a good student to complete this project with.” An additional candidate mentioned, “Both of my cooperating teachers have been instrumental resources in adding with emotional support and helping plan out lessons...as well as being so open to answer any questions I have.” He went on to say, “They were so willing to allow me to use what I want in their classrooms and being open to trying different things in order to help with the research.”

When asked about the impact of peers, 12 out of the 16 participants emphasized the importance of peers who asked them questions, helped them brainstorm, checked how they were doing, and shared their ideas throughout the process. Only four students claimed they did not utilize peers at all.

### **Perceived Self-Efficacy.**

When asked about their perceived self-efficacy 14 of the 16 teacher candidates expressed being confident or very confident in their abilities. Of these candidates, five mentioned the high level of personal growth they experienced from the beginning of the project. Only two candidates did not mention a perceived level of growth. These candidates mentioned a struggle to keep a positive and open mindset and a struggle with consistency in data collection.

Every respondent mentioned value in the action research process. One candidate stated, “I think that teachers need to always be trying new things to help their students. Teachers should

be lifelong learners. If we don't try new things, we will never find out awesome ways to help students." Another candidate claimed, "I think the most important thing a teacher can do is question. Doing a bit of reflection on what is happening in the classroom and brainstorming possible solutions is the bigger picture of the differentiation and altering you do in the classroom." Yet another teacher candidates described, "Action research prompts constant innovation. Pursuing action research is predicated on a willingness to try new things and understand how they work for your classroom."

## Discussion

### Summary of Major Findings

When considering the progression of teacher candidates' attitudes toward action research and their perceived level of efficacy and growth, findings revealed that teacher candidates who showed initial unease with procedures and topics finished the semester with unanimous positive opinions toward the action research process. In the final survey, several teacher candidates mentioned the issues the barriers they had with data collection, consistency, and time; however, even the candidates who reiterated the barriers concluded that action research helped them to develop and seek answers to their questions in the classroom. In addition, almost all teacher candidates expressed high levels of confidence in their ability to conduct future projects with several teacher candidates describing the process as "easy" to complete.

As for the collaborative support system, just over half of student reported using their cooperating teacher as a resource for the project with many candidates offering specific examples and glowing reviews of their interactions. However, others mentioned only that they had not utilized their cooperating teacher with no explanations as to why. This observation raised questions about student teacher and cooperating teacher working relationships in addition to cooperating teachers' comfortability with the action research process. On a more encouraging note, almost all students emphatically expressed the support they received from peers who asked them questions and offered support. While small collaborative pieces were built into the course meetings, teacher candidate responses showed these peer interactions were happening more often outside of the course.

All teacher candidates survey expressed their positive feelings of action research as a valuable process to help with classroom management, addressing issues, improving teaching

strategies, and to try new things for the good of the students. The teacher candidates offered advice to future action researchers regarding being flexible but organized in the process. In addition, the university supervisors observed a heavy influence on the collection of numerical data. Teacher candidates found their initial focus on numerical data such as grades, number of instances, or time to be less helpful than their observation data which showed them different trends than they were expecting. Overall, although stressful at the beginning with a level of uncertainty in how to begin and a time crunch for individuals with dual placements for many teacher candidates, the action research during clinical experience was a positive learning experience, and teacher candidates expressed pride in their completed research.

### **Limitations of the Study**

As expressed in the literature review and teacher candidate's initial action research survey, time was a limitation of this study for both the teacher candidate's research and the university supervisor's research. Students with dual placements due to K-12 endorsement requirements fell into a different timeline from their K-6 and 7-12 endorsed peers.

All 22 participants completed the initial action research survey. However, one group misplaced their discussion recording and six students were absent from the final course meeting or did not complete the final survey, so data was not complete.

The collaborative piece of this study relied partly on the working relationships of student teachers and their cooperating teachers which may have influenced a teacher candidate's perceived support system. In addition, no action research training was provided to cooperating teacher so their level of self-efficacy with action research is unknown.

**Further Study**

The findings of this study showed positive impacts of action research in teacher candidates' clinical experience; however, the timeline was quick timeline was an issue for the teacher candidates, especially those with two placements. The lack of time as a barrier was a common theme in the review of literature as well. While extending the timeline of student teaching experiences beyond the typical one semester is not an option for this university, a further study at a university with a long clinical experience timeline may produce stronger results. Another study could analyze the impact of earlier action research training on the teacher candidates' efficacy or pride in their project. The undergraduate students at this institution have multiple field-based experiences opportunities in which they could do smaller scale projects as a way to prepare for the larger project during the student teaching experience.

Finally, one area that was outside of the control of the researcher in this setting was the relationship between student teachers and cooperating teacher. This concept was left unmeasured in this study but could provide more insight on teacher candidate use of cooperating teachers as a resource. An additional study could analyze the impact of explicit action research training with cooperating teacher. The current study did not gauge cooperating teachers' experience or comfortability with action research which may also have influence the teacher candidates' experiences.

### **Conclusion**

The purpose of this action research project was to uncover teacher candidates' perceptions of self-efficacy and the value of action research. The researcher found the training in action research methodology and subsequent project to be beneficial in improving the self-efficacy of teacher candidates. A qualitative methods study was used to determine if explicit training in the action research process and opportunities for collaboration about the process influenced teacher candidates' self-efficacy. Data was collected through participant surveys and transcribed discussions.

Data analysis revealed that teacher candidates felt high levels of self-efficacy in the action research process with many participant providing goals for how to continue improving their action research skills such as staying organized but flexible and focusing on the process rather than the product. While many teacher candidates mentioned utilizing peers to brainstorm and share ideas over the semester, much of this collaboration seemed to be outside of the seminar course setting. In addition, only half of teacher candidates relied on a cooperating teacher as a support during the action research. Finally, data analysis revealed all teacher candidates had positive ideas about the value of the action research in their future classroom. Teacher candidates mentioned action research as a tool to improve classroom management, teaching strategies, and trying new things for the benefit of students.

The literature review of this study explained the research process, explored the role of teachers as research, and explained the importance of action research in teacher preparation programs before reviewing the barriers and challenges faced when implementing action research during clinical experience in a teacher preparation program. Research uncovered the important of action research for teachers as lifelong learnings (Anwar, 2016). Action research in teacher



preparation programs can help student teachers practice wondering about their classroom and reflecting on how they can make small data-informed decisions to facilitate improvement (Barbre & Buckner, 2013). The literature reviewed showed that collaborative action research when student teachers form relationships with cooperating teacher and university supervisors can prompt student teachers to build critical reflection skills (Hagen, 2022; Hong & Lawrence, 2011). In addition, the research of Hong and Lawrence (2011) showed the ability to critically reflect on instructional practice builds teacher quality. While action research in teacher preparation programs has been proven to be beneficial, several barriers exist including the limited time frame and training for teacher candidates and supervisors (Black, 2020).

The research findings from this study show the importance of action research in teacher preparation programs from the perspective of the teacher candidates. The outcomes of the study could provide information and encouragement to teacher education program university supervisors, cooperating teachers, and teacher candidates in their clinical experience placements. The conclusions showing teacher candidates perception of the positive value of action research could provide evidence as to why action research should be included in clinical experience despite the time, complexity, and collaborative barriers that may arise.

### References

- Anwar, N. P. (2016). Action research a tool to build capacity of teacher educators. *Journal of Educational Research, 19*(2), 105-116.  
<http://ezproxy.nwciowa.edu/login?url=https://www-proquest-com.ezproxy.nwciowa.edu/scholarly-journals/action-research-tool-build-capacity-teacher/docview/1869029964/se-2>
- Barbre, J. O., & Buckner, B. J. (2013). Utilizing action research during student teaching. *SAGE Open, 3*(1). <https://doi.org/10.1177/2158244013482468>
- Black, G. L. (2020). Implementing action research in a teacher preparation program: Opportunities and limitations. *The Canadian Journal of Action Research, 21*(2), 47-71.  
<http://ezproxy.nwciowa.edu/login?url=https://www.proquest.com/scholarly-journals/implementing-action-research-teacher-preparation/docview/2822652397/se-2>
- Cain, T., Brindley, S., Brown, C., Jones, G., & Riga, F. (2019). Bounded decision-making, teachers' reflection and organisational learning: how research can inform teachers and teaching. *British Educational Research Journal, 45*(5), 1072–1087.  
<https://doi.org/10.1002/berj.3551>
- Chudasama, M. (2021). Building bridges for teachers as researchers. *Management in Education, 35*(1), 66-68. <https://doi-org.ezproxy.nwciowa.edu/10.1177/0892020620963119>
- Corey, S. M. (1953). *Action research to improve school practices*. Teachers College Press.
- Creswell, J. W. & Poth, C. N. (2018). *Qualitative inquiry: Choosing among the five approaches* (4<sup>th</sup> ed.). Sage.
- Efron, S., & Ravid, R. (2013). *Action research in education: A practical guide*. Guilford Press.

- Fonger, N. L., Reiten, L., Strachota, S., & Ozgur, Z. (2017). Engaging in research: Why? how? now! *The Mathematics Teacher*, 110(6), 462–465.  
<https://doi.org/10.5951/mathteacher.110.6.0462>
- Hong, C., & Lawrence, S. (2011). Action research in teacher education: Classroom inquiry, reflection, and data-driven decision making. *Journal of Inquiry and Action in Education*, 4 (2). Retrieved from <https://digitalcommons.buffalostate.edu/jiae/vol4/iss2/1>
- Monem, R., & Cramer, E. D. (2022). Utilizing action research to integrate curriculum, instruction, and assessment in middle school classrooms. *Middle School Journal*, 53(3), 5–14. <https://doi-org.midlandu.idm.oclc.org/10.1080/00940771.2022.2047370>
- Olson, S., & Labov, J. (2014). Exploring opportunities for STEM teacher leadership: Summary of a convocation. Washington, DC: National Research Council of the National Academies.
- Smith, P., Geng, G., & Black, P. (2016). Teacher as reflective practitioner. In *The challenge of teaching*. article.

Appendix A



## EDU410: Action Research Experience Questionnaire

kooiker@midlandu.edu [Switch account](#)



Not shared

\* Indicates required question

Describe your comfortability with action research at the this point in your process. \*

Your answer

---

How might your experiences with action research in this setting impact your future classroom. \*

Your answer

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## Appendix B



## Post-Action Research Interview

kooiker@midlandu.edu [Switch account](#)



\* Indicates required question

Email \*

Record kooiker@midlandu.edu as the email to be included with my response

1. Describe the most important thing(s) you learned about action research this semester.

Your answer

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2. Describe what you learned from your specific study. \*

Your answer

---

**Resource Utilization**

3. Did you use your cooperating teacher or a university supervisor as a resource? \*  
If so, describe this interaction.

Your answer

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4. What impact did peers (inside or outside of seminar) have during your research \*  
project?

Your answer

---

5. What additional support did you seek outside of peers, university supervisors, \*  
and cooperating teachers?

Your answer

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### Self-efficacy in Action Research

6. Describe your self-efficacy (belief in your ability to complete a task or achieve a goal) with regards to action research. \*

Your answer

---

7. What value do you see in action research in the classroom? \*

Your answer

---

8. What advice or support could you provide to other pre-service or practicing teachers on action research? \*

Your answer

---

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