ACTION RESEARCH IN SPECIAL EDUCATION

An Inquiry Approach for Effective Teaching and Learning

SUSAN M. BRUCE AND GERALD J. PINE
ACTION RESEARCH IN SPECIAL EDUCATION

An Inquiry Approach for Effective Teaching and Learning

Susan M. Bruce
Gerald J. Pine

Teachers College
Columbia University
New York and London
Contents

Preface ix
Acknowledgments xi

Part I. Inquiry and Action Research in Special Education 1

1. Action Research: Promise for Special Education 3
   The Social Justice Roots of Action Research 5
   The Development of Action Research in Education 7
   Contemporary Teacher Research 10
   Action Research, Special Education, and the Case Study 12

2. Improving Opportunities for Children with Disabilities Through Action Research 16
   A Schema for Action Research in Special Education 16
   Action Research Studies in Special Education 19
   Extending the Literature to Additional Issues of Social Justice 23

3. Basic Principles for Conducting Action Research 32
   Identifying the Inquiry Topic 32
   From Inquiry Topic to Framing the Research Question 34
   Developing the Theoretical Framework 36
   Developing the Action Research Plan 38
   Collecting, Organizing, and Analyzing Data 40
   Drawing Conclusions, Finding Meaning 42
   Sharing Findings 42
   Evaluating the Action Research Study 43
   Applying the Principles 44

4. Reflection, Inquiry, and Action Research in Special Education 47
   Teacher Preparation Programs 47
   Reflection, Inquiry, and Action Research 47
   Action Research in Two Master's Degree Programs 54
Part II. The Graduate Student Action Research Studies

5. Teaching “Mitch” to Recognize and Read High-Frequency Sight Words
   Literature Review
   Who Am I as a Researcher?
   Research Methodology
   Results
   Discussion
   Conclusion and Recommendations

6. Using a Communication Game to Improve the Expressive Language Skills of a Boy with Autism
   Thematic Components
   Educational Experiences and Philosophy
   Literature Review
   Intervention
   Research Methodology and Data Sources
   Results
   Discussion
   Recommendations for Practice

7. The Effects of Individual and Small-Group Tutoring on Math Performance
   Literature Review
   Methodology
   Results
   Discussion
   Implications of Findings

8. Applying Functional Behavioral Analysis and a Positive Behavior Support Plan to Address Self-Injurious Behavior in a Student with Severe Disabilities
   Literature Review
   My Classroom and My Educational Experiences
   Intervention
   Results
   Discussion

Afterward: Looking to the Future of Action Research in Special Education
   Considerations When Conducting Action Research in Special Education
   Additional Topics of Importance

Index

About the Authors
PART I

INQUIRY AND ACTION RESEARCH IN SPECIAL EDUCATION

Action research has a rich history, grounded in concerns about important social justice issues. Part I of this book provides the reader with historical and theoretical grounding and practical information about conducting action research in special education. Chapter 1 traces the development of educational action research from its social justice roots. Chapter 2 suggests a schema for action research in special education. This is followed by an illustrative review of action research studies in special education, organized by four themes: assessment and instruction in the content areas; improved behavioral and socialization outcomes; inclusion; and amplifying the voices of children with disabilities. Chapter 2 concludes with a description about how different types of action research in special education could be applied to address one social justice issue in special education, disproportionality. Chapter 3 is a “how to” chapter, walking the reader through the process of conducting action research, with an emphasis on classroom action research. Chapter 4 shares how preparation in action research fits within a larger emphasis on preparing reflective teachers who engage in inquiry. This chapter concludes with a description of the action research component of two university teacher preparation programs.
Action Research: Promise for Special Education

Gerald J. Pine

Action research and special education are animated by a deep and abiding ethos of social justice. Within the context and practice of special education, action research can make a meaningful difference in the lives of teachers and their students with special needs. Conducting action research to address special education teaching and learning issues reflects the ideals and values of Francis Bacon, who in the 17th century asserted that knowledge and inquiry must be motivated by charity—human knowledge should be in service of or love for one’s fellow human beings. For Bacon the purposes of human inquiry and knowledge are to reduce human suffering, increase the quality of human life, enhance the well-being of humans, and advance human capacities (Bell, 1991).

What is action research? Action research is a process of concurrently inquiring about problems and taking action to solve them. It is an intentional, sustained, recursive, and dynamic process of inquiry in which the teacher takes an action—purposefully and ethically in a specific classroom context—to improve teaching/learning (Mills, 2003). Figure 1.1 is Hingley’s (2008) modification of the action research cycle originally depicted by Carr and Kemmis (1986, p. 186). Action research is change research, a nonlinear recursive cyclical process of study designed to achieve concrete change in a specific situation, context, or work setting to improve teaching/learning. It seeks to improve practice, the understanding of practice by its practitioners, and the situations in which practice is located (Carr & Kemmis, 1986; Cole & Knowles, 2000).

While focused on actions leading to change, action research is also a mental disposition—a way of being in the classroom and the school, a lifelong habit of inquiry. It is recursive in that teacher researchers frequently work simultaneously within several research steps and circle back to readdress issues and modify research questions based on reflection for, reflection in, and reflection on action. The reflection-action-reflection-action process can be considered a spiraling cyclical process in which research issues change and actions are improved, discarded, or
Improving Opportunities for Children with Disabilities Through Action Research

Susan M. Bruce

Action research is a powerful approach for addressing critical issues experienced by children with disabilities. The recursive nature of action research makes it an ideal approach to use when seeking solutions to complex problems that occur in complex contexts such as classrooms. The recursive quality creates opportunities for teachers to change their instructional focus or approach in response to new understandings that emerge from multiple cycles of reflection and action. Thus, action research supports teachers and other educational professionals to make meaningful changes in practice in response to data on student learning. In addition to addressing learning outcomes in the classroom, action research is well suited to address more systemic social justice issues. This chapter begins by presenting an action research schema that is useful to thinking about action research in special education. A discussion of the existing action research studies about children with disabilities follows, organized within four topical themes, with connections made to the types of action research presented in the schema. This chapter concludes with a discussion about how each type of action research can be applied to address the problem of disproportionality, a social justice issue of importance to general and special educators, parents, and children at risk for identification of a disability.

A SCHEMA FOR ACTION RESEARCH IN SPECIAL EDUCATION

Various schemas can be used to categorize educational action research. Hendricks’s (2009) schema is used here, although the definitions of the categories are broadened to capture the characteristics of action research in special education. Such studies can be categorized as being (1) classroom action research, (2) collaborative action research, (3) critical action research, or (4) participatory action research (Hendricks, 2009).
Basic Principles for Conducting Action Research

Gerald J. Pine and Susan M. Bruce

"Action research takes place in a context of discovery and invention as opposed to a context of verification. Discovery and invention, the main business of human science has little to do with experimental designs. What one does to discover and invent a new way of teaching is a completely separate activity from the strict procedures of classical experimental design" (Pine, 2009, p. 236). Although action research does not follow a strict linear step-by-step structure, the following research phases (which may be revisited multiple times across multiple cycles of action and reflection) serve as a general guide:

- Identify the inquiry topic.
- Frame the research question.
- Develop the theoretical framework.
- Develop the research plan.
- Collect, organize, and analyze data.
- Draw conclusions, find meaning.
- Share/report findings.

(Falk-Ross & Cuevas, 2008; McNiff, Lomax, & Whitehead, 2006)

IDENTIFYING THE INQUIRY TOPIC

By studying life in the natural setting of the classroom, by looking closely for patterns in the intricacies of classroom life, by closely observing authentic events in teaching and learning situations, the classroom teacher can identify a research question that will evoke personal passion and energy. Passion is integral to doing action research and can be a resource for identifying a suitable research topic. Teachers and related service professionals may feel passionate about helping one child, improving the curriculum, improving implementation of a new instructional approach or intervention, examining the match/mismatch between professional beliefs and
Reflection, Inquiry, and Action Research in Special Education Teacher Preparation Programs

Susan M. Bruce

Increasingly, teacher preparation programs include an action research component (Price, 2001) that requires teacher candidates to demonstrate reflection and inquiry about student learning and about their own development as teachers. The action research component is often situated within a larger focus on supporting candidates to become reflective practitioners. The first half of this chapter discusses how the concepts of reflection, inquiry stance, and action research are connected in teacher preparation. The second half of the chapter is devoted to sharing how two university special education teacher preparation programs prepare candidates to engage in action research couched within a broader emphasis on reflection and inquiry.

REFLECTION, INQUIRY, AND ACTION RESEARCH

"Teaching is a complex and dilemma-ridden endeavor, necessitating ongoing learning as well as the capacity to be reflective" (Cooper & Larrivee, 2006, p. 1). Reflection is a special kind of thinking that addresses a situation that causes doubt or perplexes one. For teachers, reflection occurs over a problem or question that emerges in the classroom. Reflection may occur at different levels of complexity, including (1) surface reflection (thinking about strategies and methods applied to accomplish established instructional goals), (2) pedagogical reflection (thinking deeply about educational goals and the connection between theory and practice), and (3) critical reflection (examining one's own assumptions, values, biases, ethics, and issues of social justice in the classroom, school, or larger community) (Cooper & Larrivee). Teacher reflection may be supported by technology, such as using word processing to record and organize thoughts,
PART II

THE GRADUATE STUDENT ACTION RESEARCH STUDIES

Chapters 5 through 8 are about action research studies conducted by master’s degree students in general education (Catalano) and special education (Morillo, Spence, and Faletra) at Boston College. These were submitted in fulfillment of the comprehensive examination requirement for master’s degree programs leading to eligibility for a teaching license in the state of Massachusetts. These studies were developed in response to authentic teacher concerns about the academic and linguistic performance or behavioral challenges of children with mild to severe disabilities. The papers featured in Chapters 5 through 8 were selected for their quality (each earned a grade of “distinction”) and because collectively they address a diverse range of topics, contexts, and students.

Department faculty collaboratively developed a structure for the papers about the action research studies. The following structure was provided as a guideline for paper headings and content: Conceptual and Theoretical Framework (importance of the research question and primary theories that ground the study); Review of the Literature; Description of Context and Frame of Reference (including reflective narrative about the influence of the teacher candidate’s personal and educational history and how that history influences teaching decisions along with a description of the classroom, school, and community contexts); Intervention (addressing both the content area and pedagogy); Data Sources (evidence of pupil and teacher learning); Results, Analysis and Interpretation, Implications (with an emphasis on implications for the teacher candidate’s future practice); References; and Appendices.
Teaching "Mitch" to Recognize and Read High-Frequency Sight Words

Claudia Morillo

In the spring of 2006, I was student teaching in an elementary public school in Newberry (a pseudonym). My placement was in an integrated second-grade classroom. This model was designed in a way that children with special needs were placed in a general education classroom, where a general education teacher and a special educator worked together planning and developing instruction. In my first weeks of student teaching, I began to think about the possible research questions I could develop.

Instead of randomly selecting a topic, I decided to start by reading the Individualized Educational Plans (IEPs) of the six students who were integrated in this classroom. I discussed with the classroom teachers the students' IEP goals and the progress they had accomplished halfway through the school year. The special educator expressed her concerns regarding one particular student who was not making significant progress toward his IEP goals. She expressed her interest in having me work one-on-one to support him in the different academic areas affected by his disability.

As written in Mitch's IEP, his goals for English Language Arts focused on his ability to develop an understanding of the conventions of print, relationship of letters, and patterns of spelling. One of the benchmarks indicated for this goal was that he would recognize and read high-frequency sight words from a list, although which list was not specified in the IEP. Based on this particular goal and after conducting informal assessments for several weeks, I decided to pursue the following research question: How can I use a variety of instructional strategies to help Mitch recognize and read high-frequency sight words? I was excited with the selection of my research question because it implied an action that was directly related to both teaching and learning. The research question was meaningful for me because I hoped to help a struggling reader make significant progress.
Using a Communication Game to Improve the Expressive Language Skills of a Boy with Autism

Melissa Spence

Communication takes many forms, both verbal and nonverbal, such as speaking, sign, gestures, and eye gaze. No matter the form, individuals utilize communication to transmit needs and wants as well as to interact with others. Effective communication skills are important in many aspects of life; however, these skills play a pivotal role in school. In the classroom, effective communication is imperative, as learning consists of series of interactions between the teacher and students, and “the success of these interactions . . . depends heavily on their ability to communicate effectively” (Downing, 1999, p. 7). Therefore, it is essential to foster the development of communication skills in the classroom, as such skills play a vital role in the learning process.

There are two types of communication: receptive and expressive. Receptive communication is the understanding of the intent of the message conveyed by other individuals. Expressive communication is the ability to express wants, needs, or additional intents to others. Communication skills consist of the behaviors, including words, used to either indicate understanding (receptive skills) or to convey thought (expressive skills) (Downing, 1999). Effective expressive language skills not only provide students an avenue through which to display their knowledge, but also allow teachers to evaluate their students’ learning. However, this process is hindered when working with students with autism, as these students exhibit marked verbal communication impairments. Only about 50% of individuals with autism become verbal (Towbin, Mauk, & Batshaw, 2002), and those who are verbal often exhibit language deficits such as abilities to initiate or sustain conversation with others, idiosyncratic language, or a failure to learn the rules guiding verbal language (American Psychiatric Association, 2000; Rutter, 1978).
The Effects of Individual and Small-Group Tutoring on Math Performance

Julie Catalano

The Berkely Elementary School is part of the Mumsford School District, a large urban school district. Berkely Elementary is a pilot school located in Rowland, and it primarily serves students from the local neighborhood. Thus the majority of the students in the school are students of color, and most of the students are from low-income families. Roughly 15 years ago this particular school was among the worst elementary schools in the district, but since that time it has experienced tremendous success in teaching students in all the content areas following the standards set forth by both the state and national professional organizations.

The question that I investigated this semester developed through watching my fourth grade students prepare for a midterm exam. The students were given a review packet, and their goal was to work through the entire packet, and complete each section with 90% accuracy. The sections of the packet included every skill that they had learned thus far, from basic addition to more advanced skills like division and probability. A significant number had forgotten basic operations such as the addition and subtraction of three-digit numbers, the rounding of numbers, and the concept of place value. Many of these skills had been taught and reviewed beginning in the first grade. Thus, it was a concern that by fourth grade these students still lacked mastery in these areas. Therefore, the question that I investigated this semester was: How will the math performance of my struggling students change if I offer them tutoring in both a small group setting as well as individually?

Clearly, this question is directly linked to student learning, as it is tied very closely to their performance in a core content area. My hope was that through the investigation of this question, methods of supporting students at risk for failing math class and missing the most fundamental math concepts would be developed. Furthermore, these intensive ses-