

Classroom Action Research: Practical Models

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Working as a remedial reading teacher and reading specialist in an elementary school is a good job. There is never a dull moment when one works with young children as most are happy to be in school, certainly full of energy, and often eager to learn. However, the one part of my job which adds to my enthusiasm is conducting action research projects. When I first became a teacher, I thought I knew most of the answers. I soon realized that I did not know many of the answers, and now, after many years of teaching, I am starting to understand the questions. It is these questions which motivate me to begin action research projects.

Classroom action research projects answer questions which are important to me. As teacher/ researchers, my colleagues and I act with a clear question in mind, creating an action research project in an attempt to answer our question and satisfy our curiosity.

The Classroom Research Process

Action research has an historical foundation (Corey, 1953; Wann, 1952). Classroom action research has become increasingly more visible (Mekernan, 1988; Santa, Issacson, & Manning, 1987; Telfer, 1989). Today teachers with questions and needs are able to engage in classroom action research. Formal training in math, statistics, or research methods is not imperative.

Eight steps which help to guide and direct the classroom research projects are:

1. **Formulate the research question.** A research question which is specific rather than general must be identified. By rephrasing and re-asking the research question while designing the project, the project will be kept on track.
2. **Term clarification.** Everyone seems to talk in educational jargon but what does a specific term actually mean? Define terms used in the study.
3. **Design the research process.** An outline of the research project can be compiled by asking several basic questions. The questions include:
 - Who will be involved in the project?
 - When will the project begin and end?
 - What is the precise research question(s)?
 - Where will the research project be conducted?
 - Why are you conducting the research project?
 - How will the results be used? (Supporting a different method; finding a better way; supporting one's position on an issue)
4. **Collect the data.** Determine the instrument which will be used to collect the data in the action research project. Formal tests, informal tests, journal, logs, students surveys, and personal student interviews are all valid data collection procedures.
5. **Analyze the data.** Organizing and analyzing the data in a clear manner is important. A teacher should thoroughly examine other factors, ensuring that the research process was consistent from beginning to end. Frequently focus and reflect on the project design (#3 above).
6. **Interpret the results.** How does the data answer the research question? Be prepared to expect the unexpected or draw a conclusion which is unanticipated or contradictory to your prognosis.
7. **Share the results.** Collaborating teachers, administrators, students, and parents may be curious about the findings of your research.

Professional journals are an outlet in which to publish the action research study. The "In the Classroom" section of *The Reading Teacher* often publishes articles of classroom action research projects.

8. **Theory into Practice.** What will happen if a teacher makes a change and puts theory into practice? Will the theory really work? Will an enhanced process be established?

School Based Research

The following section illustrates five examples of action research projects using data collection/analysis, survey research and informal tests, which were conducted at our school. Each example focuses on one or more action research questions.

Data Collection/Analysis

To describe emergent literacy in specific terms, the kindergarten teachers and I felt that we needed a numerical base. The two main questions of the research project were:

1. What is the early literacy knowledge of beginning kindergarten students in regards to letter knowledge and concepts about print (Clay, 1985)?
2. Is there a substantial difference in literacy knowledge among children as they enter kindergarten?

The classroom action project was conducted over several years. By collecting and analyzing the data which we obtained from the beginning kindergarten students, we were able to detail the levels of emergent literacy (Kramer, 1993) among our kindergarten students using a graph to indicate performance. This project displayed the substantial difference in early literacy knowledge among our students, since some beginning kindergarten students could identify 26 upper case letters and 25 lower case letters, while others could identify only one upper case and one lower case. Projections were made concerning letter knowledge and concepts about print. Plans were developed based on the validity of our projections based on the findings from our research.

Survey Research

Many years ago, classroom teachers were being told to read entire novels along with, or in place of the short selections found in the basal text. This action

research project asked two main question on a student survey. The questions were:

1. Which are more interesting to read—basal text stories or novels?
2. Which are more exciting—basal text stories or novels?

The results of the survey research (Kramer, 1988) clearly showed that our students enjoyed and valued reading entire novels. The results of this on-going research project, now in its eighth year, continue to guide and direct our reading program today.

Documentation of Growth by Sampling

Several years ago, we decided that we needed to document growth in reading of our first grade children in a clear and concise manner which parents, children, teachers, and the principal could easily understand. The two main questions of this action research project were:

1. How does the reading fluency of first grade students change during the school year?
2. How can teachers use these changes in reading fluency to document growth?

In addition to traditional reading measures, a different and possibly a better way to document reading growth appeared to be reading fluency samples (Anderson, Hiebert, Scott & Wilkinson, 1985), since the oral reading of most first grade students changes dramatically during the school year. For many years, we had noticed puzzled looks on the faces of parents when we mentioned basal series' reading levels, end of unit tests, percentile ranks or even stanines. We needed to develop an additional method which clearly demonstrated reading improvement in first grade.

In September, the first grade classroom teachers and I had all first grade students read for one minute from *Curious George Flies A Kite*, a first grade text. In this oral reading sample, we simply counted the number of words read correctly in one minute, pausing for exactly five seconds if a reader became "stuck." We then collected one minute reading samples from exactly the same text in January and, once again, in May.

The one minute reading fluency samples definitely helped to document growth in our first grade students (Kramer, 1989). In September, the average first grade students could read two words in one minute from the Curious George story. In May, average reading fluency had increased to 77 words per

minute. The growth in reading ability is now easily understood by all concerned individuals.

This particular classroom research project has expanded over the years and we now have collected more than 4,500 reading samples of students in the primary grades. It has become an ongoing process in our school.

Informal Assessment Measures

Many years ago, an individual claimed that our school did not teach a certain reading strategy. Our action research question was:

1. Did our school teach this specific reading strategy?

This fourth example of classroom research, in which a teacher collects data to verify a teaching practice, is intentionally vague to protect the privacy of all parties involved, while still providing an example of action research.

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We designed a project using informal assessment to determine whether or not the critic's position was correct.

The action research process required patience, detailed preparation and several months to complete, but, after we had obtained the data and analyzed the results, it became clear that the position promoted by the school was accurate. We were then able to strongly support our position with many facts obtained through action research. The teachers felt confident, relieved that research had given a satisfactory answer to a very important question: the reading strategy in question was taught!

Emergent Literacy Assessment—Survey

Preschool children appear to be able to read signs found in their environment. The action research questions were:

1. Are preschool children actually reading the words on the signs in their environment, or are

they just identifying the signs by colors, logo, and font?

2. Do all young children "read" signs or is this a characteristic of only a few?
3. Which common environmental signs are most frequently "read"?

Several years ago when I was driving down University Avenue in Madison, my two year old daughter shouted out from the back seat, "Daddy! Donald's! Hambaburger! French Fries! Ketchup!" Of course, she saw the sign. But did she read that sign?

Later that week, my kindergarten son informed me that we had to go to Shopko to buy a new dinosaur. (Apparently, he felt deprived since he only had about 50 dinosaurs littered about the house at any given moment.) And, of course, as we drove down Mineral Point Road in Madison, my son saw the ten foot tall letters proclaiming Shopko and demanded that we stop.

As a small part of a September kindergarten literacy assessment, I showed 20 common signs to beginning kindergarten students in attempt to answer the action research questions. The signs included such common signs as McDonald's, Sesame Street, Stop, and Exit. I first asked the children to "read" the actual signs. I then showed the young students the 20 words which were written in ordinary print and asked them to read the words.

The results of this action research project (Kramer, 1988) showed that 98% of the children were able to "read" the McDonald's sign while only 4% of the children were able to read the word "McDonald's" in isolation using ordinary print. An actual exit sign was "read" by 44% of the children but "exit" was read by only 16% of the children when written in ordinary print.

Conclusion

Action research can play an important role in a teacher's daily routine. Teachers who become researchers will feel empowered and reinvigorated. Their own curiosity and actions can provide answers to their questions through research conducted within their school. Action research will also help teachers to become more reflective as they continually focus on questions which are of immediate importance in their classrooms.

There is an abundance of educational jargon being used today. Action research will help to define often

vague, imprecise terms. It will also encourage teachers to further explore the concepts and methods relating to the terms.

Many teachers seek change. Action research certainly promotes change because it applies research findings which, in turn, help to solve classroom problems, while examining new and different teaching strategies. Any change brought about by an action research project also promotes ownership and a true sense of accomplishment for the teachers involved.

Since action research does promote questioning and the collection of data, it will document the teaching methods that seem to work well while demonstrating a clear link between process and results. Action research will help to verify successful teaching practices for concerned administrators, parents, and fellow teachers.

Action research is also very contagious. It seems that once the teacher becomes a researcher, the research "habit" will never stop. Teachers are curious people, always uncovering new questions while hoping to find the best way to help their students. After feeling the empowerment of classroom action research and seeing the successful results of their work, action research may become an integral part of a teacher's daily routine. Action research motivates teachers day after day to become innovative, enabling them to enhance their performance in careers which are satisfying and challenging.

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