A collaborative project between a Professional Development School (PDS) and a public school supported teachers' action research and initiated preservice teachers into action research. This paper describes one team's action research project in an inclusive high school classroom that shared the duties of teaching, assisting, modifying instruction, and evaluating progress for all students. The project began with participants' desire to learn more about inclusion and placing student teachers in such settings. Eight secondary preservice teachers were matched with practicing special education and content teachers who team taught in inclusive classrooms. Teams generated questions about issues they wanted answered, then translated them into research questions they could address through data collection. University professors provided guidance and feedback. Teams collected and organized data, feeding them into databases and spreadsheets and presenting them as slide shows incorporating the overview of the problem, methodology, results, and discussion. One project examined why so many students failed an inclusive algebra course. The team recorded and graphed the failure rate, determining that more special than regular education students failed. They documented whether students had completed homework, brought appropriate supplies, and participated in class. These behaviors were also lacking. They asked students for suggestions on motivating them to be prepared for class and devised a motivational plan. The plan succeeded for special but not regular education students. The collaborative projects benefited all participants. (SM)
Supporting Action Research in a Field-Based Professional Development School

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Abstract
Action research is a useful tool for teachers to ask questions, gather data and make sound decisions. Unfortunately, teachers working alone don't often have the necessary support to do this type of research well. A collaborative project between a field-based professional development school and a public school not only supported teachers' investigations but also initiated preservice education students into the theory and practice of action research. The experiences of one team's action research project in an inclusion classroom are described.
Supporting Action Research in a Field-Based Professional Development School

Action research has drawn the attention of educators as a structure for gathering data for logical problem-solving, for going beyond the scope of traditional research to yield applications for immediate use in a specific setting. As such, it provides opportunities for preservice and inservice teachers to become knowledgeable professionals and reflective practitioners. It can be an excellent tool to bridge the gap between theory and practice. Moreover, action research projects can provide school-based professionals with opportunities to interact in an intellectually stimulating environment that is a forum for sharing opinions (Sparapani, Abel, Easton, Edwards, Herbster, 1996).

Action research is a method of formulating a research question, systematically collecting data, organizing the data, analyzing and interpreting the data, and taking action. Unlike formal research, action research does not aim to provide answers that can be generalized beyond the setting in which it was conducted. But action research can be a way for teachers to find answers to important questions they have about their students.

Despite this promise, action research can't be done easily by classroom teachers working alone without support, nor by preservice education students in traditional university-based programs. A field-based professional development school can provide both support for inservice teachers and opportunities for preservice students to engage in research with guidance from university teacher educators.
Field-Based Professional Development School

In the restructured teacher preparation program at Southwest Texas State University, the Center for Professional Development and Technology (SWT-CPDT) has joined with public school districts and their communities to offer field-based teacher preparation in the public schools rather than on the university campus. Public school sites are selected to provide a representative sample of the populations that future teachers will be teaching, including special needs populations. Preservice education students and their professors meet on the public school campuses all day, twice a week, where their time is equally divided between coursework and observation/participation in classrooms. Their presence provides unique opportunities for collaboration in conducting action research.

One such action research project was conducted at a central Texas high school. The high school serves a suburban/rural community and has approximately 1800 students, some thirty-five percent of whom are minority, mostly Mexican-American. Beginning in the fall of 1995, preservice education students and practicing teachers teamed together to investigate questions about inclusion, since the high school population includes about fourteen percent special education students (Texas Education Agency, 1996).

Inclusion

Public schools have moved quickly in recent years to include special education students in regular education classrooms. Inclusive schools "educate all students in the mainstream. They provide all students with
appropriate educational programs that are challenging yet geared to their abilities and needs as well as any supports and assistance they and/or their teachers may need to be successful in the mainstream" (Stainback & Stainback, 1992). Whereas special education students are increasingly being mainstreamed into regular education classes, schools of education have moved slowly in equipping their students with the knowledge and skills necessary for success in inclusion classrooms.

Support for Action Research

At this high school, SWT field-based preservice teachers are placed in class-within-a-class (CWC) settings in which special education students are included in regular education classrooms. While some of the preservice teachers may have coursework in special education, most are regular education students.

In the CWC classrooms, the duties of teaching, assisting, modifying instruction and evaluating progress for all students are shared. The support of teaming among preservice and inservice teachers and university faculty, and a five-year statewide seed grant (Association for Retarded Citizens of Texas, 1994) for additional training in inclusion, made action research a possibility.

Preparing for Action Research.

The project began with the participants' desire to learn more about inclusion and the Class-Within-a-Class concept. Toward that end, the grant project provided two days of classroom training by an expert on the theory and practice of inclusion. First, students and teachers discovered and
analyzed their attitudes towards special education students and inclusion. They critiqued a video report of successful applications of inclusion from around the country and then examined the conclusions from recent research on inclusion. These sessions extended the university curriculum, which had been limited for non-special education majors to an overview of the legal history and the categories of differences and modifications.

The process of action research was also a new addition to the undergraduate level education curriculum, and to both preservice and inservice teachers. Because "research methods" are taught as a full semester graduate course, the university professors had to decide which key elements needed to be introduced in the limited amount of available time. Sessions ultimately included problem formulation, types of data, the steps of the research process, and the principles of validity and generalizability.

The Process of Action Research

A group of eight secondary preservice education students, four majoring in special education and four in content areas, were matched with practicing special education and content teachers who were team teaching in CWC settings. Initial work on the project was accomplished during a paid release day for teachers that was coordinated with an instructional day for the preservice education students, but subsequent work was conducted during planning periods and after school.

Teams worked on generating questions about classroom practices and issues they wanted answered, a step finished quickly--teachers had no shortage of questions! Next, the questions were translated into research
questions that could be addressed through the collection of data. The SWT professors and the project director provided guidance and feedback. At this point, teams were ready to set timelines. For the first semester, teams limited the project to the one semester they would be working with a particular group of SWT students. By the second semester, several teachers had decided on questions they wanted to continue to explore through subsequent semesters, even though their university team members would change.

During the data collection phase, the extra hands of university students were invaluable. They helped to devise assessment instruments, prepare materials, and record observations. Then the SWT students helped with the organization of the data. In the analysis phase, students provided their newly-learned expertise with computer databases and spreadsheets to compute simple descriptive statistics and present them graphically. Together, the teams decided how to present their results to their peers at the university and in the school districts throughout the SWT-CPDT. Presentations took the form of computer slide shows that incorporated the overview of the problem, methodology, results, and discussion. In sharing their results, the action researchers received confirmation and valuable feedback. Their collaboration was honored as they also brainstormed how they would take action and implement their results. This sharing proved to be the piece that participants later reported most encouraged them to continue doing action research.
Example of an Action Research Project

Formulating a question

One project completed during the course of a single semester focused on two sections of CWC Algebra I, each section with about sixteen regular education students and eight special education students. The action research team was comprised of a math teacher, a special education teacher, and two SWT interns. They wondered why so many students were failing the course, a discussion that led to the formulation of a researchable question: Do students enter high school with the prerequisite skills needed for success in Algebra I? The university professors and project director advised that this was a broad question and that some framework should be used to determine prerequisite skills. The team narrowed the research question to: Do students have the organizational skills to be successful in Algebra I? The team listed the specific behaviors they felt were lacking in their students. If only students brought their materials and completed their homework, might not their grades improve?

Collecting Data

First, the team recorded and graphed the current failure rate of Algebra I students. Their suspicions were confirmed: 50% of the regular education students and 80% of the special education students were failing. Then, during four one-hour class sessions, interns documented whether special education students had completed homework, had brought text, pencil, and paper and had participated during class. The results, when graphed, showed that indeed, these behaviors were lacking.
The team surveyed both sections of Algebra I as to their beliefs about being prepared for class and what rewards would motivate them to be prepared for class. Students suggested prizes, parties and free time in class, which the team considered in devising an intervention. Would students bring materials and complete homework if they could earn a "ticket", redeemable for points, passes, and privileges? And if they did, would their grades improve? The team devised a plan. Students would receive a ticket for a week of class preparation and they would also receive a completion grade for all work.

Organizing the Data

The "Ticket for Good Grades" plan was introduced to all students through a lesson, hand-outs, and classroom posters and was continued for five weeks. SWT interns helped to prepare materials, record student behaviors, and manage the ticket system. During this period, interns wished they could be in the CWC classrooms every day rather than the twice weekly allowed by their university schedule. At the end of the intervention period, the data were tabulated and graphed.

Analyzing and Interpreting the Data

The student failure rate after the intervention remained the same for the regular education students, but decreased for the special education students, from 80% to 66%. These special education students, more than the regular education students, responded to a program of positive reinforcement for desired behaviors. In discussing the results, the team recommended that all students be given one ticket at the beginning of the
semester to introduce them to the reward. The team concluded that giving a completion grade for work was the better intervention, as it was the most easily implemented and would not involve constructing a contingency schedule for reinforcement.

Taking Action

The university professors were frustrated by the lack of time the action research project left for other content and projects. However, they felt sufficient time needed to be devoted to debriefing the project results. Without sufficient debriefing time, the professors feared that either the results would be misinterpreted or the process devalued. The teachers were very grateful to the professors for helping them develop an action plan. The professors and teachers jointly selected three innovative strategies that the teachers might implement based on the project results.

Evaluating the Project

Predictably, many avoidable problems emerged in this early attempt at action research. An adequate review of the literature was sacrificed due to time constraints, the intervention period was too short, and the ending of the school year made implementation difficult. The university students involved in the project felt they were doing more work than their classmates. The practicing teachers were hindered by the fact that the university students were only on the high school campus two days a week, and followed a calendar that did not align well with that of the school district. The evaluation of this project led to a clarification of goals and a better coordination of planning for future projects.
Nonetheless, this project demonstrated that action research is a powerful opportunity for deep learning, as assumptions and observations are tested with data. One university student who participated in inclusion project reported that she "could not differentiate between the regular students and the special education students in the CWC classroom." Yet, that observation had to be reconciled with the research results, which suggested that special education students responded to a different classroom grading system.

Summary

Conducting action research in a collaboration among public school teachers, preservice education students, and a university professional development school, produced answers and promoted growth. Teachers learned a structure for clarifying questions and finding solid and immediate applications to their classroom practice. University preservice students were challenged to test their preconceptions about inclusion and to develop as professionals. The university curriculum was enriched and made more relevant. Perhaps, best of all, high school students benefited from the results of the action research, as their classroom environment changed to provide them the support they needed to be successful.

Action research projects can help educators to bridge the gap between theory and practice, and a professional development school can provide the support to make it happen. All participants can benefit.
References


I. DOCUMENT IDENTIFICATION:

Title: Supporting Action Research in a Field-Based Professional Development School

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Corporate Source: The University of Texas - Pan American
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Publication Date: January 19, 1999

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