http://www.accessexcellence.org/LC/TL/AR/

TEACHER RESEARCH

by Sharon Parsons
San Jose State University

Introduction

Traditional educational research has limited usefulness for classroom teachers. It often requires the carrying out of specific research projects to the exclusion of their teaching. When educators talk about teacher research, or teaching as research they envision teachers extending their role to include critical reflection upon their teaching. Some examples of teaching as research include educators who wish to undertake research in their classrooms or schools for the purpose of improving teaching, to test educational theory, or to evaluate and implement an educational plan. Teacher researchers have adopted the label "action research" to describe their particular approach to classroom research.

Kurt Lewin (1946) has been credited with the development of the idea of action research. The evolution of an action research agenda within education has been influenced by people such as Kemmis (1983), Ebbutt (1985), Elliott (1991), Hopkins (1985) and others. Hopkins (1985:pp 58-60) offers good advice on teacher research when he advocates the development of teacher's professional expertise and judgment. He provides a basis for the selection of classroom research by teachers:

- the teacher's primary role is to teach and any research project must not interfere with or disrupt this commitment;
- the method of data collection should not be too demanding on the teacher's time;
- the methodology used must be reliable enough to allow teachers to formulate hypotheses confidently and develop strategies applicable to the classroom situation;
- the teacher should be committed to the research problem under study;
- teachers must follow ethical procedures when carrying out research; and
- classroom research where possible should adopt a perspective where all members of a school community build and share a common vision.

Often the hardest part in classroom research is deciding on a focus. Teacher research does not require a precise hypothesis. In fact you do not have to begin with a problem. Hopkins (1985:pg 63) suggests that " All you need is a general idea that something

should be improved. Your general idea may stem from a promising new idea or the recognition that existing practice falls short of aspiration." Once the focus of the research has been decided, planning for data collection, followed by actual data collection and analysis occurs.

How to Get Started on a Project

Borrowing heavily from Hollingsworth (1994) and Hopkins (1985) I offer the following practical suggestions for the teacher research process:

1. **Decide on a focus**
    - Start with autobiographical data by locating your best professional self. Some questions you might ask - What are your broad interests in teaching and learning? What are your specific interests? What are manageable questions? Choose something you feel passionate about.

    - Justify that the project is your best solution to the problem.

2. **Develop a plan to gain insights**
    - Develop a time-line to gather evidence or data to examine what you are trying to accomplish/resolve/do in light of "what you do not know yet".

    - Decide what evidence you want to collect. Evidence includes such things as questionnaires/surveys, observations (video or written notes), collaborations (i.e. video or audio tape of meetings, peer coaching) interviews, tests and records, student work, video and audio tape transcripts, personal journal, library readings, etc.

3. **Analyze the data by looking for patterns, or themes across the evidence**
    - keep logs and journals, periodically read over the evidence, code data from themes and patterns, draw or chart patterns, try to summarize what you have learned as you go, by noting images, metaphors, and any new questions.

    - check out your understandings by triangulating evidence (same theme, code, pattern appears in more than two types of data), and by talking to peers, students, friends.

4. **Report on what you have learned**

- to your colleagues, to parents, at conferences, in journals.
- summarize what you learned -- in an essay, narrative, poster, video, . . . poetry.
- tell how the problem changed, didn't change, or became worse because of changes in your practice.

A key component of Action Research is sharing what you have learned. A number of techniques ranging from videos to formal presentations have already been suggested, but consider the following as potential audiences as well:

1. Colleagues at a staff development day
2. Parents and students
3. Email discussion groups (see On-line Resources)
4. Publications from professional organizations
5. Journals such as "Teacher Research: The Journal of Classroom Inquiry" - a journal by teachers, for teachers. Brenda Power

Once teacher research is shared it allows for further action on the part of the teacher, or the broader educational community to continue. The educational community has become increasing supportive of teacher research. At a recent meeting on science education in California that I attended Bob Polkinghorn, the Director of the Statewide Subject Matter Projects in California called for the documentation of evidence of change in practice at the classroom level by teachers. If you have not undertaken teacher research in your classroom now is the time to try!

Ownership Concerns

When two or more teachers are working together perhaps in partnership with a university researcher, the issues of ownership of data gathered in a school context, publication authorship, meeting presentation responsibilities, and obtaining approval for case studies are best discussed early on. A clear understanding of who has the final say about what happens in the classroom should be established. Teachers need to be supported as researchers, but their experiences, their students and district documents may also need protecting. For instance, it may be difficult to hear "outside" collaborators talk or write about you and/or your classroom, particularly if they retain authorship of the paper. Even more complications arise if royalties are involved.

Examples of Action Research

The science standards have become a focus of reform for many science teachers. Teachers who want to bring about such systemic reform in science teaching are now engaging in research into their own practice and sharing the outcomes with others. Two illustrations of on-going teacher research projects where teachers are engaged in

exploring ways to increase inquiry based science instruction in the classroom come from CSP-SENA (California Science Project - Science Education Network Academy):

- Merle Boxill (Chemistry) and Sandy Waston (Biology) at Andrew Hill High School, San Jose are exploring how to introduce open-ended inquiry science into their teaching.

  One of the strategies they decided on is to have their students do inquiry based research projects. They are documenting and evaluating the outcomes of this strategy to see what progress they have made.

- Norma Rodriquez at San Antonio Elementary School, San Jose is exploring ways to increase inquiry based science instruction at her school site for all students (not just her own class).

  The strategy she decided on was to volunteer to offer inquiry based science activities during multiple grade scheduled activity time. She is monitoring the impact on the school by, noting the students' requests for science as they return to their own classrooms; any changes in science instruction pattern at the school.

- Carolyn Csongradi at Burlingame High School, Burlingame has explored how to involve more writing and female participation in her chemistry classes. Study provided at http://www.accessexcellence.org/LC/TL/AR/arcsong.php

Such grass roots efforts are what are needed to bring about systemic reform in science education.

On-line Resources

1. The number of educators involved in Action Research/Teacher Research Email Discussion Groups is growing rapidly. A site you might want to visit to get an overview of the kind of activity associated with teacher research is located here.

: