

Section 2c: ***Inquiry/Research Approach***

The Inquiry/Research approach to professional development is one which practitioners use to conduct *systematic, intentional, field-based inquiry* into their own daily practices. The approach builds on the “real-world” experiences practitioners bring to the field and is grounded in analytical and reflective practice. Practitioners: (a) reflect critically upon their own instructional practices; (b) review related research in their area of interest; (c) pose problems for inquiry arising from their own settings, their prior experience, and their goals for teaching and learning; and (d) develop analytical approaches for resolving problems. Practitioners, in addition, develop and investigate theories about what works and why.

A range of activities fall under the umbrella of Inquiry/Research, including study groups, curriculum writing, case studies, program evaluation, and trying out new practices. All are grounded in the interaction of practitioners with their environment, with them asking real questions, analyzing and learning new information, and working collaboratively with others to explore a range of possible responses to the questions they pose (Fingeret and Cockley, 1992).

The focus of Inquiry/Research can vary, depending upon the reason for the inquiry. In some instances, the focus may depend on what practitioners want to know. For example, an instructor may ask:

“What is happening in my classroom? I seem to be teaching in this manner and these seem to be the results. If I document these findings, other instructors can observe whether similar phenomena are occurring in their own classrooms. Is there something I can read that will support or add to my findings?”

The emphasis of these kinds of questions and observations is on documenting classroom practice, and analyzing and reflecting upon the current practice for improving instructor effectiveness. As a result of these activities, practitioners often implement a plan of action to modify their practice. This dynamic is the focus of important studies conducted by Lytle, Fingeret, Cockley, and others.

A somewhat different focus and question may be:

“Can I, as a practitioner, discover classroom practices that will improve student learning in a specific setting (e.g., an inner city)? If I try this intervention to resolve a problem in my classroom, what results can I expect? If other instructors try this same intervention with similar students, will the results be the same or similar to my own?”

Practitioners may develop new interventions as they gather more data from their research. The emphasis for effective change, then, is on planning, implementing, and evaluating an intervention that results in an improvement in practice that increases in instructor's effectiveness, or may have some bearing on student

outcomes. However, prior to the intervention, itself, the practitioner must document, analyze, and reflect upon the current practices that guide the development of the research question. This is the precise focus of research conducted by the Comprehensive Adult Student Assessment System's (CASAS) Online Action Research (OAR) Project which is being continued through PRO-NET, the Action Research Center of the San Diego Consortium for Workforce Education & Lifelong Learning (CWELL), Nunan, and others.

Whereas both of these Inquiry/ Research orientations include instructors and adult students, the FOCUS in each instance is somewhat different—ranging from a focus on instructor documentation of classroom practices to the planning, implementation, and evaluation of an intervention for classroom problem solving.

This section will not attempt to draw the fine distinctions noted above; rather, this section paints an overall portrait of the Inquiry/Research Approach presented below. Practitioners may draw upon the guidelines to develop their own approach, based upon their own needs and instructional situations.

Underlying Assumptions

Underlying assumptions held by proponents of Inquiry/Research include the following (Sparks and Loucks-Horsley, 1990; McDonald, et al., 1995):

- Instructors are active constructors of their own professional practice, rather than passive consumers of others' proposals, research findings, or methodologies;
- Instructors are intelligent, inquiring individuals with legitimate expertise and important experience;
- Instructors are inclined to search for data to answer pressing questions and to reflect upon the data and formulate solutions;
- Instructors will develop new understandings as they formulate their own questions and collect their own data in search of answers;
- Theory and practice are viewed as a never-ending circle with theory informing practice and practice informing theory; and
- Instructors will change practices according to research results.

Theory and Background

The concept of *reflective action* upon which Inquiry/Research is founded, can be traced back to the 1930's writings of John Dewey, who wrote about the "searching teacher," and argued that curriculum development would only be effective with the active participation of those directly engaged in the teaching

process (Holly, 1992). In fact, between 1920 and 1950, it was relatively common for practitioners to be involved in and to take personal responsibility for professional development. It was only at the end of the 1950s, with the onset of “global politics” and the introduction of large, hierarchical organizations, that compartmentalization of educational practice became commonplace (Drew-Hohn, 1993).

More recently, research literature describes the relationship between Inquiry/ Research and critical thinking among practitioners. Practitioner research can be used to:

- Help practitioners to relate research on teaching to their individual classrooms (Simmons and Sparks, 1985);
- Develop thoughtfulness on the part of practitioners through quality circles, problem-solving groups, and school improvement projects (Glickman, 1986);
- Help practitioners evaluate the effectiveness of their own teaching (Cross, 1987); and
- Provide practitioner development that helps to narrow the gap between research and practice (Loucks-Horsley, et al., 1987).

Cochran-Smith and Lytle (1992) describe inquiry as a means of building knowledge for teaching from the “inside-out.” Unlike the more traditional notion in which practitioners gain knowledge from authorities outside the profession itself (e.g., generated at a university and then adapted by instructors for their own use), instructors, by critically inquiring into their own teaching practices, build their own knowledge base. The Inquiry/Research approach is embedded, therefore, in the instructor's own practice. Thus, out of inquiry, instructors can come to understand how they and their students construct knowledge in the classroom, and how interpretation of classroom events are shaped.

Several states, including California, Massachusetts, Pennsylvania, Rhode Island, Tennessee, and Virginia currently are engaged in the Inquiry/Research approach to professional development for adult education practitioners. The following provides examples of the variety of ways in which the Inquiry/Research approach can be implemented:

- **In California**, instructors involved with the CWELL Action Research Center, engage in research projects that focus on developing a better understanding of a) their students' attitudes, beliefs and achievement in and out of the classroom, b) the children of adult students, and c) the community surrounding the educational system. The research was conducted in a large urban area with a dense immigrant population and a high level of poverty (McDonald, et al., 1995).
- **In Virginia**, groups of practitioners develop inquiry projects with the assistance of locally trained staff development facilitators. The Virginia Adult Educator's Research Network promotes and supports inquiry by organizing study groups; training practitioners to conduct literature reviews, interviews, and analyzes of data; and by publishing practitioner-research reports (Drennon, 1994).
- **In Rhode Island**, a group of ESL teachers initiated a research process to, among other goals, help learners measure their own progress in literacy (Isserlis, 1990).
- **In Massachusetts**, at the University of Massachusetts' Bilingual Community Literacy Project, teachers in three community-based adult literacy programs (as well as faculty of the University of Massachusetts, Boston), are researching ways of developing closer links with communities in which programs are located (and of involving more community members as teachers).
- **In Philadelphia**, at the Adult Literacy Practitioner Inquiry Project (ALPIP), practitioners from a number of adult literacy agencies participate in an ongoing seminar wherein they share what they have learned from developing and using alternative assessment tools in the classroom, as well as through examining learning strategies of students and completing other practice-based projects (Lytle, et al., 1992).

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The methods of Inquiry/Research are more often that not qualitative or interpretive, rather than quantitative. This is essentially because the research is always field-based, lending itself to ethnographic methods such as keeping field notes or journals, observing, interviewing, engaging in dialogue, audiotaping, and collecting and analyzing documents and students' work. These approaches provide more detailed data than simple tests and surveys. In addition, practitioners engage in research in order to gain a better understanding of their beliefs and practices and to enhance their skills. Understanding of beliefs and practices comes from practitioners being more consciously aware of what they themselves actually think and feel as they plan for and engage in practice, and from paying careful attention to students' responses in class, in order to comprehend how students make sense of their learning.

Lytle and Cochran-Smith (1992) categorize the writing of practitioners resulting from Inquiry/Research, into four primary areas:

- Journals;

- Essays in which practitioners analyze their own classrooms and schools and consider issues related to learners, curriculum, and school organization;
- Oral inquiries and discussions using reflection and questions to make sense of their daily work, by talking about it in a planned and structured way; and
- Classroom studies based on documentation and analysis.

Classroom documentation and analysis are among the most common forms of Inquiry/Research. Each form of inquiry builds upon what practitioners want to know, and each takes into account the concrete, material conditions of their practice.

While Inquiry/Research is a practitioner-led activity, program administrators or instructors may rely on a professional development coordinator to facilitate the practitioner's ability to conduct research and to build a knowledge base. The professional development coordinator may thus consult with practitioners on an as-needed basis in order to:

- Guide various aspects of the process;
- Hold meetings to allow practitioners to discuss progress and problems, and to encourage practitioners to cooperate and to consult with one another; and
- Provide resources, including outside expertise as necessary.

Practitioners can work individually, collaboratively in pairs or small groups, or as a whole faculty. The option chosen may depend upon the availability of resources (both human and financial), geographic proximity, and the level of self-directedness of the practitioners engaging in the professional development activity. A collaboration of practitioners, building knowledge together, in what Lytle and Cochran-Smith (1990) call learning communities, may include individuals from a single institution, or from multiple institutions, and may involve university-based researchers and adult students.

This collaborative approach can be implemented in a traditional manner, with practitioners meeting periodically to discuss research elements, methodology and findings, or it can be implemented electronically, using an online system as the communication mechanism among participants. The latter format, implemented through the OAR project, is particularly advantageous for practitioners in more isolated areas or for part-time practitioners whose schedules often limit interactions with colleagues.

The literature on practitioner research describes various stages in the process, ranging from a 4-step process to a 10-step process. Below, we describe a seven-step process based upon a recent *ERIC Digest* article entitled "Adult Literacy Practitioners as Researchers" (Drennon, 1994). We also illustrate each step in the Inquiry/Research approach using an example from the OAR database of research processes

and results. In this example, Martha Savage teaches ESL to intermediate, low students (and the topic of her research is listening strategies).

Step 1: Reflecting on practice and identifying a problem, issue, question, or concern.

The first step in the process of reflection is to identify, either individually or as a group, an area of interest to explore. This step requires practitioners to reflect upon their learning environments and their instructional strategies, and to generate a list of ideas/issues/problems on which they would like to focus. Practitioners may find it easiest to express ideas and objectives by beginning with thoughts such as:

- I would like to be able to . . . ?
- What is the relationship between . . . ?
- What procedures should I use when . . . ?
- What happens when . . . ?
- What are the effects of . . . ?
- What is the role of . . . ?

Once some ideas have developed, practitioners can work in a group or individually to formulate a research question. In this process, it is important to balance worth with feasibility. Field-based research projects have to be manageable; therefore, research questions should be as precise as possible. However, it is often a struggle to pinpoint and clearly articulate a question. Instructors' work is immediate, demanding, and focused upon the success of a specific technique or lesson. It is often difficult to remain in an exploratory mode and reflect

Martha Focused on the Following Problem

"The concept of listening represented a difficult task in my students' minds and their confidence level in their own ability was low. They seemed to see listening as an 'all or nothing' venture. They did not see it as a task which could be broken into attainable steps. Listening was a quietly done activity in which you either understood or you didn't."

on what kinds of questions are important to ask. Some instructors select questions that are too narrow or too broad. An example of a very narrow question may be:

After implementing a cooperative learning strategy, will 80 percent of the class master the unit test?

This question only allows for a yes or no answer and does not provide additional meaningful information for the instructor. On the other hand, an example of an extremely broad question is:

How does the implementation of a functional curriculum improve a learner's ability to achieve personal, civic, occupational, and vocational goals?

The sheer number of variables that are involved in determining the impact of a functional curriculum make this question almost impossible to answer. Even if this part of the problem were solved, how does an instructor measure personal, civic, occupational, and vocational accomplishments in one lifetime.

Formulating a question may be the most difficult, time consuming, and yet most rewarding part of the process. Instructors participating in the OAR project suggested that reading related articles and talking with colleagues helped the process.

Some examples of questions posed by instructors in the OAR project were:

- How does the integration of reading and writing instruction improve both reading and writing fluency?
- What are the effects of teaching listening strategies for real-life situations on intermediate ESL learners' listening comprehension and interactive listening behaviors?
- How can ESL learners develop questioning skills and the confidence to use such skills in real-life situations?
- How will various types of interactive journal writing improve fluency and comfort with writing?

Step 2: Gathering information

The second step in the process begins by exploring ways of collecting data needed to answer the question or to reach the objective. Activities may range from examining existing theoretical and research literature to gathering original classroom or school data. Students may become involved in the process not only by answering questions posed by practitioners, but as co-investigators figuring out "what is happening, as well as why and how it is happening. In addition, practitioners may consider collaboration with university-based researchers as a valid part of the process. Such a collaboration may depend upon the topic of inquiry, the type of data needed, and the level of analysis used.

To begin exploring ways to collect data, practitioners may want to ask themselves or their colleagues the following types of questions:

- What information is needed?
- Why is that information needed?
- When is the information needed?
- What sources of information might be available and how can they be located?
- What activities can be undertaken to help answer questions?

Once practitioners have thought about potential data collection methodologies, they must consider the usefulness of a strategy and the feasibility of implementing it. Professional development coordinators may provide technical assistance and training in data collection and research methodologies, as well as in other processes that can aid practitioners in carrying out their activities.

In addition to technical assistance, other concerns, such as availability of resources, organizational support, practitioners' schedules, and the research time frame, may affect the selection of data-collection activities. Practitioners, therefore, have to ask themselves the following types of questions:

- Are resources available to attend an out-of-state workshop?
- Do I have access to relevant research reports in my area of interest?
- Is equipment available to videotape my class, and if so, how can the videotaping be accomplished? Will my students mind being videotaped?
- Is there sufficient time at the end of each class period to note accurately my observations in a journal?

Once practitioners resolve the above issues, they may begin gathering information to answer their questions. Data collection activities, then, may include:

- classroom observations, including video and audio recordings of classroom activities,
- study groups,
- surveys or interviews with students, colleagues, administrators,
- study of records including student work, test scores, lesson plans,
- review of the literature, and
- attendance at workshops and conferences.

Some practitioner/researchers also use an approach known as *triangulation*. For this approach, three different types of data sources are used to ensure a "picture" of reality. For example, in classroom research, three different sets of perceptions—the instructor, the students, and an external observer—can be juxtaposed against one another to create a more complete picture. However, this is not a requirement, and many practitioner/researchers do not involve an external observer.

If practitioners are working in a group, (or in pairs), it is important for them regularly to share their findings. Such sharing may be accomplished through meetings with colleagues, or, if available, electronically on line. The sharing phase is important in addressing any additional questions or concerns

that may arise and in refining the research question. A professional development coordinator or research facilitator may assist to focus discussions and to serve as a resource.

After reading several journal articles, surveying her students' listening habits, sharing observations with a colleague, and observing her students as they interacted, Martha made the following observations:

- “Listening represented a very difficult task for my students and they listed it as their most needed and wanted skill;
- My students saw listening to me (the teacher) as a very different experience from listening outside of the classroom;
- My students, when having engaged in a listening task within the classroom, described the activity as a speaking task and asked for more;
- My students saw the task of successful listening as synonymous with understanding every detail rather than getting the general idea; and
- Even after working with my students for several months using what I thought were very real-life contexts, my students were not applying their listening skills outside of the classroom, nor did they see themselves as being able to apply them.”

Step 3: Studying the information gathered, and analyzing, interpreting, and critiquing that information.

Instructors analyze, interpret, or critique the information gathered during the previous step. The analyses will vary, of course, depending upon the type of data collected.

Some analyses may be quantitative. For example, if pre- and post-test data were collected, practitioners would be able to analyze changes before and after an intervention. For the most part, however, practitioners will collect qualitative data based upon observations, portfolios, student journals, interviews, and the like. The analysis may then be centered around such questions as:

- How do students respond when . . . ?
- What factors may contribute to student responses?
- Which students, in particular, seem most affected by . . . ?
- What is the current theory on . . . ? Are there differences between what that theory holds to be true and how students respond?
- What instructional strategies work best with . . . ?
- What types of activities most motivate students to . . . ?
- How much time do students need to . . . ?

Groups of practitioners may come together to analyze data. Such a practice, in fact, enables the researcher to gather different perspectives on the same data, and thus, begin the process of sharing information with other staff. Practitioners also may consider bringing students or university-based researchers into the process, as well.

Analysis allows practitioners to articulate more clearly what is happening in the classroom, and to hypothesize about why it is happening and what factors have any impact on the whole situation. A new theory may thus be generated, which may explain why something is happening.

Martha came to the following conclusion about her current teaching practices: "When I have traditionally taught listening comprehension, I have used tape recordings, asking students to listen to the entire message and then answer comprehension questions or participate in discussions. I have not taught listening within a communicative context."

Depending upon the purpose of the research study, this particular step may be extensive, involving considerable data collection and analysis. In other types of research, this step may take on the character of an exploration that would precede implementing a change in practice. Thus, this could be the final step in the process, *prior* to sharing the results; in other cases, it would be the step prior to planning an alternative or completely new approach.

Step 4: Planning some action to be taken, such as a new approach, strategy, or other intervention.

As discussed earlier, an underlying principle of practitioner research is that theory and practice are viewed as a never-ending circle, with theory informing practice and practice informing theory. Instructors use the information gathered to confirm an existing approach, to plan a new approach, or to suggest additional research. Practitioner research is, then, viewed as an ongoing process. Once new information is available, instructors can build on that information by experimenting with a new intervention. In planning the action, practitioners may want to consult with the professional development coordinator, review the literature, consult with colleagues, or consult with university-based researchers.

In order to measure the effectiveness of an intervention, practitioners need to document their students performance before and after the intervention. This should be done with appropriate assessment instruments, both qualitative and quantitative, including pre- and post-tests, journal entries, surveys, and performance-based assessments.

To determine the effect of a new teaching approach, Martha decided on the following assessment instruments:

- Customized listening performance pre/post tests that required interactive listening behaviors. The tests would be conducted one-to-one outside of the classroom. The tests would consist of 5 to 7 simple questions or directions. To create situations where questioning would be necessary, key vocabulary and vague directions requiring clarification would be embedded into the instruments. The topic of the pre-test would be assisting the teacher in an office setting. The topic of the post-test would be signing up for an end-of-the year potluck.
- Listening Habits Questionnaire, pre/post. Students would complete these anonymously.
- Student logs. Each week students would be asked to record situations in which they were required to listen and speak English outside of class. The logs would serve two purposes: record student progress and demonstrate to observers that they played a key role in the project, and that student comments were important enough to record.
- Teacher observations.

The assessments would be employed to answer the research question Martha formulated:

“What are the effects of teaching listening strategies for real life situations on intermediate ESL students’ listening comprehension and interactive listening behaviors.”

Step 5: Implementing the action plan.

During this process, practitioners implement the action plan they design and document what they do and the changes that occur as a result of what they do. Practitioners may keep a daily journal in which they record the activities implemented, time on task, student behaviors, difficulties encountered, and strategies to overcome difficulties. If more than one practitioner is involved in the same research question, they may meet periodically to compare how students are responding to implemented strategies.

In addition to documenting the process, practitioners also may desire to maintain the following types of information: names of participating practitioners, agencies involved, type and level of classes involved, topic, statement of problem, specific research question(s), time frame (targeted dates), intervention, assessment strategies, and expected outcomes. This information is vital for instructors who are ready to evaluate the intervention and share results with their colleagues.

Martha implemented the action plan described below to address her research question. The intent was to address the problem in two ways:

- By raising the student's awareness of listening as a skill that can be improved.
- By providing an increased number of opportunities for students to practice active listening skills with exercises designed for both bottom up and top down processing, approximating real-life situations.

The process included systematic use of the following skills:

1. Predicting

- a) getting ready to listen
- b) listing key words
- c) listing key questions
2. Rehearsing (confidence building/thinking on your feet activities)
 - a) speaking in small groups using key words/questions
 - b) speaking in front of the class
3. Formulating Questions (focused listening/chunking)
 - a) asking for the topic
 - b) discerning sequences in information given
 - c) asking for repetition of portions of information
4. Clarifying Statements/Questions
 - a) re-stating what they knew to check understanding
 - b) identifying what they needed to find out
5. Controlling a Conversation (interrupting the stream of speech)
 - a) using interjections
 - b) using related questions
 - c) using body movements
6. Reinforcing Skills
 - a) asking questions or writing after listening totéacher chat”
(Teacher talks about something that has happened in her life that is related to the life skill topic of the day)
 - b) listening to speakers and asking questions
 - c) writing about their outside of class experiences with listening using student logs

Step 6: Monitoring and evaluating the changes that occur and judging the quality of the changes.

Practitioners study the relationships between the interventions and what happens with students. They gather and analyze the new data to determine the effects of the intervention. Then they ask: Are the outcomes those that were anticipated? What differences were found? What accounts for the differences? What changes should be made in instruction or programs?

Martha used the assessments listed in Step 4 to monitor and evaluate the effect of the intervention. She found the following:

- **Performance Assessment:** Findings from the custom-designed performance assessment showed that on a scale of 1-5, my students' mean score rose from 3.17 on the pretest to 4.8 on the post-test. While half of the students scored 3 or below on the pretest, all students scored a 4 or 5 on the post-test.
- **Survey of Listening Habits:** Findings from the pre-surveys of listening skills showed that on the pre-survey approximately 2/3rds of my class described themselves as understanding either "not very well" or "very poorly." The problems they indicated were not having enough vocabulary, not being able to explain what they needed, being too nervous, people talking too fast, and pronunciation. On the post-surveys, while 3/5ths of my class described themselves as listening "not very well," none described themselves as listening "very poorly." As they described what helped them, they used vocabulary they had learned in class. Since students were not asked to write their names on the surveys, there was no one-to-one relationship between pre- and post-surveys.
- **Weekly Student Logs** My students seemed to respond to the logs well and they took the job very seriously. I began seeing that the weekly log requirement increased students' attempts to interact outside the classroom. Initially, students spoke to friends or family members primarily but as the study continued I began to see new subjects such as managers, bus drivers, counselors, and doctors. One of my female students announced that the day before she had taken her son for a doctor's appointment without a friend to translate. She felt she had performed well. I also began to see students talking to each other during breaktime, and using these conversations as examples in the logs.
- **Teacher Observations:** As the project proceeded, I saw my students' confidence levels rising. Students began to encourage other students to speak in front of class. They spontaneously gave compliments such as "Your pronunciation is good" or "I understand you." I also realized that I was requiring more writing from my students. Since the focus was on communication, writing was a natural form to include. They did some writing everyday in their journals, and wrote paragraphs and letters to guest speakers. During the teacher chat, I talked about examples from my life related to the class topic. These "chats" together with journal responses contributed to a deepening of the relationship between my students and me.

Step 7: Sharing what has been learned through informal sessions with colleagues, facilitating workshops, or writing and publishing.

It is important to generate a body of knowledge by sharing what has been learned through the Inquiry/Research process. Reporting is a vital form of linkage for generating valid data, being able to learn from the data, and then wanting to act on the strength of the data. Sharing can take the form of informal discussions with colleagues, facilitating workshop sessions, writing and publishing articles, or developing an on-line data base (such as the OAR data base) to share project findings.

Martha shared her final research report through the OAR database. (The OAR database can be accessed through PRO-NET, which is part of the DIAL-IN system, or through the INTERNET.)

Her report included her:

- agency and program in which she conducted the inquiry/research,
- statement of the problem,
- research question,
- timeline in which she conducted her research activities,
- description of the intervention,
- assessment instruments,
- research findings, and
- reflections about her involvement with the inquiry/research process.

Results of the Inquiry/Research Approach

The Inquiry/Research approach benefits practitioners in a variety of ways. As practitioners learn more about research, they become more critical users of information and make more informed decisions about when and how to apply the research findings of others. They move away from what Friere described as “banking” to a more reflective approach to learning. In addition, they become information sources contributing to the knowledge base of the profession. Teaching improves as instructors learn more about teaching by becoming better able to look beyond the immediate, the individual, and the concrete (Watts, 1985). Collaborative research promotes sustained and substantive collegial interaction.

As Martha wrote about her involvement in the inquiry/ research project:
“This has been a growing edge for me. I have learned more this year about adult ESL than any other year. I have applied what I have been experiencing in this project to my classroom and in my workshops as well. I am better able to articulate the language functions and the inter- and intra- dependence. I love it?
“My students seemed to thrive on the concept that they were involved in a project. They took it very seriously and put a lot of effort into their journals, talks and the testing. This was very energizing to me. I responded to their enthusiasm.”
“I appreciated my partner’s good advice, clear thinking, and research.”

Issues

Whereas there are multiple benefits to the Inquiry/Research approach, professional development coordinators must consider the following issues before choosing this approach:

- time,
- support, and
- staff readiness.

Inquiry/research is time-consuming and must be built into the practitioners' schedules if they are to engage in reflection, meet with colleagues, study the literature and research of the field, document and analyze classroom activity, implement and evaluate changes in their practice, and share their results. The part-time work schedule of many adult education instructors makes it difficult for them to talk, reflect, and share ideas with colleagues. In addition, not all practitioners are ready for this approach; some may be more dependent learners who require more structured learning activities. Others may lack the interest in or the research skills to conduct practitioner research. Before this approach can be successfully implemented, professional development coordinators and practitioners must identify the need for other areas of professional development. If necessary, they may need to provide support such as how to conduct and document field-based research.

An environment supportive of practitioner research includes encouragement and endorsement from program administrators in the form of: (1) acknowledgment that the staff is conducting important Inquiry/Research (2) recommendations of resource materials; (3) scheduled time for sharing among collaborators or for recording observations; (4) financial support; and (5) assistance in learning the methods of research in order to undertake the activities required by the process.

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