ENGAGING IN ACTION RESEARCH

A Practical Guide for Alberta Teachers and School Leaders

The Alberta Teachers' Association

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Foreword

As a profession, we believe that educational research is essential to improving educational practice, from the level of the individual teacher through to the education system as a whole.

This practical, interactive resource has been designed by the Alberta Teachers' Association (the Association) to assist classroom teachers and school leaders in the development, implementation and publication of their own action research projects.

Action research is a strategy that teachers can use to study educational issues, implement change and document professional growth. It has contributed to progress in teacher leadership in Alberta, while also invigorating the professional lives of the many people (and communities) involved in this creative and empowering experience.

This workbook for Alberta teachers and school leaders was redeveloped by Jim Parsons, professor emeritus of the University of Alberta, and supported by Philip McRae, associate coordinator, Government—Research, of the Association.

Jim Parsons is an emeritus professor of education and a globally recognized researcher in the field of teacher action research who taught for over three decades at the University of Alberta. He not only supported site-based school improvement research projects in Alberta, but also furthered the field of action research through his theorizing and university teaching. Philip McRae, also a past faculty member at the University of Alberta, was formerly a director of the internationally recognized Alberta Initiative for School Improvement (AISI), which was a collection of large action research projects focused on educational development. For Parsons and McRae, research is fundamentally a human activity embedded in the practice of teachers as leaders in their communities.

I also want to acknowledge those who contributed to Association action research resources in their earliest iterations, including the *Action Research Guide for Alberta Teachers*, first published in the year 2000. Special recognition and thanks are thus extended to David Townsend and Pam Adams for their work in earlier Association resources, from which material has been drawn for the redevelopment of this interactive publication.

Finally, I want to thank the many generations of Alberta teachers who have used action research to improve their students' learning experiences. It is my sincere hope that this publication will be useful to the many current and future teachers and school leaders as they embark on their own unique action research journey.

Dennis Theobald
Executive Secretary

The action research process can result in professional development, educational change, enhanced personal awareness, improved practice, new learnings and building collaborative communities.

Purpose of the Action Research Guide

This resource is intended to help teachers better understand action research as a way of engaging and improving life in classrooms in practical ways. In this action research guide, you will read about how you might go about creating, conducting and sharing the findings from an individual or collaborative action research project. As teachers, you are faced with daily challenges to build an effective learning culture for all the students in your classroom or school. This guide aims to help.

What Is Action Research?

Action research is a collaborative plan that teachers can use to investigate a problem or area of interest specific to their teaching and learning. But, more than that, action research is a philosophy of empowerment that focuses on teacher efficacy in planning and deciding what's best for their students' learning, for their own professional growth and for improving their school's entire educational system. Action research is about doing things to improve schools.

Action research provides the structure to engage in a planned, systematic and documented process of collaborative professional growth. It also is founded upon a belief system that teachers should become primarily responsible for the decision making that happens at their own professional site.

Building Better Teaching and Learning Actions

Action research can and should engage any questions that teachers believe are important to answer. What differentiates action research from other kinds of research is that its end isn't to engage in a particular research project; the end of action research is about changing the way we live as teachers and improving student learning. Specifically, action research is about collaborating as teachers in ways that take advantage of our collective and diverse skills, experiences and insights so that we all—together—can both answer questions that are right in front of us and build a community of practice where we can share what we know and have learned within our own school, in our own district and with teachers everywhere.

Action research is insider research in which teachers research their own practice or their students' learning to improve teaching and learning. As insider research, it differs from classic or traditional research, in which educational researchers are outsiders who investigate other teachers' practices or other students' learning. Teacher action researchers are not outsiders participating in others' classrooms; instead, they are insiders responsible to their own students.

Action research is always research conducted by insiders. Insiders may be teachers, school leaders, curriculum coordinators or learning coaches—anyone who studies their own practices.

Action Research as Professional Development

Action research is "a disciplined process of inquiry conducted by and for those taking action. The primary reason for engaging in action research is to assist the 'actor' in improving and/or refining his or her actions" (Sagor 2000).

One goal of action research is to increase teachers' professional learning. When action research is engaged as a way of living in the classroom, action research helps teachers build efficacy and become more educated leaders of our own profession.

In relation to professional development, action research can

1. focus on the teaching and learning process,
2. be used to solve problems or institute change,
3. be used to document teacher professional growth,
4. create communities of action,
5. help teachers become responsible agents of school improvement and
6. create a culture and process of continual educational change.

Forms of Action Research

Action research is always applied research. It is more philosophy than method and, because action research can draw on a range of designs and methodologies, it can provide teachers with creative opportunities to examine practical problems in their classroom or school settings. Furthermore, because action research is conducted by teachers themselves, it has the potential to greatly enhance teacher professional learning, school professional development and school improvement initiatives.

The following two forms of action research have been used extensively in Alberta:

1. Individual: an educator works on a personal inquiry.
2. Collaborative school or district: a team or group of teachers focuses on an issue to solve a problem or make a change.

Tenets of Action Research

- It is a philosophy more than a process.
- It is collaborative (seeks shared understanding).
- It is iterative (it keeps re-asking the same question).
- It has a goal of producing action.

Both Qualitative and Quantitative

The goal of teacher action research is to answer teachers' questions. Sometimes the answers to these questions suggest qualitative data and sometimes quantitative data. In action research, teams of teachers use the data that best answer the questions posed.

Qualitative data analysis is based on the processes of data reduction, identifying patterns and generating "understandings" (small-scale subjective theories). In qualitative analysis,

- research design can be flexible and adaptable (one lays the path while walking),
- emphasis is on understanding,
- controlling variables is unnecessary,
- results are interpreted from a variety of contexts and perspectives, and
- researchers are participants in the research and have a voice.

The objective of *quantitative* data analysis is to reduce numbers into more manageable constructs and information. This is achieved by calculating measurements and by comparing these measures across different groups. In quantitative analysis,

- research design is largely predetermined (one follows steps),
- emphasis is on measurement of quantifiable variables,
- often, reliance is on control variables and one manipulated variable, and
- results are analyzed statistically.

Action research provides teachers with a systematic process to reflect, consider options, implement change and evaluate potential solutions. Action research seeks to influence the day-to-day decision making of teachers. Consider these examples.

Examples of Teacher Action Research

Example 1

In his job as assistant principal in an elementary school, one of Josh's tasks was to "deal with" all students who were sent to the office as behaviour issues. Josh wondered if there might be a pattern to these misbehaviours, so he began to take notes to help track when these misbehaviours occurred and under what circumstances they happened. As he collected and studied his notes, he discovered some patterns. First, he found that students misbehaved more during option courses than during core courses. Second, he found that students misbehaved more during the afternoon than the morning. Third, he discovered that there were more misbehaviours on the playground when the weather was inclement than when it was sunny and warm.

He shared his findings with the school leadership team, and together they made some changes to their school programming. First, they scheduled more option courses in the morning and scheduled more core courses in the afternoon. Second, they changed playground supervision. When the weather was sunny and warm, they reduced the teachers' time on supervision and when the weather was rainy or less ideal, they scheduled more playground supervision.

When the school revisited their decisions after three months, they found that the incidence of misbehaviours was decreased. Their actions had made a difference.

Example 2

The province had instituted a new social studies curriculum, and although social studies teachers within a small rural school division understood that they needed to adapt both their curriculum and pedagogy, they did not want to start from the beginning. So, they met and decided they would attempt to best engage the mandated changes without throwing away the "tried and true" topics and ways of teaching they had been using for a long time.

Teachers from all schools in the division decided they would work together to figure this out. They committed to meeting once a month to ask and answer two questions: (1) How can we teach the new curriculum? and (2) How can we best assess students' learning of the new curriculum?

Both new and experienced teachers came together to share their teaching and assessment ideas. Working together in groups and sharing what they were creating and refining, each teacher had by the end of the school year a cocreated plan of action for both teaching and assessing what they were teaching.

Teachers decided to include flexibility within the plans they had created, but they had grown in their confidence and skills as they worked together to solve the issues that curriculum reform had necessarily created for their work.

Data as Question Driven

What data should teams of teachers doing action research seek? To determine this, ask the question, "What data best answer your action research question?"

For example, one Alberta Grade 7 teacher had attended a conference presentation on the topic of student flourishing. In her heart, she knew that not all students in her classes were flourishing and she wanted to improve. She drafted an action research question, "When do students flourish in my classroom?" Then, she met with two other Grade 7 colleagues to talk about her question. All three agreed it was an important question and decided to work on it together.

Together, they decided to seek three sources of data. First, each kept a journal where, whenever they believed they saw a student flourishing, they noted what they saw students doing and how they saw students behaving.

Second, during their regular formative assessment meetings with their students, they asked students the questions (1) When, during the past week, did you really feel good about your learning? and (2) What were you doing at the time?

Finally, when they met to discuss what they were seeing, with their journals and the answers to their questions to students, they specifically used their discussions to talk about their own experiences as students and wondered aloud how their experiences of flourishing might be best translated into their classroom pedagogy and curriculum.

Using these three sources of data, they worked together to engage activities they believed gave their students a good opportunity to flourish in the classroom. They also adopted the concept as a conversation topic with their students during the year.

In these examples, school leaders and teachers alike had opportunities to examine closely issues they faced. They implemented solutions that focused on dealing with the educational problems they faced. And, in these examples, action was taken that improved life for teachers and for others—specifically for students. Inquiry and action led to improved conditions.

Action research is a valuable form of inquiry for teachers because it is

Applied: The goal of teacher action research is not to build theory, but to apply research findings to teachers' needs.

Practical: The goal of teacher action research is practical improvement.

Participative: The goal of teacher action research is to involve the broader community (teachers, school leaders, teacher assistants, students and parents) in meaningful ways.

Empowering: The goal of teacher action research is to help participants contribute to, benefit from and come to own the process.

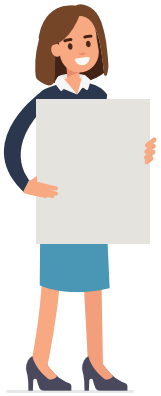
Interpretive: The goal of teacher action research is to build upon all participants' multiple realities in the situation.

Continual: The goal of teacher action research is not to discover a concrete "right answer" but to take considered action, assess the success of those actions and continue to improve based upon what was learned.

Critical: The goal of teacher action research is to look critically at specific problems and act as self-critical change agents.

Collaborative: The goal of teacher action research is to engage all participants in using their diverse skills, experience, interests and insights to act together as change agents.

Celebratory: The goal of teacher action research is to celebrate success and to make successful action a way of living.



Ethics in Action Research

As action researchers, teachers are knowledge generators rather than simply appliers of other researchers' findings.

Although research ethics is crucial to conducting research, the ethical protections of outsider research (eg, random selection, control groups, limiting the personal influence of the researcher) are either irrelevant or problematic in action research simply because action researchers are usually participants in their own research. Following the ethical principles of outsider research can impede the action researcher's desire and need for collaborative communication and conversations with their teacher colleagues, their students and their students' parents.

That said, like all other teachers' work, action research is bound by the common principles that guide the way teachers engage with each other as professionals and work with their students and school community. In Alberta, the Code of Professional Conduct defines what constitutes appropriate collaborative relationships and ethical practices. If teachers engage in an action research project and they have questions about their obligations under the Code of Professional Conduct, they can call the Alberta Teachers' Association and discuss the issue with a Member Services staff officer.

Yet, a code of conduct, or indeed any ethical practice, cannot be viewed as a simple formula or a checklist of dos and don'ts. Schools are complex social environments and because action research affects the quality of relations with colleagues, it is important to avoid looking for simple rules.

The Action Research Process

The action research process can be described as a series of four interwoven actions, engaged in no particular order and flowing almost seamlessly together. These actions are planning, acting, considering and acting upon the results of the action research your team has undertaken. What makes action research different from traditional research is that the process uses the team's insights at each step to re-engage (if needed) the question and continue to solve the issue the action research initially engaged and, also, to engage other issues the action research team has generated by working together on that initial issue. Depending upon the research question, the purpose of the study, the centrality of the question to key school goals and the number of researchers involved, each of these steps can be reshaped or re-engaged.

The action research process lends itself to a spiral of steps, with a collaborative team of action researchers reflecting on each stage of the process then using their reflections to replan and re-engage. When the results of the first action have been studied, action researchers plan their

next actions. Each reflective phase yields more information about the issue and increases the researcher's understanding.

What?

So What?

Now What?

Sometimes teams of action researchers gather data that lead them to redefine their question or reshape their work. The most important skill a team of action researchers needs in action research is the ability to

- consider the "What?" that has been found,
- discuss the "So What?" that the data suggest for implications and further action and
- create a "Now What?" plan for re-engaging the question in ways that continue to improve teaching and learning at the site where the action research has been engaged.

Finding Time to Collect Data: An Example

In one school, teachers came to believe that students didn't feel engaged with their learning. As they discussed the issue, they decided the people who knew best about student engagement were the students themselves. So teachers decided to ask the students about the matter directly.

But how to do that in a systematic way? As teachers talked, they realized that every Friday before students were dismissed for the week, they attended a "home room" for about 10 minutes. The teachers decided to create a way of data gathering that was simple and systematic. On a small sheet of paper, they asked students to answer two questions each Friday before they left and to drop their answers into a small box by their classroom door.

The two questions were

Question One: When did you feel engaged this week? and

Question Two: What did you like best about the week?

At the end of each month, teachers read students' responses, counted similar responses and organized these into themes. At the end of every three months during the school year, teachers met to discuss the findings from their data. They immediately saw that they had gathered hundreds of answers to their questions that, when analyzed, told them much about what students found engaging and motivating.

The conversations that emerged from this analysis of data became the insights for some extended conversations about student engagement and how they might change their teaching to better meet students' interests.

Building Your Action Research Lesson Plan

One of the first tasks in collaborative action research is to shape the issue you have decided is important into a workable research question. This research question will drive the action research project you will undertake.

To make any research project doable, drafting a series of steps makes sense. For teachers, these steps should not be difficult because they are exactly like lesson planning—this is your research lesson plan.

STEP ONE: Develop a Research Question

Where do research questions come from? Simply put, action research questions originate in teachers' discussions about their collective needs as they work to educate the students who attend their schools. Everyday situations that teachers confront in schools should be the focus of action research. In fact, the best action research questions emerge as teachers talk with each other about what they see happening and how they believe the entire school experience might be improved.

Certainly, individual teachers can reflect on the needs they discover as they teach. However, the best questions emerge as individual teachers bring these needs to a collective about what they experience. Teachers talk with each other all the time. However, to really focus together on action researchable issues, collective conversations might begin with the following questions:

Conversation One: What's really working well for me? For us?

Conversation Two: What could we do better?

Conversation Three: What completely puzzles me (us)?

Conversation Four: Why does this seem to happen? What's your experience with it?

Conversation Five: When my teaching is working well, what's different from when it isn't working well?

Conversation Six: How might we change things to make our school better?

Conversation Seven: When this happens, what should I (we) do next?

Conversation Eight: How might we be able to make this happen?

Strategies That Help Teams Develop Research Questions

Most good action research ideas emerge from the individual ideas of teachers but are developed through open-ended and creative conversations with other teachers. Thus, it is useful to work both as an individual and as a collaborative team at the same time.

As an individual teacher, you are both teaching and thinking at the same time. Make a point of tracking your ideas in a systematic way that fits your own way of teaching.

Individually: Keep a journal during the week.

- Here the word *journal* is used loosely—it might just be a space in your daily planner. However, it works best if you find a place where you can track your thoughts as they come up.

- At the end of the week, set aside some time to do two things: first, remember what spurred your thoughts during the week and take notes about your memories; second, read the ideas you have tracked in your journal, looking for significant ideas and themes.

Collaboratively: Find time for conversations with other teachers.

- Institute a regular practice of bringing your individual thoughts to a collaborative forum. Time and space for school-based professional learning isn't always part of the culture of schools. Unless your school is proactive in this regard, your team will simply have to find or create that space. Still, this practice is well worth the time.

- During these conversational spaces, do two things. First, share the notes you have written. Second, practise sharing thoughts with each other about what you are seeing as part of your teaching. In general, three questions should motivate your work:

Question One: What's really working for me/us? How can what's working be scaled out more widely?

Question Two: What could I/we do better?

Question Three: What puzzles me/us? How might we find answers?

Note: see "Tips for Effective Collaborative Conversations," page 39.

Questions to consider in developing a "good" question

Two questions should guide the work of collaborative action research.

Question One: How will studying this question enhance our professional practice?

Question Two: How will answers to this question add value to our classrooms, school and/or colleagues?

Choosing: Creating a plan for turning conversations into action research projects.

The goal of your collaborative work is to create collaborative inquiry that will help you—both individually and collectively—learn more about an education issue and apply what you have learned to your everyday practice.

Finding Time to Talk

Finding time to talk can be difficult, but it is crucial if action research is to become a collaborative culture in your school. There are informal times during the day where teachers regularly talk with each other. Don't miss working to shape part of these times into a space for collective conversation.

Second, there are more formal times that could be appropriated as space for conversations. These might be early dismissals, staff meetings or times when school leadership creates time for some teachers to meet while other teachers cover.

We have seen formal spaces built in many ways. One school principal spent time, about a half a day before the school year started, organizing monthly spaces where grade-level teachers could meet and talk. Several schools we know instituted book clubs with teachers that met regularly. All these are times where fruitful conversations might take place.

STEP TWO: Find Out What Others Have Said About Your Question

Once your research area and focus have been identified, the next step is to contribute to your team's learning about the issue. The amount of time spent on this initial review will vary depending on the amount of information available and how specifically your issue can be defined. As you become more experienced in action research, you will learn that time spent on this activity is time well spent because it helps build your ability and commitment to lasting educational improvement at your site.

Developing your knowledge of the issue you have chosen to address and finding out what others have learned about that issue will help you to refine your research plan and help your team focus on the most likely solutions or interventions.

Three strategies are useful in developing your background knowledge:

Talking: Seek knowledge anywhere you can find it. As you engage in action research conversations with your team, consider who might have information about the issue you care about. You may begin your search individually, expand it within your group and then consider others in your school district. Some team members might also have worked with university-based academics who would be interested in partnering with you as you engage in this work. It's your project, but other researchers might be happy to become part of positive educational change. Don't be afraid to ask.

Contact staff at the Alberta Teachers' Association and regional consortia in your area to ask for names of people who have offered workshops on the topic. Contact these people by telephone or e-mail to arrange a meeting or to ask for advice.

Learning: Conferences, professional development activities and courses are excellent networking opportunities. These opportunities work especially well when your team attends them together. Better yet, if your team can create a presentation that outlines your action research project and shares your findings, tentative though they might be—whatever and wherever that project is at the time of the conference—meetings with other teachers are great opportunities to share ideas.

If you are an audience participant, these events can provide skills training and valuable materials to help you implement your action research intervention or strategy. Just as valuable, however, is the experience of being immersed in the topic and discussing the issues with others interested in the same topic.

Take advantage of these learning opportunities by talking and sharing with people who are new to your group or an academic at an Alberta postsecondary institution. Opportunities often present themselves through guest presenters who speak at conferences. Often these presenters are academics with a wealth of research experience. Many of them would be willing to listen to fellow teachers and researchers who are working in a specific area. We have heard many stories of networking relationships that have had their genesis at conference when a courageous teacher or school leader has engaged a presenter or keynote speaker with an action research question.

Reading: Accessing material is no longer the challenge it used to be. So much research is freely available, housed in online databases. A teacher-librarian or the library services at the Association can help you design an efficient search for materials if you don't know how. If members of your team are also graduate students, they probably have access to their university's library.

Key Questions for Organizing Your Literature Review

What topic interests us?

What questions should we answer?

Who knows the answers to these questions?

How should we ask the people the questions? What is the most pragmatic way to ask?

How should their answers to our questions shape what we do?

If not, ERIC is a searchable resource that can offer and organize insights about your project. It is a massive and helpful resource, and your team would be wise to search it— preferably as a team where you can discuss what you are finding and how that might shape or offer insight to your specific needs.

Why Is a Literature Review Important?

If you have gone through a collaborative process to discover an action research question that stimulates your interest and goals as an action research team, one step would be to learn more about what is already known about the question you are asking. Reviewing the literature in the area you care about can be helpful.

Engaging in a literature review is a way of engaging in a conversation with others who care about, and who have already done work in, the same area you care about. By reading the research others have done, you can better understand your own action research question—especially if you talk with your colleagues about what you read.

Concluding Thoughts About What Others Have Said

Because you are working on a collaborative action research project, you will share the background research activities with members of your team. Plan to meet regularly as a team to share information you have gathered and to talk about what has happened, where you are in your thinking and where you believe your work should go. Always be ready to update your research plan—it should be modified to address the new knowledge you gain.

Create a living document about your work. The form this documentation takes matters less than the group's commitment to document your work. There are a number of reasons to record what you do:

- It creates a permanent record for future reference.
- It helps to build continuity for the project if the participants change.
- This information is valuable if you plan to share your work with others.
- It builds systematic efficacy within your group.
- It works to change teachers into action researchers.

STEP THREE: Create a Research Method

Because action research is planned action, you will need to develop an outline to guide your activities and describe the various steps in your action research process. The process you design depends upon the nature of your research question and the context of your study.

For example, if your project is to study the impact of two different software programs, you will not need to spend much time reviewing the research about the development of computer-based programs. You are primarily interested in which program offers the best results for your students. However, if your study is to increase student achievement, your research should probably include an extensive review of different teaching and learning strategies to help identify the strategies likely to positively influence your teaching. Engaging in an extensive literature review and seeking expert information will help ensure that the interventions you choose to implement will have a positive impact.

Most action research follows a similar plan. Examples from the literature about how to organize an action research project are provided in the next three examples.

Example One: Townsend's Action Research Approach

David Townsend, a professor emeritus from the Faculty of Education at the University of Lethbridge, created an 11-step process he used with teachers in Alberta.

1. Define the Focus or Problem
    - Ask the right questions.
    - Reflection begins.
2. Collect Information
    - Read the literature, consult colleagues, talk to experts.
    - Reflection continues.
3. Make Sense of the Information
    - What is relevant?
    - What is doable?
    - What can be modified and adapted to suit the circumstances?

4. Share the Information
    - Share your preliminary conclusions with your team.
    - Be prepared to deal with conflicting information.
5. Plan Action
    - Share individual intentions with members of the team.
    - Build personal commitment and group support.
    - Develop a plan of action.
6. Take Action
    - Start putting your plan into effect.
    - Begin to think otherwise about what is happening and why.
    - Reflection in action and on action will make your efforts more purposeful.
7. Collect Information
    - Let your students see you as a learner.
    - Gather data to answer your research question and document carefully.
    - Meet regularly to share your experiences and refocus as necessary.
8. Analyze
    - Use the collective knowledge of your group to make sense of what's happening and why.
    - Compare the pre- and post-intervention data.
9. Assess Your Achievements
    - Think about evidence-based practice.
    - Ensure that your conclusions are supported by the data collected.
10. Publish
    - Commit yourself to making conclusions about the impact of your efforts.
    - Share these conclusions with different groups.
    - Work together to disseminate your report beyond your group and beyond the school.
11. Future Action
    - Celebrate. Relax. Reflect.
    - Take time to consolidate your learning and your gains before you start something new.

Example Two: Sagor's Action Research Approach

Educational action research can be engaged in by a single teacher, by a group of colleagues who share an interest in a common problem or by the entire teaching faculty of a school. Whatever the scenario, action research always involves a similar process. This process becomes an evergreening cycle for action teacher-researchers. By evergreening, we mean that good action research really never ends. It keeps suggesting issues that teams of teachers might work on to improve their educational practice.

Richard Sagor (2000) suggested a seven-step process for engaging action research. His steps include

1. selecting a focus,
2. clarifying theories,
3. identifying research questions,
4. collecting data,
5. analyzing data,
6. reporting results and
7. taking informed action.

Example Three: Glanz's Action Research Approach

Action research can be applied to many of these initiatives. Glanz (1998), in *Action Research: An Educational Leader's Guide to School Improvement*, describes a four-step action research process that helps teachers examine educational problems in their school settings:

Select a Focus

Includes three steps:

a) know what you want to investigate,

b) develop some questions about the area you've chosen and

c) establish a plan to answer the question.

As you focus on a problem, begin to pose questions that guide your research. Developing guiding questions will eventually lead to specifying research questions and/or hypotheses. Selecting a focus also includes developing a research design.

Collect Data

Once you have developed the research question, you can begin to collect data that will provide evidence of the effectiveness of the intervention. You may administer tests, conduct surveys and interviews, and examine documents. Collected data should be transformed into a usable form.

Analyze and Interpret Data

Once the relevant data have been collected, you need to begin the process of analysis and interpretation in order to arrive at a decision.

Take Action

The research question is answered based on the data collected and a decision is made. Three possibilities exist:

a) continue the intervention,

b) disband the intervention or

c) modify the intervention in some way(s).

Action research is cyclical—the process won't necessarily stop at any particular point. Information gained from previous research may open new avenues of research (Glanz 1998, 24–26).

Practical Applications of Ethics and FOIP

When planning any research project, the question of how to do your research must be coupled with a contemplation of research ethics and your legal obligations under the *Freedom of Information and the Protection of Privacy Act* (FOIP). Because action research is always collaborative and hangs on the discussion of what is happening at every procedural turn, the ethical issues that action researchers engage are too complex for simple rules or procedures. Action research is not a set of rules to follow. It is a way of living as teacher-researchers that engages in a contextual—time, space and insight—experience of people working together to create "good" (helpful to others) research.

The best way to engage action research is to be openly mindful of the ambiguities that confront us in the complex life of schools and to make the discussion of these ambiguities part of the work of action research. In some ways, although the purpose of action research is to help solve educational issues that teachers face, action research entails more than the attitude of "I see a problem. Let's do some action research to solve it." Instead, action research teams work together with the attitude "We see an educational issue. Let's engage action research together to help us make our understandings and actions clearer."

Freedom of Information and the Protection of Privacy Act

Teachers must consider the *Freedom of Information and the Protection of Privacy Act* (FOIP) as they develop their action research project plans. Most classroom-based action research projects will involve collecting personal information about students, including their demographic and achievement data. Parents must give prior approval for this type of information to be collected and, if necessary, reported or published.

Designing a Data Collection Plan

Now that you and your team have learned and discussed the issues relating to your research question, you are ready to develop a plan of action. The plan of action will describe the ways you will work to implement your plan, the data you will collect and who's responsible for each aspect of your plan.

To build your research question, as a team you focused on the questions "What do we want to know?" or "What do we want to do?" If your action research question did not emerge from a discussion of this question, your work might be off track.

To design your plan for collecting data that will answer this action research question, your team will ask and answer two questions "Who should we ask?" and "How should we ask them?"

Your team's answer to the first question determines the participants for your action research project. These participants might be students, parents, yourselves as teachers, school leaders or teachers somewhere else. It also might be that the answers appear in the literature and your task is to study what research has already been done.

The second question is "How should we ask them?" or "What is the best way to gather the data?" Answers to this question determine your action research method.

The answers to these questions are practical.

In action research, data are gathered for different purposes at different steps in the process.

- What's the problem?
- What is the current situation?
- How might we make a difference?
- How will we know if the situation is changing?

To address these questions, your team needs to discuss and decide what research data would help you understand the needs and the implications of the issue you are considering.

The Principle of Triangulation

Researchers remind us that it is important to use a variety of data sources. Triangulation refers to the use of three (or more) sources of data that might help answer the same question. Corroboration can be achieved by working together as an action research team to interpret and better understand the data you collect. Triangulation and corroboration, or verification, increase the credibility of the information. In other words, as action researchers your data becomes more trustworthy if it comes from multiple sources and through multiple channels. (adapted from Grady 1998)

What Are Different Sources of Research Data?

There are many sources of research data available to action researchers. As a collaborative action research team, you must discuss and decide what data best help you answer your research question.

Typical site-based action research projects use combinations of quantitative and qualitative approaches. Essentially, there are at least four ways to collect data, including the following:

1. Conduct a survey of a large number of people.
2. Ask people directly by using interviews (individual or focus group and surveys).
3. Observe what people do (observation).
4. Analyze documents (and there are a wide variety of documents).

Surveys

Surveys can be very helpful if researchers wish to establish baseline trends with respect to the population being surveyed. Typically, surveyors will attempt to have as many participants as possible fill out a survey. Therefore, surveys are often (though not always) considered instruments for quantitative data collection. In addition, it is common for researchers to conduct a large-scale survey to learn more about what a population (or a sample of a population) thinks of a research topic and then complement the quantitative results with smaller-scale data collection techniques such as interviews and observations. This approach to research is referred to as mixed methods research.

Survey and Questionnaire Tips

Surveys and questionnaires are useful tools for collecting data from a large number of people. Advice for conducting surveys or questionnaires is provided below.

1. Limit your questions only to the research question and design.
2. Field test your questions with two to four people before using them.
3. Provide a short explanation of the research study; explain the purpose of the questionnaire and how the data will be used.
4. Use language your participants can easily understand. Keep your questions simple and easy to answer.
5. Define any terms with which your participants might be unfamiliar. Do not use jargon.

6. Be transparent. In the introduction, explain your survey's purpose. Give participants an idea of how long it will take to complete (as a rule, 10 minutes is a reasonable amount of time).
7. Ask one question at a time. Even when questions are related, it is best to create one response item per question.
8. Plan in advance how you will use the information you've gathered. Organize the questions to fit that pattern.
9. Don't ask questions you don't really need to. Ask others to review your survey specifically for this reason.
10. Within your team, discuss the following questions: Does the survey make sense? Is it easy to fill out? Is all the information useful and relevant? If it doesn't pass this test, fix it.
11. Ask positive questions. Even anonymous participants don't want to admit to negative thoughts, feelings or behaviours.
12. Before your team creates the survey, consider whether you want to disaggregate your data (eg, age or gender responses; experienced or beginning teachers). Ask for this relevant information at the top of the survey.
13. Thank participants for their time.
14. Seek to share your findings with anyone who would like to know what your data suggest.

Interviews

Interviews include asking participants questions. The school community is wide and includes teachers, students, school leaders and parents. In addition, there are a variety of educational experts whose insights might be relevant. We have already discussed expanding your school community to other school communities, especially those in which teachers have tried similar work. You might also wish to interview people who work at universities (both close and farther away), people who work in government settings or people who work for your teachers' association.

When asking participants questions, you might do that individually—a one-on-one interview with a knowledgeable source. However, group interviews that focus discussions on a particular topic can also be helpful. Finally, surveys or questionnaires are also interviews that are engaged asynchronously.

Interview Tips

Interviews are purposeful conversations between the respondents and researchers. Interviews might be engaged individually in a one-on-one fashion, or they might be engaged with more than one person gathered to discuss a topic of mutual interest. These are called focus groups. Traditionally, researchers have conducted individual interviews; however, because action research is a collaborative engagement between groups of people who wish to build communities of practice, purposeful conversations between groups of teachers can work toward mutual understanding of a topic of interest.

Therefore, teams of teachers might consider opportunities to engage in focus group conversations both to generate and collect data and to engage in the professional development and professional learning that emerge from these focused conversations.

Advice for conducting individual interviews is outlined below.

1. Set a time frame, but not a stringent one.
2. Be prepared. Have your recording equipment (if using any) and other needed materials ready. Practise your interview with a colleague or friend, asking for feedback to help improve the interview experience for your participants.
3. Offer participants a preview of interview questions and a general outline of the process to be followed.
4. Enable participants to elaborate as a way to enrich the conversation and the results.
5. Note your observations about body language if it affects the study.
6. Keep your personal feelings and opinions at bay to avoid biasing the data.
7. People are glad to help. However, give them the opportunity to stop or to say no at any time, and respect their choice.
8. The location of the interview is important. Choose a quiet location.
9. Set up the interview well in advance, with times and dates. This will allow participants time to prepare and to make room in their schedules.
10. Plan the interview by developing a set of questions that focus on the research problem you have identified.

11. Field test the interview questions with three to five people who are not involved in the study.

12. During the interview, take time to develop a rapport with respondents.

13. Consider taping the interview (with the permission of your participants). You don't need to transcribe interview tapes, but creating an organized way of listening to them is helpful.

14. Share and discuss with participants the results of your interviews when you have completed your data analysis from these interviews. Participants usually care.

Ensuring the authenticity and trustworthiness of interview data.

1. Develop questions using a vocabulary appropriate for your participants.
2. Explain to participants why data are being gathered and how they will be used.
3. Soon after any interview, work with your team to synthesize their perceptions of the interviews. If you have completed individual interviews, share with each other what you learned.
4. Share the themes and ideas you have discovered with participants as a way to verify and validate the content.
5. Compare themes that emerge from your interviews with what you learned from your literature review and other data collection you may have done (triangulation).
6. Encourage participants to build on each other's responses both during the interviews and after them.

Advice for conducting focus groups is provided below.

1. Think of your focus group as a constructive (you are building something) conversation between colleagues who care about finding answers to the same educational question or issue.
2. Share information with participants—perhaps in an e-mail or a letter—before the focus group to better prepare them for the experience.
3. Consider scripting your opening comments to ensure clear communication of expectations and procedures. As an action research team, review your opening comments to identify areas that are not clear or need further explanation.
4. Be transparent about why you have chosen this issue and what you hope to gain from the focus group conversation. A one-page handout that outlines the questions and the procedures is productive.
5. Choose positive ways to engage in the issues you care about. The purpose of a focus group isn't to critique, but to find solutions.
6. Offer participants an opportunity to add to your ground rules or to the questions you are engaging.
7. Building a collaborative culture is a key to running a successful focus group. Consider how your focus group can help create an ongoing community of practice.
8. Consider how your participants can share with each other, not just with you. See the professional learning opportunities that exist. If you have a large focus group (eg, an entire school staff), use participant note takers to help gather or organize data.
9. To promote reliability and validity in your focus group, at the conclusion of the interview ask focus group members to review their conversations. What key ideas should be remembered from the conversation? See debriefing as a way to focus on key data points.
10. Create an environment that avoids conflict or hierarchy. A focus group is a conversation among colleagues.
11. Consider not using a recording/taping device. Instead, use paper and pencil to gather data by asking participants to share what they felt were key ideas generated: wall charts, data-collection questions and so on.
12. Be prepared to be surprised, and remain flexible. Thank people.

13. Share the data you have gathered and your analysis as a way to further the conversation at a later date. Be open and invite participants to contact you with additional insights in an informal way.

14. Work as a team with at least two colleagues—one to facilitate and others to record and observe.

15. Construct data-gathering tools that work within your focus group. When the focus group has been completed, give a one-page, open-ended sheet that asks participants to recall the most important points of their focus group conversations. These two one-page sheets, along with other data-gathering activities, will become part of your data. Asking participants themselves aids both reliability and validity.

For other resources on focused conversations, see www.learnalberta.ca/content/aswt/talkingtogether/facilitated_art_of_focused_conversation_sample.html.

Observations

Observations are opportunities to watch and learn. They can include such things as using checklists to watch students in action or studying multimedia.

Observation Tips

Observation is looking with a purpose (Grady 1998, 23–24). Observations allow action researchers to examine a setting or the natural environment of participants. Context is important. Examining the context involves looking carefully and writing clear, detailed descriptions.

Observing Math Stations in a Colleague's Classroom

An elementary teacher wants to try some new math stations, but finds she cannot both teach and watch her students engage the stations at the same time. She asks a teaching colleague if she would mind watching with her. The colleague agrees and takes notes about how she sees the children engaging the different stations.

They talk at the end of the day about what they both saw and converse about some ways the math stations might be improved to help students learn. Both teachers consider changes each might make to her teaching to take advantage of their collective insights.

The observations work well enough that they decide to take turns in each other's classrooms as a way to encourage better student learning.

Advice for observing as a researcher is provided below.

1. Study the setting using all your senses. Use descriptive words to document your perceptions.
2. If you are looking within your own organization, try to make the familiar strange. Imagine yourself as a newcomer to this setting, and take a fresh look at all of those subtle background elements you've probably come to take for granted.
3. For each thing you notice, ask "Does this mean something?" Take your notes first, but write your insights later.
4. Study your participants. Ask and answer questions that reveal both the person and the organization in which the person "lives." How do they interact? What do they talk about?
5. Study the events. Differentiate between special and common daily events. Look for the subtle acts that make up each event.
6. Study gestures. How do people show attitude and emotion? What gestures are used? Why?
7. Focus on behaviours and concrete details. These are easier to work with later when you want to start working your field notes into categories for analysis.
8. Develop an observation plan and a data-collection template.
9. Conduct observations at different times of the day.
10. Work together with a colleague to conduct and discuss the observation.
11. Be aware that your presence as an observer can affect what is being observed.
12. Decide to what degree you will be interacting with your research participants. Your involvement depends on the goals of your observation, the expectations and wishes of your participants, and your own familiarity with the research context.
13. Observe more than one time. It is difficult to see everything the first time. Allow the first observation to inform the second.
14. Take good notes while you are observing, but deconstruct soon afterwards. Make it a point to write narratives about what you have observed as quickly as you can while the observation is fresh. It's easy to forget things.

Document Analysis

Document analysis is the study of important documents that might include student achievement data, student portfolios or assignments, student self-assessment scores, standardized test scores, or the variety of other files that have been kept by the school. Document analysis might also mean studying extant literature to make sense of a topic of interest.

An Example of a Data Collection Plan

A team of teachers from an elementary school designed an action research project to see how they might help other teachers better utilize learning. These two teachers were well regarded as local outdoor educators, and over the years many teachers had come to them with practical questions about how to incorporate outdoor education into the program of studies.

As these teachers talked with each other, they came to believe that building a resource manual of outdoor teaching ideas connected to the objectives that elementary teachers would engage as part of their curriculum (linking specific and successful teaching ideas with specific objectives within the provincial curriculum) would help teachers. They decided to create a series of specific ideas other teachers might use.

But what to do next to make their idea a reality? They created a data collection plan that included a variety of data sources:

- Surveys of their teaching colleagues to ascertain why teachers hesitated to engage in outdoor learning (thinking that if they knew the hesitations, they could encourage their colleagues by addressing these head on)
- A long discussion over coffee, during which they listed their own ideas and worked to systematically form these ideas into activities other teachers would find useful
- A review of literature (including other programs globally) that might also use outdoor learning ideas to include in their resource manual
- Other teachers' observations about teaching outdoors (they decided to use a conference presentation to invite teachers they didn't yet know who were interested in discussing the topic further)
- Their own students' writing about their experiences of learning outdoors (some already collected and some they would seek)

Data from each of these sources were collected over the course of the project and analyzed at the end of the project. Using these multiple sources of data, the teachers were able to build a draft document they then shared with other teachers in their district. Using insights gained from the conversations during that sharing, they finalized a draft document of teaching ideas and shared it widely throughout their district.

Now that teachers have this resource manual, the two teachers have created a district-based website where they share their experiences and insights with other teachers. Toward the end of the teaching year, they will ask their new community of practice to come together to share their experiences and will use the insights they gain to plan a new resource document as a larger team. However, this time their plan is to have a multiple-authored resource that teachers will share outside their district.

How to Analyze Qualitative Data

1. Gather all the data in a clear, readable form.
2. Sort the data according to your research questions.
3. Create analytic files.
4. Organize the data into themes.
(Adapted from Grady 1998)

STEP FOUR: Analyze Your Research Data

Because the data an action research team collects as it engages in action research can be either quantitative or qualitative, your team must use its collective wisdom to analyze and interpret the collected information. The process of qualitative analysis includes critical reading, finding connections between data, forming judgments, finding answers and deciding what to do next. The processes described below include strategies others have used to organize and analyze qualitative data.

Pam Adams, a professor at the University of Lethbridge, developed a process of analyzing data from participant interviews. She found this process valuable for research questions that gather participants' opinions. Adams described the process as a combination of selective note taking and using visual organizers to gather and sort the data. The process is outlined below.

1. Conduct three interviews using broad questions based on your research questions. Take as many notes as possible during these interviews.
2. Reflect on these interviews to identify repetitive themes. Draft new interview questions related to these themes.
3. Conduct the remaining interviews. Use selective note taking. After a group of interviews, reflect on the process. How effective is your interview facilitation? Are the themes you have identified still valid?
4. When all the interviews are complete, analyze the data in broad categories or groups. Color code comments in each category using highlighter pens.
5. Regroup the data and analyze them using the themes.

Use the trends from your category and theme analysis as a basis for reflection. What are your conclusions based on your interpretation of the data?

How to Engage Your Notes

If your action research notes seem disorganized, don't worry.

Your first step is to review these notes and, as you do, jot down your overall impressions.

Once you have done this, try to see if you can create a rough draft organizing framework. Capture your thoughts and ideas as you discover them.

There is no special set of directions for analyzing data, except to be systematic, organized, honest, considerate and careful. Do not overstate or understate what your data suggest. Of these two, understating your data is the least helpful.

Understating your data creates potential to lose data because you think it might be unimportant. A better method is to bring up all ideas within the research group and build on or dismiss these as a group. Data can become the genesis of powerful discussions and considerations of potential educational actions. Simply stated, it always helps to talk through what you find within a trusted community of practice.

In research that isn't action research, it is more common to be cautious. That's because such research engages in theory building. But action research sometimes finds data that hint at more than a researcher might first see. It is good to be humble and cautious about findings to avoiding claiming more than you can know. Be both daring and humble. As you discuss your insights, try to show the "footprints" in the data that suggest how you might follow the data trail toward action.

Talk within your team about how you came to the conclusions you did. Push each other to talk about what you've seen or thought, and listen to the insights of others who have engaged the work. One very powerful thing about engaging data as an action research team is that your research team members will soon become colleagues. Your work helps build a community that benefits your students and your site.

Working with Data

Data might take several forms; however, most researchers use a similar three-step process to organize the findings:

1. Read for understanding.
2. Read for shaping (build categories or themes).
3. Read for specific examples that illustrate important points.

The objective of analyzing data is to arrange bits and pieces of data into insightful patterns that shape your research into insights you can share with others.

Three Basic Questions

All action researchers should engage three basic questions about their data:

1. What? (What did we find?)
2. So what? (What do these findings mean?)
3. Now what? (What should we do after we make sense of the findings?)

A High School Example of Action Research

A high school action research team, made up of a Grade 12 social studies teacher and a Grade 12 English teacher, believed their subject areas shared objectives but could better serve the learning needs of their students if they combined their courses into a more project-based classroom experience. However, they wanted to ensure that their plans and teaching were as good as they could be and met their students' needs. Together, they sought and gained permission from school leadership to combine their classes in both space and time. The result was a team-taught class of about 50 students who met each day for a double period.

But how could they evaluate their idea? As they talked about how to assess the strength of their action research idea, they broke their work as teachers into three general parts: planning for teaching, teaching and assessing their teaching. When they further discussed how to assess part one, they decided their own insights were the best data they could gather. For part two, they decided that their own insights combined with their students' insights were the best data they could gather. For part three, they decided they would use their assessment of their students' work as the best measure of how their students learned.

Building data collection templates and activities became the next focus of their work. For each part of their work, they built ways to collect data. For example, among other things, they decided to track their planning conversations daily; each week they filled out a short individual questionnaire about how these planning sessions worked for them.

As they were teaching, they met for 15 minutes daily to quickly deconstruct their day. Again, they took minutes of their daily meetings. They also asked students regularly for open-ended insights about how the combined course was working for them. They observed their students and tracked their own "eyeball insights"—as best as they could—about how students were engaging the classwork.

Finally, they created similar types of assessment they had used in their individual work, such as exams and written assignments, to see if their students were demonstrating improvement. They also were transparent with their students about what they were doing and asked for student input about their experiences in large-class focus group discussions.

When they were finished with the data, they first decided if the experience had worked. When they decided it was worth doing again, they spent a Saturday discussing (and included a third colleague to listen) how they might make their work better, planning specific and general improvements as they worked together.

STEP FIVE: Share and Report on Your Action Research Project

As an action research team, remember that reporting research is part of doing research, not something that comes after the research is done. Your job as a teacher researcher is to apply your findings to action. Again, the goal of an action research team is not to create a strong action research team; instead, it is to help build an expanding community of practice that eventually can scale outward to inform teaching and learning at other sites, with other teachers and for other students.

If you were an individual researcher reporting your research, you would probably choose a more formal method. If you were both a teacher and a graduate student, you would create a formal presentation and representation of your research that would include similar sections. For example, the following reshapes Stringer's ideas (1999, 174) about the sections of a typical research report:

Introduction: identifies the problem or presents the question.

Literature review: details what is known about the issue being studied.

Methodology: discusses research and data collection plans.

Results: summarizes and analyzes the data; outlines findings.

Conclusion: identifies the practical implications of the study; suggests what comes next.

Action Research's Different Goal

Your work as an action researcher has a different, more practical goal than Stringer outlined. Your report should become a story about why you cared to engage in your action research, what your action research project found and what you believe these findings mean.

Your challenge, as an action research team, is to understand and report (or share in action research) (1) your findings, (2) the conditions under which your findings emerged, (3) the knowledge and insights you discovered as you have engaged in the entire research process and (4) what you believe these findings suggest for future planning.

A Simple Example of Data Organization

A high school action research team hoped to increase student achievement by implementing a study skills program. The team developed a survey, which all students completed. The results were tabulated using spreadsheet software, and graphs were developed to illustrate the information. Representing the data in this form made it quite easy to see what study skills students were already using and about which they would like to learn more.

Reporting Your Action Research

Other than a formal report, there are many ways to tell the story of your research so that others can benefit from your work for their own professional learning.

Ways of sharing include (a) articles for newsletters or teacher magazines, (b) presentations at staff meetings (your own and others), (c) conversations with colleagues (both at your own school and with teachers from other schools), (d) blogs, (e) work within your professional teachers' association, (f) creating a website, (g) producing a video, (h) presenting at teacher conferences and (i) sharing with your students and their parents.

As an action researcher, your work is about creating meaning from your data and findings. Your findings, on their own, have little meaning unless you create meaning for them. As result, your action research report will morph to assume different shapes and different sizes as you become both a teacher/storyteller and a teacher/planner who actively works to make sense of what you found during your research. Your research report is a story based on your good judgment and your will to make a difference as you work.

The Responsibility of Action Research

Teacher action researchers have a responsibility to prepare final documentation and share the results of their study and their future planning. This activity will (a) encourage your own reflections and the insights of others, (b) help organize your thoughts and share these thoughts with others, (c) take stock of where your team is in the research process, (d) help plan how to continue your action research journey and (e) contribute to professional knowledge and the professional learning of others.

To help ensure that your action research team uses the research findings as part of your own and others' professional learning, your final report should summarize and extend the actions that emerge from your study.

Ways to Share Your Action Research Report

- Organize a meeting where your action research team shares with other colleagues. (These presentations can be scaled out, starting at your own site and moving outward to include other teachers and sites.)
- Present your final report during the year-end review of your professional growth plan.
- Share your study within your school or school district.
- Talk to your students about your study and what you learned.
- Talk to parents about your project.
- Summarize your results and share them with the participants of your project.
- Prepare an article for a specialist council journal or another educational publication.
- Present the results of your study at a conference or a workshop.
- Include the results of your study in your school's improvement project report.
- Submit your report for publication on an appropriate website.

Critical friends are trusted people who ask provocative questions, provide different perspectives on examined data, and offer critiques and insights about the work engaged (Costa and Kallick 1995)

Facilitating and Supporting Action Research

The success of action research initiatives can be significantly enhanced by the support and facilitation of others not directly involved in the project. Some examples include your school administrator, a district consultant, a university professor, other teachers experienced in the process or critical friends. These people can help keep the project moving forward, encourage reflection and problem solving, provide feedback and lend support.

Thankfully, action research seldom goes as planned—you learn so much by following where the action research leads you. However, the unplanned nature of action research can be frustrating, especially if you are a person who needs to checkmark what you have completed.

If your action research team is fine with surprises, action research will become really engaging and illuminating. It will incite powerful and engaging professional conversations. Perhaps, however, the best outgrowth of action research is the growth of efficacy and the building of communities of practice between teachers. Your team should celebrate formally and often.

Things don't often turn out the way you have planned, expected or, perhaps, even hoped for. Certainly, the process is not linear—action research plans often must be quickly modified in light of new information.

Teachers who work in action research teams have greater success than teachers who work alone. Whether you are in a team or are an individual, it helps you to identify others to share with and to act as their critical friends in the action research process. A collaborative working relationship with a critical friend is built on trust.

Characteristics of Good Action Research Discussions

Action research is always a collaborative activity. This includes the work of the action research team as it plans and conducts the action research. As well, the findings and insights about further practice should be shared widely with other people. This includes teachers both at the site of the action research and more broadly with other teachers who might care about or benefit from the action research team's work.

During any discussions that occur, it is important that these discussions be open ended and creative. In action research, others serve as critical friends who provide another set of eyes and who are trusted friends who ask proactive questions, offer new suggestions and advice, and provide a space to talk openly and safely.

The School Leader's Role in Supporting Action Research

As the instructional leader in the school, a school leader should work to build a school culture that supports teacher professional learning, and there are few better teacher professional learning opportunities than engaging in action research. Collaborative action research is an effective tool for curriculum implementation, problem solving, school improvement and developing a culture of teamwork and continuous improvement.

Hossack (1997) notes that school leaders have opportunities to engage in action research as

- practitioners conducting a project,
- participants in a collaborative project and
- promoters to support and encourage all types of action research.

In fact, one way to flatten any school's organizational chart is for the entire school community—including the school's leadership—to work collaboratively on an action research project, from beginning to end.

Why Action Research

Teacher professional development and school improvement are a priority for the Alberta Teachers' Association. As the professional voice of teachers, the Association has allocated significant resources to the professional growth and improvement of its members.

The Association is not unique in these efforts. Indeed, many other professional organizations across North America have also focused on staff development as a priority, knowing that the key to school improvement is teacher improvement. Recent developments in the field of education have contributed to how we think about professional development.

Results-Driven Education
Decisions about curriculum and instruction should be driven by what we want students to know and be able to do as a result of instruction.

Systems Thinking
Systems thinkers see the interconnectedness of all things and understand that causality is circular rather than linear.

Constructivism
Learners create their own knowledge rather than receiving it from others.

Action Research and School Improvement

The entire school community can engage in action research focused on school improvement, curriculum development, student behaviour and staff development. Whole-staff collaborative action research has the potential to increase teamwork, improve staff morale and increase student achievement. In fact, our experiences suggest it will do so. We have never seen it not work.

School-based action research can engage the entire staff in studying the same research question, or the staff may volunteer to work in smaller groups to study several different questions related to a common theme.

One example of this might be the challenges associated with integrating technology across grade levels and subject areas. Another might be the process used in building safe and caring school environments.

Schmuck (1997, 141–42) refers to six conditions that foster effective school-based action research:

Openness to weakness: Administrators and staff members speak honestly to each other about the parts of the school program that need improvement.

Chances for creativity: Administrators provide staff members with opportunities to brainstorm and analyze inventive ideas about alternative future practices.

Support for trial and error: Administrators provide staff members with support, resources and materials to initiate and test alternative processes.

Cooperative staff relations: Administrators and staff members share norms and skills that support cooperative problem solving about their own group efforts.

Valuing data collection: Administrators and staff members believe they should go beyond casual inquiry to collect systematic data about their processes and school outcomes.

Time for improvement: Administrators create ways to release staff members from regular duties so that they can engage in professional reflection, action research and staff problem solving

Action Research and Staff Development

The Association for Supervision and Curriculum Development published a handbook entitled *A New Vision for Staff Development* (Sparks and Hirsh 1997). Although no longer new, its tenets remain crucial to improving schools and building safe and caring school cultures. This vision for professional learning, development and growth is characterized by a shift

- from individual development to a combination of individual development and organization development;
- from fragmented, piecemeal improvement efforts to staff development that is driven by a clear, coherent strategic plan for the school district, schools and the departments that serve the schools;
- from district-focused to school-focused approaches to staff development;
- from a focus on changes in adult needs and satisfaction to a focus on student needs and learning outcomes, and changes in on-the-job behaviours;
- from an orientation toward the transmission of knowledge and skills to teachers by "experts" to supporting teachers' own growth as efficacious school improvement agents and experts of the teaching and learning processes;
- from a focus on generic instructional skills to a combination of generic and content-specific skills;
- from staff developers who function primarily as trainers to those who provide consultation, planning and facilitation services as well as training;
- from staff development provided by one or two departments to staff development as a critical function and major responsibility performed by all school leaders and lead teachers;
- from staff development directed toward teachers as the primary recipients to continuous improvement in performance for everyone who is involved with student learning; and
- from staff development as a frill that can be cut during difficult financial times to staff development as an indispensable process without which schools cannot hope to prepare young people for citizenship and productive employment.

References

Carson, T B, B Connors, H Smits and D Ripley. 1989. *Creating Possibilities: An Action Research Handbook*. Edmonton, Alta: University of Alberta.

Costa, A, and B Kallick, eds. 1995. *Assessment in the Learning Organization.* Alexandria, Va: Association for Supervision and Curriculum Development.

Glanz, J. 1998. *Action Research: An Educational Leader's Guide to School Improvement.* Norwood, Mass: Christopher-Gordon.

Grady, M P. 1998. *Qualitative and Action Research: A Practitioner Handbook.* Bloomington, Ind: Phi Delta Kappa Educational Foundation.

Hossack, L A. 1997. "An Action Research Primer for Principals." *Canadian School Executive* 16, no 7: 9–13.

National Staff Development Council. 2000. "Data Collection." *Tools for Schools* February/March: 5.

Sagor, R. 2000. *Guiding School Improvement with Action Research*. Alexandria, Va: ASCD.

Schmuck, R A. 1997. *Practical Action Research for Change*. Arlington Heights, Ill: IRI/Skylight Training and Publishing.

Sparks, D, and S Hirsh. 1997. *A New Vision for Staff Development.* Alexandria, Va: Association for Supervision and Curriculum Development.

Stringer, E. 1999. *Action Research.* 2nd ed. Thousand Oaks, Calif: SAGE.

Workbook for Doing Action Research

STEP ONE: Develop a research question (pp 10–12).

The first step in developing an action research project is to develop research questions. Generally, questions are developed through collaborative conversations between colleagues. If this does not happen on a regular basis in your school community, here are some ideas about how to go about engaging in generative and collegial conversations.

Tips for Effective Collaborative Conversations

If effective collaborative conversations are to take place, they must be created to become part of the cultural identity of a school. After awhile, these conversations become "the way things are done around here"; however, until they do, a number of rules can help these conversations become a reality.

1. Have positive conversations that focus on the issues you identify. Teaching can be stressful, and at times, it is easier to focus on its negative aspects. But negativity erodes enthusiasm. Try to focus—especially if there are problems—on how you might work together to consider and implement change. By keeping your conversations issue focused and solutions driven, you will also avoid any potential conflict with respect to your obligations under the Professional Code of Conduct.
2. Institute regular conversations. Conversations cannot be one-offs. For conversations to work, they must be revisited.
3. Take notes or minutes. It matters less the shape of your notes than the existence of your notes. Keep notes and review them before the next conversations. This isn't a formal process, but it's an important one.
4. Share your conversations widely with others. Talk about what your collaborative team discussed during these conversations. The more ideas are shared, the more they become owned.
5. Act on your ideas. Do something about things. When conversations have action plans attached to them and teachers engage these plans, as small as these might be, the effectiveness of what happens becomes part of the conversations. Success is motivating: celebrate small victories.

In addition, until your collaborative group develops its own pattern, the following questions might help you to get the conversation started in your school community.

What would you like to investigate? What's important at your site?

What questions does your school face?

What changes can/should be made to make your school better for everyone in it?

What is one thing I/we would like to change?

How can I/we improve our teaching practices?

What do my/our students need?

What would I/we like to better understand?

What is the most important thing about teaching?

How can we create the best learning culture for our students?

What changes could I/we make that would help?

STEP TWO: Find out what others have said or written about your research question (pp 12–14).

Taking Research Notes

When studying what others are doing in your area of interest, take notes about what you read and hear about. As well, because you are using your reading to continually build and create your action research project and because action research is always applied research, it is wise to build a note-taking template that allows you to engage all your needs at one time.

The article review template (below) can be helpful when taking and organizing your notes as you read. With minor revision, the template could also be useful for taking notes during conversations or listening to a conference keynote or other presenter.

Article Review Template

Note: When you create an article review, make sure it is no longer than one page. Every review should consist of the following sections. Write your notes in complete sentences.

1. Citation: The citation should be in proper APA form.

2. Article Summary: The article summary should be about one paragraph and should review the article. What was the researchers' interest? How did they conduct their research? Who were the participants? Write about one sentence for each question.

3. What? The "What?" section should list three to five points that you believe should be remembered. These are your choices, and could differ from person to person. They do not have to cover the entire article; focus on what you care about.

   a)

   b)

   c)

   d)

   e)

4. So What? The "So what?" section should be a personal reflection of where the article fits into your own thinking. It should be used to connect what you have read with what you think.

5. Now What? The "Now what?" section should be a first-draft plan of where the article (and your bridging of this article with your own thinking) takes you next. What do you think you should/might do in response to how the article helps move your thinking forward?

6. Summary: If you use this format, you will move your thinking forward in a natural way.

STEP THREE: Create a research method (pp 15–18).

It is not necessary to re-create the wheel in order to create a research method that reflects a disciplined approach to action research. The following questions will also help you to think further about how to create your research methods. However, as your collaborative action research team works together, there is every reason you should work to create your own action research plan. It is, after all, your project.

Before you plan the steps of your action research, consider the context of your project. It would help to take many factors into consideration, for example, the following:

What is the purpose of the research project? Are you trying to solve a problem, implement a change or make an improvement?

How will you collect data for this project? What techniques are most suited for answering the questions you have posed?

Who are the important stakeholders in your action research project? How will you help them become aware of the action research you are working on?

Are financial resources needed and available to support the project? If not, how will you complete the work?

What are the desired impacts of your project? How might the findings from your action project be used in other classrooms or schools?

Were you surprised by any findings that encourage you to undertake a new action research project? If so, what?

How will you know if your project has made a difference in the education of your students or the improvement of your school?

What comes next? How could you build off what you have learned to move forward?

Ethical Action Research in Schools

In addition to considering an organized approach to conducting action research, inquirers should consider ethics in research. As with any teaching practice, questions of ethics are central to all aspects of action research in schools. The previous questions are further informed by five types of ethical practices:

Ethics of hope: Action research is motivated by an interest in making schools better places for everyone who is part of the school community. Improving schooling is broader than making changes to the ways schools deliver curriculum. Action research should be informed by a concern for the broadest range of needs of students and the school community.

Ethics of caring: It is easy to focus on completing your action research project as the central purpose of action research, but narrowly viewing completion as the goal misses the core purpose of your work. At all times, the general welfare of students, teachers and the school community must be present. If you find your action research project is not addressing that core purpose, your action research team needs to make changes.

Ethics of openness: Action research can unwittingly create insiders and outsiders in a school. It is important that both the questions and the ways that teacher-researchers work through these questions are collaborative and transparent. Where possible, action research should be completely engaged by all members of the school community. At very least, all teachers and members of the school community should be in the know.

Ethics of responsibility: As professionals, teacher-researchers must be committed to principled action. The educational welfare of students and the need to maintain community must be kept in mind at all times.

Ethics of community: Because schools are communities, composed of diverse people with different skills, insights and needs, action research should be collaborative. At its best, action research creates an active space where members of the community are supported by the community as a whole.

(Note that the first four ethical practices were adapted from Carson et al [1989] and the fifth was added because of the ways action research has evolved during the past 30 years.)

To get started on your thinking about ethics in action research, consider the following questions:

How might the intended changes from your action research project affect others?

Who should you share your project with—both the process and the findings?

How does this action research project express an ethic of caring for others?

In whose interests are the changes you are proposing being made? Who will benefit? How will they benefit?

Action Research and Privacy

In addition to being ethical action researchers, teachers must follow legal requirements regarding the privacy rights of those who might be involved or affected by their research, particularly the students in the school. In light of the *Freedom of Information and the Protection of Privacy Act* (FOIP), researchers will need to seek parental permission for student participation in their project. The following questions can serve as guides for writing a letter to seek parental permission:

Why are you collecting the information?

What information will be collected?

How will the information be used?

Who will be the audience for the information?

Might there be any harm to any student as a result of collecting this information? If so, what?

Parents must also give prior permission for teachers to use photographs or video of students involved in the action research project. Using the above guiding questions to write a letter of permission helps parents be reassured that neither the child's identity nor any personal information will be used in conjunction with the photograph.

For more information about FOIP, consult your school principal, the school district FOIP coordinator or the Alberta Teachers' Association.

Building Your Data Collection Plan

When building a plan for data collection, ask and answer the following questions (adapted from the National Staff Development Council 2000, 5):

1. Why (for what reason) are you collecting the data?

2. Who will collect it?

3. What exactly are you collecting? (In other words, what will the data you collect look like?)

4. Where will you collect it? (Who knows the answers to the action research questions you are asking? Where are these people or resources located?)

5. When will you collect it? (What would be the best time of the year to collect the data?)

6. How will the data you collect be shared with others? (What form would best suit your needs?)

7. After this data is shared, what should you do next?

STEP FOUR: Analyze your research data (pp 28–30).

Interpreting Your Action Research Findings

Because action research is always applied research, it isn't enough just to organize your findings. It's also important that you do something with your findings.

To help move your action research project toward that need, we suggest the three-step approach of considering these questions:

1. What? (What did your project find? What insights did the participants provide for your work?)

2. So what? (What do your findings mean?)

3. Now what? (What actions should you take based upon your findings?)

STEP FIVE: Share and report on your action research project (pp 31–33).

Consider the following questions; your answers to these questions will help you to decide how to report your research.

1. Your action research *purpose*: What motivated you to do this project?

2. Your action research *product*: What action research reporting format makes the best sense? How does the product help further the project's ultimate purpose?

3. Your action research *process*: How does the process by which you share the results of your study also relate to the purpose?

4. Your action research *prospects*: Who else might be interested in this project? How might you best present and/or publish your study?

Sample Outline for a Formal Report

The following outline can be used to organize the material for more formal sharing with others.

Introduction

What was our research question?

Why is this question important to us?

What was the context of our study?

Review of the Literature

What did we learn from investigating the topic?

Methodology

What was our research plan?

What data collection methods did we use?

Results and Conclusions

How did we choose to summarize our collected data?

How did we choose to discuss our conclusions of the data we collected?

Implications and Recommendations

What have we learned by doing this study?

How can what we found be useful to others?

If we repeated the study, what would we do differently?

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