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Boys' Literacy Teacher Inquiry Work Plan Support Booklet

*"The magic of data-driven, reflective practice is unleashed when you, the practicing educator, apply this inquiry process to those issues of teaching and learning that matter to you and that will ultimately enhance the lives of your students."
Richard Sagor*

Next steps...

You are moving forward in the process, working with your team, enhancing your background knowledge, collecting, organizing, and analyzing your data and gaining new insights as you proceed. Gradually, you will become aware of the differences that your work is making for the students in your class as well as in your own practice.

Collecting and Analyzing Data

Collecting data:

Collecting relevant data will help you determine the effects of the strategies that you have chosen to initiate in your classroom/school for the Boys' Literacy Teacher Inquiry.

- Determine what data sources you can access.
- Match data sources to your essential question.
- Collect data from three or more sources (triangulation).
- In your chronicle include date, time, and information collected.
- Organize the data you are collecting around themes, key ideas and issues, or topics.

Analyzing data:

Analyzing and interpreting your data helps you to understand what the data means and allows you to reflect on and inform your practice.

- Keep your essential question in mind when analyzing your data/information.
- Determine how the data from your different sources compare and contrast.
- Identify the points that occur more frequently and are the most significant.
- Draw conclusions from your data and ensure they are supported by your evidence.

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IMPLEMENTATION OF PHASE THREE

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Collecting Data

Collecting data is what you do every day in the classroom as you observe and assess your students. What you may be realizing about the teacher inquiry process is that you will need to make choices about which data to collect and how to analyze this data. By logging your data entries and chronicling the process you are following, you will build a record along the way and create a framework for your interpretations and reflections. As you collect and analyze the data, it may lead you to make changes and modifications within your inquiry as you progress over the next few months.

5 W's and H

Why are you collecting the data?

- What are you hoping to learn from the data?
- Is there a match between what you hope to learn and the methods you have chosen?
- What are you hoping to learn from using this particular data collection strategy?

What exactly are you collecting?

- What different sources of data will answer your essential question?
- What previously existing data can you use?
- How much data do you need to collect in order to learn best about this topic?

Where are you going to collect it?

- What support systems need to be in place to allow data collection to occur?
- Are there ways to build data collection into normal classroom activities?
- Are there limitations to collecting the data?

When are you going to collect it?

- Does the plan include opportunities to collect data at different times?
- What strategies can you use to easily observe and record data during class?
- Can you afford the time to gather and record data using the strategies you've selected?

Who is going to collect the data?

- Are there data which can be generated by students, parents, or other teachers?
- Do you have a colleague (critical friend) who can observe you as you teach or a student teacher who can assist with data collection?
- What can you do yourself without being overwhelmed?

How will the data be collected and displayed?

- How will you collect and display the quantitative data? The qualitative data?
- What plan do you have for analyzing the data?
- To whom will you present what you have learned?

Adapted from Tools for Schools, National Staff Development Council, 2000.



STARTING YOUR DATA COLLECTION

1. At the start of your inquiry:

With the collection of your baseline data, (e.g., EQAO test scores, DRA, attendance data, attitudinal data, and report card marks, etc.,) for the preparation of your initial work plan, you have already demonstrated that you know a great deal about the challenges your boys are facing. You used this first set of data to create your essential question and you can always refer back to this information to show changes. You will now need to collect a second set of data for each of the students in this group.

2. During your inquiry:

Examine your essential question carefully so that you will have a sense as to how much *more* information you will need. Review your ongoing and regular assessment practices to determine if the data they provide will be sufficient. You may wish to collect some additional information from other sources to support your inquiry.

Examples include:

- Checklists (Inventories)
- Video taping
- Conferencing/interviews
- Photographs
- Surveys/questionnaires
- Structured observations
- Portfolios of student work
- Rubrics/rating scales
- Journals/diaries
- Focus groups

This second set of data you collect should provide you with focused information about the effects and impact of the strategies you have introduced in your classroom/school.

3. At the conclusion of your inquiry:

At the culminating point of your inquiry, you may want to consider again the connection between your essential question and the adequacy and amount of data you have collected. You may want to collect summative data from your students to substantiate the indicators of success that you developed at the start of your inquiry process. You should also review your chronicle to identify and record the effects on your practice resulting from the work you have been doing.

ETHICAL CONSIDERATIONS

You need to be mindful of ethical considerations, if any findings from your inquiry go outside the classroom.

- With your principal and team, review your board guidelines (you have done this as part of the work plan submission). Keep them in mind at all times.
- As you pursue your teacher inquiry, the process should enhance and not detract from your regular classroom practice.
- Discuss conclusions that may differ from assumptions previously held by yourself or other members of your team.
- Share your findings with others who have helped with the inquiry.
- Obtain permission to use actual student work, photos, audiotapes, or videotapes, especially if you intend to keep these artifacts for sharing with others.

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Key Principles of Ethical Practices

Ethics of hope - making schools better places for students to be and to learn.

Ethics of caring - ensuring the best interests of your students and your teacher colleagues.

Ethics of openness - communicating your essential question and your process to colleagues and your school community.

Ethics of responsibility - committing to principled action and using your learning to help others grow and develop.

Adapted from Alberta Teachers' Association. *Action Research Guide*, 2000.

DEVELOPING INDICATORS OF SUCCESS

Start with your essential question. Ask yourself, your critical friend, and your team:

“As a result of our inquiry, what will change and what will improvement look like for our boys?” In other words, work to define clearly what you would like your boys (and all students) to be able **to know** and **to do** as a result of using the strategies you have selected. At this point, it helps to look at the action words in your essential question. Circle each action word within your question and then, as a team, brainstorm exactly what you mean by student success using each circled word. Be as explicit as you can. This may also be a good point to review literature sources and check what the research says.

For instance, we often use the word **improve**. In the context of your essential question, if you used that word, identify more specifically what the boys in your classroom would do to demonstrate improvement. It would vary depending on the context of your question and which strategy you are using. Ensure that you record your thoughts at this point. The descriptions that you develop become the “indicators” of success and should be expressed as much as possible in terms of what students will know, do and feel.

An example follows:

Does the use of graphic novels improve boys’ literacy skills?

Improvement was defined by this inquiry team as follows:

1. Being an effective reader.
2. Reading more.
3. Being a satisfied reader.

Being an effective reader:

Students’ responses to graphic novels such as oral retelling, predictions, and extensions document their increased knowledge of the graphic form.

Reading more:

Students create a reading log to keep track of the books they are reading to reveal the scope and depth of their reading experiences. Depending on the division, they could classify their reading logs in a variety of ways.

Being a satisfied reader:

Students complete surveys of their personal reading habits and preferences. Administering a questionnaire to all students or an interview with a focus group can yield indications of growth in reading habits.

Activity: As you work with your team, consider the following questions to develop indicators of success specific to your essential question and to determine what methods you will use to gather evidence.

- What are some key expectations or learning skills that you have selected for focused improvement in your students?
- What does successful learning or practice in these areas look like?
- What methods, strategies, and tools will you use to collect data related to your indicators of success?
- What opportunities will you give students to practice the skills or knowledge you want them to demonstrate?
- Have you ensured that your methods, strategies, and tools are varied in nature so that they are fair to all students?
- How many opportunities will you allow your students to demonstrate what they know and what they can do?

COLLECTING DATA: TRIANGULATION

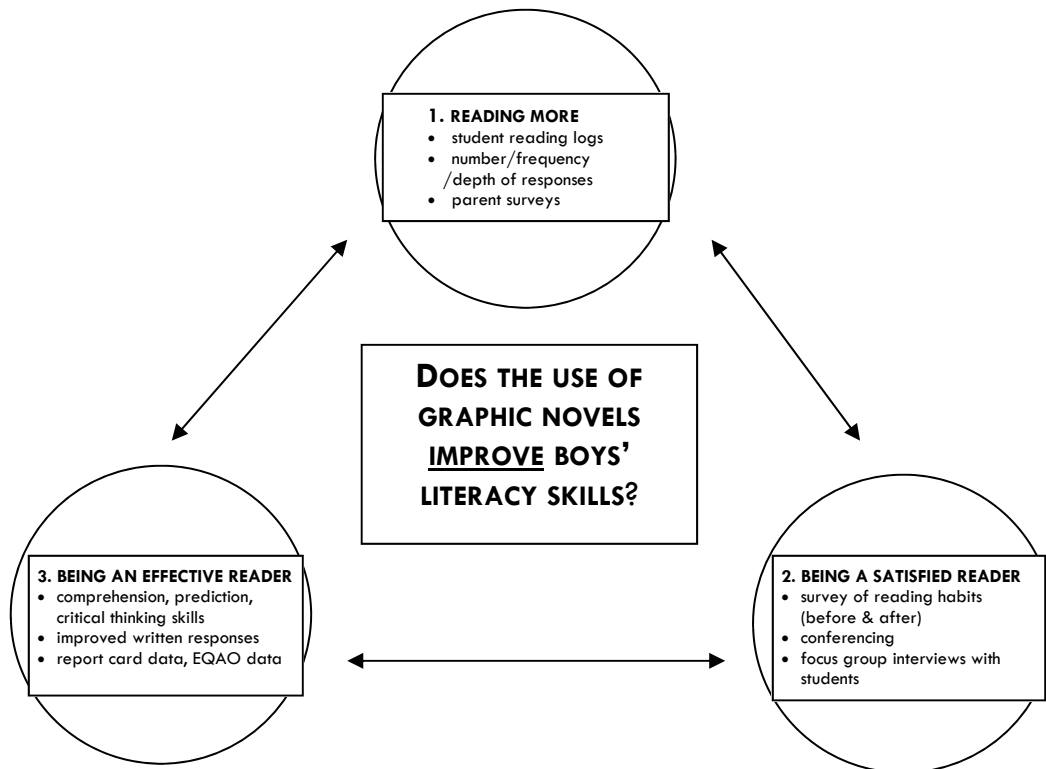
Triangulation:

Triangulation compares information/data collected using various methods, strategies, and tools at different times in the inquiry process, and from different sources. Some examples include surveys, tests, projects, and interviews. Information and data should be collected from different perspectives (other staff members or parents), and at various points in time (pre-test, post-test) in order to be considered sufficiently triangulated. The concept of triangulation gives validity and credibility to your findings and is important for the replication/transfer of the work you have done to improve boys' literacy skills to other classrooms and other schools.

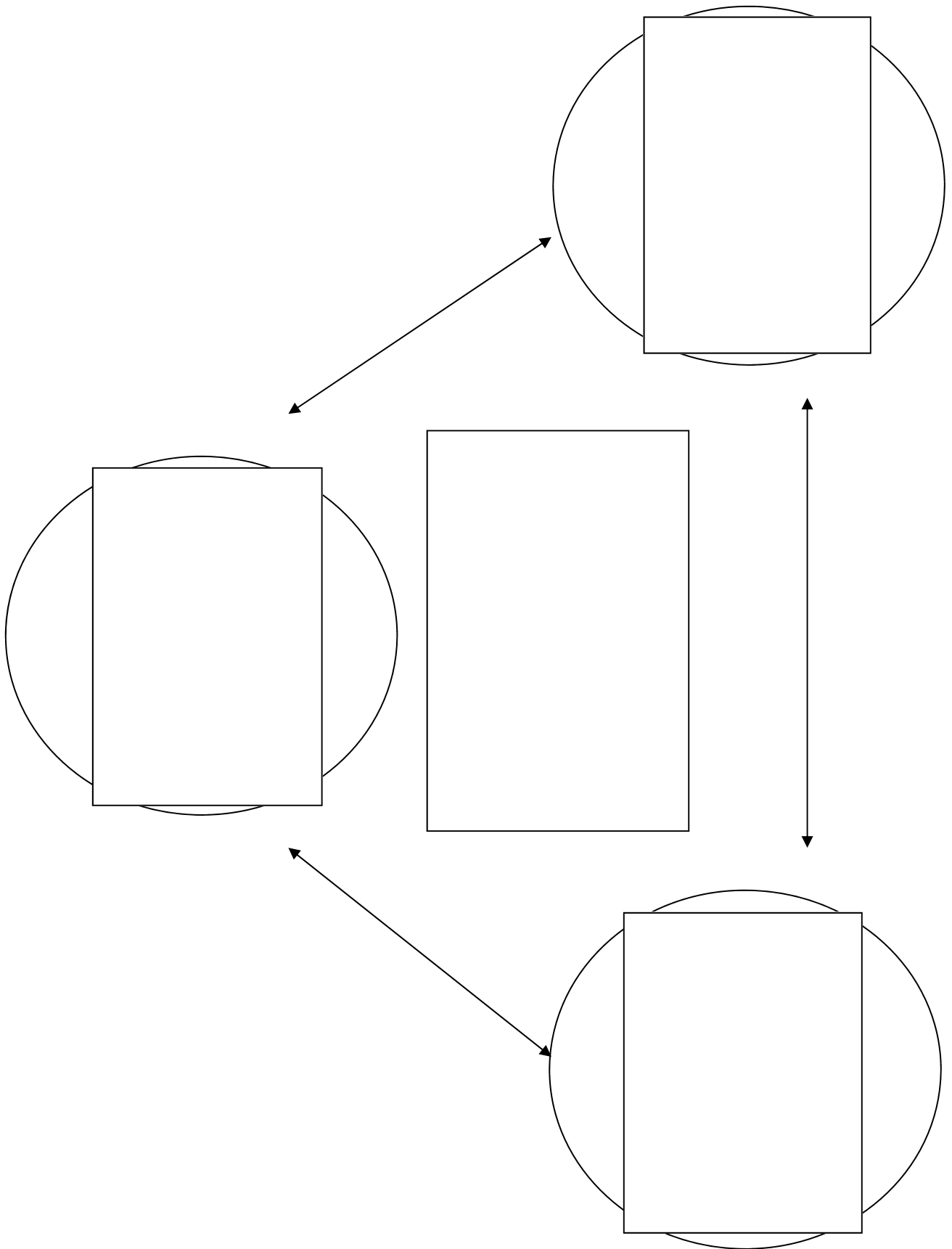
Triangulation Chart:

With your team or critical friend, complete the following triangulation chart to visually illustrate your decisions about the methods, strategies, and tools for your data collection. This will also serve to have you decide on and document your indicators of success.

Place your essential question in the centre box and list the indicators of success that you have developed in each of the circles. Record the specific forms of data that you will use to gather evidence related to each indicator. If you have more than three indicators of success, adjust your diagram by adding another circle.



TRIANGULATION CHART



COLLECTING DATA: SOURCES OF DATA

Teachers will collect evidence of their students' improvement in reading, writing, and oral communication through multiple and varied sources of data. However, more information is not necessarily better information. Effective and valid assessment of student achievement is linked to the selection of appropriate methods, strategies, and tools, and whether the information gathered accurately represents the student's achievement and is sufficient to draw accurate conclusions.

Classroom assessments

You will collect and document your students' learning, primarily in your own classroom and gather your data through:

- teacher-developed assessments of what students say, do, and write; e.g., discussions, projects, and daily written work;
- standardized assessments such as EQAO provincial assessments and publishers' assessments such as DRA, CASI, or PM Benchmarks; and
- using tools such as checklists, anecdotal records, rubrics, and marking schemes.

School data

Additional information about the individual students in your classroom can be accessed from records maintained within your school.

For example:

- attendance records,
- Individual Education Plans (IEPs),
- credit accumulation,
- suspensions/expulsions, and
- Special Education, ESL/ELD designations.

Interviews

Interviews are purposeful conversations between the respondents and the inquirer.

- Plan the interview by developing a set of questions that focus on the inquiry problem/essential question you have identified.
- Field test the interview questions with three to five people not involved in the inquiry.
- Group interviews (focus groups) can work well with students, depending on the inquiry.
- During the interview, take time to build rapport with the respondents.
- Consider taping the interview (with the permission of the participants).

Observations

Observation is looking with a purpose (Grady 1998, 23-24)

- Conduct observations at different times of the day.
- Develop an observation plan and develop a template for recording.
- Consider asking a colleague (critical friend) to conduct the observation.
- Consider using a camera or video tape when ethically appropriate.
- Be aware that the observer's presence can affect the process.

Surveys and questionnaires

Surveys and questionnaires are useful tools for collecting data from a large number of people.

- Questions should be limited to the essential question and design of the inquiry.
- Field test the questions with three to five people.
- Provide a short explanation of the inquiry, explain the purpose of the questionnaire and how the data will be used.
- The formats of different questions will yield different types of data.
- Using a computer may save time in organizing and analyzing the data.

Interviews, observations, surveys, and questionnaires adapted from Alberta Teachers' Association, *Action Research Guide*, 2000.

IMPLEMENTATION OF PHASE FOUR

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Analyzing data

Purpose for Analyzing Data:

Analyzing data about classroom practice is part of the cycle of teacher inquiry that alternates between action and critical reflection. It gives educators the opportunity to reflect on the effectiveness of their new approaches, to share feedback with their team members, and to make decisions about which new approaches to continue, and which to modify or discard.

It serves to:

- describe, clarify, and document the story embedded in the data,
- provide greater understanding of the process behind the story and the strengths, weaknesses and achievements of your students,
- provide the evidence for changes to be made to school and classroom practice.

Data Analysis:

Data analysis does not have to be a complex process. Teachers regularly compare different kinds of qualitative and quantitative data. For example:

Students work compared to earlier test results.

Student work compared to earlier report card results.

Student work compared to their earlier work (e.g., portfolios).

Student results compared to board or ministry exemplars.

Student results from classroom assessments, and information from school data records.

Discussions of findings over time with a critical friend and your team.

Expert opinion – compared to one's own practice.

Other...

NOTE: most of the time teacher inquiry uses natural language rather than numbers. However, qualitative and quantitative approaches can complement each other well. E.g., you might have used a **quantitative** survey. This data may then be interpreted **qualitatively** by the people within the system or your inquiry group.

The intellectual process of qualitative analysis includes critical reading, finding connections between data, forming judgments and determining answers to complex research problems. The reflection consists of analyzing what has already happened and then planning what next steps to take.

Steps in Analyzing your Data:

- Gather all the data in clear readable format.
- Sort the data initially according to general aspects of your essential question. Check your triangulation chart.
- Identify recurring patterns, themes, big ideas, and interesting idiosyncrasies and code each individual piece of data according to your classification.
- Create files for these different data classifications.
- Review each set of data within each labeled file and pare down to essential points.
- State your factual findings and then draw out possible inferences.
- Check that your findings are valid; i.e., supported by the evidence from the data collected.
- Review the information for more frequent data findings/most powerful data findings.
- Summarize your new understandings.
- Revisit your essential question.
- Outline how your new knowledge is important to you and your community.
- Describe your plans for applying your learning/new understandings to new situations (e.g., changes in your classroom practice).

REVISITING YOUR CHRONICLE

As you contemplate preparing your data for analysis, you need to revisit your chronicle to ensure that:

- You have compiled information on what is happening in the classroom as completely as you intended; i.e., jot notes, observations, anecdotal comments, sketches, test data, attendance, etc.;
- You have left room in a parallel column or facing page for your reflections on your data/notes;
- If you have used audio or video tapes, you have planned for the time needed to transcribe those tapes.

It is important to remember that re-reading your notes and your initial reflections always helps you to make further connections.

You may wish to mask or cover your reflections and ask your critical friend to read your notes and arrive at his/her own reflections, which you can later compare to your own.

Computer software:

Use of a computer software program such as *Smart Ideas*, *Inspiration*, or an *Excel* spreadsheet can reduce some of the time needed to record, tabulate, organize, and analyze data. In addition, it helps in the production of graphs and charts to illustrate and explain the results.

Checklist for evaluating your data:

Is your information...

Clear - related to the question you are asking?

Organized – to work with and understand?

Complete – is there anything missing?

Logical – does your analysis make sense?

Reliable – is it consistent?

Believable – is your information credible?

Relevant – does it provide useful findings?

Dealt with ethically – have you respected privacy and confidentiality?

Satisfying to you?

BIAS

As you analyze your data, be alert for biases that might lead to misinterpretation of data or the omission of data that might, on second glance, reveal something of importance or significance.

Talking through the data and your findings with a critical friend or your team is a good way to check for biases.

Adapted from Delong, Black, and Wideman, 2005. *Action Research for Teaching Excellence*, page 34.

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Questions to ask yourself and your team:

Looking over the data... how do you explain this?

I noticed... why do you think this occurred?

I concluded... do you agree?

Richard Sagor. *The Action Research Guidebook*. 2005.

ASK US...TELL US ...

Management Tips:

You may be at a point where things seem a little overwhelming; however, if you follow some key management strategies, you'll soon notice how this inquiry work will fold itself comfortably into your daily routine.

1. Continue with your chronicle, jotting down your thoughts, observations, and reflections so they are always up-to-date when you meet with your team for a discussion.
2. Remember to log and record your data in a systematic way. It will save you countless hours and no end of frustration as you analyze your data and formulate conclusions.
3. Plan regular meetings with your team. Establish an agenda, suitable meeting times and location, and develop some group norms for working together.
4. Use one of the many conference bags that you have been collecting or those handy plastic bins to keep all your materials together. Categorize and use several containers if you have a lot of material. You'll always have everything at hand!!!
5. Don't underestimate the power of colour! Coloured notes, file folders, etc. will help add to your visual organization and make you feel in control.

If you have some clever organizational or management tips that you have devised, why not email us your ideas?

We're looking forward to hearing from you!

Barbara, Rose, and Micki

Contact us: teacherinquiry@oise.utoronto.ca

RESOURCES

We recommend the following resources to guide your inquiry.

Books:

Alberta Teachers' Association. (2000) *Action Research Guide*. Edmonton, Alberta: Alberta Teachers' Association.

Knowles, Elizabeth and Martha Smith. (2005) *Boys and Literacy: Practical Strategies for Librarians, Teachers and Parents*. Westport, Connecticut: Libraries Unlimited.

Marzano, Robert J., Debra Pickering and Jane Pollock. (2001). *Classroom Instruction that Works: Research Based Strategies for Increasing Student Achievement*. Alexandria, V.A.: ASCD.

Senge, Peter. (2000) *Schools that Learn*. New York: Doubleday.

Sagor, Richard. (2005) *The Action Research Guidebook: A Four Step Process for Educators and School Teams*. Thousand Oaks, California: Corwin Press.

Articles:

Hollins, Etta. (2006) Transforming Practice in Urban Schools. *Educational Leadership*, Vol. 63 #6 pp. 48-52.

Fleischman, Steve. (2006) Moving to Evidence-Based Professional Practice. *Educational Leadership*, Vol. 63 #6 pp. 87-90.

Web sites:

Queen's University, Action Research. www.educ.queensu.ca/~ar/

Action Research Tools. www.actionresearch.org



*Moving along,
further steps...*

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