

# **Living the Questions: Exploring the Role of a Mathematics Facilitator<sup>1</sup>**

Action Research of Facilitators and by Facilitators,  
to Deeply Understand What it Means to BE a Mathematics  
Facilitator

## **THE PROCESS:**

- Identify a problem area
- Know you are not alone
- Make a plan – commit
- Mine the tensions
- Acknowledge and celebrate your learning
- Let the questions evolve throughout
- Collect data and examine it closely for surprises
- Develop a “product” from your research learning

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<sup>1</sup> Bruce & Flynn, Action Research Workbook, 2013

## What is your problem?

<p>1) What might your problem be? (What is bothering you as a facilitator/in your role?)</p>	<p>2) What evidence do you have that this is a problem?</p>
<p>3) What do you suspect is causing the problem?</p>	<p>4) What is the goal for improvement? (What would change?)</p>

5) What are some actions you could take to:

- Understand the problem better?
- Work on the problem (an Intervention)?

**Criteria for assessing your problem:**

- The topic focuses on an important issue.
- The scope of the topic is narrow enough to make this realistic (time and resources commitment).
- Literature or other resources that will provide background information can be accessed.
- The data needed to answer this question will be something I can generate or access or both.
- I am DEEPLY interested in and committed to working on this issue.
- The topic is within my sphere of influence; it is do-able in the context of my work.

**NOW WRITE OUT YOUR PROBLEM STATEMENT**

## FROM A PROBLEM TO A QUESTION

<b>General Topic Area</b>	<b>Considerations for Narrowing the Focus of the General Topic</b>	<b>Narrower Action Research Question</b>
<p>I want to learn more about... using a student-centered constructivist approach in my mathematics program.</p>	<p>What elements of the student-centered approach do I want to use? Is there a particular strand in the mathematics curriculum that I feel would be appropriate for using this approach? How will I know if the use of manipulatives has influenced student learning? Is there a particular group of students I would like to focus on in my action research?</p>	<p>How does the use of student-centered tasks using counters and 10 frames influence grade 2 students' understandings of number concepts?  How does the use of the "place mat" impact our at-risk grade 6 students' understanding of number concepts?</p>
<p>In my role as a mathematics lead, I find it difficult to let the teachers I am working with fumble around with their learning. They end up wasting time and I get frustrated. I end up modeling for them and taking over the lessons when we are in the classroom because they think I know more/best. As a leader, they expect me to lead. I expect me to lead.</p>	<p>What is my role as a facilitator if I am not sharing my expertise, so that the teachers I am working with don't waste their time?  What strategies can I use to help the teachers I am working with learn through experience while I am also guiding them to deeper understanding?  How do I help the teachers I am working with gain confidence, content knowledge and a repertoire of moves for consolidating student math learning?  What specific actions can I take to reduce my role as the 'default' lead in our action research team, and increase the teacher ownership of the learning? And what is the effect of these actions?</p>	

## YOUR ACTION RESEARCH QUESTION

Things to Avoid
Asking a question with a known answer or an answer that can be readily answered by conducting a short survey of your students
Asking an “I told you so” question where you may be tempted to demonstrate something that you’ve been advocating all along.
Asking a “they” question, where the focus is on some other group or individual rather than your students or yourself.
Asking a question that can be answered by reading the literature

**YOUR QUESTION WILL CHANGE MANY TIMES – BUT  
KEEP A RECORD – HERE IS WHERE YOU CAN WRITE  
OUT YOUR FIRST VERSION(S) OF THE QUESTION**

## **DEVELOPING YOUR ACTION RESEARCH PLAN**

**Research question:**

**Sub-questions:**

**Data Collection:**

**Data Analysis:**

**Timelines:**

**Resources:**

**Permissions/Ethics Considerations:**

**Possible Product(s) from my Action Research:**

Try to MINE THE TENSIONS rather than hiding them...