

Making a Difference with Action Research

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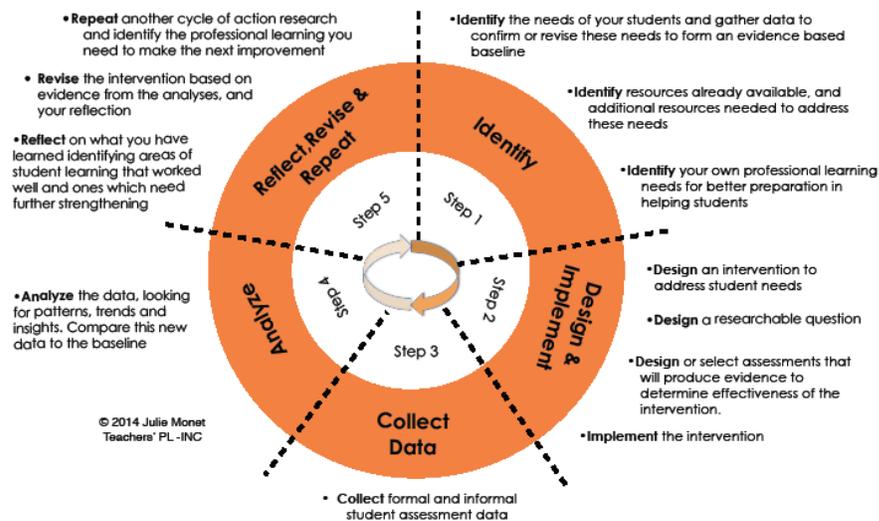
Is This a Great Idea?

- › Notice a need
- › Try an intervention
- › Did it work?
- › How can I make it better?
- › Try it again, with changes
- › Let others know what you've learned

What is Action Research?

- › **Action Research** is a disciplined process of inquiry conducted *by* and *for* those taking the 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)
- › The researcher is in the middle of the inquiry and not on the outside as an observer and/or experimenter. (AERA Action Research Special Interest Group)

Conceptual Model for Teacher Driven Action Research



Action Research Example: Conceptual Understanding Through Student Explanation: Expanding and Correcting Geometric Understanding

Step 1: Identify

- › **Identify student needs**
 - Understanding and use of terms and theorems in geometry
 - Not enough time in class for adequate individual attention
- › **Identify resources**
 - Student time outside of class
 - Technology
- › **Identify research**
 - Conceptual understand and peer tutoring (planned action)

Step 2: Design and Implementation

- › **Design an intervention**
 - Students create brief screencasts explaining one concept
 - Other students listen to and evaluate screencasts
- › **Design a researchable question**
 - How can peer teaching done outside of the classroom environment increase the conceptualization and verbalization skills of my geometry students?
- › **Design assessments**
 - Questionnaires at beginning and end
 - Student comments on the blog
 - Teacher evaluations of the videos and comments using matrices
 - Researcher journal
 - Test scores
- › **Implement the intervention**

Step 3: Collect data

Step 4: Analyze the data

Step 5: Reflect, Revise, and Repeat

- › **Reflect on what you have learned**
 - Some answers to research question
 - Some problems with my intervention
 - Some surprises
- › **Revise the intervention**
- › **Repeat the cycle**

“Reporting results” is missing from Monet’s framework

Disseminating Action Research

- › **Human Subjects Review Board Approval**
- › *Educational Action Research*
- › *Action Learning: Research and Practice*
- › *Action Research*
- › *i.e.: inquiry in education*
- › ARNA: Action Research Network of the Americas
 - Next Annual Conference: June 26-28, 2019, Montreal
- › ALARA: Action Learning Action Research Association
 - Last World Congress: June 2018, Northfield, Vermont

Participatory Action Research

- › Research participants are also researchers:
“The researched cease to be objects and become partners in the whole research process” (Baum, MacDougall, & Smith, 2006, para. 4)
- › Pre-service teachers enjoy the process (Menke, 2014)

References

- › Baum, F., MacDougall, C., & Smith, D. (2006). Participatory action research. *Journal of Epidemiology and Community Health, 60*(10), 854-857. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2566051/>
- › Mencke, P. (2014). Pre-service teachers and participatory action research: Students, community, and action. *Networks: An Online Journal for Teacher Research, 15*(1). Retrieved from <https://doi.org/10.4148/2470-6353.1062>
- › Sagor, R. (2000). *Guiding school improvement with action research*. Alexandria, VA: ASCD.

Action Research Plan

Adapted from *Guiding School Improvement with Action Research*, Richard Sagor, 2000, ASCD

1. Selecting a focus

- What do your students need?
- What in your course do you *wonder* about?
- What does not seem to be working well?

2. Clarifying theories

- Why is this focus important?
- How can I improve my practice?
- What do I know about this need or practice?
- What do others say related to this topic?

3. Identifying research questions

- What question or questions will guide my research?

4. Collecting data

- What data can I collect before, during, and after to use to evaluate the action I am taking?
- Can I identify more than one source and type of data?

5. Analyzing data

- How will I analyze each type of data?

6. Reporting results

- Will I seek approval from a human subject research board?
- Where and to whom will I disseminate the results?

7. Taking informed action

- How can I use what I learned through this process to improve my practice?