Collaborative Action Research

Problem Formulation, part 1

Articulating a “Vision of Success”

What targets will you need to hit to realize your vision?

Tell a Success Story

Imagine it is five years from now and your administrative colleagues, your teachers, students, and parents all recognize you as a transformational leader.

An education reporter spends a few days visiting your school. Describe in as much detail as possible what the reporter saw and heard.
Tell a Success Story......

Imagine it is the end of the school year and your students have far exceeded your wildest expectations.

After class the observer sits down to visit with a student and asks the student:

- What is it like being a student in this class,
- What have you learned in this class, and
- Could you share with me the work you have completed in this class.

Describe in as much detail as possible what the student is saying and sharing with the observer.

Brainstorm the Targets

- Examine the scenario that you developed as your vision of successful teaching and/or leadership.

- What were the most significant features of the outcomes you identified
Targets Can Have Many Foci

- **Cognitive**: The facts the students learned
- **Demonstrative**: The skills the students showed
- **Behavioral**: What the students choose to do
- **Affective**: How the felt about themselves and/or the situation they were in

Choose a target to work on during this session:

*A leadership Skill
*A teacher skill/attribute
*A student outcome or performance
Two Types of Variables

1. Dependent variables: 
   *What we want to see changed*

2. Independent variables: 
   *What we will be doing*

An Achievement Target
Targets as Dependent Variables:
Generating Rating Scales

The Purpose of the Target

By stipulating a dependent variable (your achievement target), you are saying:

“If my intervention has a positive effect on the target, it will help validate my hypothesis.”
Criteria for Building a Rating Scale

- **Basic**: This is the *minimum* level of performance that could be considered a demonstration of this skill.
- **Developing**: This is a *good* level of performance. I would be pleased if all my kids were here.
- **Fluent**: This a *truly remarkable* demonstration of proficiency.

Rating Scale

Improving “Inferential Comprehension”

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<tr>
<th>BASIC (1)</th>
<th>DEVELOPING (3)</th>
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### Rating Scale
**Improving “Inferential Comprehension”**

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<tr>
<td>After reading a grade-level appropriate essay, the student can accurately restate the main idea.</td>
<td>After reading a grade-level appropriate essay, the student can accurately retell the author’s thesis.</td>
<td>After reading a grade-level appropriate essay, the student can accurately retell and support the author’s thesis with multiple details from the text.</td>
<td>After reading a grade-level appropriate essay, the student can accurately retell and support the author’s thesis with multiple details from the text and can draw logical inferences about the author’s point of view.</td>
<td>After reading a grade-level appropriate essay, the student can accurately retell and support the author’s thesis with multiple details from the text, can draw logical inferences about the author’s point of view, and can persuasively support those inferences by referencing the language and vocabulary used by the author.</td>
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If we keep doing what we’ve been doing, then we will keep getting what we’ve been getting.
Collaborative Action Research

Problem Formulation, part 2

Articulating a Theory of Action

What actions do you think will be needed to produce the desired results?

Assessing the Salience of the Independent Variables:

The Priority Pie
### Identifying the Variables: Priority Pie

List the most significant factors that will need to be addressed if to achieve success on this target:

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<th>Factor</th>
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</table>

Total: 100%

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### Priority Pie

**The Development of Expository Writers**

![Priority Pie](image)
Priority Pie
The Development of Editing Proficiency

The Graphic Reconstruction:
Your Implementation Roadmap
What **obstacles** will you need to overcome if you are to fully realize your vision?

Visual Depiction of Relationship of Vision/Target and Theory

Current Situation (A)  Intended Action(s) (B)  Vision/Outcomes (C)

Now

End of Process

Where you and your students are now

Your theoretical perspective

The "promised land"
Columbus’ Hypothesis:

*If* I sail due west from Europe, for about 4,000 miles, *then* I should land on the east coast of Asia.

If I am correct, the ocean route will prove to be more efficient (than the overland route) for importing goods from East Asia.
The Graphic Reconstruction: Your Implementation Roadmap

• This will be a visual outline of the route you believe you should take.

• You truly believe that, if followed, it will take you to the desired destination.

The Graphic Reconstruction: Your Implementation Roadmap

• This will be a visual outline of the route you believe you should take.

• You truly believe that, if followed, it will take you to the desired destination.

• It clearly reflects your understanding of the order of activities and events that will need to occur if you are to ultimately achieve success.
Build an Implementation Roadmap

• Consider all of the potential obstacles that will need to be overcome for you to be successful with your target(s). Put each obstacle on a separate sticky note.

• Make a list of the activities and tasks that will need to occur for you to succeed with your target(s).

• Arrange the notes on chart paper in a manner that illustrates both the sequence and the relationship of the activities that will yield success in overcoming the obstacles and realizing the vision.

Enhancing Student Motivation/Success

- Low academic self-esteem
  - Mastery Expectations
  - Project-based learning
  - Teacher Advisory Program
  - Learning style friendliness
  - Not valued/needed
  - Co-operative Learning
  - Service Learning
  - Lacking power
  - Problem-solving discipline
  - Cause/Effect Curriculum

  - Feelings of Competence
  - Feelings of Belonging
  - Feelings of Usefulness
  - Feelings of Potency

  - Optimistic Motivated Students
Proofing Your Graphic

• Do you believe that by faithfully following this implementation roadmap, all of your students will score well on your targets?

• If not, what will need to be added to make universal success likely?

• Work those additions and modifications into your theory.

Enhancing Student Motivation/Success

- Low academic self-esteem
- Socially alienated
- Not valued/needed
- Lacking power

Mastery Expectations
Project-based learning
Teacher Advisory Program
Learning style friendliness
Co-operative Learning
Service Learning
Problem-solving discipline
Cause/Effect Curriculum

Feelings of Competence
Feelings of Belonging
Feelings of Usefulness
Feelings of Potency

Coaching—after school tutoring
Optimistic Motivated Students
3 Things to Check on Your Roadmap

1. Does it address each of the critical “independent variables” (slices of pie)?

2. Does it take into account all the potential obstacles you will likely face?

3. Do you think everyone will succeed if this roadmap is followed?

Purposes of the Graphic Reconstruction:

• It clarifies and provides you with direction for the implementation of your theory of action.

• When shared with students and faculty, it helps make the mysteries of the instructional and administrative processes more understandable and coherent.
Purposes of the Graphic Reconstruction, con’t

• If it works satisfactorily, others will be able to “walk your walk.”

• If it doesn’t work as planned, you will be able to retrace your steps to determine when and where things went wrong.

Written Problem Statement

Problem Statements answer these 6 questions:

1) Who is affected?

2) Who or what is suspected of causing the problem?

3) What kind of problem is it?

4) What is the goal for improvement?

5) What do we intend to do about it? (optional)

6) What do we need/want to know? (research questions)
**Sample Problem Statement:**

An increasing number of students at Sagor Middle School are at-risk of school disengagement.

We believe this is a result of our inability to provide CBUP (competence, belonging, usefulness, and potency) rich experiences for all students at school.

We want all Sagor Middle School students to derive CBUP's from their school experience.

Therefore, we are implementing service learning, mastery expectations, cooperative team learning, problem-solving, and teacher advisory programs for all our students.

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**Collaborative Action Research**

**Planning for Data Collection:**

*What data will be needed to determine if my/our interventions are having the desired effects?*
Three Impact Questions:

1. What did I/we actually do?

2. What improvement(s) in performance occurred (on my/our targets)?

3. In what way did my/our actions influence the noted changes in performance?

Research Design Issues:

• Will you want to conduct a trend analysis (monitoring change over time)?

• Will you want to make use of comparison groups?

• Will you want to disaggregate your data?
Three Issues Pertaining to Quality

1. Is this research **valid**?

2. Is this research **reliable**?

3. Is this research **generalizable**?

Triangulation: A Strategy to Ensure Validity and Reliability
Some Sources of Data:

- **EXISTING SOURCES**
  - Student work (portfolios)
  - Documentary evidence (archival data)

- **TOOLS FOR CAPTURING EVERYDAY LIFE**
  - Diaries, logs, journals
  - Tapes (audio/video)
  - Photographs
  - Shadowing
  - Observation checklists

- **TOOLS FOR QUESTIONING**
  - Interviews
  - Surveys
  - Tests
  - Focus groups

Data Collection Plan

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Source 1</th>
<th>Data Source 2</th>
<th>Data Source 3</th>
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<tbody>
<tr>
<td>What did we actually do?</td>
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</tr>
<tr>
<td>What improvement occurred (on our targets)?</td>
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<tr>
<td>How did our actions influence these changes?</td>
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Conducting Rate of Growth Assessments

Creating and Using Mileposts

- Identify expected proficiency for each grade level
  - Standardized exam, or
  - State/Provincial Benchmarks
- Conduct a task analysis with a minimum of 9 sub-skills between grade level proficiencies.
- Obtain entry and exit assessments for every student
**Trend Analysis: Analyzing Historical Data**

![Trend Analysis Diagram](image)
Highway Fatalities

Trend Analysis
Richard Sagor’s books on conducting Collaborative Action Research

- Collaborative Action Research for Professional Learning Communities Richard Sagor, Solution Tree, 2010

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Richard Sagor’s books on conducting Collaborative Action Research, con’t: