# Unit 5: Designing Your Research Method

## Overview

In this unit, you will begin to understand why it is important to have a research plan. You will develop an outline to guide your steps in your action research process. The process you design depends upon the nature of your research question and the context of your study. You will examine different data collection methods and begin writing a plan for collecting your own data.

### Topics

This unit is divided into the following topics:

1. Definition of a Research Plan
2. Key Data Collection Methods
3. Tips for Writing an Effective Research Plan

### Learning Outcomes

When you have completed this unit, you should be able to:

* Examine key data-collection methods.
* Create an action research plan into a workable, step-by-step process.

### Activity Checklist

Here is a checklist of learning activities you will benefit from in completing this unit. You may find it useful for planning your work.

**Activity 5.1:** Read chapter 5 of Engaging in Action Research, watch a video, and reflect in your learning journal.

**Activity 5.2:** Watch a video and create SMART goals.

**Activity 5.3:** Watch a video and reflect on questions about the context of your project.

**Activity 5.4:** Explore examples of action research projects and start planning the specifics of your data collection plan.

**Assessment:** Create a presentation of your action research plan and share it with your colleagues.

### Resources

Here are the resources you will need to complete this unit:

* Parsons, J., Hewson, K., Adrian, L., & Day, N. (2013). *Engaging in Action Research A Practical Guide to Teacher-Conducted Research for Educators and School Leaders*. Brush Education Inc.
* Other online resources will be provided in the unit.

## Topic 1: What is a Research Plan?

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 second language programs, you will not need to spend time reviewing the research about the **history** of second language programs. You are primarily interested in which program offers the best results. However, if your study is to increase student learning in second language programs, your research should include an extensive review of different teaching and learning strategies. This will help identify strategies likely to positively influence your teaching and ultimately improve student learning. Engaging in an extensive literature review and seeking expert information will help ensure the interventions you choose to implement will have a positive impact.

Most action research follows a similar plan. Action research can be applied to many initiatives. Glanz (1998) describes a four-step action research process that helps leaders examine problems in their organizational settings:



1. Select a Focus.

As you focus on a problem, begin to pose questions that guide your research. Developing guiding questions will eventually lead to specifying research questions you wish to answer or research hypotheses you wish to test. Selecting a focus also includes developing a research design that includes at least the following four steps:

1) **Settling on what you want to investigate:** There might be a number of things you care about, so often action researchers “settle” on one of many possible inquiries.

2) **Developing questions** you believe will help you best investigate the area you’ve chosen.

3) Deciding who (or what) might know the **answers** to the questions you wish to ask.

4) **Establishing a plan** to answer your questions in the most helpful way.

Note: There are many good topics to investigate, questions to ask, and ways to ask those questions. Two people could care deeply about the same topic, but choose to follow different paths as they inquire based on areas of passion and inquiry. Don’t worry if someone else sees your inquiry differently than you do.

2. Collect Data.

Once you have developed the research question, you can begin to collect data that will answer your question or provide evidence of the effectiveness of an intervention. There are many paths to follow. For example, you may administer tests, conduct surveys and interviews, and examine documents. The way you collect data will depend upon your data source or the context or goals of your work. However, your data collection should be ethical, systematic, and collected in ways that will allow you to transform it into a usable form.

3. Analyze and Interpret Data.

Once the relevant data have been collected, you need to begin the process of organizing, analyzing, and interpreting it in order to create a synthesis of your findings and, likely, arrive at a decision about your work.

Add examples here: Videos, graphic organizers, online organization tools (e.g. Mendelely)?

4. Take Action

The research question(s) are answered based on the data collected and should encourage you to decide what to do next. Four possibilities exist:

a) Create an action or intervention: Take responsibility for something your research suggests that you do.

b) Disband the research without an action or intervention.

c) Modify the research in some way(s) and continue to build upon what you have learned.

d) Make recommendations for future research opportunities for colleagues.

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).

### Learning Activity 5.1: Read and Reflect

To begin this learning activity, read chapter 5: Engaging in Action Research by Parsons et al.

Next, watch the first five minutes of this video by Margaret Riel: “[Plan for Action.](https://www.youtube.com/watch?v=xDlrmyNbMuw&t=3s)” Only watch the first 5 minutes of the video as you will watch the remaining portion of the video in Unit 6.

Using what you have learned from your reading, your next step is to explore what you think might happen when you put your plan into action. Basically, you are exploring the problem you have selected, proposing a solution, and then exploring the outcomes.

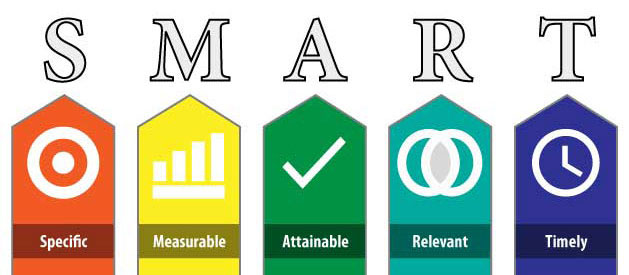
To begin this process, respond to the following questions in your reflective learning journal:

* What is the ultimate goal of your project?  What impact do you expect to achieve?
* What are the short-term and then long-term outcomes you expect to achieve as indicators of the progress made toward your desired outcome?
* For each of the specific activities that you have planned to do, what outputs do you hope to reach through the operation of your program?
* Knowing what you know about what works to solve problems, what specific activities do you have you planned?
* What do you need to do for individuals/groups to accomplish their short-term outcome?
* What resources do you need? (It may be important to state the influential factors you are counting on to support your work).

*The learning activities in this course are ungraded, unless specified. They are designed to help you succeed in your assignments in this course, so you are strongly encouraged to complete them.*

### Learning Activity 5.2: Create SMART goals

Now that you have had a chance to explore what you think might happen if you put your plan into action, it is important to create goals for your action plan using theSMART goal-setting process. SMART stands for: Specific, Measurable, Action-oriented, Realistic, and Timed). Begin by watching the following video on creating [SMART goals](https://youtu.be/OXA6gfzFA24).



(Image Source:<https://creativeeducator.tech4learning.com/2017/lessons/set-SMART-goals>)

**Developing a SMART Goal**

SMART stands for specific; measurable; attainable; relevant (and rigorous, realistic, and results-focused); and timely (and trackable).

Learning how to frame goals as SMART goals and being willing to adjust them to get SMARTer is an important skill that can help every researcher get off to a better start on their research project.

Here is a practical example, starting with a typical, but not especially SMART, goal for an action research project: “I will do a better job on engaging my employees at work.”

*Here is a way to make it SMARTer: “In the next quarter, I will host a training session for my employees and I will focus on the top 3 strategies for employee engagement.”*

*But it’s not SMART yet because it has no action plan or benchmarks. Here is a pretty SMART goal: “In the next three months, I will survey my employees and ask them a series of questions about employee engagement. I will host three employee development nights where I will acknowledge each of my employees strengths and we will brainstorm ways to be more creative at work and also ways to make sure they are getting the rest and support they need. I will follow up with each employee after the three months in a focus group to see if their enjoyment and engagement at work has changed.”*

*It’s not easy to write SMART goals. This skill takes time to develop. A goal is an outcome, something that will make a difference as a result of achieving it. It can’t be too ambitious to be out of reach, but also not so simple that it does not challenge. A goal has to be realistic with a stretch, requiring effort and focus to achieve it. That’s why goals need timeframes and measurable action steps along the way so that you can keep track of progress and make adjustments as necessary.*

*Write a SMART goal for each outcome you plan to achieve in your action research project.*

* What is the ultimate goal of your project? What do you expect to achieve?

*Here are some things to consider when writing your SMART goal. Make sure your goal is SMART:*

* ***Specific:****Is the goal linked to one activity or one thought?*
* ***Measurable:****Can I plot the progress on a graph? Can I say how much improvement has occured from the beginning to the end?*
* ***Actionable:****What task or action will I be doing? Can I draw a picture of someone doing that action?*
* ***Realistic:****Are there examples of people who have achieved success doing a project like this in this amount of time? What are some obstacles I might face along the way? Would any of those obstacles stop me in my tracks?*
* ***Timely:****Did I include a set time period in which I want to achieve my goal? Days? Weeks? Months?*

Here is a template that you can use to complete your own project [SMART GOAL](https://blog.weekdone.com/smart-objectives-template-free-worksheet/).

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## Topic 2: What are Key Sources of Data?

Now that you have 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, you focused on the questions: “What do I want to know?” and “What do I want to do?”

(Perhaps include a short paragraph unpacking the purpose of these questions, just as you did below.)

To design your plan for collecting data that will answer this action research question, you will ask and answer two questions: “Who should I ask?” and “How should I ask them?”

Your answer to the first question determines the participants for your action research project. These participants might be fellow students, parents, teachers, leaders, employees, or patients. 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 I ask them?” This can be reframed as: “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 I make a difference?

• How will I know if the situation is changing?

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

**What Are Different Sources of Research Data?**

Many sources of research data are available to action researchers. You must decide what data best help you answer your research question.

Typical action research projects use combinations of quantitative and qualitative approaches. Essentially, there are four main ways to collect data

1. **Surveys:** Ask a number of people the same set of questions.
2. **Individual or Focus Groups:** Ask people directly by using interviews.
3. **Observation:** Observe what people do.
4. **Analyze a wide variety of documents**.

Surveys

Surveys can be 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.

Interviews (Individual)

Interviews include asking participants questions. You may want to interview people from a similar field. You might also wish to interview people who work at universities, people who work in government settings, or people who work for or associate with your organization.

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.

Interviews (Focus Groups)

Interviews are purposeful conversations between the participants 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 can work toward mutual understanding of a topic of interest.

Therefore, you 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.

Observations

Observations are opportunities to watch and learn. Observation is looking with a purpose (Grady, 1998)). 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.

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.

### Learning Activity 5.3: Watch and reflect on questions about the context of your project.

To begin this learning activity, watch “[Data Collection](https://www.youtube.com/watch?v=PyILgB1R5Cc&t=1s)” by Margaret Reil.

It is not necessary to re-create the wheel to create a research method that reflects a disciplined approach to action research. The following questions will help you to think further about how to create your research methods.

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 this learning activity begin drafting your Action Research Plan in your reflective learning journal by answering the following questions:

1. What is the purpose of the research project? Are you trying to solve a problem, implement a change or make an improvement?
2. How will you collect data for this project? What techniques are most suited for answering the questions you have posed?
3. 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?
4. Are financial resources needed and available to support the project? If not, how will you complete the work?
5. What are the desired impacts of your project? How might the findings from your action project be used in other organizations?
6. How will you know if your project has made a difference?
7. What comes next? How could you build off what you have learned to move forward?

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## Topic 3: An Example of a Data Collection Plan

A team of fitness instructors from a local recreation center designed an action research project to see how they might help other instructors better utilize outdoor fitness training. These two instructors were well regarded as local fitness instructors, and over the years many instructors had come to them with practical questions about how to incorporate outdoor fitness into their own fitness programs

As these instructors talked with each other, they came to believe that building a resource manual of outdoor fitness instruction would help other instructors. They decided to create a series of specific ideas other instructors might use.

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

1. First, they created a survey and sent it to their colleagues to ascertain why instructors hesitated to engage in outdoor fitness training (thinking that if they knew the hesitations, they could encourage their colleagues by addressing these head on).
2. Next, they had a long discussion over coffee, during which they listed their own ideas and worked to systematically form these ideas into activities other instructors would find useful.
3. Then, they conducted a review of literature (including other programs globally) that might also use outdoor fitness ideas to include in their resource manual.
4. Finally, they attended a local fitness conference to observe other instructor’s ideas about instructing outdoors.

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 instructors were able to build a draft document they then shared with other instructors in their area. Using insights gained from the conversations during that sharing, they finalized a draft document of ideas and shared it widely throughout their city.

Now that instructors have this resource manual, the two instructors have created a website where they share their experiences and insights with other fitness instructors. Toward the end of the 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 instructors will share outside their city.

### Learning Activity 5.4: Explore and Start Planning the Specifics of Your Data Collection Plan.

In this learning activity, you will begin by exploring examples of action research projects found here:

* Example of [Flipping the Classroom](https://www.youtube.com/watch?v=UJLOSlkoAgw)
* Example by [Jeff Decker](https://youtu.be/MvNKd0eiMsA)

Note to production: Use YouTube plugin to embed videos

Next, you will continue to plan for data collection by asking and answering the following questions in your reflective learning journal (adapted from the National Staff Development Council, 2000):

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?

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## Unit 5 Summary

In this unit, you have had the opportunity to learn about why it is important to have a research plan. You developed an outline to guide your steps in your action research process. You also examined different data collection methods and began writing a plan for collecting your own data.

## Assessment

## Complete Assignment #3: Leadership Competency Action Plan

Based on your investigations into the literature, decide how you are going to address your leadership problem. Using the MA Lead competency framework as your guide, and your investigations into the literature, create a plan for solving the leadership problem. There are a lot of “right ways” to do this – your job is to choose one that best fits your context, your strengths, and your goals. As a practitioner action researcher studying your own professional development you are adding your own piece of knowledge to your community of practice. As small as your contribution might seem, it’s still important.

Before you begin, set realistic goals. Do not attempt work that would be appropriate for a research thesis or a dissertation! Your project should be manageable; specifically, it should be much smaller and more focused than your area of interest. Narrowing your work to a do-able researchable question is a key research skill. As a practitioner action researcher it’s also important to consider how what you learn through your inquiry can be applied to your professional practice. As part of the process, you will be utilizing both your instructor and your colleagues to help you best determine the feasibility of a project you may propose.

For this assignment, you are asked to create a presentation of your action research data collection plan to share with colleagues. You will be using a Pechakucha presentation for this assignment. This presentation style allows you to use only 20 slides and 20 seconds per slide for a total of 6 minutes and 40 seconds for your presentation. You can find instructions on how to create the Pechakucha presentation [here](https://www.pechakucha.com/presentations/how-to-create-slides).

You will need to record yourself, presenting your data collection plan so that you can post your idea on the discussion forum in this Unit. Your colleagues and your instructor will review your plan and provide you with feedback on it. Peer-review partners will be assigned for this assignment.

Here are the questions you need to cover in your short presentation:

1. What is the purpose of the research project? Are you trying to solve a problem, implement a change or make an improvement?
2. How will you collect data for this project?
   1. Who will collect it?
   2. What exactly are you collecting? (In other words, what will the data you collect look like? E.g., interviews, surveys, observations, document analysis)
   3. Where will you collect it? (Who knows the answers to the action research questions you are asking? Where are these people or resources located?)
   4. When will you collect it? (What would be the best time of the year to collect the data?)
3. 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?
4. Are financial resources needed and available to support the project? If not, how will you complete the work?
5. What are the desired impacts of your project? How might the findings from your action project be used in other organizations?
6. What challenges or barriers stand in the way of achieving these outcomes?
7. How will you know if your project has made a difference?
8. How will the data you collect be shared with others? (What form would best suit your needs?)

Post a link to your presentation in the Unit 5 discussion forum for your colleagues to review and provide you with feedback.

## Grading Rubric

**I don’t have a rubric for this assignment yet.**

## Check your Learning

Before you move on to the next unit, you may want to check to make sure that you are able to:

* Examine key data-collection methods.
* Create an action research plan into a workable, step-by-step process.