YPAR in School

Introduction to Data Analysis

Objective

To introduce students to the data analysis phase of the research process

Activity: Data Analysis Practice

Materials

- ❑ Handout "Introduction to Data Analysis"
- ❑ Handout "Research Analysis Practice"

Pre-Activity

Facilitate a class discussion about data analysis to get a baseline read on what students know about data analysis. What is data analysis? How do we perform data analysis? Why is it important?

Next, review some common vocabulary terms and importance of data analysis using the handout "Introduction to Data Analysis".

Activity

In small groups, have students complete the handout "Research Analysis Practice". Come back together as a whole group to discuss findings.

YPAR in School

Introduction to Data Analysis

After data collection, the next important phase in the research process is data analysis. In this phase, groups will look at the information they collected during observations and from surveys in an effort to answer their questions. Students will need to look at data carefully.

What possible patterns or themes do you see?
What ideas or answers are emerging from the data?
What are you learning from what you saw or what people shared with you?

This is not just a feeling that you have---you need to make sure you have <u>evidence</u> in your data to support what you say that you learned.

There are <u>many</u> different ways to analyze the original data you collect. Most groups will have some qualitative and some quantitative data. We will draw on a protocol that asks you to read your data and pay attention to ideas that stand out (either because they are repeated by many people or because it is a powerful idea to your group). You will then look at your data to see where there are places of complete agreement and places of disagreement or different responses. One of the most common ways to analyze qualitative data is to start using codes or code words to mark places you see similar patterns. This will help you keep track of a certain pattern or possible theme.

Why is data analysis so important?

Remember, data is simply facts and statistics. It doesn't mean anything on its own. By analyzing our data, we discover useful information and then use that info to inform our conclusions and support our decision making.

Introduction to Data Analysis
Class Practice with Research Analysis

DIRECTIONS: Practice analyzing original research data with the example survey responses below.

Research question: "What do students think of school lunches? How, if at all, can they be improved?"

SURVEY DATA
Survey question: *"What do you think about school lunches at Regional High School?"*

Participant response: *"Well, I don't think they're very good. Ok, a few of the lunches are good, like pizza and chicken nuggets. But, in general, we just don't have enough variety in what we can eat each day. It's just one offering, and if you're not in the mood for tuna sandwiches that day, you're out of luck. So, I think we should have at least three options to choose from each day. Also, I'm sick and tired of other people stealing my french fries when we have chicken nuggets and fries day. People need to get their own school lunches and stop taking what's not theirs. Finally, I think the kitchen should prepare the vegetables better because they usually come out soggy and bland. If adults really want young people to eat healthier, they should provide us with better tasting vegetables and fruits."*

ANALYSIS
What part of this quote is important? How does it help you answer the given research question?

PRACTICE SHARING WHAT YOU LEARNED FROM A BIT OF ANALYSIS
Practice writing a sentence that could report what you learned or what you found out from analyzing this response.

Introduction to Data Analysis
Class Practice with Research Analysis

SAMPLE SURVEY DATA

Survey question	Agree	Disagree
1.) Students should have healthier options for lunch	43%	57%
2.) Students should have more hot meals served at lunch	93%	7%
3.) Students should have more than 1 option for lunch	91%	9%
4.) Students should have a longer lunch period	39%	61%

ANALYSIS
What patterns do you notice in your survey data? How does this help you answer the sample research question?

PRACTICE WRITING A BIT OF ANALYSIS
Practice writing a sentence that could report what you learned or what you found out from analyzing the survey responses.

Introduction to Data Analysis
Class Practice with Research Analysis

DIRECTIONS: Practice analyzing original research data with codes.

Research question: "What do students think of school lunches? How, if at all, can they be improved?"

SURVEY DATA
Survey question: "What do you think about school lunches at Regional High School?"

Participant response	Possible Codes	Notes
"Well, I <u>don't think they're very good</u>. Ok, a few of the lunches are good. But, in general, we just <u>don't have enough variety</u> in what we can eat each day. It's just one offering, and if you're not in the mood for tuna sandwiches that day, you're out of luck. So, I think we <u>should have at least three options</u> to choose from each day. Finally, I think the kitchen should prepare the vegetables better because they usually come out <u>soggy and bland</u>. If adults really want young people to eat healthier, they should provide us with <u>better tasting vegetables and fruits</u>."	*not very good * variety/options *taste	This person doesn't think lunch is good. This person wants more options each day This person thinks if the healthier food choices were not soggy that more people would eat them
"School lunch is <u>okay</u>. It's better than my last school. I like the pizza and fries. I don't know that the food is healthy though. I think it's hard to cook for so many people at once. I get that they need to choose one or two things to make, but I <u>wish we had a salad bar option with some extra choices and healthier choices</u> I think people would like the variety. They provide <u>some healthy options but I don't think they are very tasty</u>."	*okay *variety/options *heathier choices *taste	This person thinks lunch is okay, but not sure it if is healthy. This person knows it's hard to serve so many people at once Wishes for more variety. Wants the healthy options to be tastier

ANALYSIS
What do your codes help you to see? How do the codes help you answer the sample research question?

PRACTICE SHARING WHAT YOU LEARNED FROM A BIT OF ANALYSIS
Practice writing a sentence that could report what you learned or what you found out from analyzing this response.