Congratulations! You passed!

Grade received 100% **To pass** 100% or higher

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Self-Reflection: Ask your own SMART questions

Total points 1

1. 1 / 1 point

Overview

Now that you have learned more about SMART questions, you can pause for a moment and ask your own. In this self-reflection, you will consider your thoughts about the SMART question framework.

This self-reflection will help you develop insights into your own learning and prepare you to apply the SMART framework to your own data investigations. As you answer questions—and come up with questions of your own—you will consider concepts, practices, and principles to help refine your understanding and reinforce your learning. You've done the hard work, so make sure to get the most out of it: This reflection will help your knowledge stick!

Asking real-world questions

In this activity, you will have a *data conversation* with someone you know. This can be in person, over the phone, or in a video chat.

Choose someone in your life who uses data to make better decisions. This might be a family member who runs a small business, a friend who leads a committee for the Parent Teacher Association, or a neighbor who teaches piano lessons. All of these people turn to data in some way to be more effective in their roles.

Let them know you're training to be a data analyst, and would like to have a chat about data to practice your skills asking questions. By the end of this conversation, you'll end up with some useful insights that will benefit both of you.

Plan for the conversation

First, decide who you will speak with and how they might use data. Your goal is to plan for a successful conversation. Think about how much time you need and how you will use it. For this step, review the following advice:

- **Prioritize your questions**: Prepare to ask the most important and interesting questions first.
- **Make your time count**: Stay on subject during the conversation.
- **Clarify your understanding**: To avoid confusion, build in some time to summarize answers to make sure you understood them correctly. This will go a long way in helping you avoid mistakes. For example, in a conversation with a teacher, you might check your understanding with a statement like, "Just to double check that I understand what you're saying correctly, you currently use test scores in the following ways..."

Depending on the field they are in, the person you chat with may not be comfortable sharing detailed data with you. That's okay! Be sure to respect what they are willing to share during your conversation.

Create questions

Now, come up with questions to help you understand their business goals, the type of data they interact with, and any limitations of the data.

Use the SMART question framework to make sure each question you ask makes sense based on their field. Each question should meet as many of the SMART criteria as possible.

As a reminder, SMART questions are

- **Specific:** Questions are simple, significant, and focused on a single topic or a few closely related ideas.
- **Measurable:** Questions can be quantified and assessed.
- **Action-oriented:** Questions encourage change.
- **Relevant:** Questions matter, are important, and have significance to the problem you're trying to solve.
- **Time-bound:** Questions specify the time to be studied.

For instance, if you have a conversation with someone who works in retail, you might lead with questions like:

- **Specific:** Do you currently use data to drive decisions in your business? If so, what kind(s) of data do you collect, and how do you use it?
- **Measurable:** Do you know what percentage of sales is from your top-selling products?
- **Action-oriented:** Are there business decisions or changes that you would make if you had the right information? For example, if you had information about how umbrella sales change with the weather, how would you use it?
- **Relevant:** How often do you review data from your business?
- **Time-bound:** Can you describe how data helped you make good decisions for your store(s) this past year?

If you are having a conversation with a teacher, you might ask different questions, such as:

- **Specific:** What kind of data do you use to build your lessons?
- **Measurable:** How well do student benchmark test scores correlate with their grades?
- **Action-oriented:** Do you share your data with other teachers to improve lessons?
- **Relevant:** Have you shared grading data with an entire class? If so, do students seem to be more or less motivated, or about the same?
- **Time-bound:** In the last five years, how many times did you review data from previous academic years?

If you are having a conversation with a small business owner of an ice cream shop, you could ask:

- **Specific:** What data do you use to help with purchasing and inventory?
- **Measurable:** Can you order (rank) these factors from most to least influential on sales: price, flavor, and time of year (season)?
- **Action-oriented:** Is there a single factor you need more data on so you can potentially increase sales?
- **Relevant:** How do you advertise to or communicate with customers?
- **Time-bound:** What does your year-over-year sales growth look like for the last three years?

Take good notes

It is important to take good notes during your conversation. Your notes should be comprehensive and useful. To help you capture meaningful notes, you should stick to a process of asking a question, clarifying your understanding of their response, and then briefly recording it in your notes.

Remember: If a question is worth asking, then the answer is worth recording. Commit yourself to taking great notes during your conversation.

Helpful aspects of your conversation to note include:

- **Facts:** Write down any concrete piece of information, such as dates, times, names, and other specifics.
- **Context:** Facts without context are useless. Note any relevant details that are needed in order to understand the information you gather.
- **Unknowns:** Sometimes you may miss an important question during a conversation. Make a note when this happens so you can figure out the answer later.

For example, if the previous SMART questions led the ice cream shop owner to propose a project to analyze customer flavor preferences, your notes might appear something like this:

- **Project**: Collect customer flavor preference data.
- **Overall business goal**: Use data to offer or create more popular flavors.
- **Two data sources**: Cash register receipts and completed customer surveys (email).
- **Target completion date:** Q2
- **To do:** Call back later and speak with the manager about the location of survey data.

The notes you will take will differ greatly based on the data conversation you have. The important thing is that your notes are clear, organized, and concise.

Now you are ready to have a great conversation about data in real life.

Reflection

Before you begin your conversation about data, consider each of the above steps. Think about potential candidates, brainstorm some SMART questions, and get an idea of the information you want to record during your conversation. Then, reflect on your conversation:

- What SMART questions did you ask? How did these questions tie into the field of the person you chatted with?
- What insights did you discover during your conversation?
- How did the SMART framework help you arrive at your conclusions?

Now, write 2-3 sentences (40-60 words) in response to each of these questions. Type your response in the text box below.

What SMART questions did you ask?
I asked:
- What do you usually teach at the beginning of the semester?
- Do all the students get higher than 8-10 points at the end of the 6 months semester?
- When reviewing the student's exams have you ever noticed any particular mistakes that all students do?

How did these questions tie into the field of the person you chatted with?
These questions were connected to the lecturer's field.

What insights did you discover during your conversation?
- I discovered that most of the students make basic mistakes, even though their professors have done a highly explained introducing lecture.
- Furthermore, with this information, I could look further for answers. Analyzing the students who got more the 8-10 points on their exams. I was able to discover that these students usually took notes of the introductory classes.
How did the SMART framework help you arrive at your conclusions?
- It helped me by providing a framework. So I could follow a sequence of steps knowing which question to ask at that specific time.

Correct

Great work reinforcing your learning with a thoughtful self-reflection! A good reflection would describe how you created relevant SMART questions and what insights they helped you gain.

Coming up with SMART questions for data-driven conversations is one of the most important tools in a data analyst's arsenal. As you practice, you will feel more comfortable interacting with others about data and asking meaningful questions during those interactions. Going forward, you can also practice asking yourself SMART questions to help you manage and measure your own goals.