

Best communication practices for data professionals

Effective communication drives PACE

Throughout the stages of PACE, stakeholders can offer feedback, pose questions, or ask for clarification. Being able to communicate is key; at every point in a project's life cycle, you will need to be able to share obstacles and results, and provide necessary information to guide decision-making. Communication drives each stage of PACE, from collecting data to constructing models to sharing results. As a data professional, you will need a combination of strong communication skills and the technical skills you're learning to succeed in the data career space. In this reading, you will learn some tips for effective communication you can apply throughout the stages of PACE. You will also discover some best practices for sharing your findings through presentations that you can use in the future.

Seven tips for effective communication

Over the course of a typical work day, you will interact with stakeholders in a variety of ways. Some of your interactions will be through emails and messaging, others through meetings and one-on-one conversations, and even formal presentations. Each interaction requires an individualized approach to ensure that your audience understands what you are trying to communicate. The following seven tips can help guide your communication, no matter what form it takes or what stage of PACE your project is in:

1. Speak the language of your audience

Identify the needs of your audience. It's important to know the objectives of the person you are communicating with. Focusing on their needs allows you to gain insight and assess how technical the conversation should be. Consider the following questions:

- Why has this person contacted you?
- What does your stakeholder want from this interaction?
- What's important to them, their team, or their organization?

In your role as a data professional, you will interact with a variety of stakeholders. Determine what they know, what they need to know, and what might go beyond their level of involvement in a project.

- Break down technical concepts into simpler terms.
- Use shorter sentences so main ideas are easier to understand and remember.
- Use direct language and minimize embellishments or unnecessary detail.
- Pay attention to diverse backgrounds and respect the lived experiences of others.

Pro tip: Avoid jargon, acronyms, and technical “buzzwords” that could lead to confusion.

2. Invite questions and welcome feedback

Everyone can use feedback—whether it is positive reinforcement or areas for improvement. When you are focused on the details of a task, it's possible to overlook something. Another person's feedback offers you a great way to gather insights for your personal growth and professional excellence. By accepting the challenge that feedback and questions present, you will strengthen your own skills and help the overall project.

- Merge your passion for finding solutions with the goals of the project.
- Continue to strive for greater understanding of the results.
- Elicit feedback and questions to improve communication about your projects.
- Consider opportunities to reflect on your communication skills.

Pro tip: Analyze feedback. Is it valid? Does the person have a complete understanding of the goals of the project or data analytical process? If not, set up an additional meeting to help clarify.

3. Be the connection to the data

You are your team's direct connection to the insights your data offers. Your goal is to help other stakeholders understand the process and how it addresses their needs. When everyone understands the process, communication can be highly effective.

- Focus on the objectives to help others better understand your data process.
- Tell the story of the data with a compelling and cohesive narrative.
- Respond to questions in a timely manner.
- Demonstrate your value to the team.
- Find opportunities to address stakeholder questions.

Pro tip: Continue to proactively identify ways the data and tools you have access to can address the objectives of your team and drive new insights.

4. Let your visualizations help tell the story

Visualizations are one of the best ways to communicate ideas, especially when dealing with big data. Visual references help bring to life the details inside your data. Graphs, charts, and infographics can promote general understanding. Later you will explore Tableau, a visualization tool that you can use to create compelling visuals from data.

- Be sure that your visuals tell the story within the data.
- Design visualizations for inclusivity.
- Use labels and text to clarify, not clutter.
- Use fonts that are easy to read.
- Use high contrast, shading, and other customizations to communicate your messages clearly.
- Offer handouts, slides, and other material in accessible formats.

Pro tip: Keep visualizations simple. When deciding what to include in a presentation, less is more.

5. Build positive professional relationships

When you consider the responsibilities and objectives of others, your communication will reflect that consideration. This builds credibility and influence in your workplace and allows you to continue growing throughout your career.

- Focus on what matters to your audience.
- Invite feedback and discussion.
- Be a trusted subject matter expert who communicates clearly and inclusively.
- Cultivate positive interactions to strengthen working relationships and improve morale.

Pro tip: When a stakeholder contacts you, be accessible and engaged in your communication.

6. Identify assumptions about the data

The backgrounds, experiences, beliefs, and worldviews of people can influence the information contained within data. In your role as a data analytics professional, you will want to consider ways that these various factors can introduce bias.

If they are not recognized, assumptions can have a powerful effect on outcomes. Without information, there is often a tendency to fill in the gaps in understanding with assumptions. The most effective methods to reduce the impact of assumptions are practicing active listening and effectively asking questions. For example, these questions can help identify any assumptions:

- Is there something I am taking for granted?
- Am I assuming something here that I shouldn't?
- Can I determine if the assumption is correct?

Pro tip: Data professionals need to identify their own assumptions as well as any assumptions their audience might have. Make sure you consider any bias you might have, too!

7. Identify limitations in the data

As a data professional, you will also encounter limitations within data that can impede your analysis. These limitations will need to be addressed before you can proceed. To assist you in identifying data limitations, ask the following questions:

- Is the data complete? Are there missing values or sections?
- Are the datasets formatted correctly?
- Is this a sufficient sample size to conduct analysis of an entire population or group?
- What are the biases present in the data set?
- Does this data contain personally identifiable information? What steps will I take to protect this information?

Pro tip: In addition to identifying and communicating about data limitations before analysis, you will also need to make sure stakeholders are aware of any limitations still affecting the results during your presentation.

Share Findings

One of the most important communications you will have with stakeholders will be sharing your findings, often through presentations. This will mean translating the results, concepts, and terms of your analysis for wider audiences. When sharing the results of your analysis with stakeholders, there are some best practices that you should apply:

- Craft results to the needs of your stakeholders. Communicate why this data will help them achieve their goals.
- Determine the visualizations and/or dashboards that are the most effective. What data will you need to show and how do you want stakeholders to interact with it?
- Think about the design carefully. A simple yet visually appealing approach to visualizations is always the best.
- Use a hierarchy of data in your visualizations/dashboards. Information that is most important should be easily accessible, but you should provide a path for more details.

What should I keep in mind when I share results?

- What information is the most important to my audience?
- What is the most efficient way to share with the tools available and the time I'm allotted?
- What can I do to make the key points effectively?

Presentations

Presenting information clearly and effectively is key to a data scientist's workflow. Communication skills that pertain to presentations include but are not limited to: the structure of your presentation, slide design, the tone of your voice and the body language you convey, and more. It's also important to consider accessibility as you are creating any assets. Check with your organization about accessibility guidelines. You may also refer to online resources like [U.S. accessibility guidelines](#) or [The World Wide Web Consortium's \(W3C\) web accessibility initiative](#).

Tips for presentations

- Structure your presentation. Be sure there is a logical structure: a beginning, middle, and end.
- Presentation slides are not scripts. Don't read or put complete paragraphs on presentation slides.
- Make sure your data can be understood visually and consider potential accessibility challenges for your audience.
- Focus most on the points your data illustrates.
- Share one—and only one—major point from each chart.
- Label chart components clearly.
- Visually highlight “Aha!” zones.
- Write a slide title that reinforces the data's point.

A solid presentation can help others understand the findings of your data analysis and ensure that you are effectively communicating.

