The SpeechImprovement Company

Presenting Technical Information to Non-Technical People

Table of Contents

This e-book was assembled from work done by the team of Executive Communication Coaches at The Speech Improvement Company. Visit us at www.speechimprovement.com

For more useful content like this, follow us

Introduction: Why This Matters

Technically-inclined professionals typically deliver technical presentations. We hear it repeatedly from the executives we coach: they face challenges in conveying technical information to laypeople or others who lack the same scientific background. They often face significant communication gaps when presenting to individuals outside their expertise and the listeners are left feeling overwhelmed or "lost in the weeds."

The key is finding a way to effectively communicate without "dumbing it down."

Conveying important scientific information is critical for success in any technical field. Professionals at all levels must speak clearly, confidently, persuasively, and with appropriate technical and scientific content. Clearly explaining the science in non-technical terms is essential when you are:

- Providing strong, motivating leadership
- Delivering key messages effectively both downstream and upstream
- Promoting scientists as leaders
- Explaining messages in public
- Raising funds
- Building partnerships
- Creating culture

It all begins with a mindset shift and focused attention on both non-verbal communication and delivery style. In this e-book, we will introduce you to tools and techniques you can immediately use to become a more effective communicator.

Are You Always in the Weeds? Understanding Your Mindset Is the Key to Stopping!

By [Robin Golinski](#) Executive Communication Coach

When communicating up the corporate ladder, the ability to curate information effectively is crucial. However, many people fall into the trap of oversharing details, driven by psychological factors that undermine communication effectiveness.

One of the primary reasons people feel compelled to overshare is the **desire to validate their worth**. The mindset of proving you've done a lot of work often stems from a need for recognition and approval. By sharing every detail, individuals might hope to demonstrate their diligence, competence, and value to the organization. However, this approach can backfire, as it overwhelms the listener with information that dilutes the core message. Instead of being perceived as thorough, they risk being seen as unfocused or even insecure.

Another factor is the **fear of being perceived as unprepared or uninformed**. Some people equate brevity with a lack of knowledge, believing that by providing more details, they can protect themselves from scrutiny or criticism. This belief can stem from a lack of confidence or an overestimation of how much information others need to see them as credible. Yet, this attitude often leads to information overload, which can frustrate senior

leaders who are pressed for time and need clear, concise insights to make informed decisions.

The inability to ruthlessly curate information may also be influenced by a **perfectionist mindset**. Perfectionists often struggle with the fear of leaving out something important, leading them to include excessive details "just in case." This cautious approach, while well-intentioned, can hinder effective communication by cluttering the message with unnecessary information.

To overcome these inhibiting attitudes, shift the focus from proving oneself to serving the listeners' needs: 'It's not about you!' Recognize that clarity and relevance are valued far more than sheer volume of information. By distilling your message to its essential elements, you not only demonstrate respect for your listeners' time but also convey confidence in your judgment and decision-making abilities.

The Importance of Brevity When Presenting Technical Information

By [Laura Mathis](#) Executive Communication Coach

Think back to your English classes in school. Do you remember the haiku poems you might write for your mom on Mother's Day, or about love on Valentine's Day?

Haikus present us with nuggets of wisdom and beauty. The simplicity of the 5-7-5 syllable format forces distillation and brevity. They are also a written surprise. The unexpected challenge of decoding a well-crafted haiku mentally engages your reader or listener.

Yes, it's your job to communicate the technical information. But shouldn't presentations also inspire? Can they be evocative as well as informational?

When crafting a presentation, give yourself time to identify a theme you can carry through. This could be a symbolic idea, a powerful phrase, or a unifying creative thread.

When presenting technical information to non-technical people, a helpful approach is to use more brevity, which encourages the distillation of your primary point or data.

With brevity comes simplicity. Edit out extra elements with your visuals. Remove slides. Put less on each slide.

Take the time to master being direct and offer your unique perspective or analysis and get there quickly.

An unexpected bonus of using brevity is that it helps you stay on time. If you are asked to speak for 45 minutes, instead speak for 35 minutes, leaving time for Q&A or open discussion—or even end early! No one has ever complained about that.

One final thought to leave you with:

> *Humans aren't moved to action by 'data dumps,' dense PowerPoint slides, or spreadsheets packed with figures. People are moved by emotion.*
> **— Jonathan Gottschall**

Life Sciences: Presenting Technical Information to Non-Technical People—Recorded Lesson

You know the look—it's in their eyes: they're glassed over, or half-closed, or looking down at their laptop/phone. Key people are not hearing the incredibly exciting, groundbreaking research you're providing. When more than one person disconnects, it can be excruciating.

In this 44-minute recorded lesson, Executive Communication Coaches Dr. Ian Turnipseed and Melody Elkin teach life sciences professionals four important techniques for conveying complex information:

1. Understanding human patterns of reasoning
2. Being truly persuasive
3. Organizing your thoughts for greater impact
4. Thinking on your feet

You'll gain skills you can use immediately to speak more clearly, confidently, persuasively, and with the right technical and scientific content, whether one-on-one, in a small group, or in front of thousands.

WATCH NOW

Getting Your Message Across: Strategies to Convey Complex Information

By [Laurie Schloff](#), Executive Communication Coach

Communication excellence, the ability to speak clearly and convey ideas with impact, is highly associated with career and organizational success.

Yet, healthcare and technology leaders face a major challenge: how to simplify complex and technical information so that others "get it," buy in, and take action for best results.

Here are some truths about transmitting knowledge and influencing others outside your field:

Knowing your topic does not equate to speaking clearly about your topic.

Your listeners likely don't care about your topic as much as you do—sorry!

Anytime you speak, whether one on one or to a crowd, in person or virtual, in a formal or informal setting, you are a "presenter".

Preparation, not desperation: Strategize and plan, no matter how knowledgeable you are. Let's look at key strategies for thinking and speaking "mind over mouth".

Develop communication empathy
As experts in your field, your knowledge, breadth and depth, mastery of the big picture, AND the details are valued. Don't be heartbroken to learn that your audience doesn't **care to hear it all...**especially some of those technical specifics.

Approach your meeting with a listener-centered mental mindset, what I call **communication empathy.**

Let's consider questions to develop your communication empathy:
1. What are the top three points these listeners care about?
2. What do **I** care about that **they** don't?

A grant writer I worked with went into passionate detail about the 16 spreadsheets the government required. It was a painful waste of time for me. All I *needed* to know was the goal of the grant.

3. What can I **omit** to focus and streamline? (And not feel like you are giving away your firstborn!)

If you're worried about leaving out something important, keep in mind that you can always troubleshoot questions you may be asked in advance, or follow up after the meeting if requested.

Check in with your listeners

1. Communicate in advance.

The best communicators get comfortable with asking listeners what they'd like to cover *before* the meeting. Executives in a large health care company I'm working with shared this blunt advice: "Talk about what I want to hear. Just ask me and I'll tell you."

You may also want to consider consulting with a colleague who knows the listeners or a needs assessment prior to a high-stakes presentation.

2. Consider listeners' level of knowledge about the topic.

If you're over their heads, the deal may be over as well. Jess, a biotech entrepreneur I prepped, lamented "I messed up an investor presentation. I thought they were scientists, but it turned out they were analysts and laser-focused on the bottom line.

"Wish I knew that in advance."

We all know what she should have done, her research before the meeting.

Instead, it's about helping. Preparation, not desperation, Jess!

3. Stop to include your listeners.

Make sure you're meeting their needs *during* the presentation. No one hits the bullseye 100%. Make your key point at a meeting in 60 seconds or less, then volley to your listener(s). Become comfortable with questions like:

> *Anything you'd like to add or ask?*
> *Are we on target?*
> *Questions, comments?*

Master verbal organization

Excellent speakers convey their message concisely, with fluency and focus.
Show me a great presenter in your field, and I bet you they have prepared, practiced and probably have a coach. Only half a percent of the population is naturally gifted verbally. The *rest* of us benefit from learning and mastering technique.

1. Headline for impact:

Work to convey your key points in 15-25 words, what I call a *verbal headline.*
(That's actually a generous number of words, a newsletter or a slide headline is usually less than twelve words). Listeners value your ability to bring what they need or want to hear to the foreground. Devote time to figuring out what *matters* to your listeners and then create your headlines. Here's a strong, succinct headline a healthcare VP shared recently:

> *"We're innovating to improve complex care."*

Note that the wording is well chosen to streamline and tighten the thought.

2. Learn the HEC model

The *HEC* model is popular with clients who present an idea, or who are on the spot at meetings.

HEC stands for **H**eadline—**E**xample-**C**omment

Headline followed by an *Example*, and then an ending *Comment*(opinion, perspective, action).
Practice HEC with this question:

> *What do you find most rewarding about your work?*

Here's a sample reply:

Headline: *I love creating and designing programs for individual and groups.*
Example: *For example, an investment firm asked my team to design a program for 35 analysts presenting at a client conference virtually for the first time.*
Comment: *Not knowing what's around the corner, and always having a fresh project at hand keeps me busy and energized.*

3. Make new ideas or terminology easy to understand.

Listeners are uncomfortable when they don't know a term, abbreviation, or concept you are sharing. It's crucial to scan your words and be sure to explain and simplify what isn't familiar or clear. This sequence will help:

State the term, define the term briefly, and offer an example.

Try it out with a word or idea that listeners outside your field find challenging.

Let's give it a try with the words "fast pacing".

Term: Watch out for fast pacing with non-technical listeners.
Definition: Fast pacing means you are including too much material in the time you have.
Example: For example, a speaker who is too fast paced will lose their listener at point one and already be speaking about point five.

The Magic of the Metaphor to Simplify Complex Information

By Robin Golinski, Executive Communication Coach

When explaining complicated, technical concepts during a presentation, metaphors can be a powerful way to ensure your audience understands the material. By comparing a complex idea to something familiar, you make the information more relatable and easier to grasp.

Take the concept of cloud computing, for example. Instead of delving into the technical intricacies, you could compare it to a bustling airport terminal. Just as passengers board different flights to reach various destinations, data in cloud computing hops onto different servers to get processed, stored, and delivered where it's needed. This metaphor transforms an abstract concept into a vivid image, allowing the audience to visualize how data moves and operates in the cloud.

Why Are Metaphors Effective?
Metaphors are effective because they align with how our brains naturally process information. Cognitive linguist George Lakoff explains that metaphors are not just decorative language—they're central to how we understand the world. By connecting new ideas with familiar experiences, metaphors help create mental images that simplify complex information and make it more memorable.

Research backs up the power of metaphors. A study published in the Journal of Cognitive Science found that people exposed to metaphors were more likely to understand and retain information than those given literal explanations.* Incorporating metaphors into your presentations can make even the most technical topics more accessible and engaging. By transforming abstract concepts into relatable stories, you can ensure that your audience leaves with a clear and lasting understanding of the ideas you're sharing.

*Research on the effectiveness of metaphors in aiding comprehension and retention is well-documented. One frequently cited work is:

• Lakoff, G., & Johnson, M. (1980). [Metaphors We Live By](). University of Chicago Press.

For more specific studies, you might look into cognitive psychology research on metaphor usage, such as:

• Thibodeau, P. H., & Boroditsky, L. (2011). [Metaphors we think with: The role of metaphor in reasoning.]() PloS One, 6(2), e16782.

From Jargon to Clarity

By [Monica Murphy](#), Senior Coaching Partner

In technical roles, your expertise is invaluable—but when sharing complex information with non-technical listeners, the goal isn't to showcase your depth of knowledge. Instead, focus on helping them understand and trust what you're saying.

As a communication coach with 30 years of experience, my advice is simple: **"It's not about you."** Your listeners need **clarity, not complexity**. Tailoring your message to how they want to receive it fosters understanding and builds trust. Here are three tips to simplify technical communication:

1. Start with What Matters Most

Begin with the key takeaway your listener cares about, then add the necessary context. Ask yourself, **"What do they need to know right now?"**

2. Use Analogies and Visuals

Relate complex concepts to everyday ideas. For example, explain a cell's function as a factory or use a graph instead of raw data to illustrate trends.

3. Acknowledge Uncertainty Confidently

Transparency is key, but don't overwhelm your listener with technicalities. Say, **"While some data is still emerging, here's what we know and how we're addressing it."**

Before and After: Simplifying a Response

Question:

"What's the mechanism of action for this drug?"

Before:

"This drug is a monoclonal antibody that binds to the PD-1 receptor, blocking its interaction with PD-L1, restoring T-cell activity in the tumor microenvironment."

After:

"This drug reactivates the immune system to attack cancer. Think of it like flipping a switch that helps the body see and fight the cancer cells again."

Again, communicating technical information effectively isn't about proving your expertise. By focusing on their needs and simplifying your approach, you'll ensure your message creates the impact you want.

Answering Challenging Questions on Your Feet—Recorded Lesson

When presenting technical information, questions are continuously being tossed out to us. At times,

- We don't know the answer and feel like we should.
- We can't answer the question.
- We don't have a good answer.
- We know the question will cause conflict if we choose to answer it.

Anticipating questions can create anxiety, stress, and a loss of productivity. There is a way to prepare for these questions so you feel more confident through giving information to others. In this 30-minute recording, Executive Communication Coach Robin Golinski focuses on real-world skills and gives technical professionals the tools so they can be on top of their game anytime these challenging questions arise.

Simple and Effective PowerPoint Strategies for Non-Technical Listeners

By Kristen Curran-Faller, COO, Senior Coaching Partner

When presenting to non-technical listeners, remember that your PowerPoint slides should clarify and emphasize your key business points. As a presenter, you may think all the information on the slide is important, but do your listeners need to understand it? Avoid overcrowding your visuals with text and complex charts. Remember, your listeners should be listening, rather than reading your slides.

Here are four tips:

1. *Identify the main takeaway for each slide.*
2. *Remove unnecessary information.*
3. *Convey information not shown on the slide.*
4. *Ensure every slide serves a clear purpose.*

Meaning Keeps Non-Technical Listeners Engaged

By Melody Elkin Executive Communication Coach

I recently met with a client who was concerned about presenting on a "dry topic." His topic was full of data and technical concepts that he felt would bore the audience, and after hearing his first run through, he was correct.

One of the best ways to present technical information to a non-technical group is to focus on what that data means, not on the data itself. For example, if you analyze the stat sheet of your favorite athlete, the collection of numbers and statistics translate into how good or great the athlete is. Perhaps the data indicates that the team is stronger on the road than they are at home, which is meaningful when you plan to bet on a game.

This example translates across industry from life-sciences to retail. Instead of breaking down the scientific method, talk about how many lives your therapy saved or how quickly critical supplies can be received after employing your new system.

Getting to the point or *meaning* behind your message will keep your non-technical listeners glued to your message. Then, when they seek you out to learn more, you'll have the details in hand and ready for them to dive in.

Be Prepared Before You Speak to a Group

By [Dr. Dennis Becker](#), Author, Senior Coaching Partner, and Co-Founder of The Speech Improvement Company

Here are 10 important questions to ask before presenting technical information, or any information for that matter. These 10 questions relate to listener analysis, and therefore, your needs:

1. Why am I speaking to these listeners?
2. Why are they listening?
3. What relationship do we have?
4. What relationship do listener members have with each other?
5. What do they know about this topic?
6. What would they like to know?
7. How will they use this information?
8. What are they doing the day before I speak?
9. What will they be doing the day after?
10. What are the logistics of the event?

This last one—logistics—is often overlooked. What do you need to know about the speaking situation before you speak? Answers to the following questions will help you gather information.

Add additional items to fit your particular situation:

1. Where will I be speaking?
2. What time of day will I speak?
3. How long will I be speaking?
4. Who is speaking before and after me, and on what topics?
5. Will there be a moderator? Will I be introduced?
6. What is the size of the room?
7. How will the seating be arranged?
8. Will the setting be interactive? Will it be formal or informal?
9. What audiovisual equipment do I need? Will a technician be available on site?
10. What are the lighting and temperature of the room?
11. How far in advance may I check out the room before speaking?

The information you gather from all these questions will make preparing a speech, particularly when it's a complex topic, much easier. Additionally, if your listeners understand that your research has helped you tailor your preparation specifically for them, they will be more likely to respond positively.

Bridging the Gap: Three Tips for Explaining Technical Jargon to Engaged Listeners

By Monica Murphy, Senior Coaching Partner

'Technical' can have different meanings depending on the context. Every organization develops its own specialized jargon, which becomes "technical" when it falls outside another company's norms. While it may be second nature to you, it can create barriers when communicating with non-technical listeners. However, with the right approach, these challenges become opportunities for connection and collaboration.

Here are three tips to help you translate complex information into something everyone can understand:

1. **Simplify Your Language:** Avoid jargon and break down complex concepts into simple, everyday language. Use analogies and relatable examples to clarify your points, prioritizing accessibility over expertise.

Example: When explaining an IPO, say, "Imagine your favorite local bakery wants to expand and needs more money to do it. They decide to sell pieces of ownership in the bakery to the public. That's what happens when a company goes public - it's like selling slices of a cake to anyone who wants a taste. "

2. **Know Your Listeners:** Tailor your communication to the listener's level of understanding. Research their motivations, background, and interests. Understanding your listeners allows you to craft a message that resonates, builds trust, and ensures clarity. Connecting on this level fosters understanding and strengthens relationships.

3. **Consider a Communication Coach:** A communication coach is an objective resource who can help translate concepts into clear, understandable language. They can create visuals that enhance your message, ensuring smooth communication. With their strategies, you'll be better equipped to connect with non-technical listeners and ensure your message is not just understood but remembered.

Impact: By using relatable analogies and visuals, such as comparing an IPO to slicing a cake, you make complex concepts more accessible. This approach fosters better communication and alignment across teams, creating a shared understanding that makes collaboration smoother and more effective.

Focusing on clarity, understanding your audience, and honing your communication skills allow you to convey technical information effectively while fostering stronger, more collaborative relationships.

About Us

Since 1964, the professional Speech Coaches at The Speech Improvement Company have touched more than a million people around the world. We are a woman-owned business and the oldest speech coaching firm in the United States.

We support an international clientele including Fortune 500 executives, business professionals, politicians, professional athletes, entrepreneurs, and private individuals to strengthen their communication skills. We work with leaders of countries, companies, and people throughout organizations. Our coaches are formally educated at the graduate level or beyond in all aspects of human communication and cultural understanding. We have both the educational background and the real-world experience to identify speaker strengths, uncover areas of need, and evoke behavioral change.

To date, we have written 13 books on communication and are published in 5 languages. We have instructed at Harvard University, MIT, and other world-class institutions as well as conducting pro bono work for non-profit and community organizations. Our coaching team attends monthly development days to ensure they are apprised of the latest research, theory, tools, and trends related to human communication.

What Topics We Cover

Our focus is on helping clients strengthen communication skills for application in both business and personal settings. While each client interaction is unique, our most popular areas of focus are in the following 5 areas:

· Leadership & Management
· Public Speaking
· Sales Communications
· Customer Service Excellence
· Accent Modification

Our Clients

We've delivered group workshops and one-on-one executive coaching to thousands of clients from the world's largest pharmaceutical firms to mid-sized retailers, to small manufacturers and tech startups. They all share one challenge: the need to speak clearly, persuasively, and with confidence in any setting. Some of our well-known clients include:

Pfizer	Reebok	Mass General Hospital
Goldman Sachs	Kaiser Permanente	Bank of America
Apple	The Nielsen Company	Takeda
Bose Corporation	McKinsey & Company	The Boston Red Sox