



GDD / Analytics

# **Do you speak statistics?**

## **How do you work as a statistician in a cross-functional team?**

Julie Jones & Achim Guettner

December 6th, 2023

Next Generation BBS Training Day

# Disclaimer

- This presentation is based on publicly available information (including data relating to non-Novartis products or approaches)
- The views presented are the views of the presenter, not necessarily those of Novartis
- These slides are intended for educational purposes only and for the personal use of the audience. These slides are not intended for wider distribution outside the intended purpose without presenter approval
- The content of this slide deck is accurate to the best of the presenter's knowledge at the time of production

# **... not a comprehensive soft skill training – but suggestions for your personal development**



*Opportunity is missed by most people  
because it is dressed in overalls and  
looks like work*

*Thomas Edison*

# Fundamental skills for the 21st century

From Edutopia.org



The ability to find fact-based information



The ability to assess the quality of the information



The ability to creatively and effectively use information to accomplish a goal

# In drug development, everyone speaks their own language

So, what is this drug doing for the patients? Should we run another trial?

Regardless of the efficacy, we can't sell the drug with i.v. dosing.



Assuming a difference of 5 between active and placebo and a SD of 5, the probability to observe an effect of 3 is larger than 84%

We need to talk about PROs at the upcoming type C meeting

The objective function of model 2 is 10 points lower than for model 1. Therefore we have a 2-compartment model

# Analytical thinking divides a subject into elemental parts or basic principles

collect, gather, visualize, articulate & conceptualize information

view a problem or situation from different perspectives

solve complex and uncomplicated problems

make decisions effectively that are sensible given information available

Whom are you talking to?  
empathy, position, relationship, knowledge

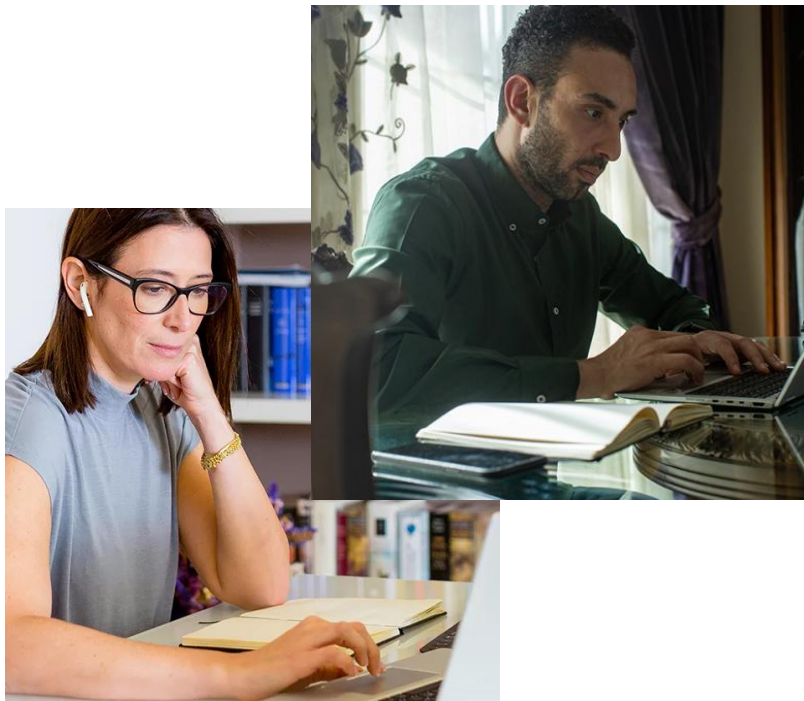
Why are you communicating?  
And how?

What is your objective?

When? Where?  
Time pressure? Urgency? Setting?



# Soft-skills are relevant to be successful - regardless of F2F or remote collaboration



# Agenda

1. Introduction
- 2. Verbal communication**
3. Active listening
4. Written communication
5. Asking questions
6. Preparing for meetings
7. Self-awareness
8. Networking
9. Summary/conclusion



# ... if you want to be understood, you need to understand how you can be understood

*Before they start,  
they do not know  
what they are going to say;  
when they are speaking,  
they do not know  
what they are saying;  
and when they have finished,  
neither they nor their audience  
know what they have said.*

*Winston Churchill*

- What I want to say
- What I say
- What they hear
- What they listen to
- What they understand
- What they do

# Active conversations are broad areas of our day-to-day work



# What can we learn from professionals like TV moderators or news readers?



# Be upright ... talk clearly

- benefits of upright posture (standing or sitting)
  - voice is powered by breath
  - shows engagement with audience
  - showing confidence by «filling the space»
- don't lean backwards – you are not in the past
- don't lean forward – you are not in the future
- be upright – you are in the present



# Apply learnings from professionals to booster your verbal communication

- Posture:
  - good distance
  - front half of chair when presenting
  - straight back, don't press back at chair
- **avoid rotating chair** for formal virtual interactions
- Use your hands:
  - **emphasize points** (e.g. push forward, show numbers, indicate big or small)
  - no pointing and don't fold your arms

<https://www.health.harvard.edu/staying-healthy/why-good-posture-matters>

Smile



# Same sentence phrased differently can have different impacts

**Question**

Choose tone according to situation and environment (and vary)

Short exercise:

**Statement**

- Say a work-related sentence to your neighbor as a question, as a statement and as a command in random order and let your neighbor guess which way you took.

**Command**

- «The objective of the analysis is to ...»
- «Your research question cannot be answered with the data collected»



# Interacting successfully with non-quantitative colleagues

## Choice of words

- use layman words
- avoid statistical technical terms
- describe based on understanding of your colleagues
- repeat important thoughts, words, etc
- frame important key points

## Adapt voice

- speak clearly and slowly
- apply vocal variety:
  - volume
  - pace
  - tone
  - pauses
  - pitch
  - pronunciation
  - inflection

***Script for important presentations?***

# **watch video, start @ 9:10 to 9:56**

- <https://www.youtube.com/watch?v=hdBNUDIOIP8>

# Exercise

Say the sentence «Tomorrow it'll be sunny with blue sky» (or any other sentence) in various ways:

- angrily
- happily
- sadly
- disbelievingly
- laughly
- importantly
- slyly
- shyly
- nervously
- quickly
- slowly
- tiredly
- excitedly
- assertively
- ...

# How to be even more impactful?

## Avoid 3 traps in communication

### Speaking in 3<sup>rd</sup> person

- *we, we, we, they, they, they* instead of *I, I, I, you, you, you*
- people connect with personal story (e.g. commercials)

### Using formal language

- research: formal language has no impact
- start with formal but end or transition to less formal

### Using too many details

- trend towards shorter conversations
- details are understood when you are alone
- be brief, create curiosity (visualize, speak in vivid picture)

# Be optimally equipped to increase productivity

- best affordable equipment



- be mindful of ergonomics



- don't mix private & business equipment



- mirror workspace at home
- be comfortable when on camera
  - adjust camera on eye level (no filming up or down)
  - check how you appear on screen

# Enjoy an advanced virtual office experience

## avoid distractions and have full presence

- office set-up
- schedule your day
- wardrobe
  - not completely casual
  - solid jewel tone colors
  - no florals, stripes, or silk/satin (reflections)



## be familiar with technology of meeting platforms

- know “what” and “how” (practice)
- know how to present efficiently
- know how to share screens, whiteboards, create polls, reactions etc.

**Microsoft  
Teams**

**Google  
Meet**

**Zoom**



# Agenda

1. Introduction
2. Verbal communication
- 3. Active listening**
4. Written communication
5. Asking questions
6. Preparing for meetings
7. Self-awareness
8. Networking
9. Summary/conclusion

# Active listening

**“If the person you are talking to  
doesn't appear to be listening,  
be patient.**

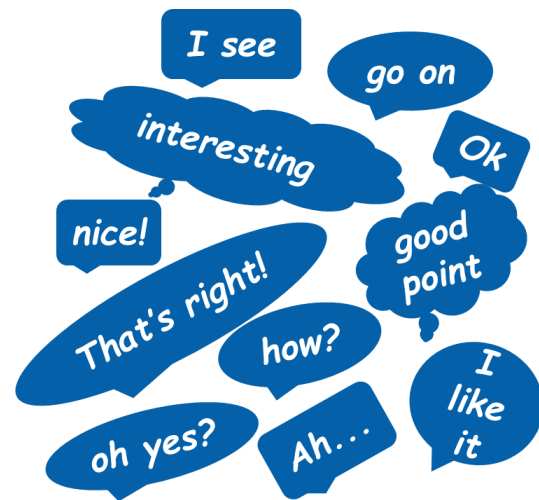
**It may simply be  
that he has  
a small piece of fluff  
in his ear.”**

**Winnieh-the-Pooh**

# Active listening is key to gain trust

## *if you listen, you will be listened to*

- minimize external distraction
- focus on the now – ignore internal distractions
- keep eye contact, face your speaker or look into camera
- observe your body language: open posture
- observe your counterpart's body language
- show your interest: nod, smile



- use online reaction tools:



# watch video

- [https://www.youtube.com/watch?v=3\\_dAkDsBQyk](https://www.youtube.com/watch?v=3_dAkDsBQyk)

# Stay focused while listening and avoid appearing to be judgmental

## pay attention and don't interrupt

- allow for silence
- reflect
- make notes
- ask open questions
- clarify  
(tell me more about...)

## repeat words, *paraphrase*, summarize

- you feel...
- you're saying ...
- it appears that you ...

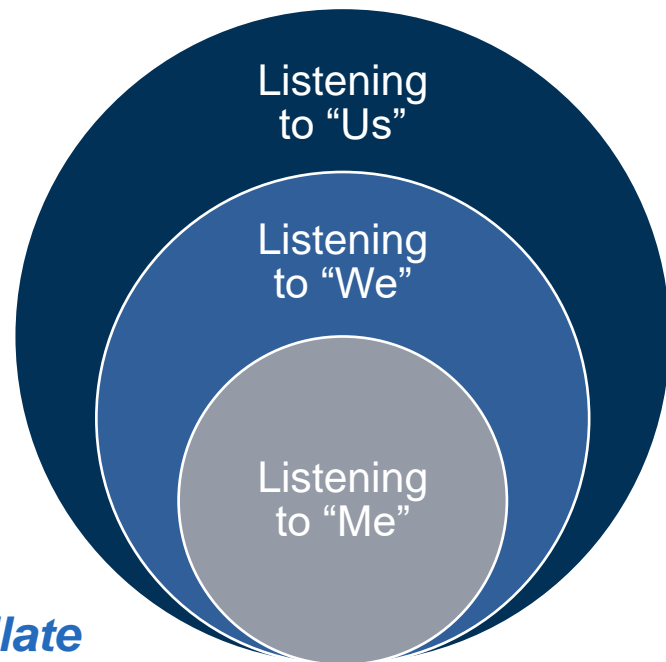
## (try to) understand other side

- connect
- listen to  
what's not being said
  - emotions
  - feelings
  - needs

Your understanding is established when your summary of content and acknowledgement of feelings is confirmed to be accurate.

# Three levels of listening

- Level 1: Listening to “Me”
  - focusing on yourself
  - thinking about *what you need to do later in the day... what you are going to say next...*
- Level 2: Listening to “We”
  - focus is on other person
  - listening to what other person is saying, body cues
  - level 1 chatter is managed
- Level 3: Listening to “Us”
  - focus on entire environment
  - focus is on other person and context



***Effective listeners generally oscillate  
between Level 2 and Level 3 listening***



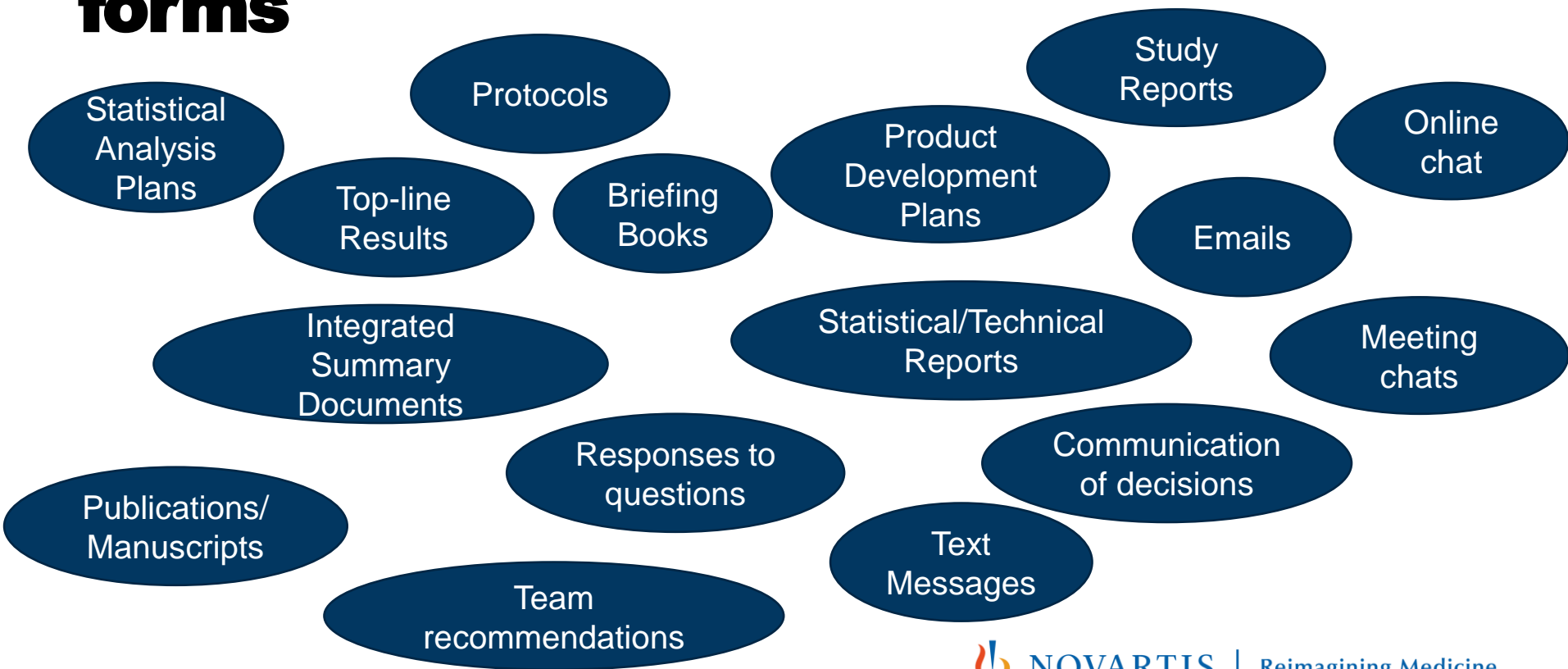
# Exercise

- Split into groups of 3
  - listener
  - speaker
  - observer
- Exercise:
  - speaker tells about something unrelated to work, e.g.
    - his/her greatest challenge of his/her hobby
    - what made a recent event spectacular
    - anecdote from university
    - etc

# Agenda

1. Introduction
2. Verbal communication
3. Active listening
- 4. Written communication**
5. Asking questions
6. Preparing for meetings
7. Self-awareness
8. Networking
9. Summary/conclusion

# Written communication comes in many forms



# Communication occurs with audience with varying degrees of statistical and mathematical knowledge



# Keep it simple

Je n'ai fait celle-ci plus longue que parce que je n'ai pas eu le loisir de la faire plus courte.

Blaise Pascal

# Simple is not a synonym for less

- Dieter Rams «Weniger aber besser»
  - from the principles of good design
  - everything you need, but no more.
- fewer words less clear
  - writing fewer words does not necessarily make things easier to understand
- writing the full story can help ensure you understand it properly
- may help others to fully understand your point

## Dieter Rams:

- Influential German designer, inspiring many others
- Head of design for Braun for over 30 years.
- Known for establishing principles of good design



# “The art of explanation”

*R. Atkins (2023): The art of explanation, Wildfire, London.*

## 10 attributes of a good explanation

- Simplicity
- Essential detail
- Complexity
- Efficiency
- Precision
- Context
- No distractions
- Engaging
- Useful
- Clarity of purpose

## 7 steps

1. Set-up
2. Find the information
3. Distil the information
4. Organise the information
5. Link the information
6. Tighten
7. Delivery

# Start with your point....



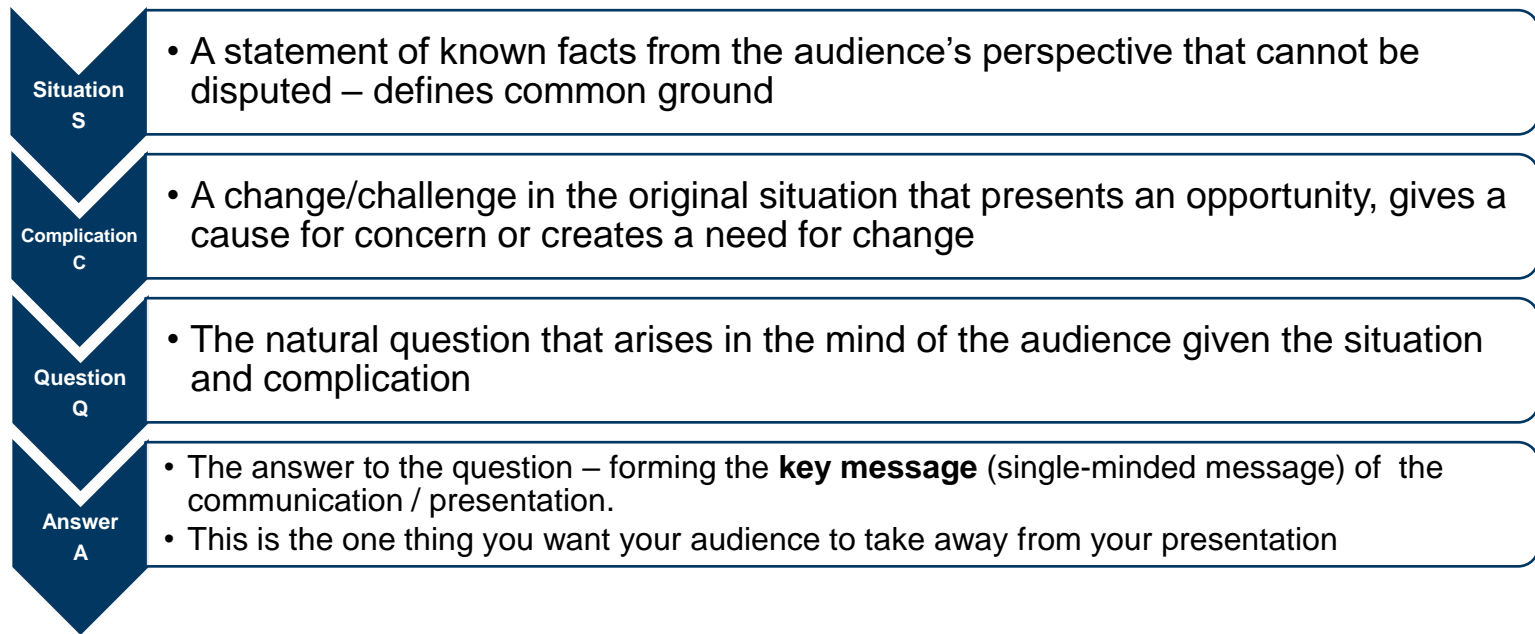
[https://www.ted.com/talks/frances\\_frei\\_how\\_to\\_build\\_and\\_rebuild\\_trust/transcript](https://www.ted.com/talks/frances_frei_how_to_build_and_rebuild_trust/transcript)

# .... In case you get cut off



[https://www.ted.com/talks/frances\\_frei\\_how\\_to\\_build\\_and\\_rebuild\\_trust/transcript](https://www.ted.com/talks/frances_frei_how_to_build_and_rebuild_trust/transcript)

# One suggested structure for effective communications



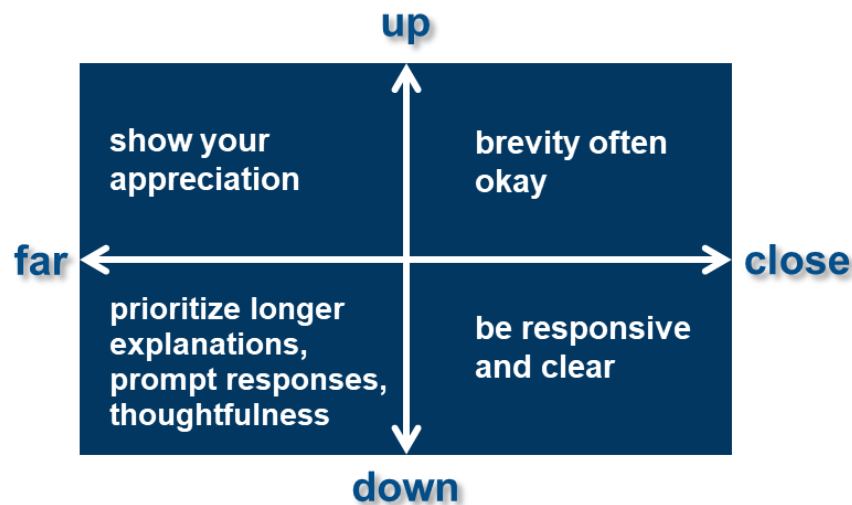
# Flipchart

Pick one flipchart and discuss the slide

- What are your first impressions?
- What is the main message?
- Who is the intended audience?
  
- What could you do to remove distractions?

# Which communication channel to use?

- slides / document / email / 1-1 chat / group chat / voice messages
- choice of written instead of spoken
  - what do **you** need?
  - what does **your audience**?
- choice of right communication channel
  - length, complexity, familiarity
  - managing power dynamics (see grid)
- effect of your choice on others
  - sense of urgency
  - expectations about response time



# What format to use?



## **adapt to your audience**

experience and knowledge of the audience

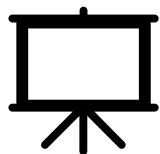
likelihood that information will be circulated to other audiences or colleagues

does the communication need to stand-alone or will it only be a supporting aid to a presentation?



**if there is a template to be used,  
use it**

# Using titles to summarize



- often suggested that the title of the slide should be the message we want to convey
- «ABC123 is superior to placebo» rather than «Results»
- this does not always work, sometimes we deliberately don't want to push our view or interpretation.
- title of slide = the question to be answered tends to work well in these situations



- subject line should match content of email
- when possible, include key words in subject line
- “FYI” / “Please respond”, “Approval needed”
- consider adding a timeline “ Please respond by February 28th”
- “Urgent” or “Important” ?
- use informative subject lines that are visible on the screen of a mobile device



# More about emails



- consider the length,
  - recipients may be reading on a mobile device
- do not assume that all recipients will open file attachments
  - consider adding also important points to the body of the email
  - be aware that images may appear in different size on recipient's screen
- do not assume that all recipients read your note immediately
- re-read your emails before pressing send
  - and be aware of your own common errors
- know your audience
  - check distribution lists
  - be aware of who may receive the email through other means
- avoid long discussion chains - time for a spoken discussion instead

# Getting the tone right

- consider how your note/message is perceived by others
  - word choice, response time, email signature, cc/forward, order of recipients, punctuation, emojis
- how would you feel if your words were read by someone other than your intended audience?

# Effective commenting

## Common comment

## Effective comment (can be implemented without discussion)

This is unclear.

Reword to x because y (context: required by regulatory guideline Z).

Can we align with the guidelines?

Please add the following statement: xxx.

What about AEs?

Please summarize AEs leading to discontinuation by treatment.

Refer to Figure X and place in context.

Add the following: Figure xx shows xxx, in line with...This is likely due to...

Do we really need this?

I'd propose removing this because it's not within the scope of this document.

Why aren't you providing further information on concomitant medication?

Please add further information of analgesics, preferably in table format by treatment, as this may have an impact on AE reporting in Section 12.

# Digital body language

Exclamation marks: urgency, excitement, shouting

! = basic warmth,

!! = excitement,

!!! = enthusiasm,

!!!! = giddiness, sarcasm, wit, anger

Question marks: just “?” = pushes for clarification

? = interrogation, interest, anger, honest question or interest,

?? = confusion,

??? = frustration,

???? = anger,

CAPITALS: importance or shouting

Periods: “...” = unfinished thought, sentences with periods are taken to be less sincere

Emojis = powerful cues, multiple use expresses strength of feeling  
Thank you 😊 vs. Thank you ☹️

# Formatting the content

- avoid distracting graphic effects, animations or slide transitions.
- simplify - take things out
- graphs vs tables
  - is the precise number important? or rather the general pattern?
  - high level message or detailed explanation?
  - think about the design of tables – ordering of rows and columns, closeness of items to be compared.
- design for the reader, remove obstacles

# 3 principles for improving visual communications

- 1<sup>st</sup> principle: Have a clear purpose

- Understand the question you are trying to answer
- Identify the quantitative evidence to answer that question
- Know your audience and focus the design to support their needs



- 2<sup>nd</sup> principle: Show the data clearly

- Choose the appropriate graph type to display your data
- Avoid misrepresentation (use appropriate scales)
- Maximize data to ink ratio (reduce distraction, less is more)



- 3<sup>rd</sup> principle: Make the message obvious

- Minimize mental arithmetic (e.g. plot the difference)
- Use proximity and alignment to aid in comparisons
- Use colors and annotations to highlight important details



<https://github.com/GraphicsPrinciples/webinar>

# Agenda

1. Introduction
2. Verbal communication
3. Active listening
4. Written communication
- 5. Asking questions**
6. Preparing for meetings
7. Self-awareness
8. Networking
9. Summary/conclusion

“If I had an hour  
to solve a problem  
I’d spend  
55 minutes  
thinking about  
the problem  
and 5 minutes  
thinking about  
solutions”

*Albert Einstein*



# Exercise

- Role play
- Reflect on how this situation played out. What helped?

**Team member:** *I just reviewed the final report of our last trial. Really great results! When I had another look at the subgroup analyses an interesting idea came to my mind. Can you provide me the mean values for elderly patients from North America, please?*

**Statistician:** *While this is straightforward to run, I would like to understand more about your idea.*

**Team member:** *Why can't you just give me the mean values by tomorrow? There were already subgroup analyses by age and, separately, by region presented in the CSR.*

**Statistician:** *Let's discuss together what you want to show and how you want to use the data. In order to support you, it will be important for me to understand some background of your idea. Once I have a better understanding of your needs, I can determine which analyses are required and how long it might take. Is now a good time to discuss? I have about 45 minutes until my next meeting.*

**Team member:** *Sure, I need the mean changes for physical function, but only for elderly patients in North America.*

**Statistician:** *Okay, tell me, what question would you like to answer?*

**Team member:** *I would like to know whether the mean changes of physical function for elderly patients in North America are better for our drug than for placebo.*

**Statistician:** *And why would you like to know this?  
(Note: the statistician doesn't ask "But, why would you like to know this.")*

**Team member:** *My idea is that our drug works best in North American elderly patients. Hence, if the mean changes are better in this sub-population than for the overall population my idea is confirmed.*

**Statistician:** *Hmmm, not sure whether it is confirmed already. Let's see. Can you tell me more about the objective of the analysis requested?*

**Team member:** *The number one question that we are asked by our key opinion leaders when we present the data from the study is: "Who are the patients that respond the best to treatment?"*

# Question-based approach drives impactful analyses

- a way to align the analyses with the purposes and needs of each team
  - right analysis to answer the right question
- avoid time spent answering unnecessary questions
  - e.g. answering a [prediction](#) question when people wanted to [understand why](#)
- easier to see the place of each piece of work in the bigger picture
  - avoids duplication of effort, re-work of analyses not quite addressing the questions
- easier for our colleagues, stakeholders, KOLs, wider customers to understand the work and appreciate the value

# Ice cream sales vs beach safety incidents

- Ice cream sales and drowning events are correlated
- No-one believes eating ice cream causes someone to drown.
- We can all explain what is most likely going on here
  - there are confounders (weather, number of visitors to beach)
- Knowing this correlation, may or may not be useful to me
  - depending on the **purpose** that I want to use the information for



# If I am responsible for lifeguard resourcing

- Knowing the correlation helps
  - although knowing shape and extent of relationship would help even more
- I can use ice cream sales to predict safety events and plan resource accordingly
- E.g. I can check in with the ice-cream kiosk at lunchtime, see how business is, call in more lifeguards for the afternoon
- Also I would be equally happy with any other way of predicting incidents
  - it would not matter to me if a similarly good prediction could be made using number of cars in the car park. I only care that the prediction should be accurate and using data I can get access to.

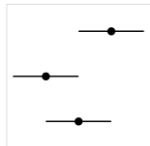


# If I want to prevent beach safety incidents

- Knowing the correlation does not help me.
  - I cannot reduce incidents by reducing ice cream sales
  - I cannot tell the ice-cream seller to stop selling ice-cream and rely on that to reduce the incidents.
- 
- What I need is something that helps me **understand why** the incidents occur.

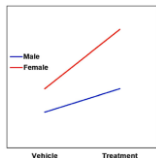


# The question drives the analysis

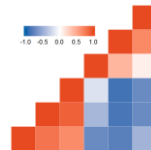


- Are there any subgroups of patients that fare differently?

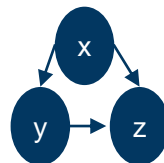
- typical question for submission packages; aim is to show that all patients benefit, that the benefit-risk pattern is positive for everyone
- appropriate approach: forest plot



- Do type A patients do significantly better than type B patients?
- an appropriate approach: statistical test of a treatment by type interaction.

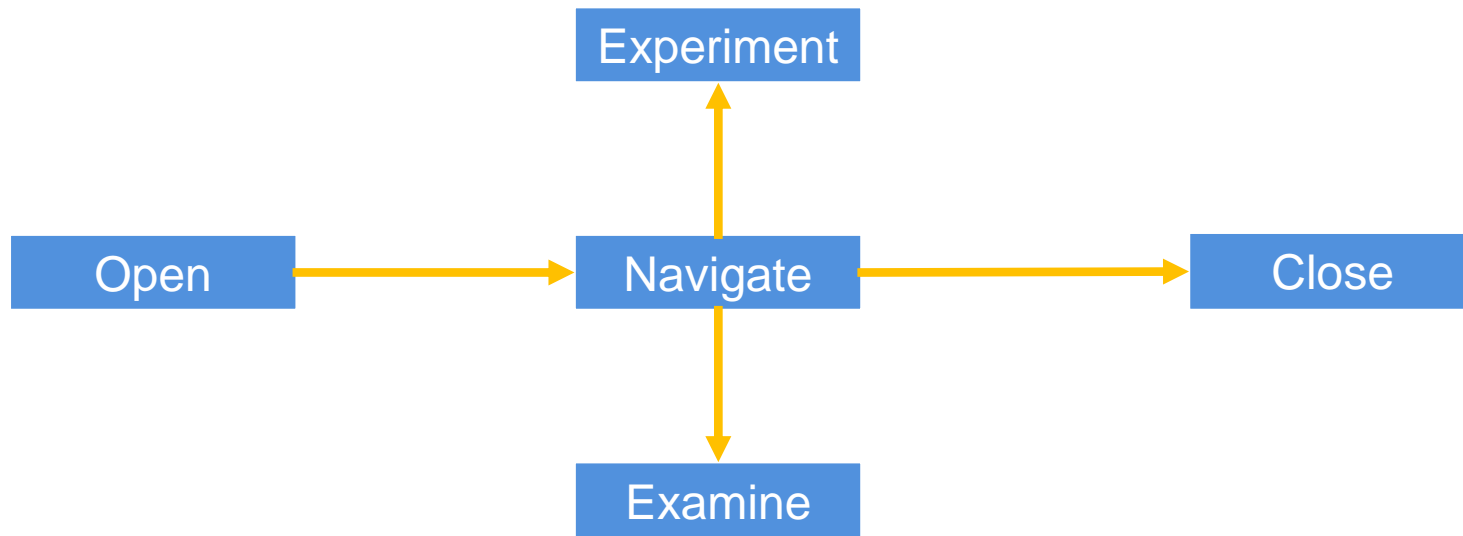


- Which subgroup of patients does best?
- may be a combination of multiple covariates that determines which group does best
- appropriate approaches: machine learning methods

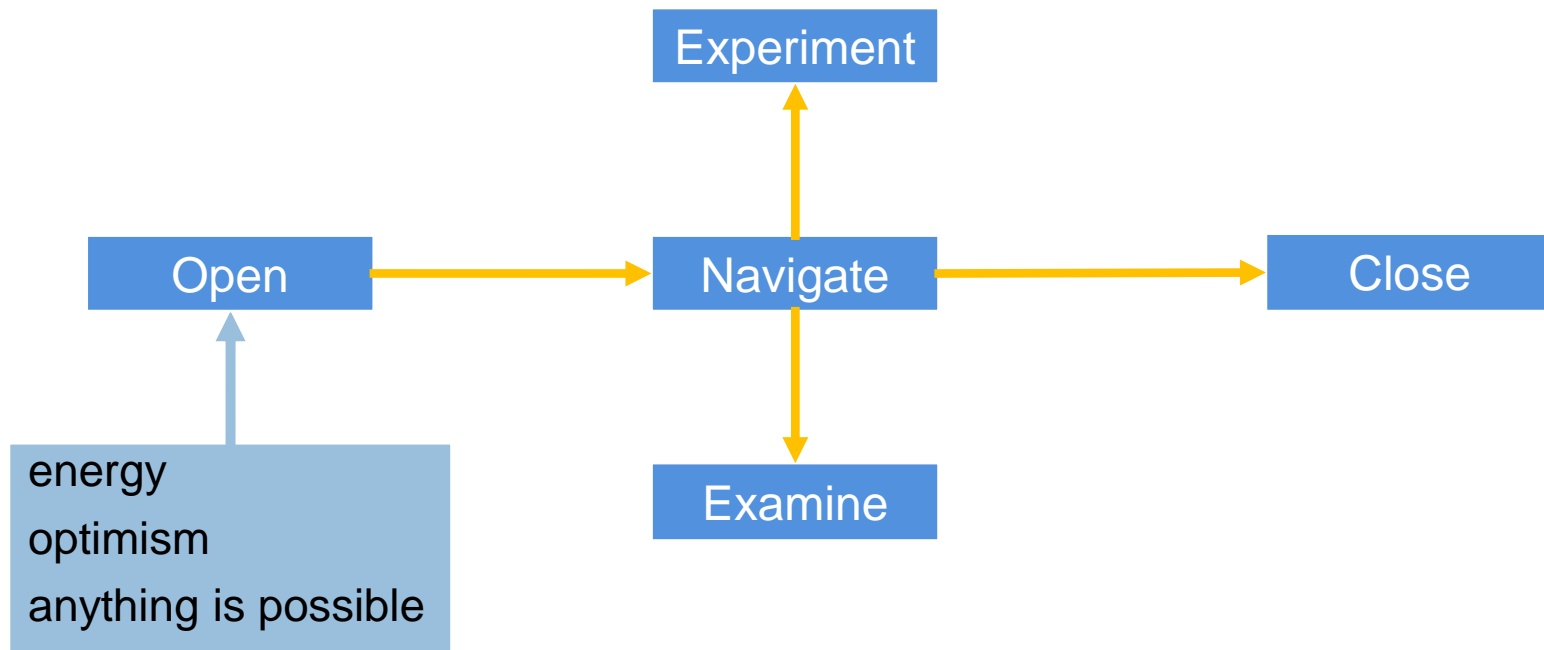


- Would changing a patient from type A to type B produce a different response?
- appropriate approaches: causal inference methods

# Questions for different purposes

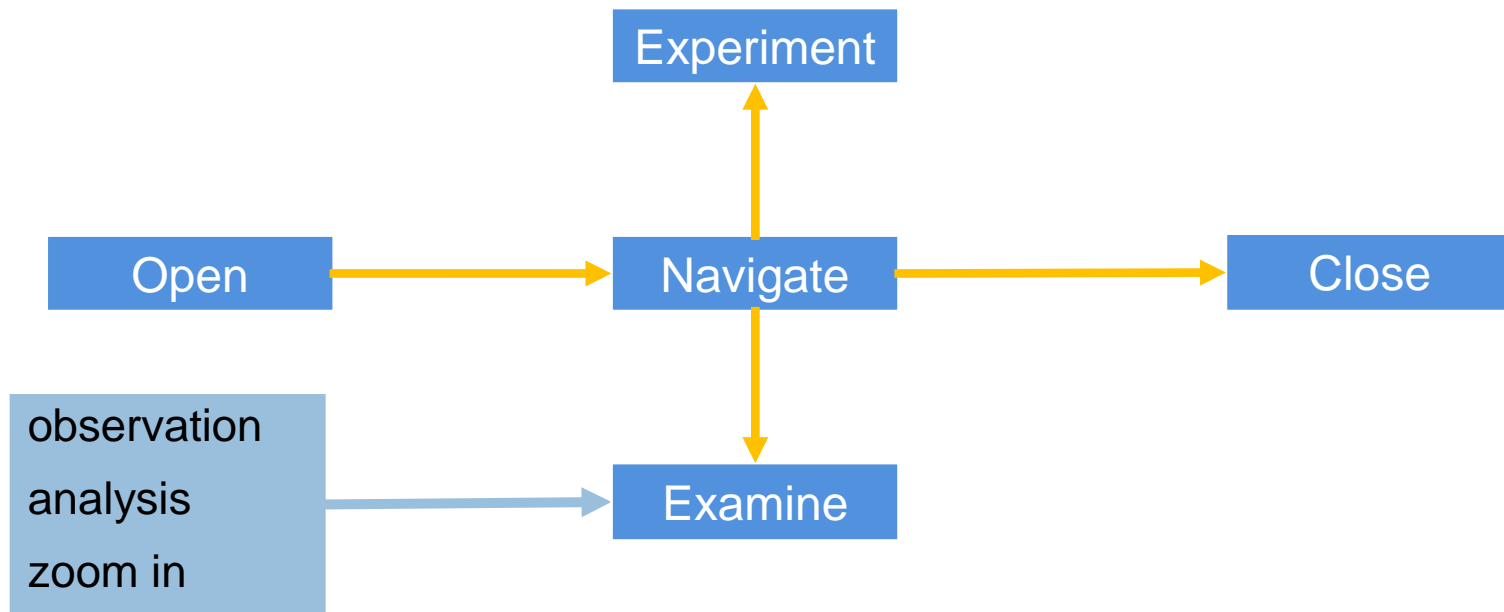


# Guide your team by asking questions

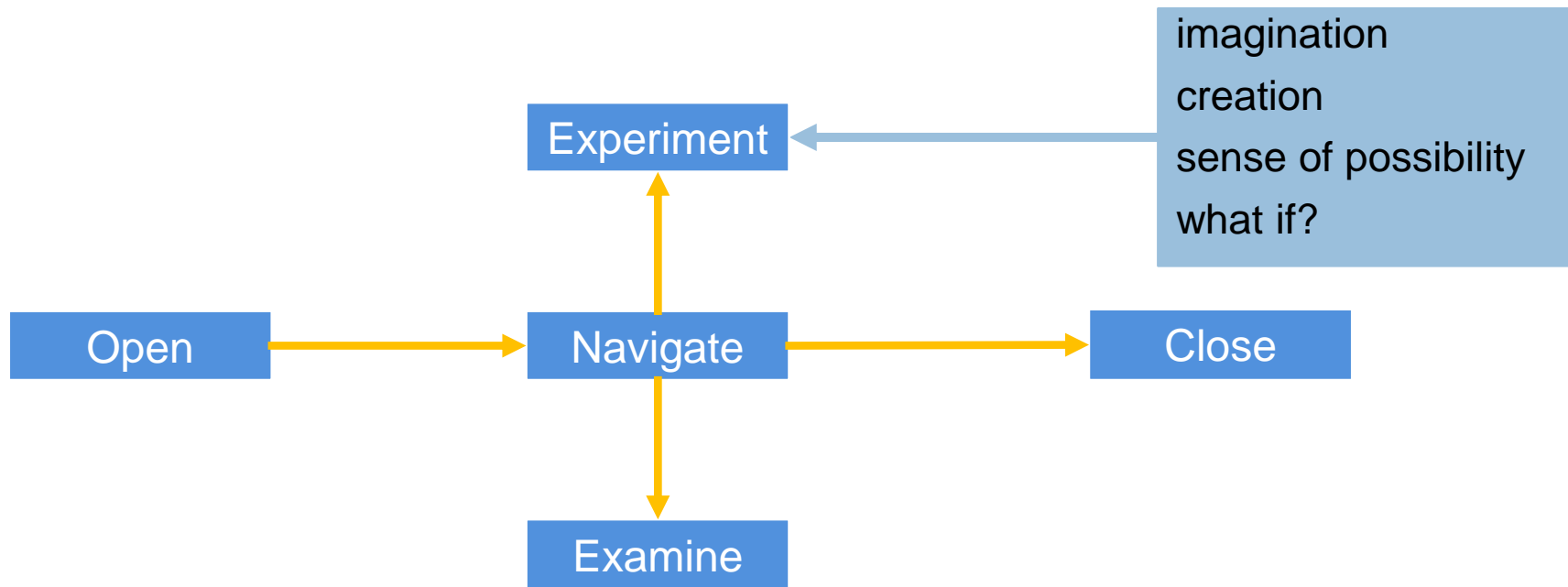




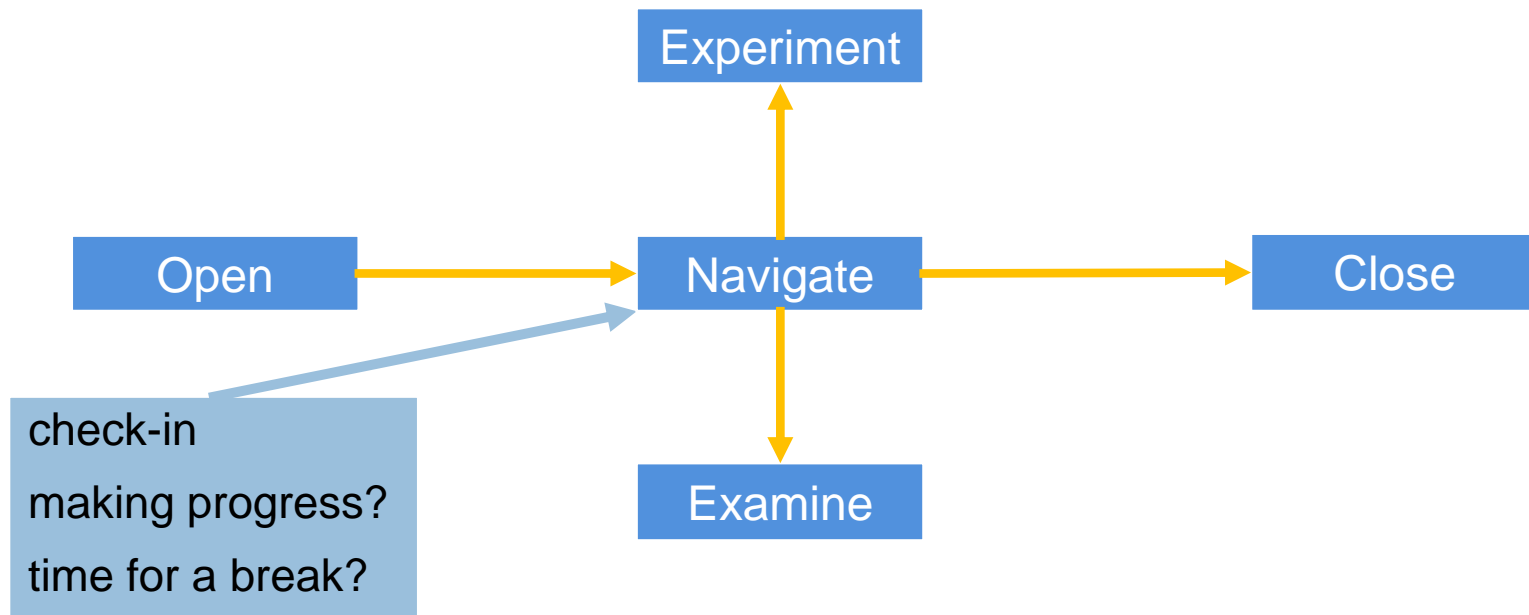
# Guide your team by asking questions



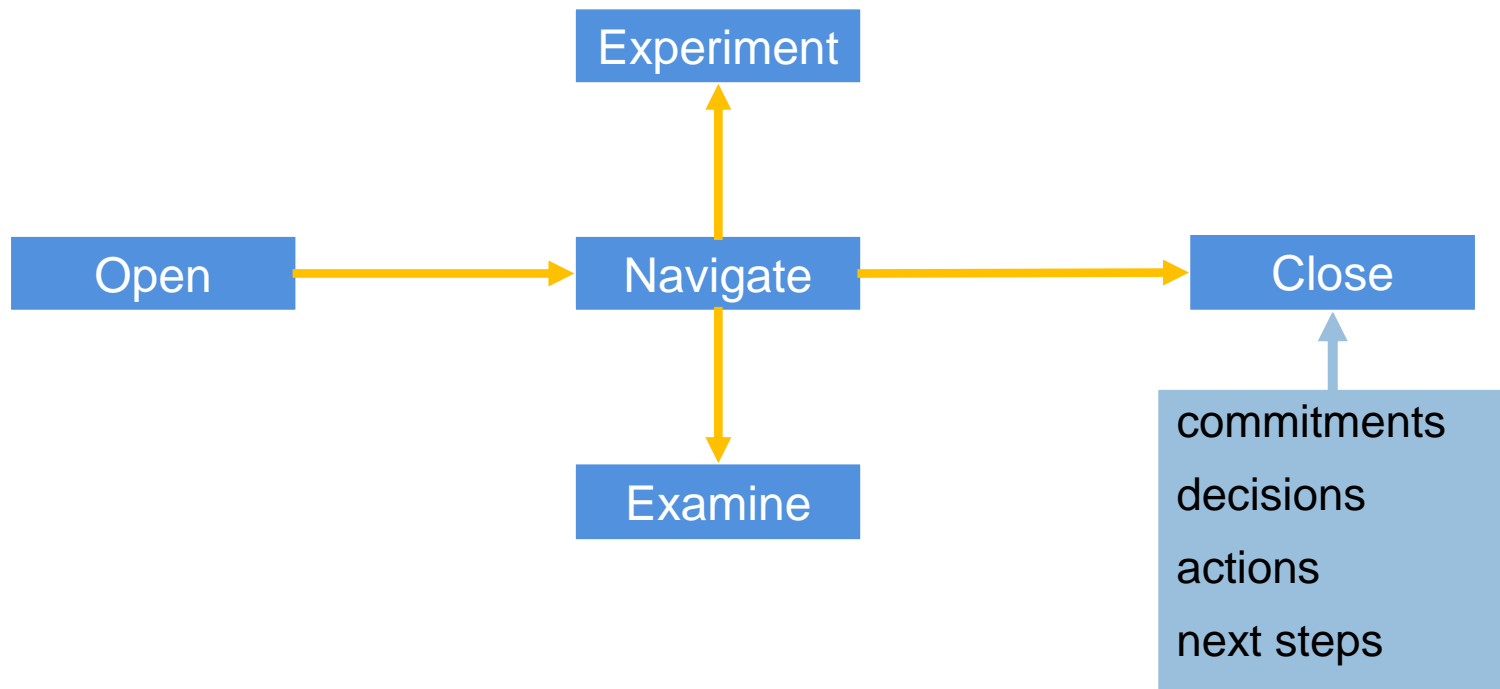
# Guide your team by asking questions



# Guide your team by asking questions



# Guide your team by asking questions



# Exercise

- « What - if » questions are really powerful to guide a team
- Paraphrase the answer, i.e. practise active listening
- Ask « why's » after a reply

Team member A: *In order to move forward with the project, we do not want to have any issues with X once we have received the data.*

Statistician: *What does "issues with X" mean? Do we have already any knowledge on X from our own internal data that we have gathered?*

Team member B: *So far we have no knowledge, but in a similar project conducted externally, there were some reports on X.*

Statistician: *(a well-prepared statistician would have known about those recent external projects and "X" would not have been a surprise)  
Oh yes, I remember having seen those data. So let me ask you, what type of issues do you expect or are potentially possible?  
(note that he doesn't ask: "do you expect any issues?"*

Team member A: *For the external project, which was successful, the rate of these issues were n%. We can't afford having a higher rate.*

Statistician: *If I understood you correctly we would not invest further in the project if we observed n% or more?*

Team member B: *Correct, if we have the same rate or more, we would close down the project.*

Statistician: *So this means we want to observe a smaller rate. In order to define a threshold and plan accordingly, we need to understand whether an absolute or relative decrease is more important.  
What would you do if the rate in our project is (n-1)% or (n-5)%?*

Team member A: *That would still be too high. We need to observe far less to be successful.*

Statistician: *Okay, so what would we do if we observe three quarter of the rate?*

Team member B: *I told you that we don't want to see any issues! Haven't you listened? That would still be too high.*

Statistician: *We are getting closer to solve it. What if it is half of the external rate?*

Team member A: *That sounds okay to me.*

Team member B: *To me as well.*

Statistician: *To summarize, we met to discuss when to move forward with our project after we have seen the data, we were sure that we should not have any issues with X. And we concluded that "no issues with X."*

# Agenda

1. Introduction
2. Verbal communication
3. Active listening
4. Written communication
5. Asking questions
- 6. Preparing for meetings**
7. Self-awareness
8. Networking
9. Summary/conclusion

# Setting the scene



get  
sufficient sleep



be aware of impact of nutrition and beverages,  
ensure sufficient fluid intake



consider fresh air  
and movement

# How to prepare for meetings?

What are the objectives?  
What's on the agenda?

What do you want to achieve?

What might you be asked?

Consider to draft, script and rehearse responses

***Always come prepared to a meeting***



# Hybrid & virtual meetings

## *how to increase meeting efficiency*

pre-reads  
pre-work

agenda  
objectives  
success  
introduction of  
participants

allow more  
time to react  
and contribute

use hand-raise  
and  
reaction tools

look at lens,  
address others  
by names

in-room  
participants  
to join online

avoid  
distractions  
(such like  
open apps,  
self-view)

ask rhetorical  
questions or  
“action”  
questions

# You never get a second chance to make a first impression

- First impressions are important to success in our professional careers

Interview

Project team

Presentation

Intro as new team member

- Positive first impression has impact
  - Your choice between excellent long-term professional relationship and strained relationship



# Agenda

1. Introduction
2. Verbal communication
3. Active listening
4. Written communication
5. Asking questions
6. Preparing for meetings
- 7. Self-awareness**
8. Networking
9. Summary/conclusion

# Self-awareness is key for personal improvement and career development



**REFLECT**



**FEEDBACK**



**Think positive!**

- understand strengths to expand on them
- be aware of gaps to work on and to handle them

- **Self-awareness = higher order critical thinking skill (metacognition)**
- ***Reflection and metacognition are leadership attributes***

# Flipchart exercise:

- Split into 3 groups
- Task:  
think about self-reflection
  - prior
  - during
  - aftera meeting with your team.



**REFLECT**

# What does this mean for work?

## Example: self-reflection on a meeting

### Prior to meeting:

- How am I feeling?
- What do I want to achieve?
- What are the objectives of the meeting?
- How do I want to achieve the objectives?
- Shall I attend F2F?

### During meeting:

- watch breath and emotions
- be aware of body language



**REFLECT**

### After meeting:

- What went well?
- Why did it go well?
- What do I want to improve next time?



**Think positive!**

# Feedback: to improve behavior or to reinforce behavior

information about past behavior  
delivered in the present  
may influence future behavior

~~criticizing  
humiliating  
burning down~~



**FEEDBACK**

- to build a strong team
- to build trust
- to improve team performance
- to show mutual respect
- to *know yourself*

# Be open to change when you ask for and/or receive feedback

## Actively asking for feedback:

- you own the feedback you receive
- feedback depends on perspective, context to person and situation
- mutual trust / F2F
- don't justify yourself
  - listen – understand – accept – thank

**Asking for feedback =  
adding more data to *your* model**



## FEEDBACK

- ask about observations and potential areas for improvement
  - Did your counterparts really understand when you explained a quantitative topic?
- carefully select «search terms»:  
*tell me **one thing** I should continue to do, stop doing or start doing?*



# Some examples for providing and asking for feedback from peers and managers



after a presentation

body language, slides, voice,  
speed of delivery, content



after a document review

were comments/changes helpful?



after a document finalization

flow of document, comprehensibility

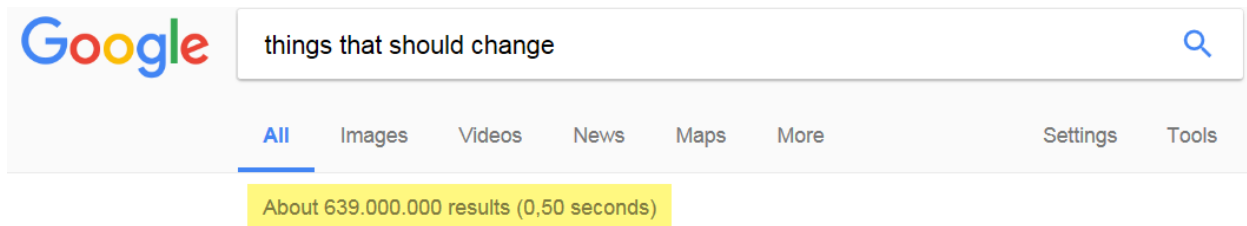
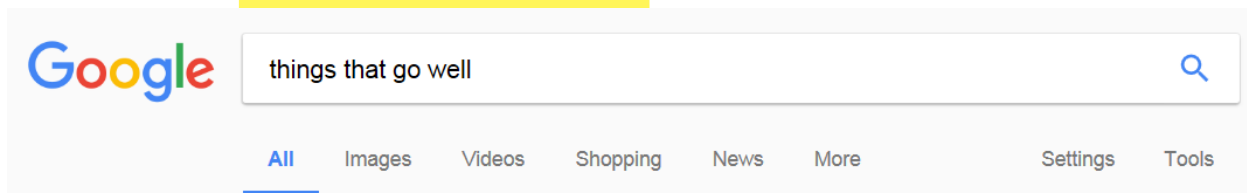
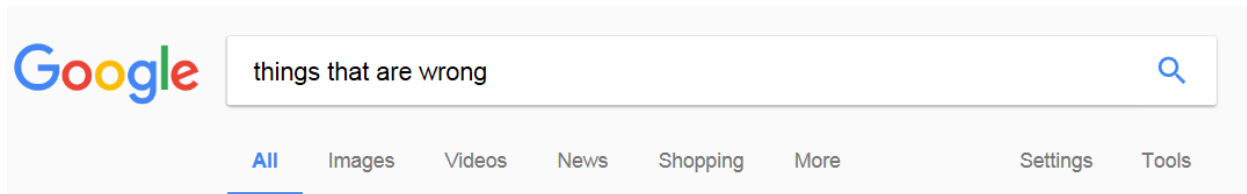


after a group/team discussion

body language,  
quantity and quality of contributions

# Reflection & feedback: Think positive!

## More positives enhances confidence & motivation



**Think positive!**

# Agenda

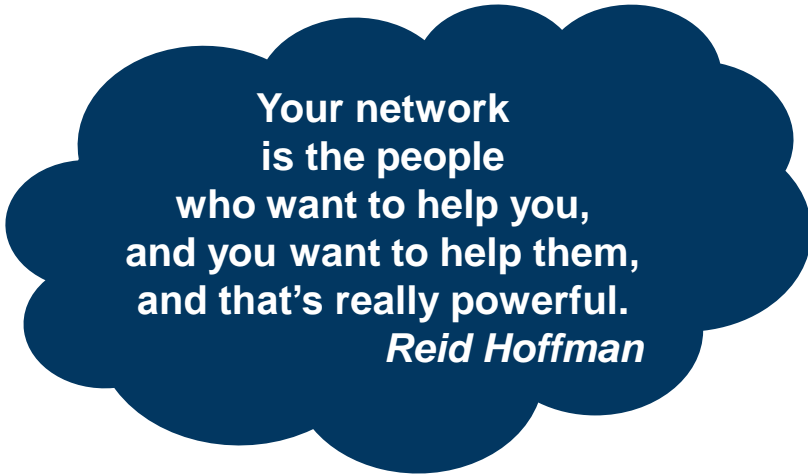
1. Introduction
2. Verbal communication
3. Active listening
4. Written communication
5. Asking questions
6. Preparing for meetings
7. Self-awareness
- 8. Networking**
9. Summary/conclusion

# Why is a network important?

## Flipchart

# Why is a network important?

- building relationship – learn about each other
- building trust
- be credible
- develop empathy
- having fun together
- career development
- collaboration



**Your network  
is the people  
who want to help you,  
and you want to help them,  
and that's really powerful.**  
*Reid Hoffman*

# A well-established network helps to build trust and credibility

**Operational  
network**

to get  
the job done

**Strategic  
network**

to understand  
the big picture

**Developmental  
network**

to support  
your own career

- networks are important to be influential
- network helps to collect information and to align within matrix environment
- relationship/network does not depend on «personal chemistry»
- good relationships are not built if you see people only when there is a problem

# Networks are not hierarchical in nature and are based on multidisciplinary teams

- meet **regularly** with your colleagues
  - understand needs and objectives
  - learn about their expertise
  - learn how they communicate
- don't wait to be contacted – **be proactive** and invest time
  - join meetings a few minutes earlier and socialize with small talk
- start to network at the early stages of a project
- «web-coffee» meetings when working remotely/hybrid



# A few principles to build relationships

## Reach out to others

- don't talk about work – find some common grounds (hobbies, preferences, interests outside work, favorite meals, vacation places)
- remember birthdays, number (age, names) of children and name of partner
- be aware of cultural/national holidays

## Be yourself online and F2F

- don't be someone you are not
- share pictures, but don't overshare

## Be friendly

- use people's names
- don't be aggressive
- use soft language
- smile – people can hear your smile
- emojis in emails



## Follow your words

- can others rely on your words?
- ask for deadlines and try to beat
- ask for details on “ideal outcome”, and prepare an improved solution in addition (not instead)

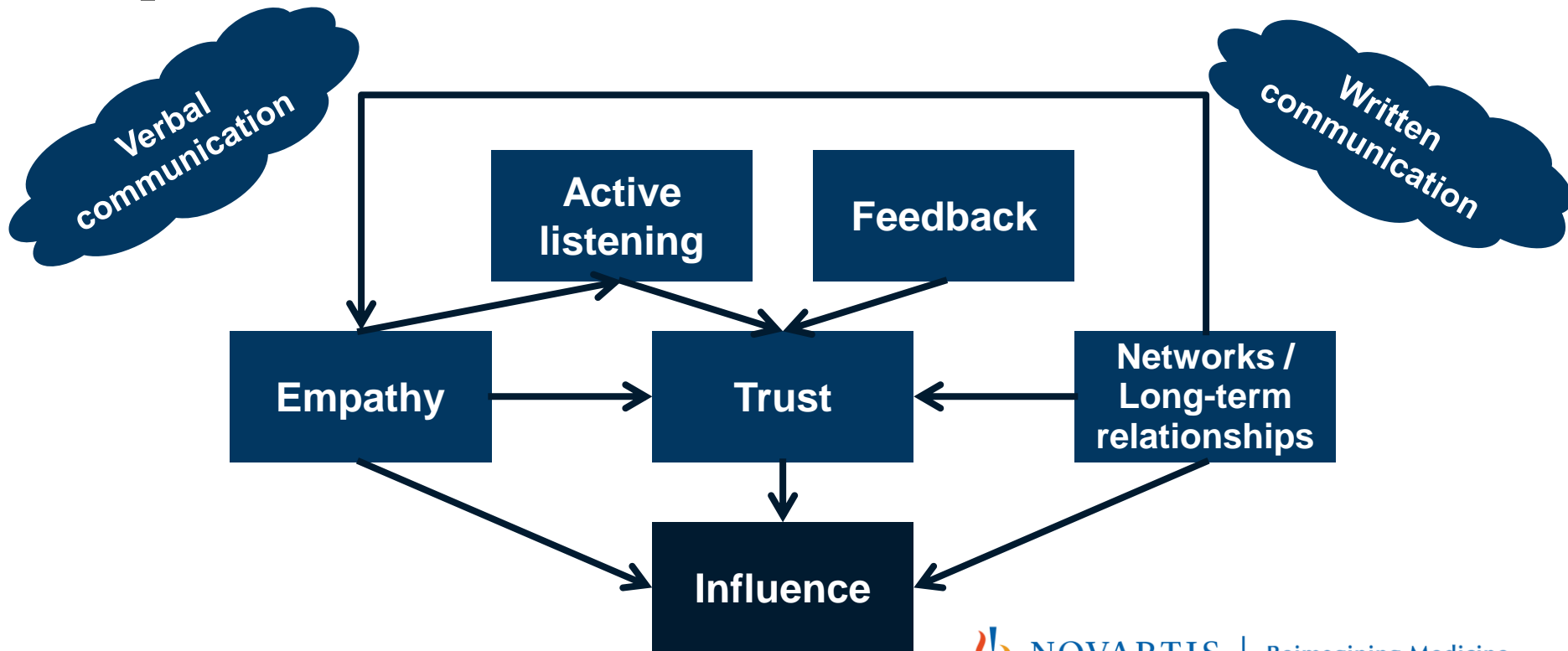
Adapted from source: D Crenshaw: [Build professional relationships online \(linkedin.com\)](https://www.linkedin.com/pulse/build-professional-relationships-online-dcrenshaw/)



# Agenda

1. Introduction
2. Verbal communication
3. Active listening
4. Written communication
5. Asking questions
6. Preparing for meetings
7. Self-awareness
8. Networking
9. **Summary/conclusion**

# How do communication skills and soft skills impact influence?



# Summary: Reach goals with **diplomacy** and have successful conversations

Empathy &  
self-awareness  
(emotional  
intelligence)



active  
listening

appropriate  
communication  
style  
(body language,  
voice, words,  
settings, ...)

Be **open** and **optimistic**

Strengthen your  
**relationships** and  
**networks**

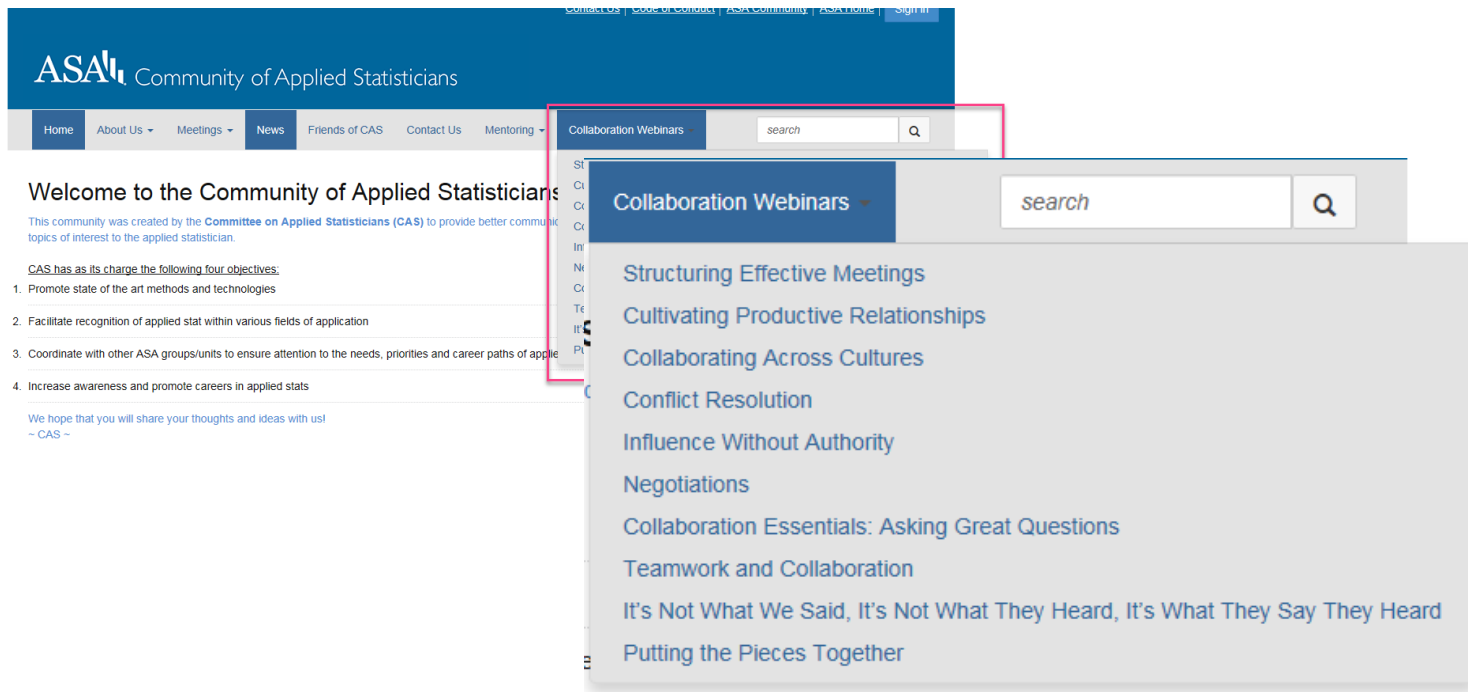
*Networks are  
bridges into the  
world of tomorrow*

**You own your  
development**

# References and additional information

# ASA Collaboration Webinars

- <http://community.amstat.org/cas/home>



# Statistical leadership

- Eric W. Gibson (2017): Leadership in Statistics: Increasing Our Value and Visibility, The American Statistician, DOI: 10.1080/00031305.2017.1336484

# The effective statistician podcasts

<https://theeffectivestatistician.com/starthere/>

# Further material: Use of voice

- <https://www.youtube.com/watch?v=f8neagu5wBA>
- <https://www.youtube.com/watch?v=evpn-U3t-i0>
- <https://www.youtube.com/watch?v=hdBNUDIOIP8>
- <https://www.youtube.com/watch?v=8S0FDjFBj8o>  
(How to appear smart in your TEDx talk)
- <https://hbr.org/video/3117517466001/set-the-tone-for-trust>
- <http://www.european-rhetoric.com/analyses/ikeynote-analysis-iphone/transcript-2007/> (Iphone introduction script, Steve Jobs)



# Further material: Active listening

- <https://www.youtube.com/watch?v=D6-MleRr1e8>
- <https://www.youtube.com/watch?v=t2z9mdX1j4A>
- [https://www.youtube.com/watch?v=z\\_rNd7h6z8](https://www.youtube.com/watch?v=z_rNd7h6z8)
- <https://www.youtube.com/watch?v=vkSwXL3cGUg>
  - [https://www.youtube.com/watch?v=3\\_dAkDsBQyk](https://www.youtube.com/watch?v=3_dAkDsBQyk)
- [https://www.youtube.com/watch?v=C8zNx\\_larUw](https://www.youtube.com/watch?v=C8zNx_larUw)
- <https://www.ccl.org/multimedia/podcast/the-big-6-an-active-listening-skill-set/>

# Recommended LinkedIn course on improving your listening skills

*In this course, join career expert Dorie Clark as she helps uncover why it's hard to listen well, and how to develop the mindset of a good listener. She also provides multiple listening strategies to help you manage when you're the one not being listened to, how to keep yourself from interrupting, and how to listen to what's **not** being said.*

Learning objectives:

- Describe common challenges to listening
- Identify signs of poor listening.
- List effective strategies to recapture attention
- Adopt the mindset of listening
- Outline the structure of meaningful listening
- Describe how to keep yourself from interrupting
- Explain how to let someone know you've heard them

<https://www.linkedin.com/learning/improving-your-listening-skills/>

# Recommended LinkedIn course on effective listening

*In this course, communications experts Tatiana Kolovou and Brenda Bailey-Hughes show how to assess your current listening skills, understand the challenges to effective listening (such as distractions!), and develop behaviors that will allow you to become a better listener—and a better colleague, mentor, and friend.*

## Learning objectives

- Define attentive listening
- Explore what happened when you are distracted by delivery
- Recall what a mental filter is and how it can affect assumptions
- Explore methods for choosing the best paraphrasing response in the situation
- List the five listening intentions

<https://www.linkedin.com/learning/effective-listening/improve-your-listening-skills?u=2274545>

# Further material:

## Self-awareness and feedback

- S. Peltin, J. Rippel (2009): *Sink, Float, or Swim*, Redline, Munich
- <https://www.youtube.com/watch?v=o5m2xwVMMYI>
- <https://www.youtube.com/watch?v=b0bS4xJiEU8>
- [https://www.youtube.com/watch?v=FQNbaKkYk\\_Q](https://www.youtube.com/watch?v=FQNbaKkYk_Q)
- <https://www.esoftskills.com/how-to-develop-self-awareness/>

# Further material: Networking

**M.U. Melcher (2023): *Your Invisible Network: How to Create, Maintain, and Leverage the Relationships That Will Transform Your Career*, Matt Holt, Dallas.**

## Take-aways

- Your professional advancement relies on your ability to initiate and maintain relationships.
- Building, maintaining and using your relationships form the core of productive professional networking.
- Harness your relationships to connect to new people, ideas and opportunities.
- Competence is the foundation on which strong networking skills are built.
- Connect regularly and meaningfully with those in your invisible network.
- Act on your curiosity, instigate interactions and try something new.
- Sharing stories of wrong turns, disappointments and doubts deepens connections.
- Develop a clear understanding of what you want and how to ask for it, and persevere.
- Healthy relationships involve mutual giving and receiving, but not exact reciprocity.

# ... introversion is a preference in the Myers-Briggs-type indicator

- Learn about your preferences & understand when to invest energy to adopt
- Understanding of other's preferences helps to empathize, network, negotiate, communicate

## Myers-Briggs Type Indicator

Extraversion / Introversion	Sensing / iNtuition
Source of energy	Way of gathering information
Thinking/ Feeling	Judging / Perceiving
Decision making	Dealing with outer world

# References Myers-Briggs Type Indicator

- Assess your MBTI-type: <http://www.humanmetrics.com/cgi-win/jtypes2.asp>
- I. Briggs-Myers, L.K. Kirby, K.D. Myers (2000):  
*Introduction to Type: A Guide to Understanding Your Results on the Myers-Briggs Type Indicator*, Oxford Psychologic Press
- P.D. Tieger, B. Barron-Tieger (1998): *The Art of SpeedReading People*, LittleBrown, New York.
- <https://www.youtube.com/watch?v=ENHSbSY9GUk>
- [https://www.youtube.com/watch?v=gBklyJ7kf\\_I](https://www.youtube.com/watch?v=gBklyJ7kf_I)

# Empathy: Most statisticians tend to be introvert

Empathy is about  
finding echoes of another person  
in yourself.

*Mohsin Hamid*



# Further material: Emotional intelligence

- <https://www.youtube.com/watch?v=n6MRsGwyMuQ>
- <https://www.youtube.com/watch?v=ZsdqBC1tHTA>
- <https://www.youtube.com/watch?v=Y7m9eNoB3NU>
- [https://www.youtube.com/watch?v=-hoo\\_dIOP8k](https://www.youtube.com/watch?v=-hoo_dIOP8k)
- <https://www.youtube.com/watch?v=8J7IBwhQKGk>
- D. Goleman (1995): *Emotional intelligence: why it can matter more than IQ*, Bantam Books, New York.

# Further material:

## Influence without authority

- <https://www.youtube.com/watch?v=li4mCDH0eUE&feature=youtu.be>
- A.R. Cohen, D.L. Bradford (2017): *Influence without authority (3rd edition)*, Wiley

# Further material: Trust

- <https://www.youtube.com/watch?v=pVeq-0dlqpk>
- [https://www.youtube.com/watch?v=1PNX6M\\_dVsk](https://www.youtube.com/watch?v=1PNX6M_dVsk)

# Further material: Virtual/hybrid working

LinkedIn	Executive presence on video conference calls	<a href="https://www.linkedin.com/learning/executive-presence-on-video-conference-calls/your-video-conference-presence">https://www.linkedin.com/learning/executive-presence-on-video-conference-calls/your-video-conference-presence</a>	34 min
LinkedIn	How to stand out remotely - The long haul	<a href="#">The long haul (linkedin.com)</a>	45 min
LinkedIn	Building Relationships While Working from Home by Dave Crenshaw	<a href="#">Build professional relationships online (linkedin.com)</a>	22 min
Coursera	Communication Strategies for a Virtual Age	<a href="https://www.coursera.org/learn/communication-strategies-virtual-age">https://www.coursera.org/learn/communication-strategies-virtual-age</a>	7 hours
LinkedIn	Leading virtual meetings by Kevin Eikenberry	<a href="https://www.linkedin.com/learning/leading-virtual-meetings/welcome-to-better-virtual-meetings?autoplay=true&amp;dApp=9797223&amp;u=2274545">https://www.linkedin.com/learning/leading-virtual-meetings/welcome-to-better-virtual-meetings?autoplay=true&amp;dApp=9797223&amp;u=2274545</a>	32 min
LinkedIn	Virtual and Hybrid Meeting Essentials by Lorraine Lee	<a href="https://www.linkedin.com/learning/virtual-and-hybrid-meeting-essentials/mastering-hybrid-and-virtual-meetings?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=true&amp;u=2274545">https://www.linkedin.com/learning/virtual-and-hybrid-meeting-essentials/mastering-hybrid-and-virtual-meetings?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=true&amp;u=2274545</a>	22 min
LinkedIn	Enhance Productivity in a Hybrid Work Environment by Paula Rizzo	<a href="https://www.linkedin.com/learning/enhance-productivity-in-a-hybrid-work-environment/what-is-hybrid-working?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=true&amp;u=2274545">https://www.linkedin.com/learning/enhance-productivity-in-a-hybrid-work-environment/what-is-hybrid-working?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=true&amp;u=2274545</a>	17 min
LinkedIn	Supporting Your Mental Health While Working from Home by Am Bran	<a href="https://www.linkedin.com/learning/supporting-your-mental-health-while-working-from-home/introduction-to-supporting-your-mental-health-while-working-from-home?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=true&amp;u=2274545">https://www.linkedin.com/learning/supporting-your-mental-health-while-working-from-home/introduction-to-supporting-your-mental-health-while-working-from-home?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=true&amp;u=2274545</a>	17 min
LinkedIn	Digital Body Language by Erica Dhawan	<a href="https://www.linkedin.com/learning/digital-body-language/communicate-your-feelings?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=false&amp;u=2274545">https://www.linkedin.com/learning/digital-body-language/communicate-your-feelings?autoAdvance=true&amp;autoSkip=false&amp;autoplay=true&amp;dApp=9797223&amp;resume=false&amp;u=2274545</a>	25 min
LinkedIn	Time Management: Working from Home	<a href="https://www.linkedin.com/learning/time-management-working-from-home/making-working-from-home-work?autoplay=true&amp;dApp=9797223&amp;resume=false&amp;u=2274545">https://www.linkedin.com/learning/time-management-working-from-home/making-working-from-home-work?autoplay=true&amp;dApp=9797223&amp;resume=false&amp;u=2274545</a>	77 min

# Further material: communication

*R. Atkins (2023): The art of explanation, Wildfire, London.*

Question-based approach: BBS session on shiny dashboards for clinical trial data – YouTube [\(starts at 20:40\)](#)