Henry – Don't Forget to hit record!

Let's Talk: Communicating a problem

Facilitated by: Dr. Jason Simms
2023 Virtual Residency, June 28th

CyberAmbassadors
Professional Skills for Interdisciplinary Work

Acknowledgements

Chatter

1. Type your response into the chat window, but **WAIT** to hit enter

2. Listen for the countdown (three, two, one, CHAT!)

3. Hit enter and watch the responses scroll through the chat window!

Chatter

Where in the world
are you zooming from?
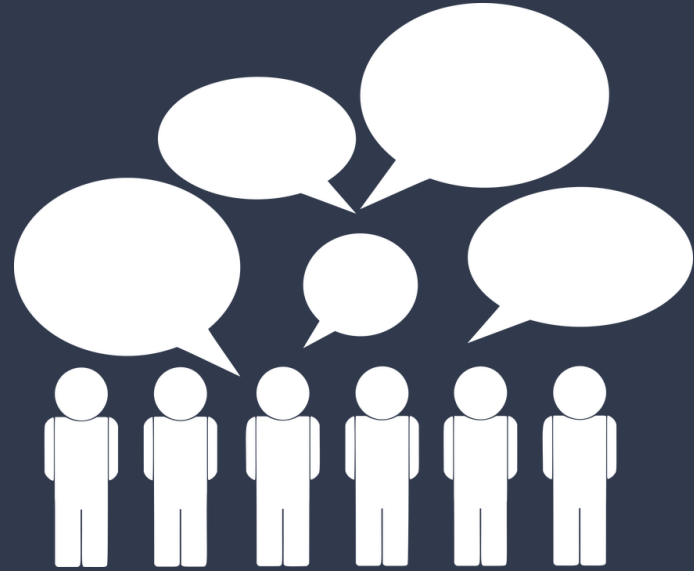
Learning Goals

By the end of this session, participants will have the knowledge and skills to:

- Define effective problem solving and effective communication
- Identify the characteristics of three common types of problems
- Describe the impact of communication style and list factors that can influence individual styles
- Illustrate the use of expectations and observations to invite conversation and avoid arguments
- Reflect on the training and identify areas where they can apply what they've learned

Agenda

- <u>Defining Effective Problem Solving</u>
- Types of Problems and Solutions
- Impact of Communication Style
- Communication Practice

How do we define a Problem?

Chatter

How do we define a Problem?
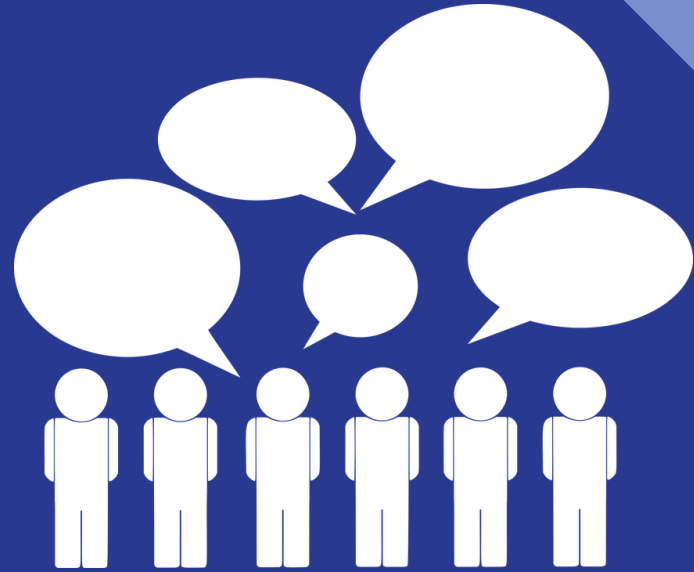
prob·lem

/ˈpräbləm/ 🔊

noun

1. a matter or situation regarded as unwelcome or harmful and needing to be dealt with and overcome.
   "they have financial problems"
   synonyms: difficulty, issue, trouble, worry, complication, difficult situation, mess, muddle, mix-up;
   More

2. PHYSICS · MATHEMATICS
   an inquiry starting from given conditions to investigate or demonstrate a fact, result, or law.

From Google Dictionary

How do we define a problem?

https://www.skillsyouneed.com/ips/problem-solving

Goal

BARRIER

How do we define a solution?

https://www.skillsyouneed.com/ips/problem-solving

Goal

BARRIER

How do we define an **effective** solution?

Solve the Problem

- Remove barriers
- Find a solution
- Implement the plan

&
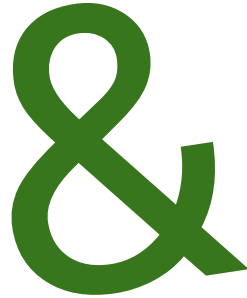
Maintain the Relationship

- Build teamwork
- Strengthen connections
- Foundation for future success

Agenda

- Defining Effective Problem Solving
- <u>Types of Problems and Solutions</u>
- Impact of Communication Style
- Communication Practice

Whose problem is it?

- Other people come to us with a technical problem.
- We have a problem with with someone else.

Example problem solving

Question: I started my Matlab interaction session and it went crashed every time I start my code. Could you help me find out where the problem is?

Response: The failure may due to the out-of-memory. Please increase the memory size and try again.

Example problem solving

Question: May I ask if the password for the sudo command is the same one as my log-in password? I tried to use the "sudo python setup.py install" under python directory, but it seems that my sudo password does not match my hpc log-in password. – Pat

Response: Hi Pat, sudo is not allowed for users. If you want to use pip, please install Anaconda. Instructions can be found **HERE** - Best, Chris

We Have
a Problem

Chatter

What are some possible causes of our problem?
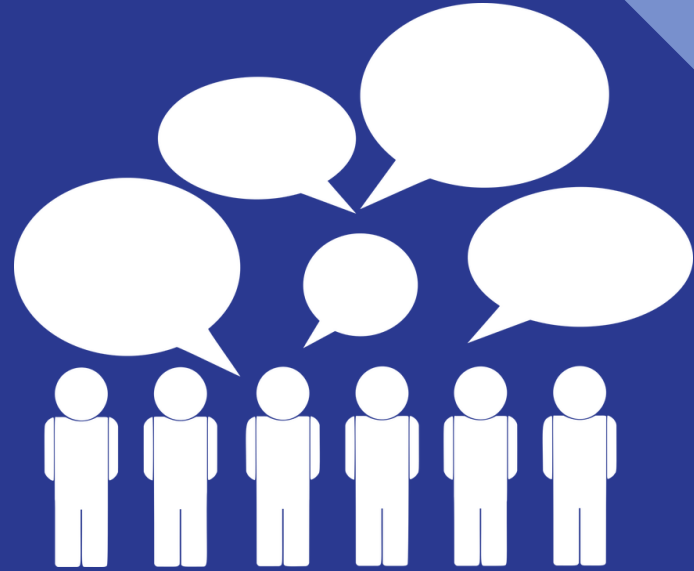
Categories of problems

- Ability Problems

- Motivational Problems

- Interpersonal Problems

Ability Problems
"I can't do this"

- Lack of resources

- Lack of knowledge

- Lack of skills

- Lack of experience

Solving Ability Problems

1. Ask questions: what is going on?
2. Listen carefully: is this really an ability problem?
3. Avoid assumptions: don't jump to conclusions or solutions until you understand
4. Work collaboratively to identify a solution: what needs to change?

Motivational Problems
"I don't want to do this"

- Inconvenient

- Undesirable

- Difficult

- Boring
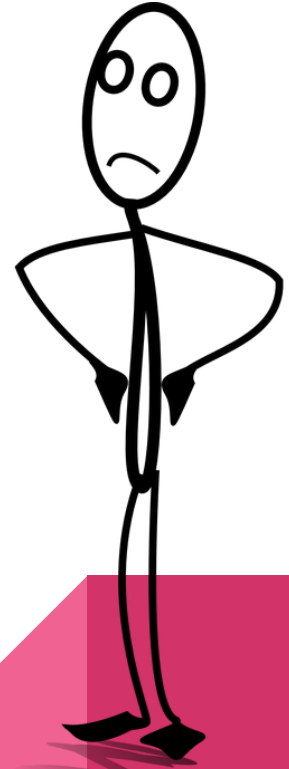
Solving Motivational Problems

1. Ask questions: what is going on?
    - Listen carefully: is this really a motivational problem?
    - Avoid assumptions: don't jump to conclusions or solutions until you understand

2. Motivate by communicating consequences
    - Natural consequences: what is the impact on the task?
    - Imposed consequences: what is the impact on the person?

3. Follow up to ensure an effective solution (solve problem + maintain relationship)
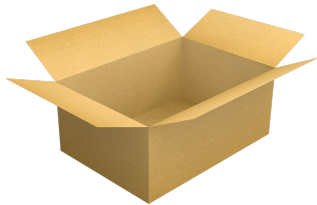
Interpersonal Problems
"You can't make me do this"

- Personality conflicts

- Negative experiences

- Lack of mutual respect

- Misunderstandings
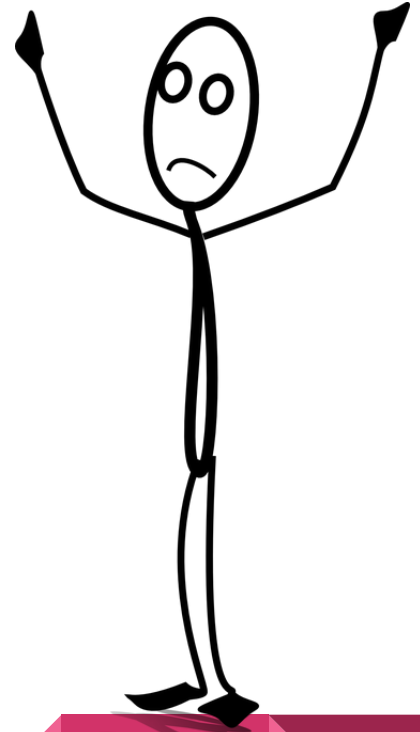
Solving Interpersonal Problems

1. Ask questions and listen carefully: what is going on?
   - Acknowledge emotion without judgement ("that seems really challenging")
   - Avoid assumptions: don't jump to conclusions or solutions until you understand
   - Consider both sides: where might you be wrong?
   - Pay attention to communication style differences, and adjust accordingly

2. Work collaboratively to repair the relationship first, then consider problem solving
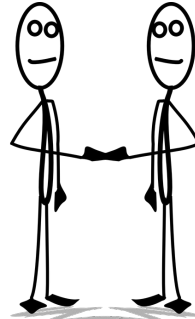
The Challenge of Strong Emotions

Strong feelings can get in the way of logical thinking
- Miscommunications and misunderstandings are common
- Facts can be lost or confused
- We want to win the argument, even if we are not on the "right" side

Strong feelings can lead to a Fool's Choice
- A false dilemma between two (bad) options -- "cheat on a test or lose a scholarship"
- In reality, there are alternative solutions
  - Reschedule the test, complete extra credit, ask for help, get a job, take a semester off, find a tutor, apply for other financial aid ….

Addressing Strong Emotions

Manage your own emotions

- Stay calm and model effective coping behaviors (pauses, deep breathing, etc.)

Acknowledge emotion without judgement

- Ask neutral questions ("how are you doing?" "is everything OK?")
- Listen carefully and try to understand what is going on

Focus on the individual and their emotional needs

- Problem solving can happen later

Agenda

- Defining Effective Problem Solving
- Types of Problems and Solutions
- Problem Solving Practice
- Impact of Communication Style
- Communication Practice

Rehearsal Activity: Problem Solving Process

Your team has a report due in two days, right before the start of a 2-week holiday. Everyone is anxious to take a break and has been working overtime to compile the information. But when you reviewed the draft this morning, you realized there are significant inconsistencies.

What is the problem? How will you solve it?

Your team has a reporting deadline in two days, right before the start of a 2-week shutdown. Everyone is anxious to take a break and has been pushing hard to get the release finished on time. But this morning's results show new inconsistencies in the data analysis.

What is the problem? How will you solve it?

Problem Solving Instructions: Virtual Breakout Rooms

- Add an underscore "ZZ_" to your zoom username if you will not be able to participate in the breakout rooms.
- Accept the breakout room invitation, 4-5 people per room
  - Write down the room number, in case you need to rejoin later
- The person whose first name comes FIRST alphabetically will be the timekeeper
- Briefly introduce yourselves (name, company/organization, role)
- Discuss the problem diagnosis example
- Have someone take a few notes, so that your group can "report out" afterwards
- At the end of the activity, everyone should go back to the large group for a debrief

Notes for Nextime

Give better instructions

    More details about what they should output

    Tell the rooms how long they will be in there.

Calculate the number of rooms as (Total participants - ZZ_participants)/5

    Don't use the automatic calculator

Add a co-host so they can help with the rooms.

ONLINE ADAPTATION: Problem Solving

Please see the slide notes for suggestions on how to adapt this activity for online delivery.

Agenda

- Defining Effective Problem Solving
- Types of Problems and Solutions
- Impact of Communication Style
- Communication Practice

So why is effective problem solving so hard?!

Solve the Problem

&

Maintain the Relationship

Effective Communication

Relationships

Trust, Respect, Effort
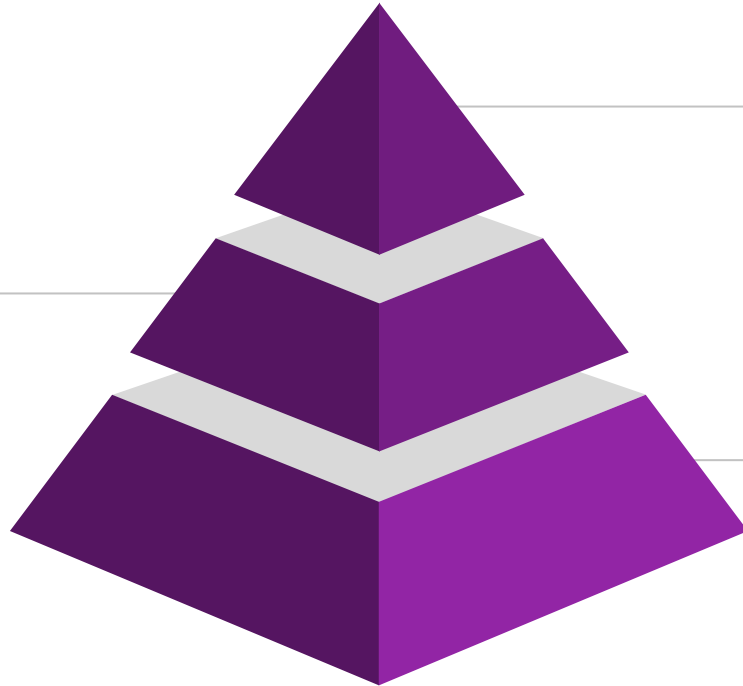
Communication Style Matters

We form unconscious opinions about people based on their communication styles

- Accent
- Culture
- Pitch of voice
- Speed and pacing
- Pausing to allow others to speak

We tend to like people with communication
styles **similar to our own**

"Many of our motives, so obvious to us, are never perceived by the people we talk to. Many instances of rudeness, stubbornness, inconsiderateness, or refusal to cooperate are really caused by differences in conversational style."

~ Deborah Tannen

Ask Culture

"Feel free to say no…"

It's polite to ask for what you want, since you'll accept 'no' as an answer.

Guess Culture

(Don't make me say no)

It's rude to ask for what you want, unless you're sure the answer is 'yes.'

___

When Styles Collide…

"Will you make dinner tonight? I have a late meeting."

"Can't you remember I have a class tonight?
Why did you assume I can do it? You're so insensitive!"

**"But I just <u>asked</u>. You could have said no if you were too busy.
You don't have to get upset."**

"But you should pay enough attention <u>to know when you shouldn't ask</u>!"

Rehearsal Activity: Communication Styles

Mirroring

An effort to match communication styles with your partner

Psychological, mirroring is "unconscious agreement"

Mirroring behavior builds trust, makes others feel at ease

ONLINE ADAPTATION: Mirroring

Please see the slide notes for suggestions on how to adapt this activity for online delivery.

Agenda

- Defining Effective Problem Solving
- Types of Problems and Solutions
- Problem Solving Practice
- Impact of Communication Style
- <u>Communication Practice</u>
- Wrap Up and Evaluations

How to Start Conversations, Not Arguments

Invite conversation by sharing expectations and observations
- **Expectations** are what we think, wish or assume to be the truth
- **Observations** are facts: what do we know, based on actual experience or data?

It's important to communicate expectations first and then observations
- When we feel defensive, we may not be listening carefully
- We are more likely to remember the last thing we heard

The goal is conversation, not argument
- It's easy to argue about expectations
- We're more inclined to have discussions about facts
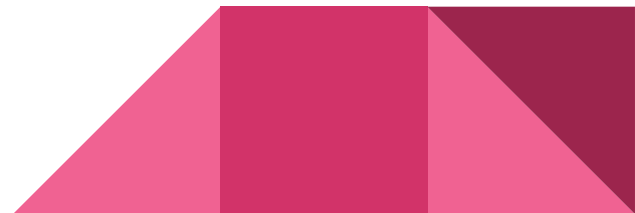
But What if you Still Disagree?

Our expectations and opinions may be different, but we can still work together
- Communicating effectively about diverse ideas can lead to new solutions

Can you "agree to disagree"?
- Yes, if the idea is not central to the solution
- No, if the disagreement is about factual information or is critical to the success of the solution

When you disagree, remember your ABCs
- **Agree.** Start by finding the points where you agree.
- **Build.** Use these points of agreement as a foundation to build the relationship.
- **Compare.** Work together to examine the areas of disagreement and compare both perspectives. You may not always find solutions, but you will gain understanding and build relationships.

Rehearsal Activity: Effective Communication

Let's Practice: Email Communications

Use expectations and observations to communicate about problems
- Email offers the opportunity to draft, review and revise
- Don't fill in the "to" field until you're actually ready to send the final version!

Clearly state your expectations
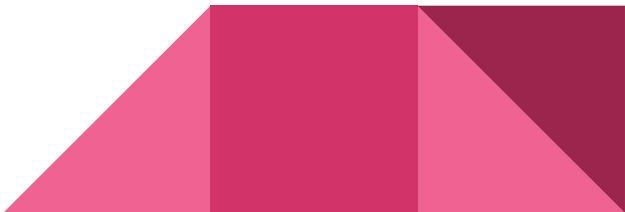- What did you expect to happen?

Clearly describe your observations
- What did you see / hear / read / experience?
- When did you observe this?
- Who was involved?

Avoid assumptions
- You may not understand the true source of the problem

Email Example - Misusing HPC

Dear Jazz,

Your jobs are going over resource limits and causing the nodes to go down. You need to stop running them immediately or we will disable your account.

- HPC Team

Dear Jazz,

The HPC system limits jobs in order to make the resources available to everyone. We noticed that your jobs are consistently going over these limits, which causes the nodes to go down.

Would you please set up an appointment so that we can talk about your resource needs and try to identify a solution?

- HPC Team

Email Example - IT Problems

Dear Dr. Xio,

From now on please come to me with all questions and comments instead of the IT staff. I realize that there is a problem on the system that is impacting your work, but my staff is trying their best to fix the problem and your constant interruptions are distracting them and makes fixing the problem take longer.

- Rory

Dear Dr. Xio,

The IT department has a ticketing system for our users to submit requests and let us know when there are problems. I understand that you came into the office three times last week asking our staff to resolve a problem impacting your work.

I rely on the ticketing system to track problems and assign staff to address them. **Please make sure to submit a ticket when you have an IT concern; if you do not receive a response within 48 hours, feel free to email me directly.**

- Rory

Email Example - Interruptions

Dear Ali,

I am sick and tired of you interrupting me during meetings. My opinion is just as important as yours. Please stop.

-    Kris

Dear Ali,

The ground rules for our weekly meetings include making sure that everyone has a chance to contribute to the conversation. I noticed that you interrupted me twice at the meeting this morning, which meant I wasn't able to fully explain my idea for the project.

I'd like to present my idea at our next meeting; would you please include 10 minutes for me in the agenda?

-    Kris

Email Example - Sandwiching

Dear Alexis,

I really like the energy you are bringing to the team. However, I have noticed that you have stopped writing weekly reports. We really need them. You have also created a wonderful workspace. Keep up the good work.

-   Sage

Dear Alexis,

Each member of our team is expected to submit weekly progress reports. I haven't received your updates for the last two weeks, which means that I don't know the current status of your project.

Please schedule an appointment within the next three days so that we can talk about your progress.

-   Sage

Email Example - Help with Class

Dear Dr. Horton,

I really like your class, however, I am having trouble understanding your accent. Would it be possible to go to Dr. Aderal's section instead?

Thank you,

Reese

Dear Dr. Horton,

I know that lectures are an important part of your class, and I have been attending regularly. However, I'm having trouble understanding you during class, which means that I am falling behind.

Could I come to your office hours on Friday to talk about this?

Thank you,

Reese

Email Example - Student Intern

Dear Harley,

You are not spending enough time in the office and therefore not getting enough work done. I need you to either put in the time that is needed or you need to let me know so I can hire a different student to take your place.

Quinn

Dear Harley,

As part of orientation, we explained that interns are expected to be in the office from 8am to 5pm, with a one hour lunch break. I've noticed that you haven't been at your desk until after 9:30 this week, and that you were gone by 3pm on Tuesday and Wednesday. Since you weren't at your desk, I wasn't able to talk to you about the draft report you submitted.

Please come to my office at 8am tomorrow so that we can talk about what's going on.

Quinn

ONLINE ADAPTATION: Email Communications

Please see the slide notes for suggestions on how to adapt this activity for online delivery.

Email Communications Instructions: Virtual Breakout Rooms

- Accept the breakout room invitation, 4-5 people per room
  - Write down the room number, in case you need to rejoin later
- The person whose first name comes FIRST alphabetically will be the timekeeper
- Briefly introduce yourselves (name, company/organization, role)
- Discuss the email communications examples
- Have someone take a few notes, so that your group can "report out" afterwards
- At the end of the activity, everyone should go back to the large group for a debrief

Agenda

- Defining Effective Problem Solving
- Types of Problems and Solutions
- Problem Solving Practice
- Impact of Communication Style
- Communication Practice
- Wrap Up and Evaluations

Learning Goals

By the end of this session, participants will have the knowledge and skills to:

- Define effective problem solving and effective communication
- Identify the characteristics of three common types of problems
- Practice different processes for diagnosing and solving problems
- Describe the impact of communication style and list factors that can influence individual styles
- Illustrate the use of expectations and observations to invite conversation and avoid arguments
- Reflect on the training and identify areas where they can apply what they've learned