



WELCOME

Team Science Basics

February 18, 2022; 4:00 – 5:30pm UTC+3 (EAT)

Panelists: Jack Kues, Jennifer Rose Molano, Angela Mendell, Megan Johnstone, and Elizabeth Kopras

Hosts: Stephanie Schuckman and Laura Hildreth

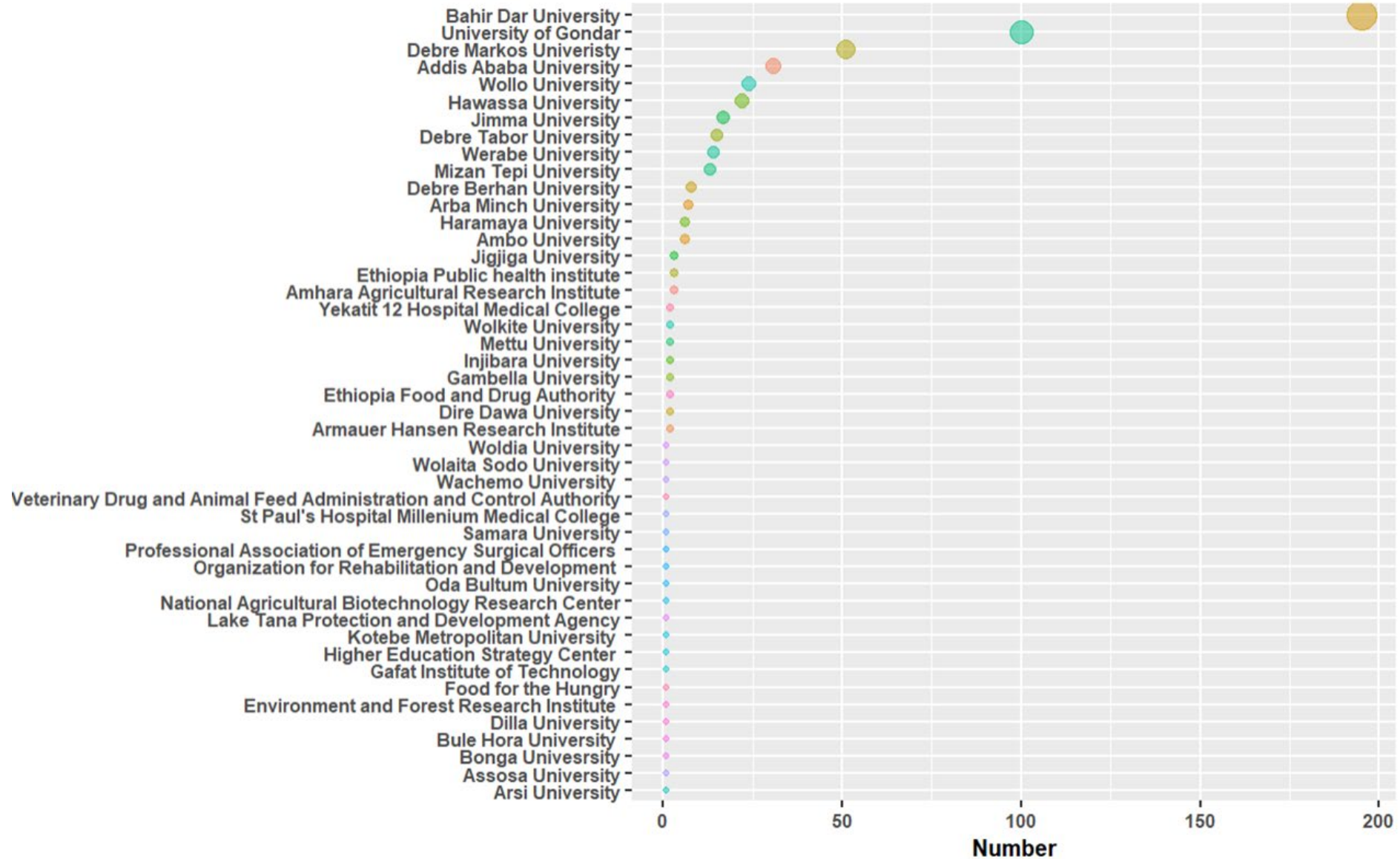
Presented in partnership with Firew Tegegne, PhD, President, Bahir Dar University; Charles J. Schubert, MD, and Tesfaye Mersha, PhD, Cincinnati Children's Hospital Medical Center and UC Department of Family Medicine, Division of Urban, Underserved and Global Health





- Addis Ababa University
- Addis Continental Institute of Public Health
- Ambo University
- Amhara Agricultural Research Institute
- ANRS Lake Tana & Other Water Bodies Office
- Arba Minch University
- Armauer Hansen Research Institute
- Arsi University
- Assosa University
- Bahir Dar University
- Bonga University
- Bule Hora University
- Debre Berhan University
- Debre Markos University
- Debre Tabor University
- Dilla University
- Dire Dawa University
- Ethiopia Food & Drug Authority
- Ethiopia Public Health Institute
- Ethiopian Institute of Textile & Fashion Institution
- Ethiopia Veterinary Drug & Animal Feed Administration
- Gafat Institute of Technology
- Gambella University
- George Washington University
- Haramaya University
- Hawassa University
- Higher Education Strategy Center
- Injibara University
- Institute of Automation, China
- Jigjiga University
- Jimma University
- Kenya Medical Research Institute
- King Faisal Hospital Rwanda
- Kotebe Metropolitan University
- Menzies School of Health Research
- Mettu University
- Mizan Tepi University
- National Agricultural Biotechnology Research Center
- Norwegian University of Science & Technology
- Oda Bultum University
- Ohio State University
- Prairie View A&M University
- Professional Association of Emergency Surgical Officers in Ethiopia
- Samara University
- St. Paul's Hospital Millenium Medical College
- University of Adelaide
- University of Global Health Equity
- University of Gondar
- University of Nairobi
- University of Tasmania
- Wachemo University
- Werabe University
- Wolaita Sodo University
- Woldia University
- Wolkite University
- Wollo University
- Yekatit 12 Hospital Medical College

Institutions Represented





As we get started:

- Know this Webinar is being **recorded**
 - *Only Hosts and Panelists will be seen on the recording.*
- Please post questions in the **Q&A**
 - *We can send a follow-up email with the entire list of Questions & Answers post workshop.*

Our Team



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Urban Health
Pathway



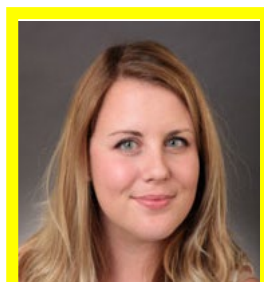
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Presentation Topic Overview

The Development of Team Science

The Benefits and challenges of working in teams

Building and maintaining high functioning teams

Communication as a key to successful collaboration

Working in teams





Polling Question #1



How much of your current work/activities are done in teams?

- 1. Less than 10%
- 2. 10-25%
- 3. 26-50%
- 4. 51-75%
- 5. 76-90%
- 6. More than 90%



Polling Question #2

In the last 2 years, how many of the teams you worked on would you consider successful?



1. Very few of my teams
2. About a quarter
3. Half
4. Most
5. Almost all of my teams



Do I need to
Collaborate?

"It Depends"

-Socrates

Do I NEED to Collaborate?

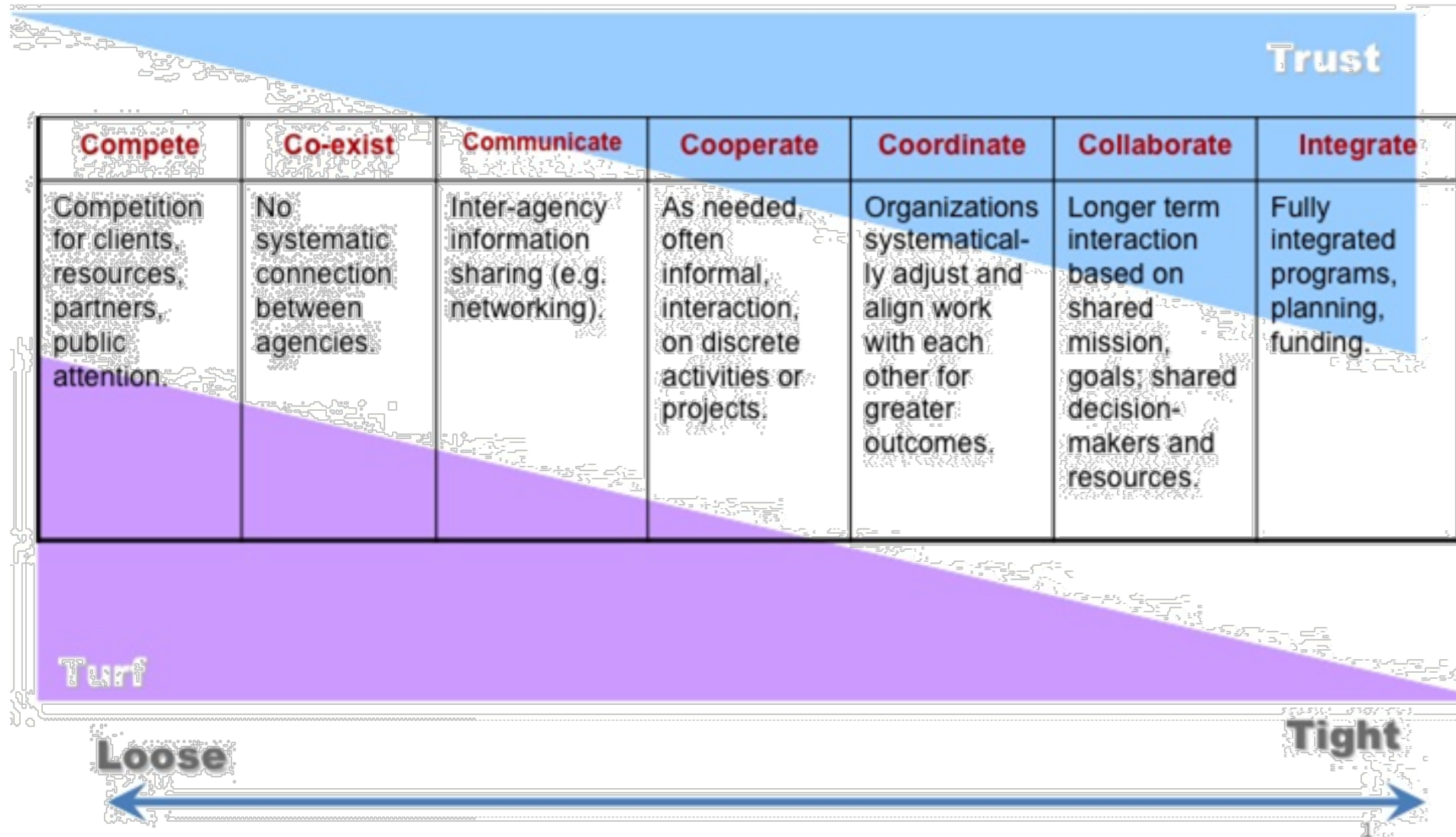
Advantages of collaboration

- Diverse perspectives
- Share the work
- More innovation
- More productive
- Enjoyment of collaboration

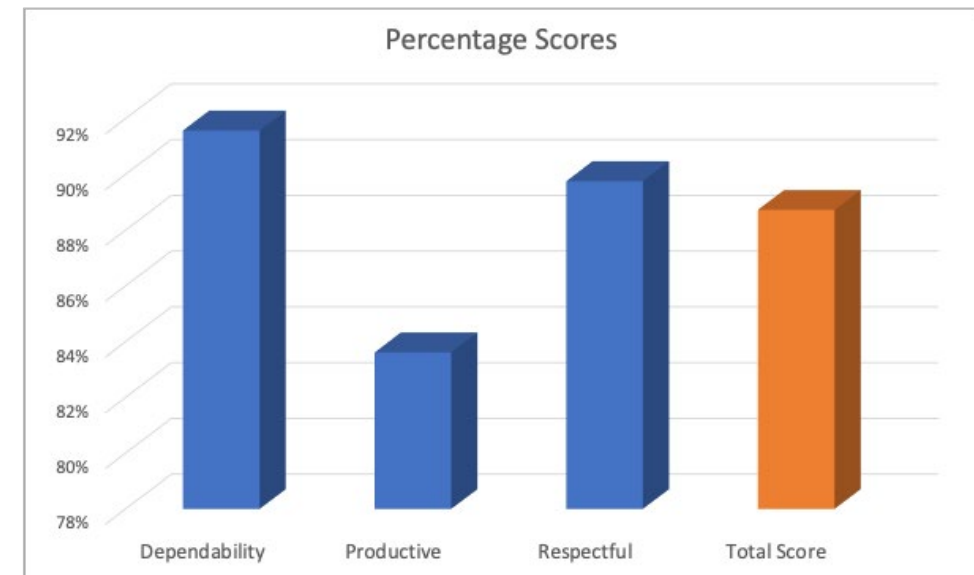
Advantages of doing it yourself

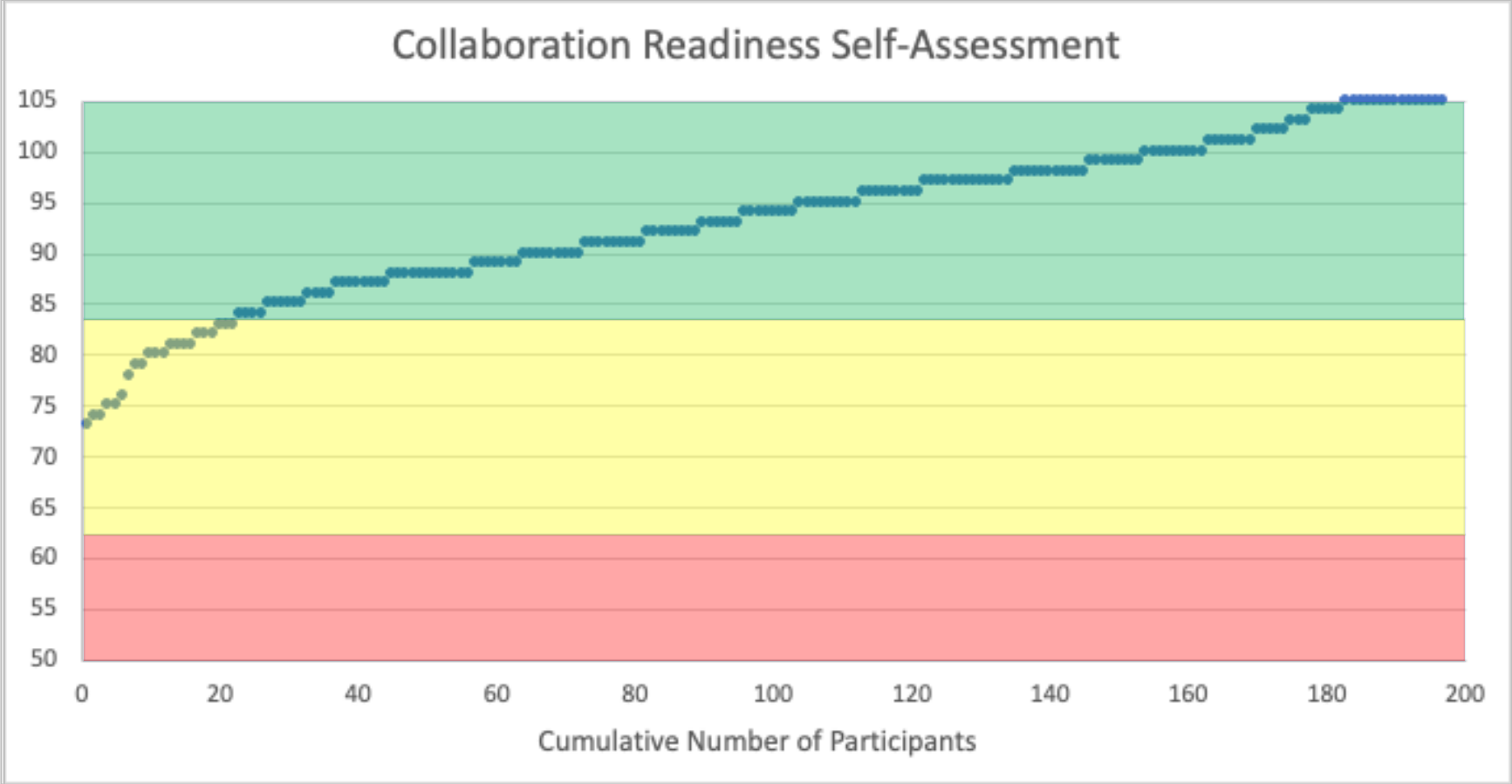
- Total control
- Can be faster
- Accountability
- Avoid “herding cats”
- Works well when task is limited and clear

The Collaboration Continuum

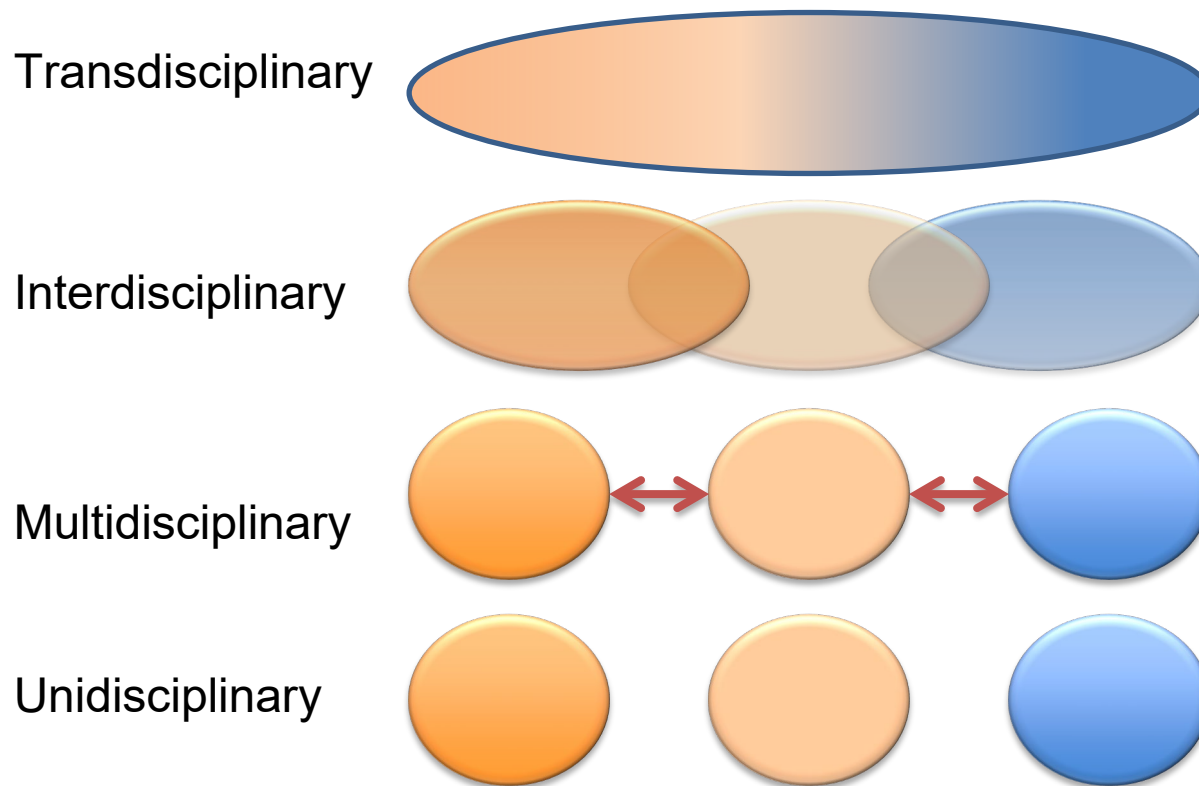


Readiness to Collaborate Pre-work





Collaboration Hierarchy



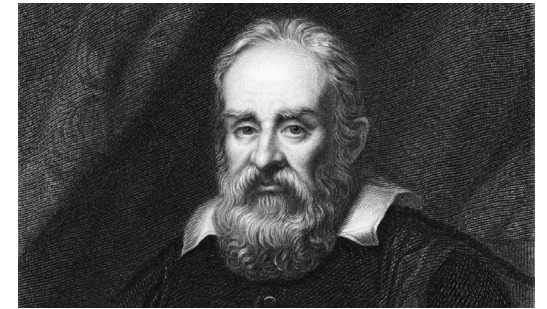
Researchers integrate and transcend disciplinary approaches to generate fundamentally new conceptual frameworks, theories, models, and applications.

Researchers integrate “information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines...to advance fundamental understanding or to solve problems.”

(NAS, NAE, and IOM, 2005, p.26)

Researchers from different disciplines each make separate contributions in an additive way.

Researchers from a single discipline work together to address a common problem.



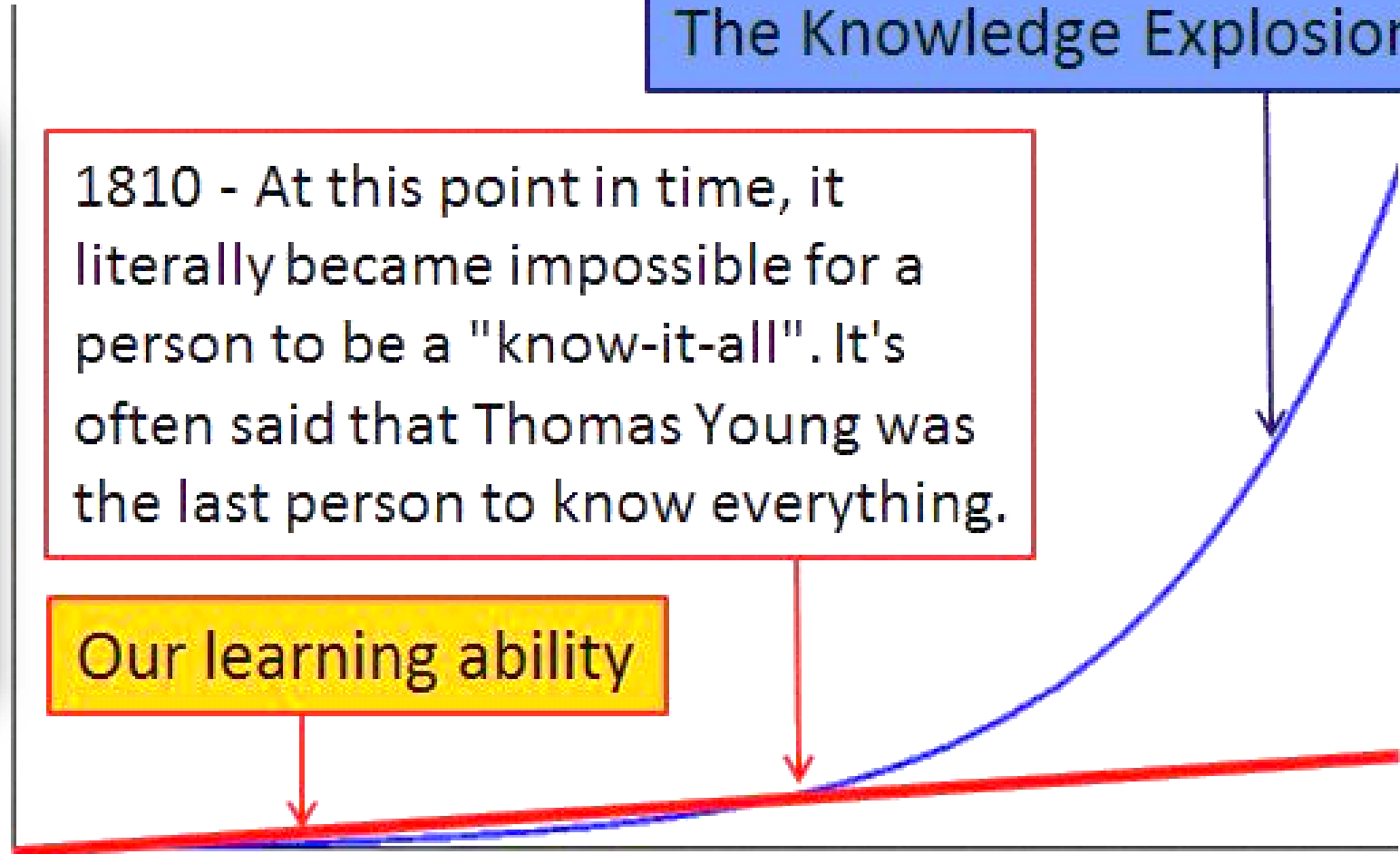
Polymath

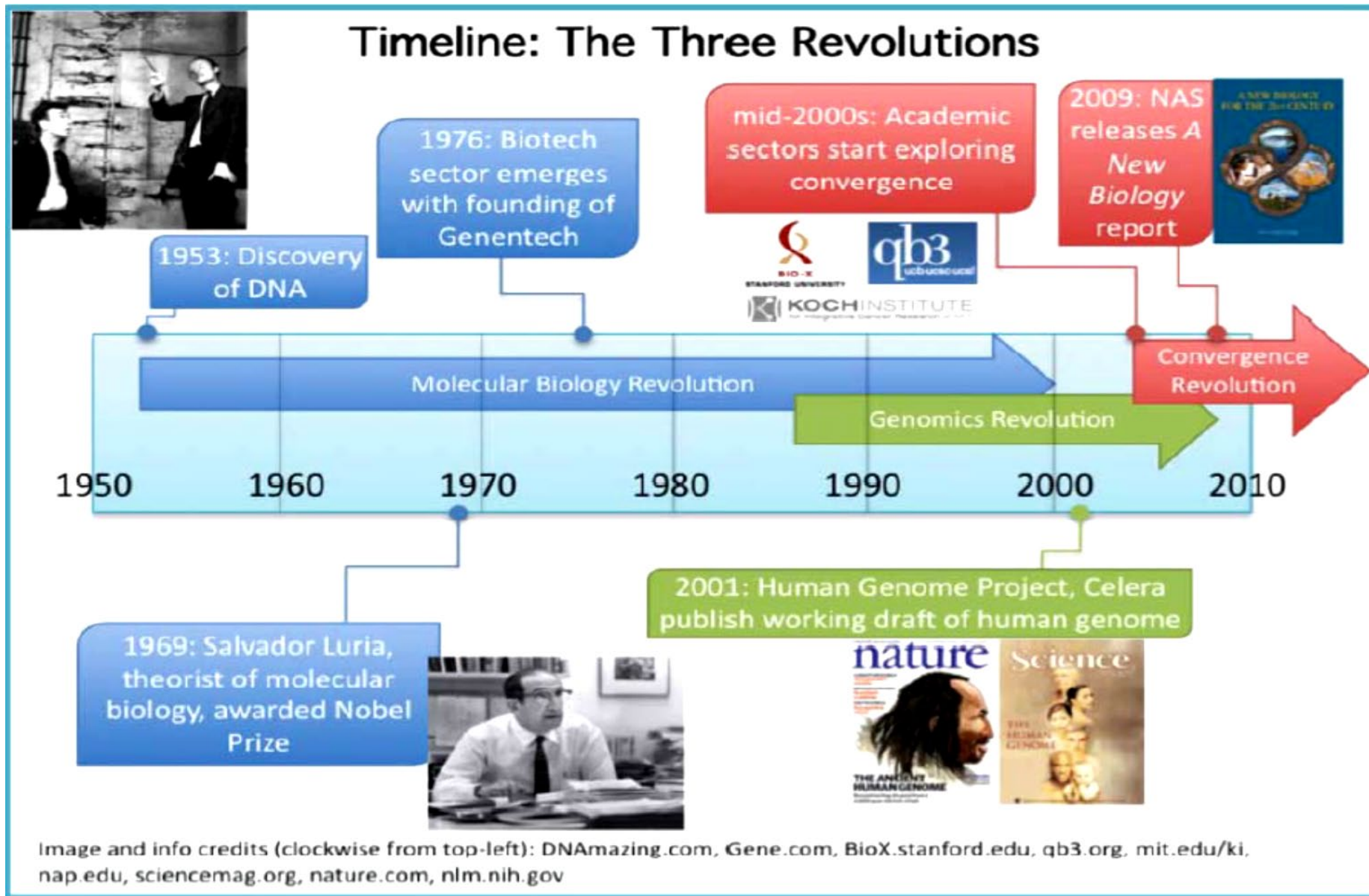


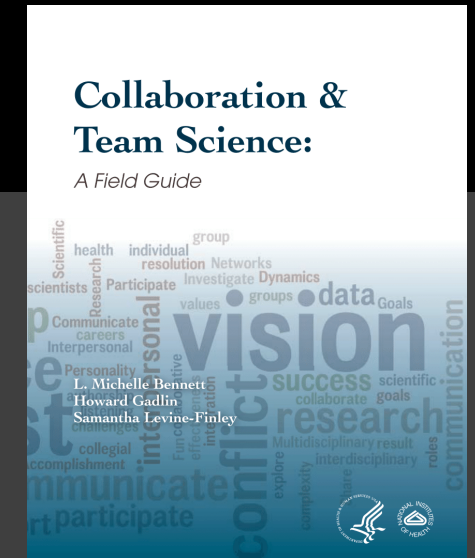
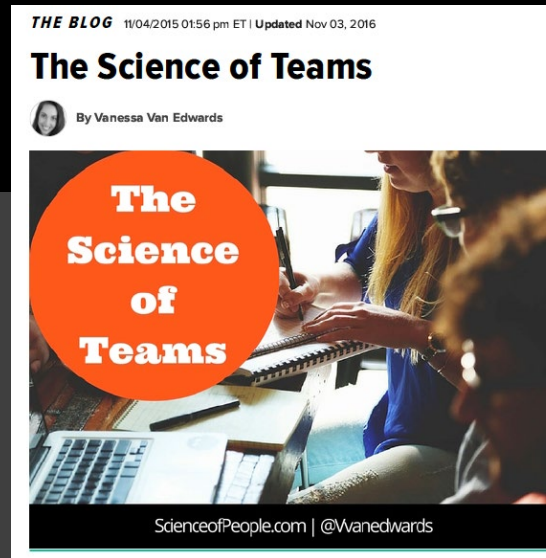
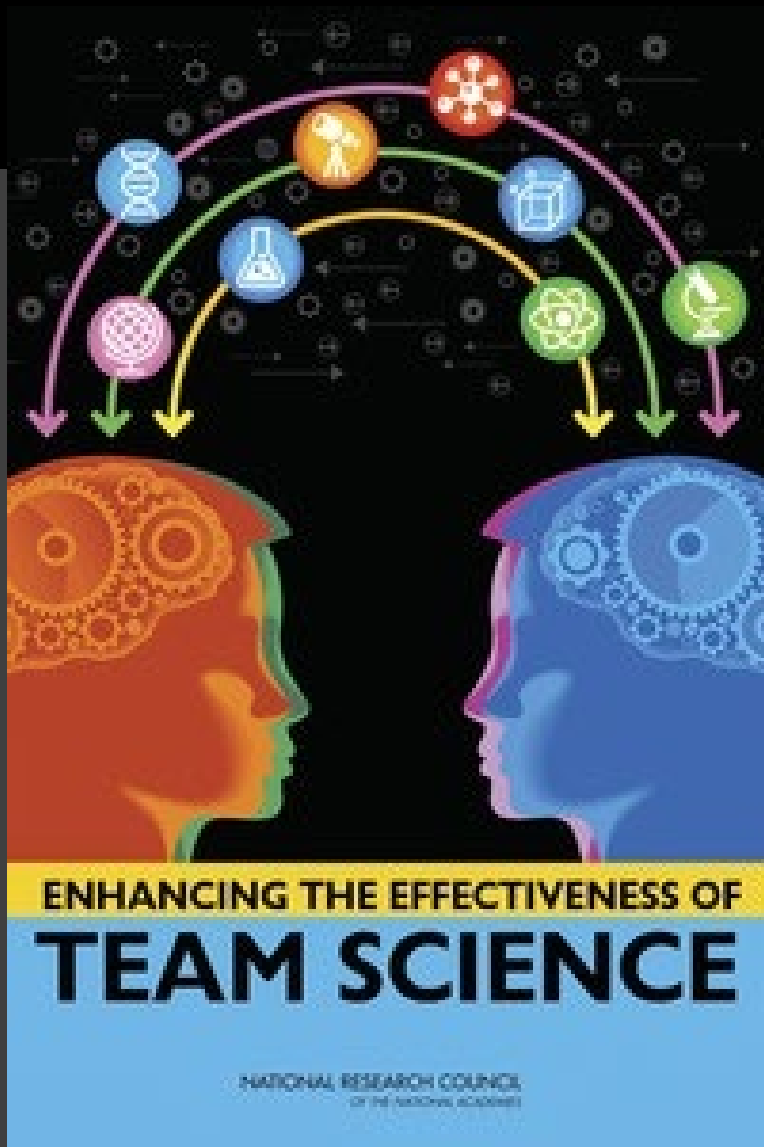
The Knowledge Explosion

1810 - At this point in time, it literally became impossible for a person to be a "know-it-all". It's often said that Thomas Young was the last person to know everything.

Our learning ability







The Science of Teams



Definition: Team Science

“Team Science is a collaborative effort to address a scientific challenge that leverages the strengths and expertise of professionals trained in different fields.”

-Team Science Toolkit - NCI

Definition: The Science of Team Science (SciTS)

...a new interdisciplinary field...which aims to better understand the circumstances that facilitate or hinder effective team-based research and practice and to identify the unique outcomes of these approaches in the areas of productivity, innovation, and translation.

-Stokols et al., 2013 p. 4).





Collaborative Hierarchy



High Performance Team



Real Team

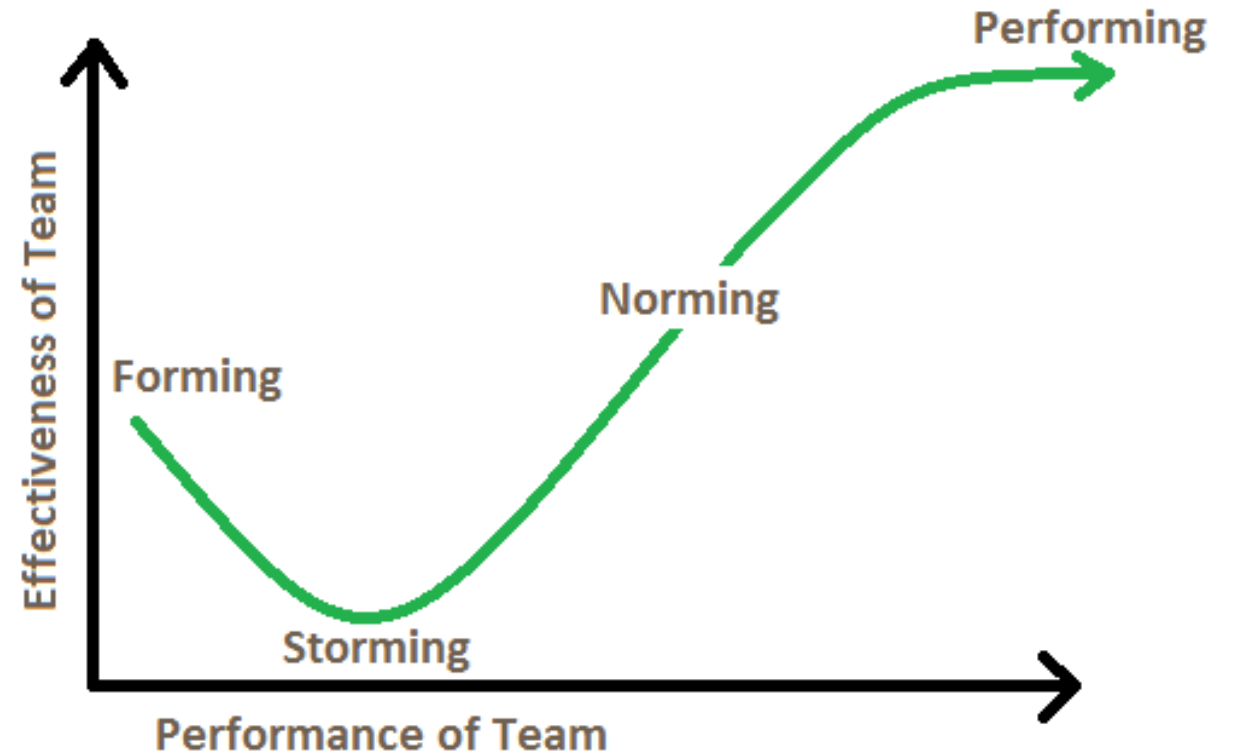


Pseudo Team

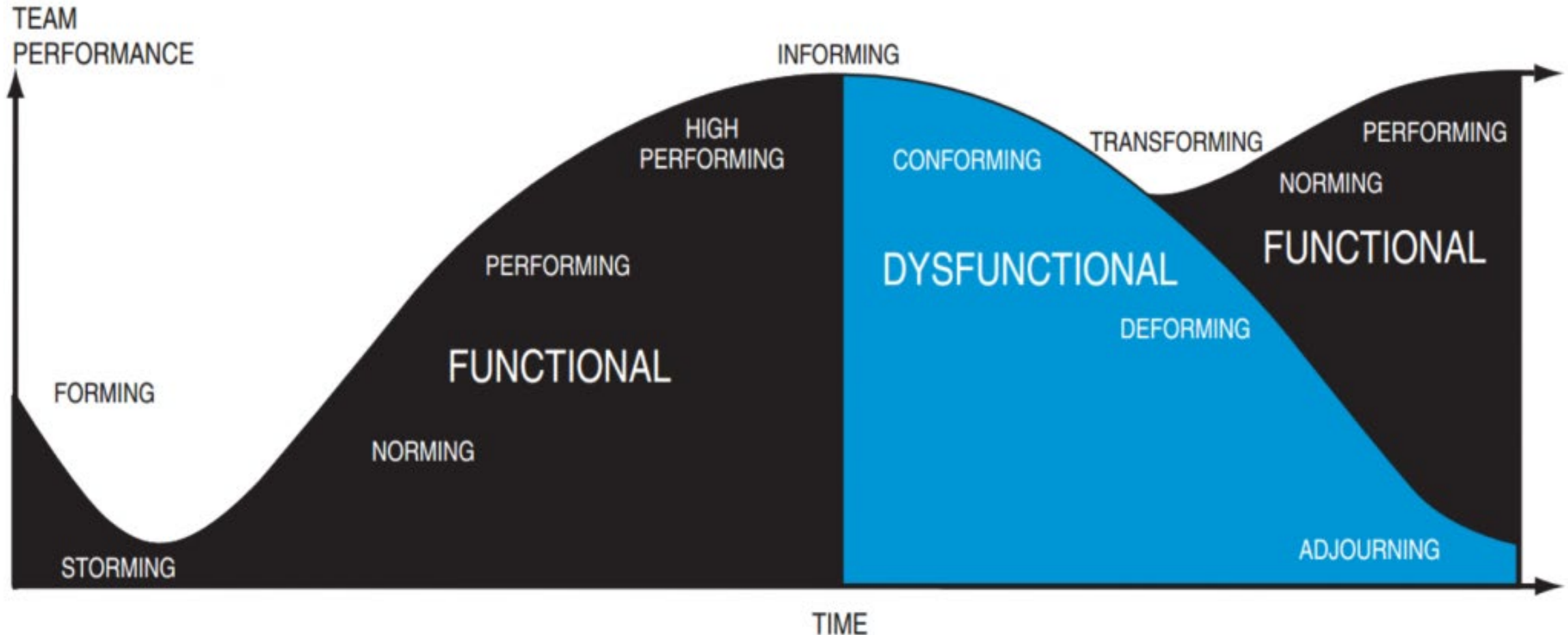


Working Group

Tuckman's Team & Group Development Model



Edison's "New Look"

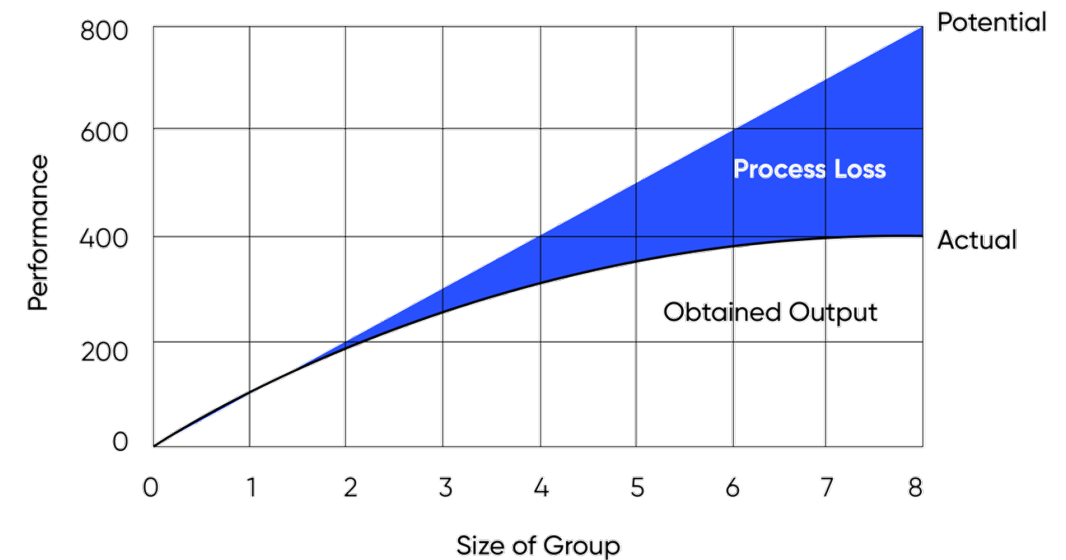


Project Team Performance Curve

Consider Your Team Size

- Most productive team size is 4.6 -*How to Build a Great Team, Fortune*
- Ideal team size is 5 -*Katherine Klein (Wharton School)*
- “Ringelmann Effect”: The larger the team, the lower the individual effort
- Optimal number range is 5-12 or 5-9 or 6
- Consider the task
- Consider ability to communicate effectively

Ringelmann Effect





Functional Areas of Teams

Task Functions

- Initiating
- Information seeking
- Information giving
- Opinion seeking
- Clarifying
- Elaborating
- Coordinating
- Developing procedures
- Summarizing

Maintenance (Team) Functions

- Encouraging
- Expressing feelings
- Having fun
- Compromising
- Facilitating communication
- Interpreting
- Listening
- Following
- Declaring success

Developing a Shared Vision

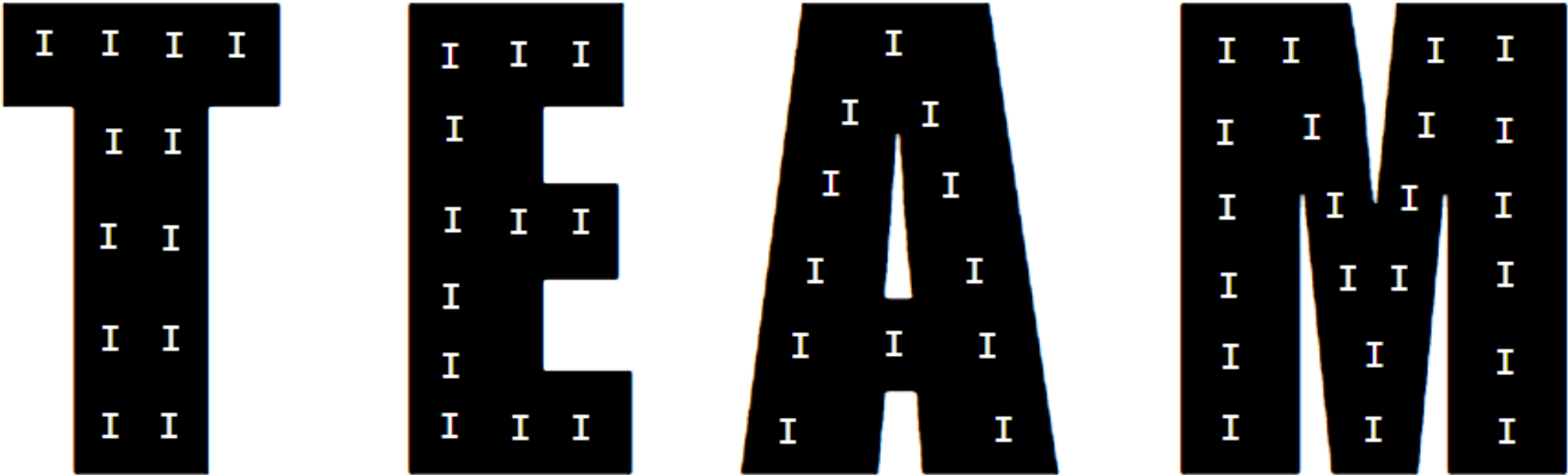
Without a shared vision, group members are, in effect, not working on the same project



- Whether you are leading or participating on a research team, you must be able to articulate and commit to the team's overall goals
- Each team member's individual goals should be clearly stated, and their importance recognized in the context of the team's efforts
- A team's vision is dynamic and will change over time



The impact of.....



Diversity in Teams

- Experiences
- Skills
- Personal characteristics
- Communication styles
- Valuing & leveraging diversity





TRUST

A **belief** in someone's
capability,
credibility, and
reliability.

-Any dictionary



How can we
expect everyone
to be...

- capable
- credible
- reliable

When there are
consequences
for...

- expressing concern
- asking for help
- asking questions
- being wrong
- making mistakes



Building with Trust

Step 1. Identify group behavior

Step 2. Co-create ground rules



Building with Trust

Identify constructive & destructive group behaviors



Constructive Behaviors

COOPERATING

Interested in the views and perspectives of others; willing to adapt for the good of the group.

CLARIFYING

Makes issues clear for the group by listening, summarizing and focusing discussions.

INSPIRING

Enlivens the group, encourages participation and progress.

HARMONIZING

Encourages group cohesion; e.g., uses humor as a relief after a particularly difficult discussion.

RISK TAKING

Willing to risk possible personal loss or embarrassment for the group or project success.

PROCESS CHECKING

Questions the group on process issues such as agenda, time frames, discussion topics, decision methods, etc.



Destructive Behaviors

DOMINATING

Takes much of meeting time expressing their views and opinions. Tries to take control by use of power, time, etc.

RUSHING

Encourages moving on before task is complete. Gets "tired" of listening to others and working as a group.

WITHDRAWING

Removes self from discussions or decision making. Refuses to participate.

DISCOUNTING

Disregards or minimizes ideas or suggestions. Severe forms include insults (often as jokes).

DIGRESSING

Rambles, tells stories, and takes group away from primary purpose.

BLOCKING

Impedes group progress by obstructing all ideas and suggestions. "That will never work because..."



Building with Trust

Step 1. Identify group behavior

Step 2. Co-create ground rules



Ground rules

Maximize

COOPERATING

CLARIFYING

INSPIRING

HARMONIZING

RISK TAKING

PROCESS CHECKING

Minimize

DOMINATING

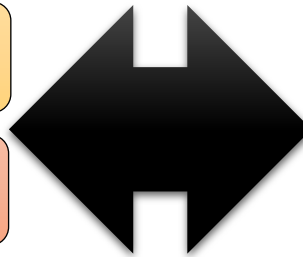
RUSHING

WITHDRAWING

DISCOUNTING

DIGRESSING

BLOCKING





What are **reasonable steps**
to build trust in your work
environment?



Please add your questions to Q&A...

We will discuss after this break.



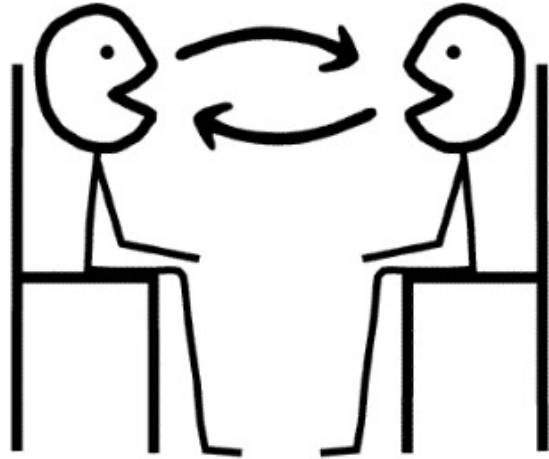


Communication is the Key



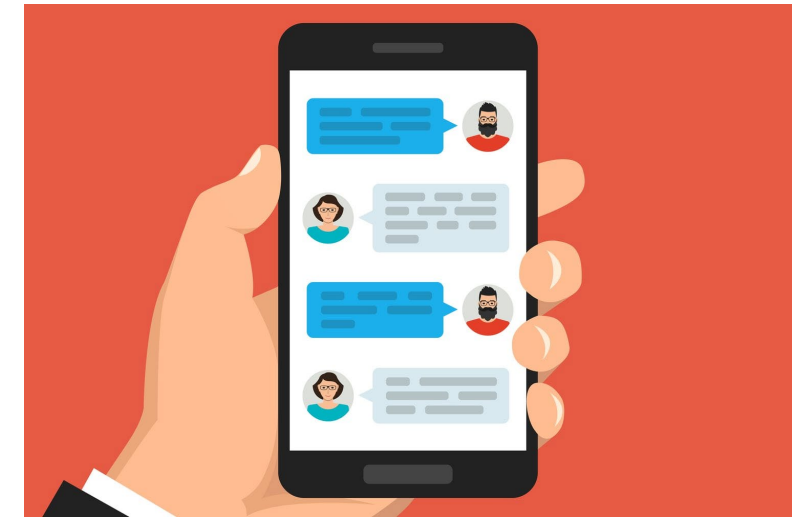


How are you interacting with others?



Face-to-face

E-Mail



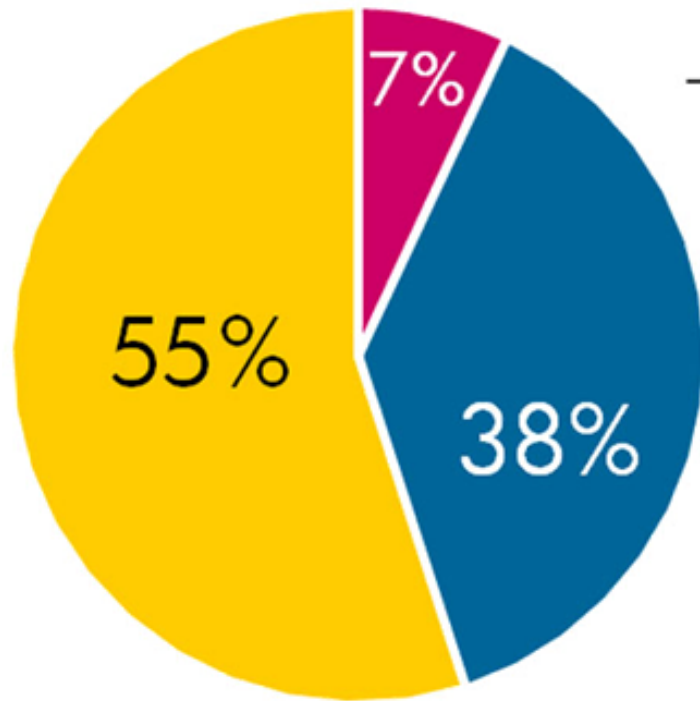
Text Messaging



Communication Channels

- Face-to-face
 - Optimal for co-creation
 - Facilitates the creation of relationships
 - Best for problem solving
- Online Communications
 - Video conferencing
 - E-mail (transmitting large amount of data/instructions/documentations)
 - Limited amount of interpretation
 - Texting
 - Quick back and forth
 - Emotionally sterile

Personal Communication



Dr. Albert Mehrabian's 7-38-55% Rule

Elements of Personal Communication

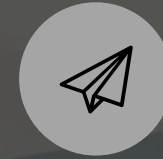
- 7% spoken words
- 38% voice, tone
- 55% body language



If you really
need to reach
me.....



Call me on
my cell



Send me a
text



Call my
assistant



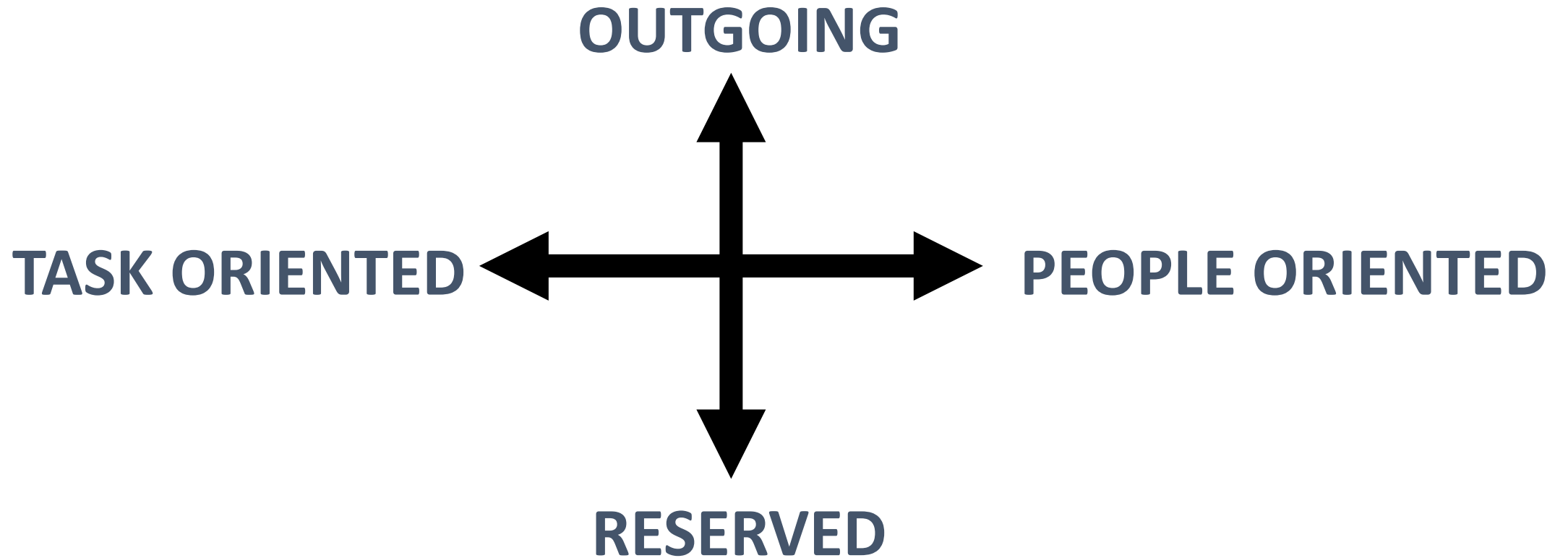
Send me an
e-mail



Come by
my office



Dimensions of Communication Styles





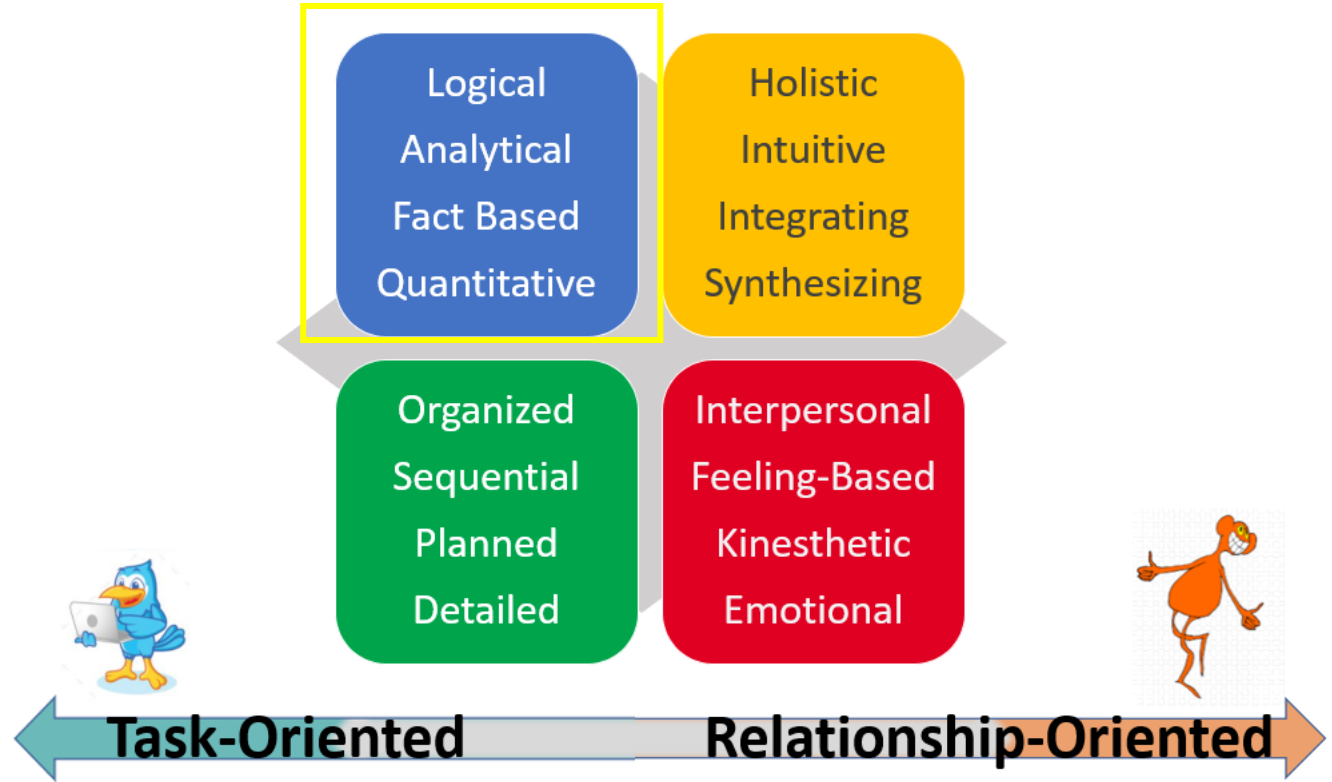
Logical
Analytical
Fact Based
Quantitative

Holistic
Intuitive
Integrating
Synthesizing

Organized
Sequential
Planned
Detailed

Interpersonal
Feeling-Based
Kinesthetic
Emotional





BLUE

- Style is logical, analytical, **decisive**, **tough**.
- No decision made without **facts**.
- Values action, **timelines**, **the bottom line**.
- Tends to get **impatient**.
- Very **results-oriented**.
- **Outspoken**, **assertive** and **likes control**.





BLUE – *in the workplace*

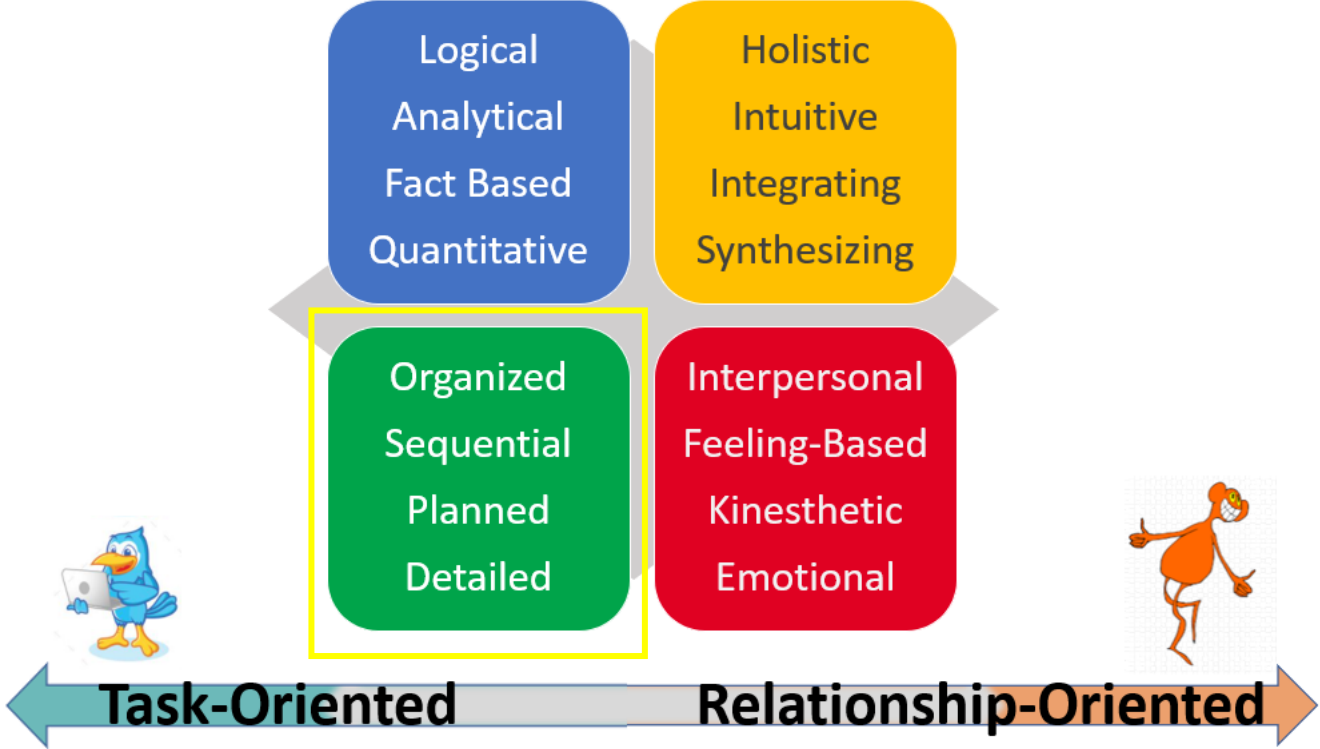
- May appear rushed and **abrupt**.
- Want people to **get to the point quickly**.
- Can be hardnosed, with a great emphasis on **success at any cost**.
- Require his/her staff to be well versed in the **facts**.
- Use **logic** rather than intuition or gut feelings to **make decisions**.



Effective Communication with BLUES

- Be direct and to the point.
- Allow choice when possible.
- Discuss how the results will be accomplished.
- Does it use facts?
- Does it show clear analysis?





GREEN

- **Detail-oriented**, systematic, and structured.
- Organized, **analytical**.
- On time, accurate, and **delivered as promised**.
- **Neatness** and following protocol count.
- **Perfectionist**, critical of yourself and others.





GREEN – *in the workplace*

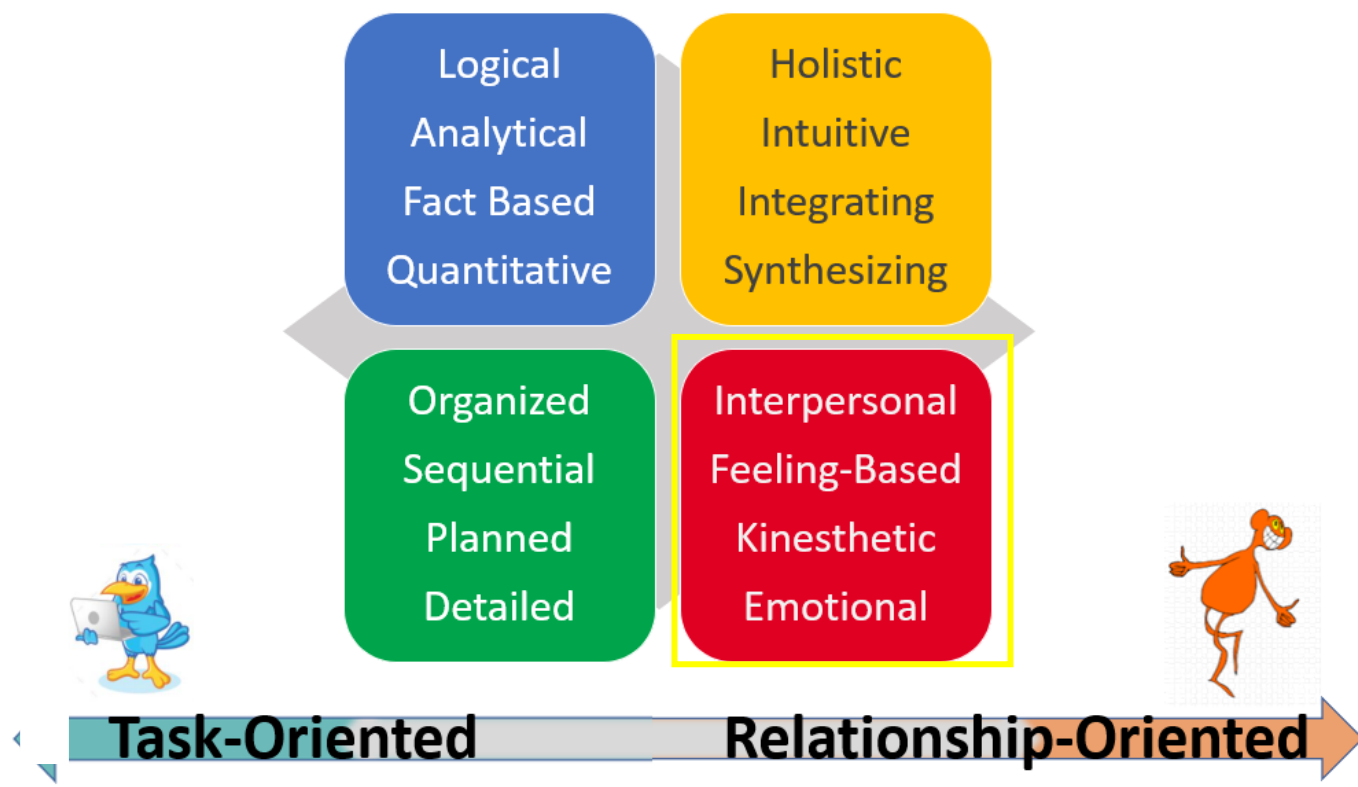
- Weighing **facts** and supporting **data** *before making decision.*
- Values following orders; **meeting project deadline.**
- A well-organized office; **accurate documentation.**
- Often *misunderstood* because may be overly concerned with *accomplishing an error-free task.*
- **Time costs money.**
- **Most private** of all styles.



Effective Communication with GREENS

- Give them ***opportunity to ask questions.***
- Give them the facts; **show it in writing.**
- Focus on *doing the right thing.*
- Does it provide enough detail?
- Is it in sequential order?
- Is it neat?
- Is it in appropriate format?
- What is your deadline?





RED

- Human **values and feelings** are paramount.
- Genuine **concern for others**; sympathetic, friendly.
- Highly participative and **team oriented**.
- Considerate, and likes **harmonious relationships**.
- Prefer to **avoid conflict**.





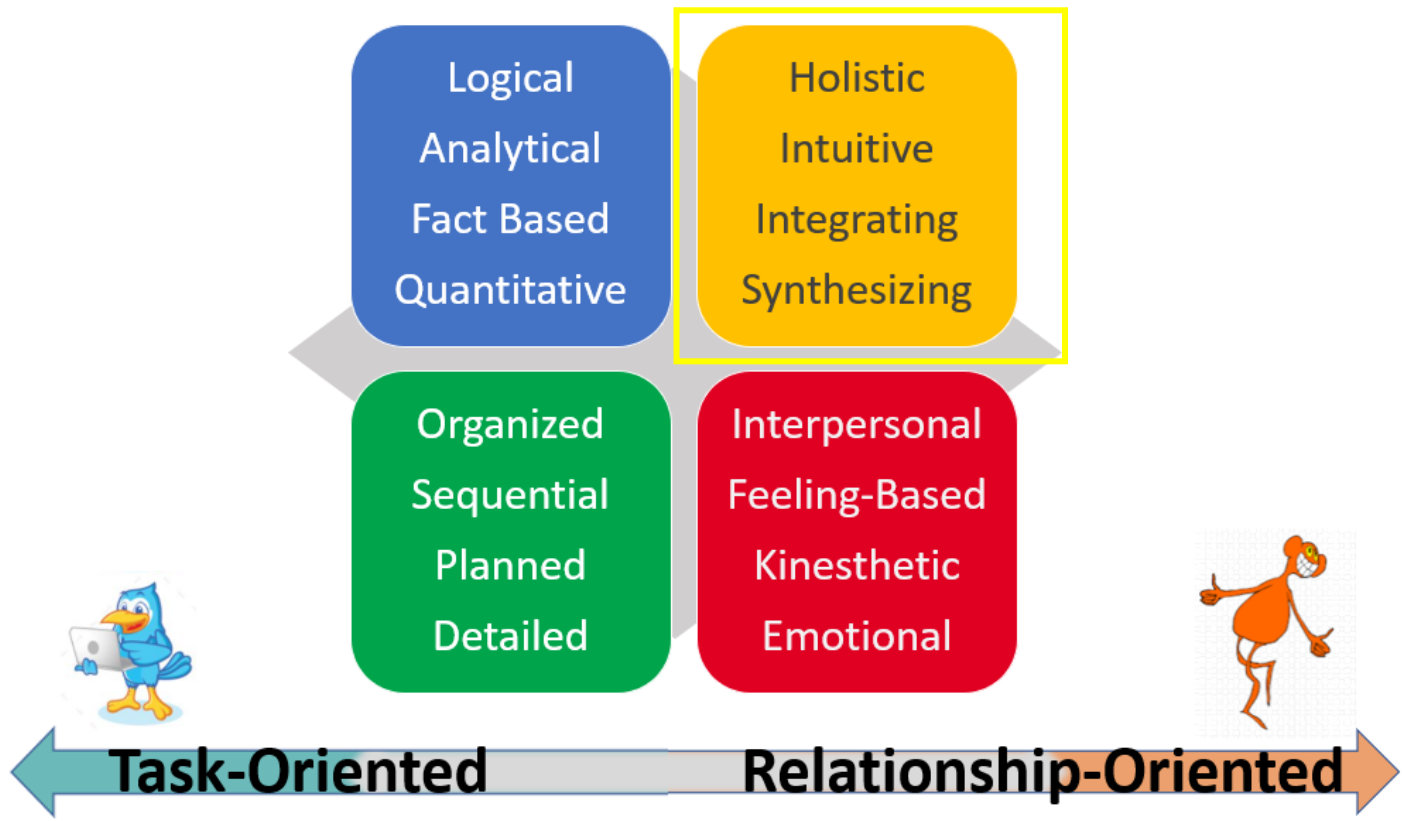
RED – *in the workplace*

- **Blends well with all the other styles**, focusing on nurturing relationships.
- Considers **people as the most important asset**.
- Workplace should be friendly, condones open communication: **“my door is always open.”**
- Known as the **“office counselor.”**
- If something doesn't seem right, always addresses the problem ***in a sensitive way***.
- May have difficulty standing up for themselves; **tends to avoid conflict whenever possible**.

Effective Communication with REDS

- Appreciates “**calm, cool & collected**” style.
- Ask them for their help, ***preferably not at the last minute.***
- Consider their schedule.
- Is it people-focused?
- Is it helpful and user-friendly?







YELLOW

- Intuitive, holistic, adventurous, risk-takers.
- “If there is a better way, let’s try it out.”
- Experimentation is highly valued.
- Animated, energetic and spontaneous.
- Looks at “big picture” and can tend to overlook details.
- Who you want on the team for long-term, strategic thinking.





YELLOW – *in the workplace*

- Most talkative of all the styles. Open to all.
- May have difficulty listening to directives or concerns; busy thinking, talking and developing relationship rapport.
- Normal to try out several approaches at once.
- Looks to the future, overlooking short-sighted solutions is common trait.
- Most creative with others; sharing ideas.
- Shows interest through interaction & input.



Effective Communication with YELLOWs

- Does it look at the big picture?
- Is it conceptually sound?
- Is it visual and colorful?
- Does it use metaphors?
- Does it look at the future?





Logical
Analytical
Fact Based
Quantitative

Holistic
Intuitive
Integrating
Synthesizing

Organized
Sequential
Planned
Detailed

Interpersonal
Feeling-Based
Kinesthetic
Emotional





Polling Question #3

What is your preferred
Communication style or
Color?



- Blue
- Green
- Red
- Yellow

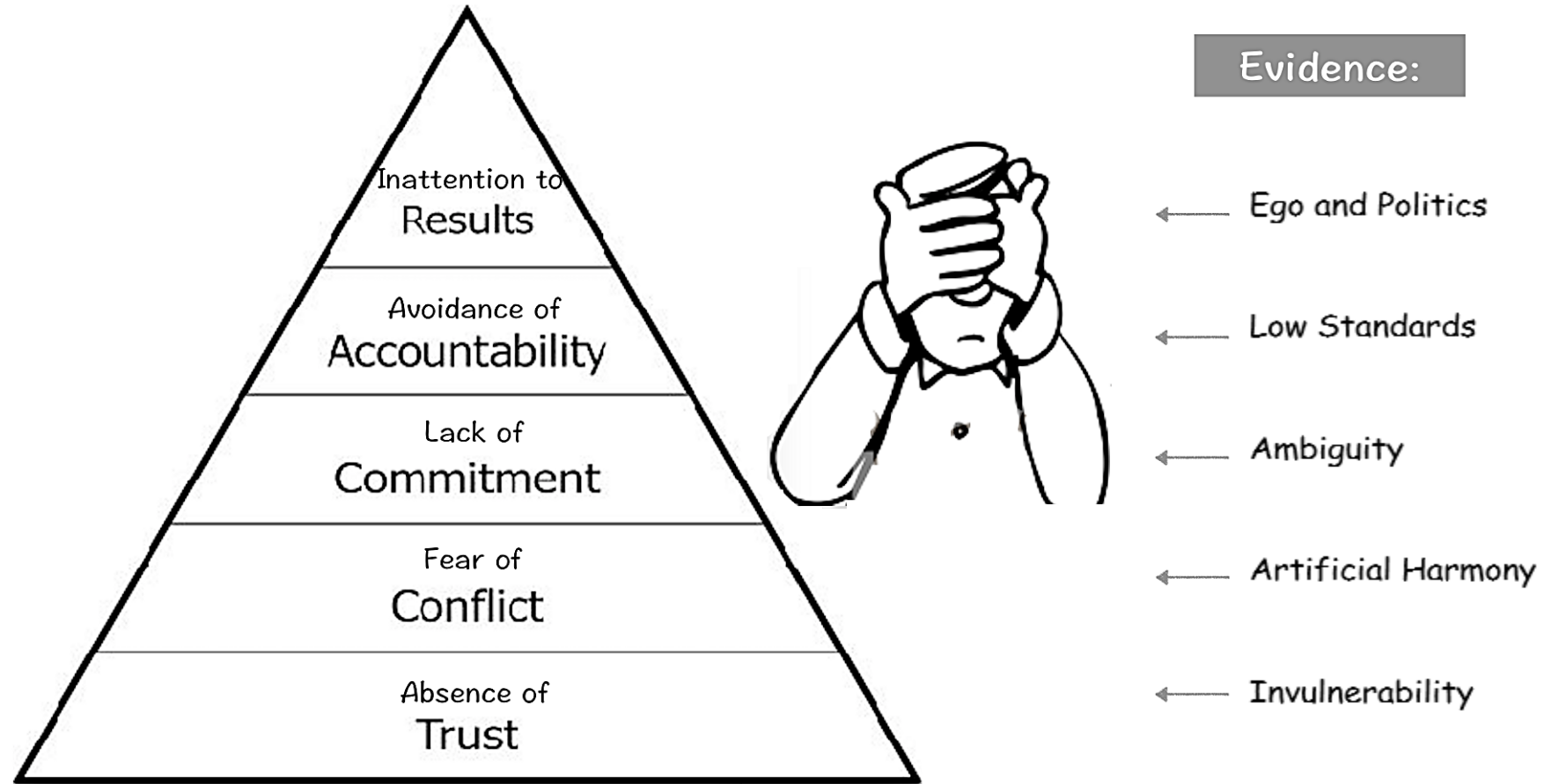


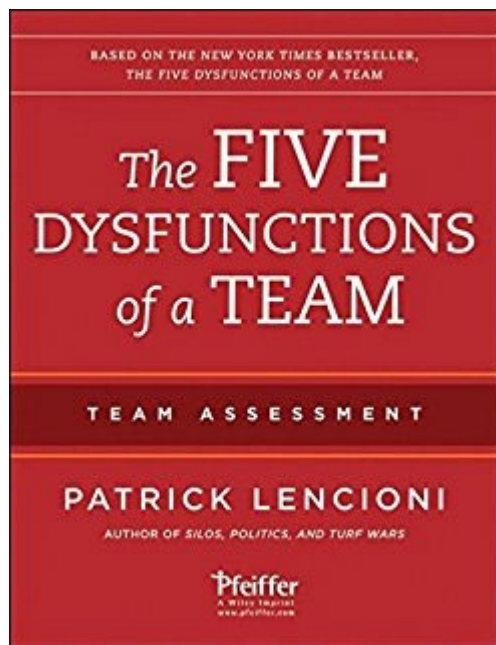
Team Dysfunctions





Team Dysfunction Causes and Results



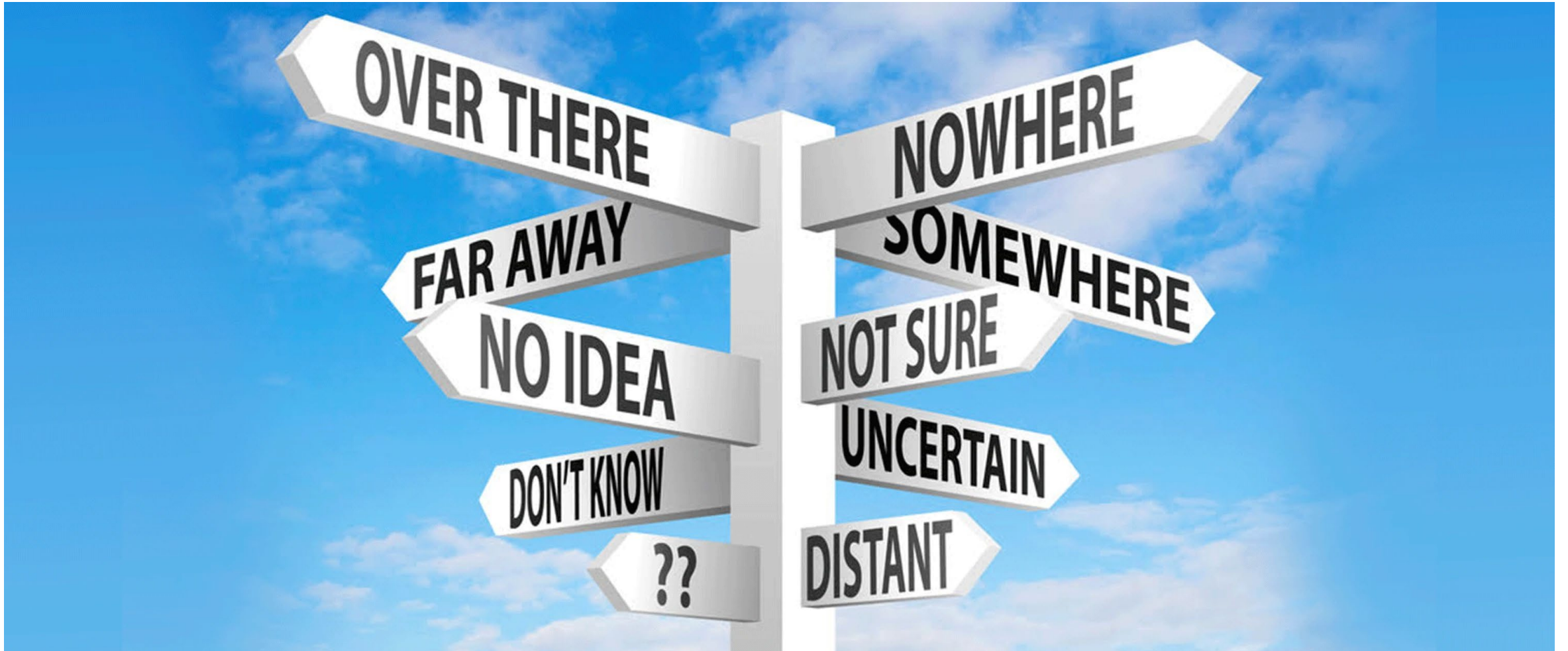




Summary

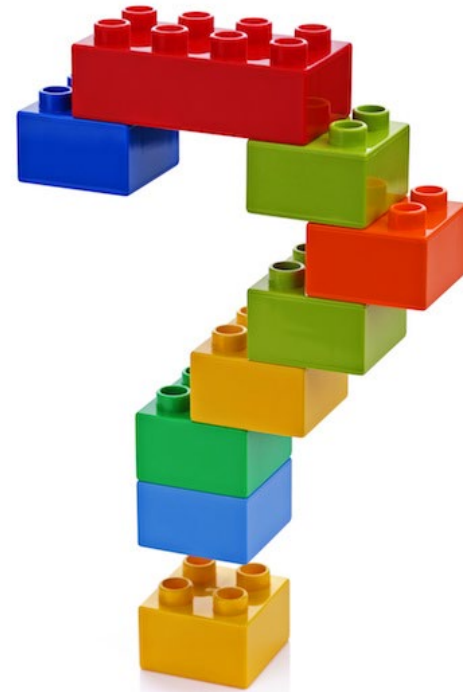
- Critical role of effective collaboration
- Skills building
- Leadership (new roles)
- Further education opportunities

Where do we go from here?





Final Questions





More Team Science Resources

- CCTST CIS Website: cctst.org/programs/CIS
 - Team Charters: cctst.org/programs/cis/resources/team-science-tools
- National Cancer Institute (NCI) Team Science Toolkit:
<https://www.teamsciencetoolkit.cancer.gov/public/Home.aspx>
- Northwestern University Clinical & Translational Sciences Institute offers 4 learning modules on Team Science at <http://www.teamscience.net>
 - The Science of Team Science
 - Team Science Research Process in Behavioral Science
 - Team Science Research Process in Basic Medical Science
 - Team Science Research Process in Clinical Medical Science