

Team Science Workshops

Session One:

Creating and Assembling Effective Teams

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Our Teams....

Where we are from



Our Teams....

What we're working on:



**Speech Motor Performance
Improvement**



**Cognition-based Mobility
Device for Aging
Population**



**Novel Predictors of Recovery
from Early Brain Injury**



**Personal Sensors for
Health Monitoring**



KL-2/CT-2 Scholars



**Sensors for Heavy, Toxic Metals -
Water and Urine**



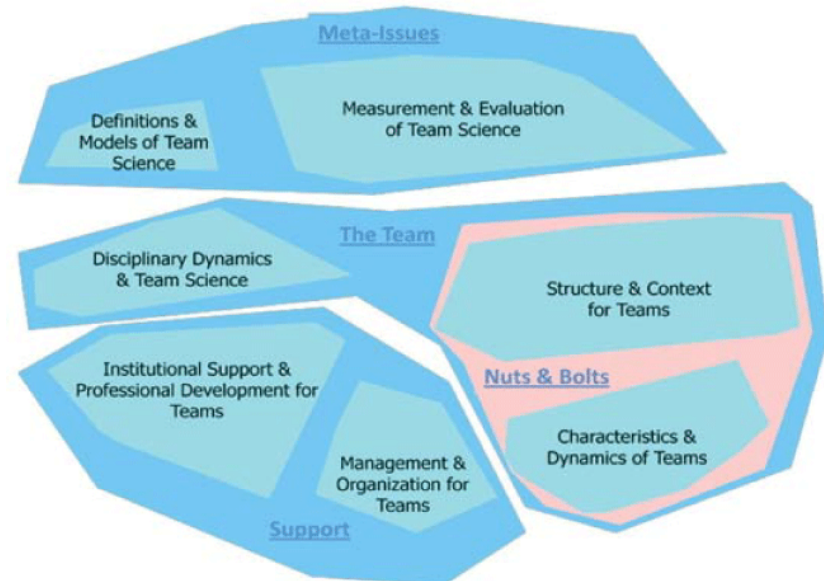
Sensors - Toxins in Water

Recording

- This workshop is being recorded in the echo360 classroom recording system and in WebEx.
- The room has a wide-angle camera. Even though it will be focused on the podium and your appearance on camera will be incidental, please sign a release form or let us know if you have concerns.

Welcome!

- Why are you here?
- Why have a series of workshops about Team Science?



Socrative.com....Warm Up

Why are you here?

- I am very interested in learning about team skills
- I was told I had to attend, and I'm open to learning
- I was told I had to attend, but I would rather not be here
- I'm not sure why I'm here
- I'll attend anything with a free lunch

Objectives

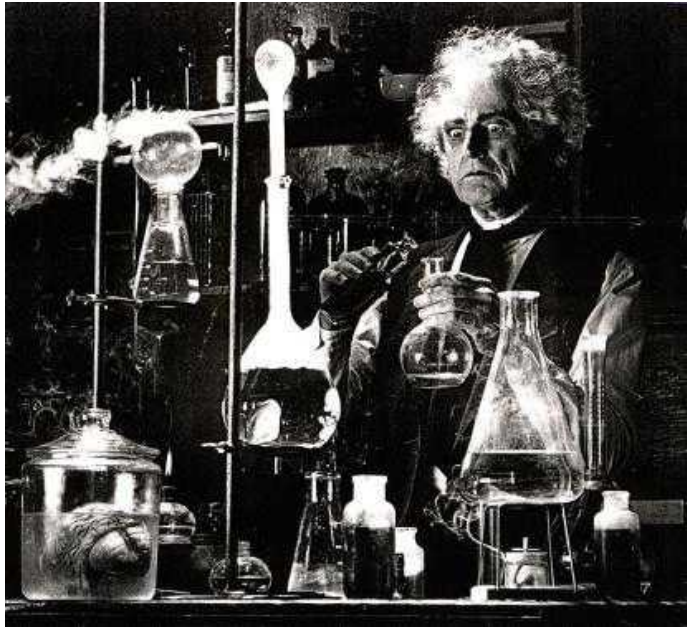
- Understand the concept of “Team-ness”
- Understand what Team Science tells us about working together
- Identify Team-friendly behaviors and skills
- Consider how communication affects the Team
- Identify Key Team Science concepts you can use today

Socrative.com....Warm Up

How much of the pre-work did you do?

- None of it
- I only completed the assessment tool
- I only watched one or more of the videos
- I did most of it
- I did all of it.....really.....I did!

The Changing Face of Research...



From this....



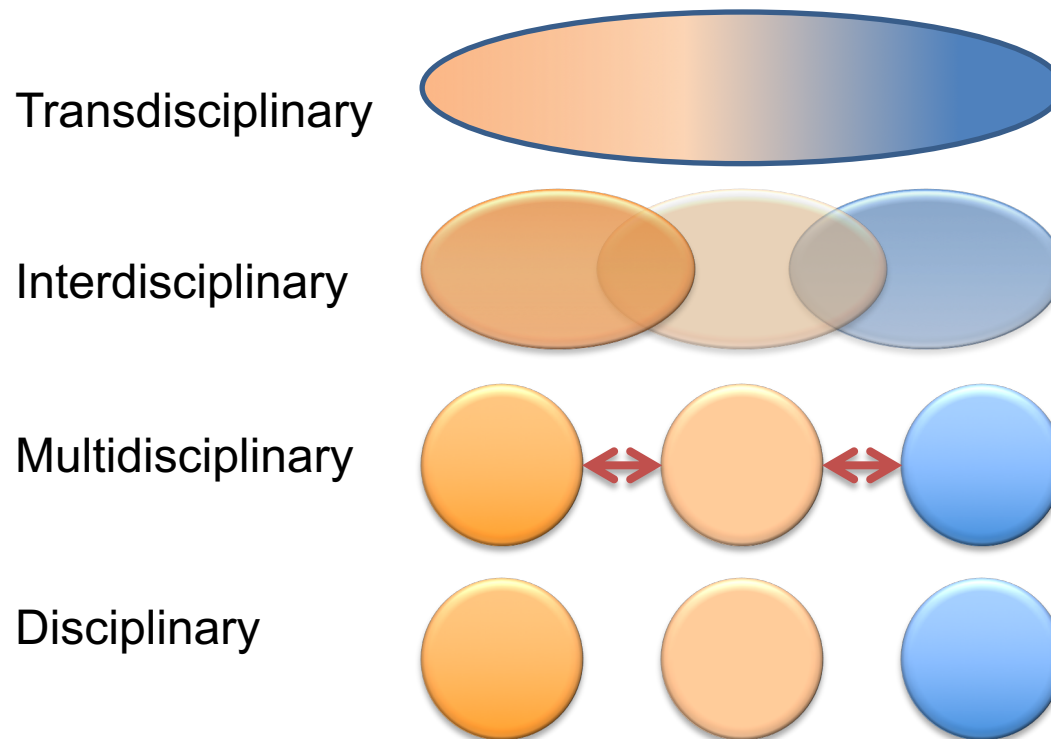
....to this

The Knowledge Explosion

“The sum total of humankind’s knowledge doubled between 1750 and 1900. It doubled again between 1900 and 1950, again from 1950 to 1960, again from 1960 to 1965. It’s been estimated that the sum total of humankind’s knowledge has doubled at least every five years since then.

It’s been further projected that by the year 2020, knowledge or information will double every 73 days.”

Collaboration Hierarchy



Using Team Science to Gain a Competitive Edge

- Quickly forming new teams around funding priorities
- Maximizing innovation through diversity
- Solving problems faster
- More high level publications
- More effective responses to funding opportunities

Group Versus Team



VS.



Definition of “Team”

Definition

A group of people with a full set of complementary skills required to complete a task, job, or project.

Team members (1) operate with a high degree of interdependence, (2) share authority and responsibility for self-management, (3) are accountable for the collective performance, and (4) work toward a common goal and shared reward(s).

A team becomes more than just a collection of people when a strong sense of mutual commitment creates synergy, thus generating performance greater than the sum of the performance of its individual members.

<http://www.businessdictionary.com/definition/team.html#ixzz4K9ba8nrg>

Do I Need a Group or a Team?

- **GROUP**

- Can be formed quickly
- Best with simple, focused tasks
- Time-limited goal

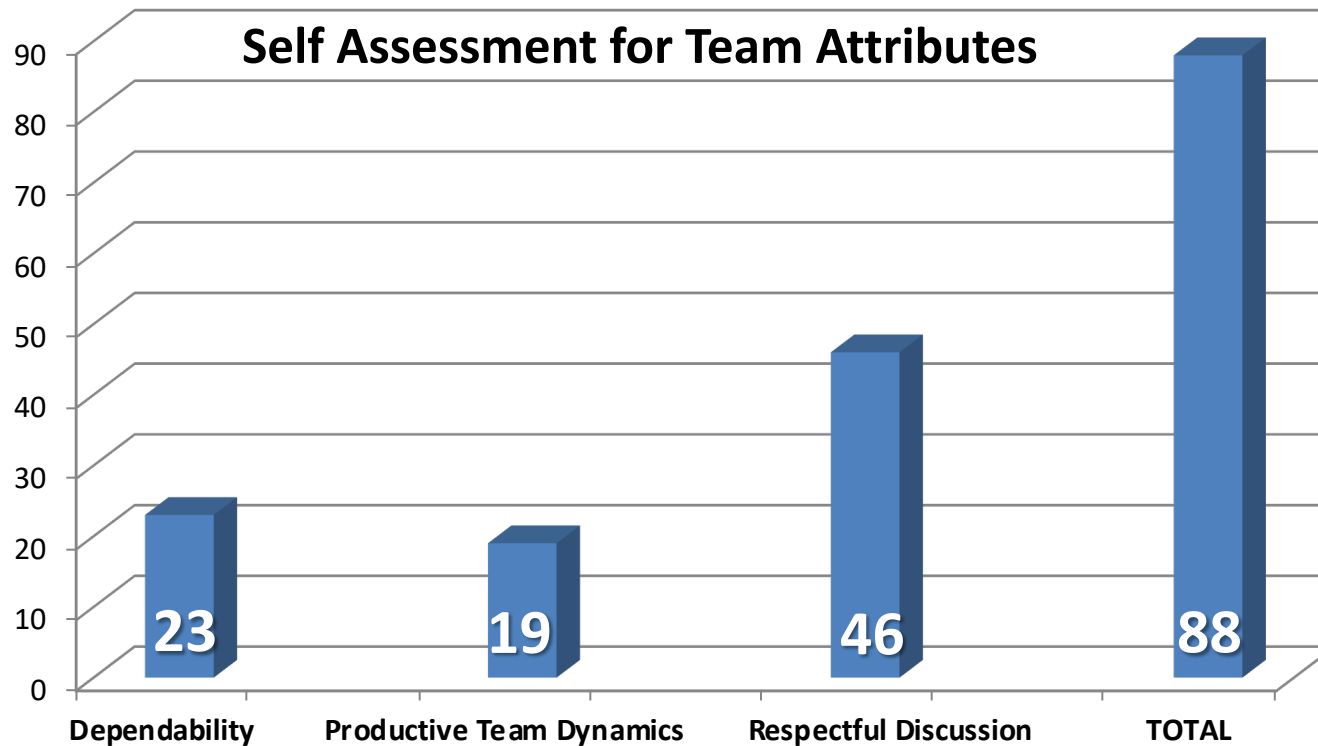
- **TEAM**

- Evolves and grows over time
- Develops a culture of interdependence
- Works from an understanding of the values, strengths, and weaknesses of members

Exercises

- Team vs. Group (Advantages and Disadvantages)
 1. Developing a research idea
 2. Writing a grant
 3. Implementing a research project

Pre- Assessment Results



Self-Assessment Results

0-62 (Low)	63-83 (Moderate)	84-105 (High)
0	7	21

Positive Team Behaviors

- Perseverance
- Reliability
- Sharing the load



Pre-Assessment Question:

I get my part of the work done on time or ask other members to help if I can't get it done on time **4.64**

Positive Team Behaviors

- **Communication**
- **Collaboration**

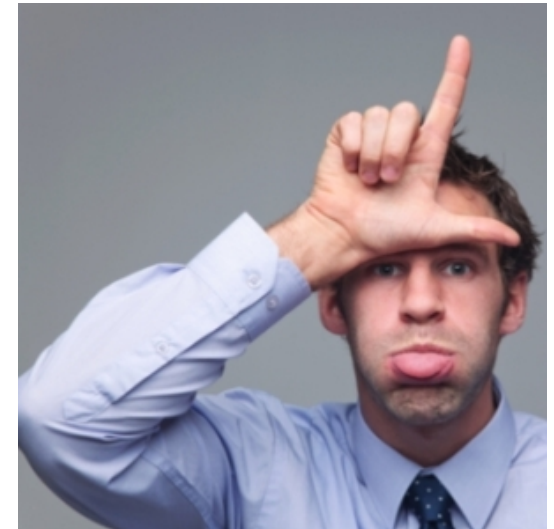


Pre-Assessment Questions:

- I respond in a timely way to project-related emails or texts **4.64**
- I am able to respectfully discuss the pros and cons of different ideas with my team **4.54**

Positive Team Behaviors

- **Conflict management**
- **Integrity**



Pre-Assessment Question:

If a team member is disrespecting another, I intervene

3.50

Positive Team Behaviors

- **Collaboration**
- **Facilitation**
- **Communication**



Pre-Assessment Questions:

- I test understanding to establish whether or not an earlier contribution has been understood by everyone **3.39**
- I bring in views or opinions from team members who are not actively participating in the discussion **3.79**

The Marshmallow Challenge

The Challenge



20 sticks of spaghetti

+



one yard tape

+



one yard string

+



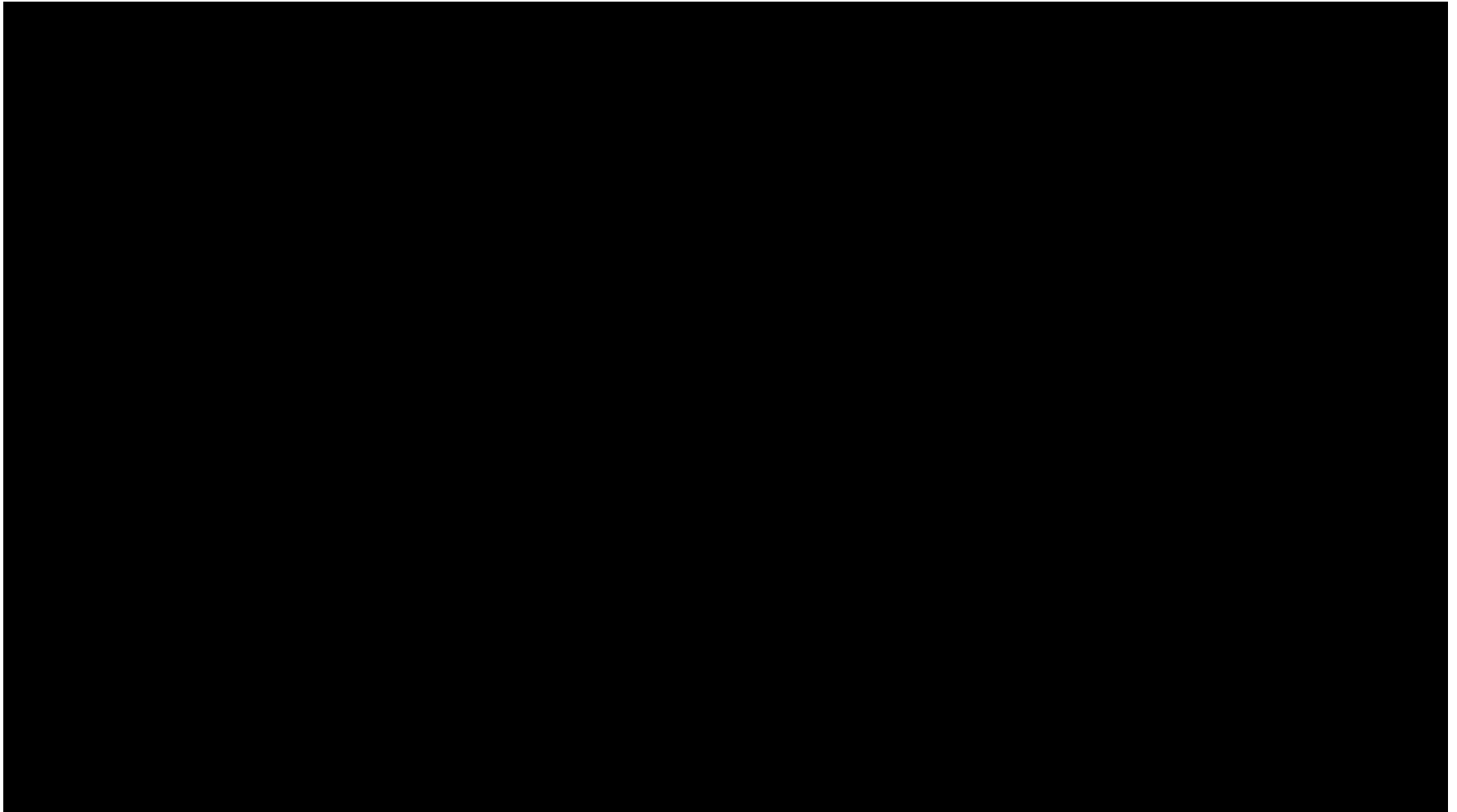
one marshmallow

Marshmallow Challenge

Instructions

- **Build the tallest freestanding structure**
 - The winning team is the one that has the tallest structure measured from the table top surface to the top of the marshmallow. That means the structure cannot be suspended from a higher structure, like a chair, ceiling or chandelier
- **The entire marshmallow must be on top**
 - Cutting or eating part of the marshmallow disqualifies your team
- **Use as much or as little of the kit**
 - Your team can use as many or as few of the 20 spaghetti sticks, as much or as little of the string or tape. You cannot use the paper bag as part of your structure
- **Break up the spaghetti, string, or tape**
 - Teams are free to break the spaghetti, cut up the tape and string to create new structures
- **The Challenge lasts 15 minutes**
 - Teams cannot hold on to the structure when the time runs out. Those touching or supporting the structure at the end of the exercise will be disqualified. Keep an eye on the timer

Marshmallow Video



COMMUNICATION

HOW HARD CAN IT BE?



Socrative.com question:

My least favorite team role is...

1. **The Token** (...THE named physician, nurse, woman, underrepresented minority, junior faculty member, etc.)
2. **The Specialist** (...data analyst/stats, provider of patients or subjects, access to special equipment, writer of a specific grant section, etc.)
3. **Utility Infielder** (...do odd jobs, organize stuff, solve problems, take minutes, track down people and information, etc.)
4. **The Ringer** (...good track/funding record, impressive titles, lots of publications, your name/reputation alone will help us get the grant...)
5. **Contributed Effort** (...grant or project requires institutional support, "...we don't have enough money to fund your effort...", "...your boss said we could add you....," etc.)
6. **The One and Only** (...you do all the work while others on the team watch and "help" when they can...)

Have you considered your role may be a result of your failure to communicate?

Socrative.com question:

What is your preferred professional communication style?

1. Telephone call
2. Text/group text
3. Email
4. Video conference
5. Face to face
6. Blog/via social media
7. Written/postal mail
8. Sign language
9. Smoke signals

Explicit Communication

- *Agree on a communication plan*
 - How often (daily, weekly, monthly),
 - Why (to make decisions, to initiate actions, to keep members accountable, to “catch up” team members who have missed a meeting, etc.)
 - Structure communications (agenda, minutes, deliverables etc.)
 - Archives (choose a willing scribe; manage/record knowledge, etc.)
 - Consider written agreements or MOUs (informal or formal)
 - **The Show Must Go On!**



I ♥
MOU

Checklist for Team Start-Up

- Great when transitioning a group to a team
- Review and revise over time, particularly with team growth and/or change

*Review pre-work article:
“Important Steps when Building
a New Team”*

Checklist for Team Start-up

How to use this tool:

The following checklist contains questions that should be answered early in the start-up phase of a project team. Ideally, the project sponsors will discuss these matters with the team leader or team members *prior* to the actual team formation. That information, along with any relevant unanswered questions, should be part of the team's kick-off activities and discussions.

A. Driving Issues

1. Why is this team being formed?
2. What are the critical issues the team should address?
3. What is the team's scope? (Has the scope been set by or approved by the team's sponsors?)

B. Goals

1. What are the specific project (or process improvement) goals?
2. What constitutes success?
3. How can we make these goals measurable? If they're not quantifiable, how can we look for qualitative data about improvement?
4. How do these goals support the overall mission of (our department, the project, the Institute)?

C. Roles and Responsibilities

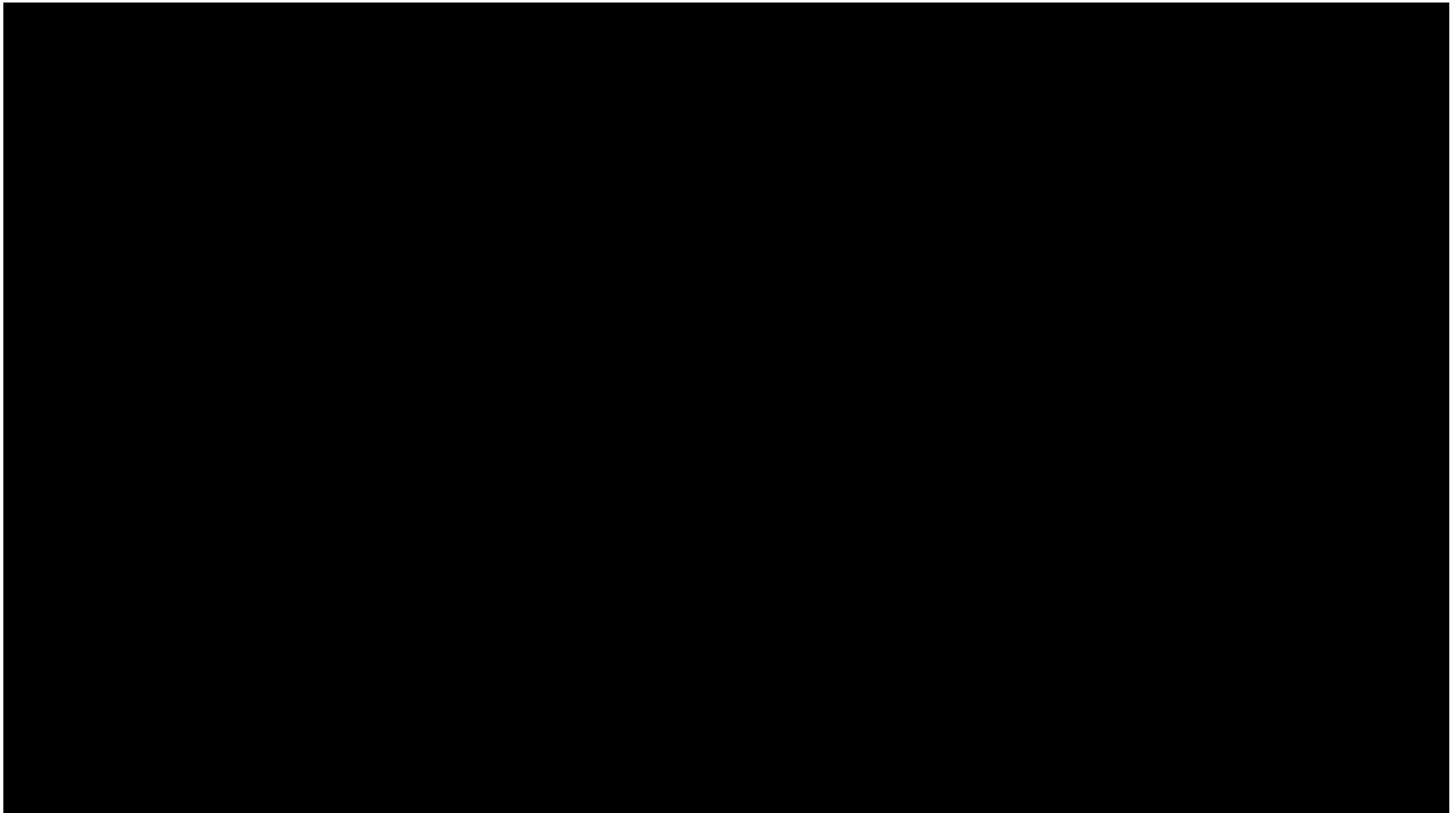
1. Why has each member of this team been selected? What skills/expertise does each team member bring?
2. What is the role of the Team Leader?
3. What is the role of the Facilitator?
4. What is the role of our sponsor?

Strategic Communication

- No strategy is perfect (or needs to be)
 - Technology doesn't always facilitate communication
 - There is a need for redundancy
 - Be purposeful – too much communication can be annoying
 - People change over time, communication must too
 - Remedy misunderstandings quickly
 - Forgive mishaps, but  bad patterns quickly via discussion

**DONE IS
BETTER
THAN
PERFECT**

A Real Life Conference Call



Team Science Resources

- Please check out our team science resources at the CCTST CIS webpage:
<https://cctst.uc.edu/programs/cis/teams>

The screenshot shows the National Cancer Institute (NCI) Team Science Toolkit website. The header includes the NCI logo and the text "National Cancer Institute" and "at the National Institutes of Health | www.cancer.gov". The main heading is "Team Science Toolkit" with the tagline "An interactive website to help you support, conduct and study team-based research." Below the heading is a navigation menu with links: Home, About Team Science, About the Toolkit, Discover, Contribute, Connect, News & Events, and About Us. The main content area features a large blue banner for the "SciTS 2017 Conference! June 12-15, 2017". The banner text reads: "The annual Science of Team Science (SciTS) conference will be hosted by the University of Central Florida, in Clearwater Beach, FL. The 2017 conference will review the current state of knowledge in the SciTS field, highlight applications for enhancing team science, and discuss future directions for advancing SciTS to improve the global scientific enterprise." To the right of the text is a smaller image of a sunset over water with the SciTS 2017 logo and the tagline "Building the knowledge base for effective team science". Below the banner is a "Learn More" link.