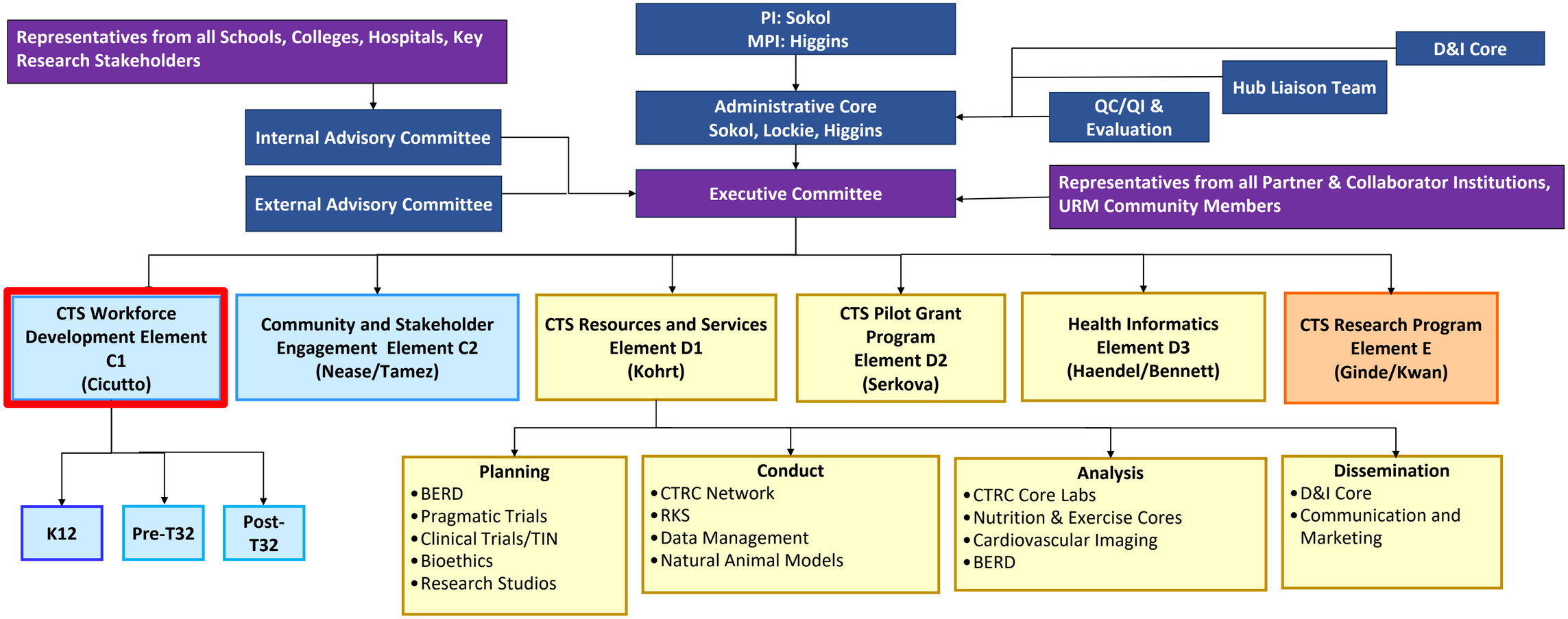
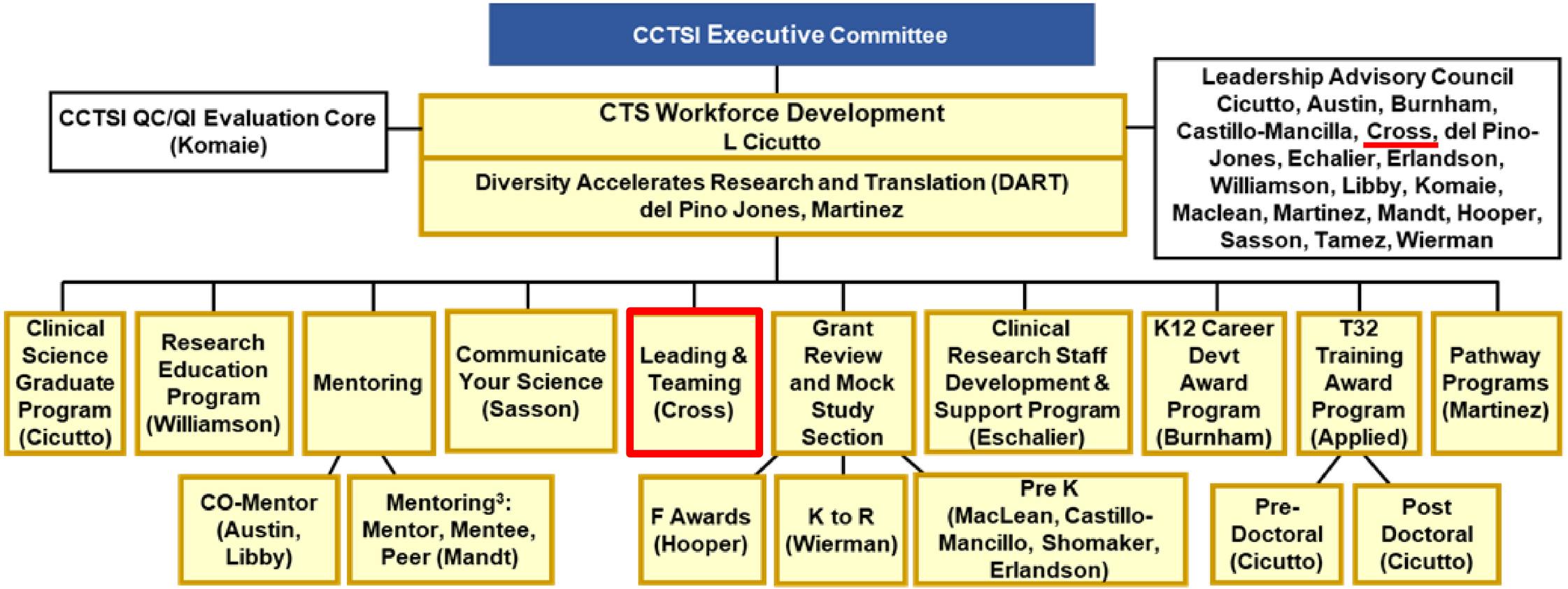
# Leading and Teaming

**Jeni Cross, PhD**
**Director, Leading and Teaming**

**Professor, Colorado State University**

# Integration Across CCTSI




CCTSI Executive Committee
CCTSI QC/QI Evaluation Core (Komaie)
CTS Workforce Development
L Cicutto
Diversity Accelerates Research and Translation (DART)
del Pino Jones, Martinez
Leadership Advisory Council
Cicutto, Austin, Burnham, Castillo-Mancilla, Cross, del Pino-Jones, Echalier, Erlandson, Williamson, Libby, Komaie, Maclean, Martinez, Mandt, Hooper, Sasson, Tamez, Wierman
Clinical Science Graduate Program (Cicutto)
Research Education Program (Williamson)
Mentoring
Communicate Your Science (Sasson)
Leading & Teaming (Cross)
Grant Review and Mock Study Section
Clinical Research Staff Development & Support Program (Eschalier)
K12 Career Devt Award Program (Burnham)
T32 Training Award Program (Applied)
Pathway Programs (Martinez)
CO-Mentor (Austin, Libby)
Mentoring3: Mentor, Mentee, Peer (Mandt)
F Awards (Hooper)
K to R (Wierman)
Pre K (MacLean, Castillo-Mancillo, Shomaker, Erlandson)
Pre-Doctoral (Cicutto)
Post Doctoral (Cicutto)

# Leadership Team & Diversity

**Jeni Cross, PhD**

Director, Institute for Research in the Social Sciences, CSU

**Heather Aldrich, PhD**

**Anne Mook, PhD**

Institute for Research in the Social Sciences, CSU

**Verena Knerich, PhD Candidate**

Department of Sociology, CSU

Jeni Cross

Heather Aldrich

Anne Mook

Verena Knerich

**Leading and Teaming**
**100% Female**
**100% PhD**
**Representation across Colorado State University**

# CTS Roadblocks Addressed

## 1. Limited education and training for CTS and team science

- CCTSI members have expressed the desire for in-person and virtual training offerings
- We are adjusting the schedule each year to respond to the emergent needs in the CCTSI

## 2. Need for culture change to value and support collaborative science

- the content of the teaming workshops has shifted to respond to new challenges faced by teams in virtual work, hybrid teams, and teaming challenges.
- Team Leadership modules include specific steps for recognizing diverse forms of contributions on teams (e.g. CV annotation, text for letters of promotion)

# Strategic Goals

**<u>Goal 3.</u> Enhance the CCTSI's workforce effectiveness by providing career development training in Teaming & Leading, Mentoring, and Communicating Research.**

**1. Goal:** incorporate leadership content with greater depth in the team science workshop series

**2. Goal:** adapt the format of trainings to meet the current needs of CCTSI members

- Roadblocks addressed: access to professional development and training specific to CTS

# Health Equity Goals

1

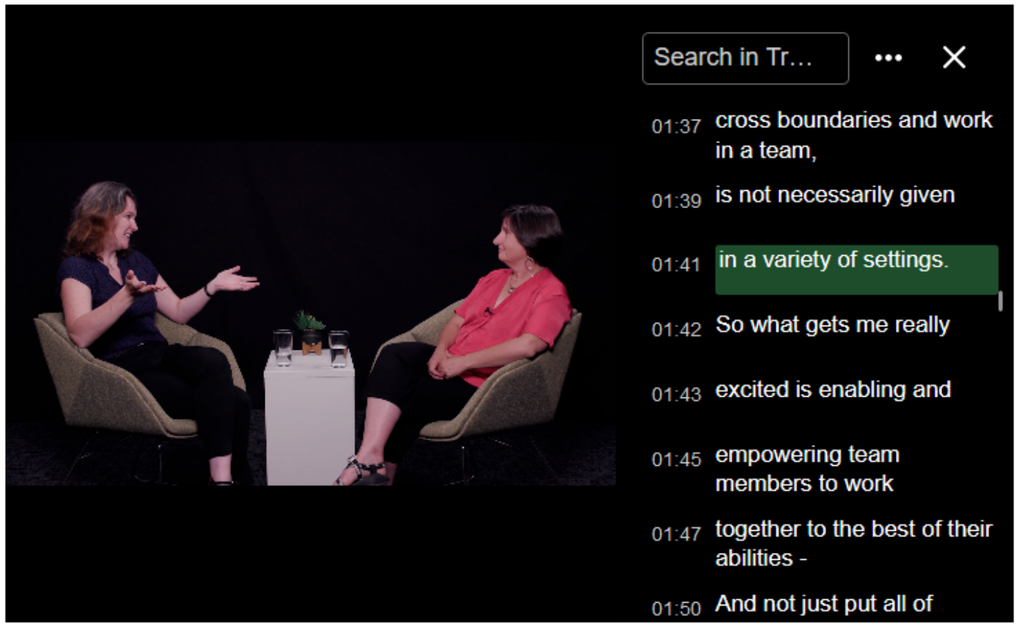
## Diversification of Translational Research Teams

The **team science workshops** have specific competencies related to:

- Understanding how diversity improves team performance
- Counteracting implicit bias and structural inequality in teams
- Adopting new habits and practices to counter the “diversity innovation paradox”

# Year 1 Progress & Impact

- **Team Science 101 Videos**
  - Six new videos recorded
  - Online modules, redesigned with a curriculum specialist
- **Leading & Teaming Workshop Series**
  - Six virtual workshops redesigned based on evaluation feedback
  - In-person workshops were reintroduced in Spring 2024


- **Forthcoming Publication**

Mendell AM, Knerich V, Ranwala D (Dayan), Jones CT, Piechowski P, Striley CW, McCormack WT, **Cross JE. Team science competencies across the career life course for translational science teams.** *Journal of Clinical and Translational Science*. Published online 2024:1-24. doi:10.1017/cts.2024.494

## 1. Building Relationships and a Team

- Self-awareness and social sensitivity
- Trust and psychological safety
- Diversity and team performance
- Time Orientations

## 2. Setting Expectations on a Team

- Even turn-taking
- Team charters, authorship agreements
- Managing teamwork vs taskwork
- Effective meetings

## 3. Building Shared Language and Vision

- Overcoming unacknowledged differences
- Building shared language
- Perspective taking and reflexivity

## 4. Collaborative Knowledge Creation

- Rules for brainstorming
- Divergent & convergent thinking
- Creativity and metaphorical thinking
- Decision-making rules

## 5. Change Management, Negotiation, Conflict Resolution

- Conflict styles
- Structured conversations
- Roles and role clarity
- Negotiating

## 6. Leadership for All Team Members

- Courageous Followership
- 4 Moves in effective teams
- Situational Leadership
- Giving and receiving feedback

# Teaming Competencies Across the Career Life Course

**Table 1.** Individual and team competencies, adapted from Lotrecchiano *et al.* [1]

| | competency domains | | | | |
|---|---|---|---|---|---|
| | Facilitating Team Affect (Bonding) | Team Communication | Managing Team Research | Collaborative Problem Solving | Team Leadership |
| **Individual competencies** | | | | | |
| Facilitating Awareness and Exchange | Secondary | Primary | | | Secondary |
| Cognitive Openness | Primary | | | Secondary | Secondary |
| Self-awareness | Primary | Secondary | | Secondary | Secondary |
| Interdisciplinary Research Management | | | Primary | | Secondary |
| Passion and Perseverance | Secondary | | | | Primary |
| **Team competencies** | | | | | |
| Team Roles | | | | | Primary |
| Team-Based Communication | Secondary | Primary | | | |
| Shared Visioning | | | Secondary | | Primary |
| Understanding Complexity | | Secondary | | Secondary | Primary |
| Team Learning and Adaptive Behaviors | Secondary | Secondary | Secondary | Primary | Secondary |
| Meeting Management | | | Secondary | | Primary |
| Interdisciplinary Collaboration | | Secondary | | Primary | Secondary |
| Building Trust | Primary | Secondary | | | |

Lotrecchiano GR, DiazGranados D, Sprecher J, McCormack WT, Ranwala D, Wooten K, Lackland D, Billings H, Brasier AR. **Individual and team competencies in translational teams. Journal of Clinical and Translational Science. 2021** Jan;5(1):e72.

**Which of these competencies develop first?**

**In what order should we teach, emphasize, and assess development of these competencies?**

Mendell AM, Knerich V, Ranwala D (Dayan), Jones CT, Piechowski P, Striley CW, McCormack WT, Cross JE. Team science competencies across the career life course for translational science teams. *Journal of Clinical and Translational Science*. Published online 2024:1-24. doi:10.1017/cts.2024.494

# 1. RESEARCH SCIENTISTS AND FACULTY

**Table 2.** Relevance and level of mastery ranking for individual and team competencies for trainees and faculty

| | Undergrad | Predoc | Postdoc | Junior Faculty | Middle-Senior Faculty |
|---|---|---|---|---|---|
| **Individual competencies** | | | | | |
| Self-awareness | + | ++ | ++ | +++ | +++ |
| Cognitive openness | + | ++ | +++ | +++ | +++ |
| Facilitating awareness and exchange | ++ | ++ | +++ | +++ | +++ |
| Interdisciplinary research management | + | ++ | ++ | +++ | +++ |
| Passion and perseverance | +++ | +++ | +++ | +++ | +++ |
| **Team competencies** | | | | | |
| Team roles | ++ | ++ | +++ | +++ | +++ |
| Team-based communications | ++ | ++ | +++ | +++ | +++ |
| Shared visioning | + | ++ | +++ | +++ | +++ |
| Understanding complexity | + | ++ | ++ | ++ | +++ |
| Team learning & adaptive behaviors | + | ++ | +++ | +++ | +++ |
| Meeting management | + | ++ | ++ | +++ | +++ |
| Interdisciplinary collaboration | + | ++ | +++ | +++ | +++ |
| Building trust | ++ | ++ | +++ | +++ | +++ |

+ least level of relevance and mastery.
++ moderate level of relevance and mastery.
+++ highest level of relevance and mastery.

# 2. Clinical Research Professionals

**Table 3.** Illustration of Bloom's taxonomy applied to clinical research professional (CRP) team science smart skills and leveled competencies

| Facilitating awareness and exchange *(Individual Competency)* | | | |
|---|---|---|---|
| ***Defined as:*** *Sharing information and perspectives, active listening, and probing, reframing skills* [1]. | | | |
| ***Smart skills:*** | **Fundamental** | **Skilled** | **Advanced** |
| **Relational openness** | ***Recognize*** *the importance of relational openness as a team member* | ***Exhibit*** *relational openness by welcoming and introducing team members* | ***Create*** *a welcoming, inclusive, and positive environment* |
| **Awareness of individuals' points of view** | ***Express*** *understanding of other people's point of view* | ***Demonstrate*** *open, flexible perspectives, honoring different points of view* | ***Support*** *differences in points of view* |
| **Interdisciplinary research management** (individual competency) | | | |
| ***Defined as:*** *Ability to manage diverse and multi-team systems. Develop team skills to strengthen team structures and dynamics* [1]. | | | |
| **Smart skills:** | ***Fundamental*** | ***Skilled*** | ***Advanced*** |
| ***Respect*** | ***Acknowledge*** *the importance of respecting your team members* | ***Exhibit*** *respect for team members and colleagues via active listening, rapid follow-up, and sensitivity to both verbal and nonverbal communication.* | ***Integrate*** *appropriate training to build and promote respectful workplace habits.* |

# Evaluation

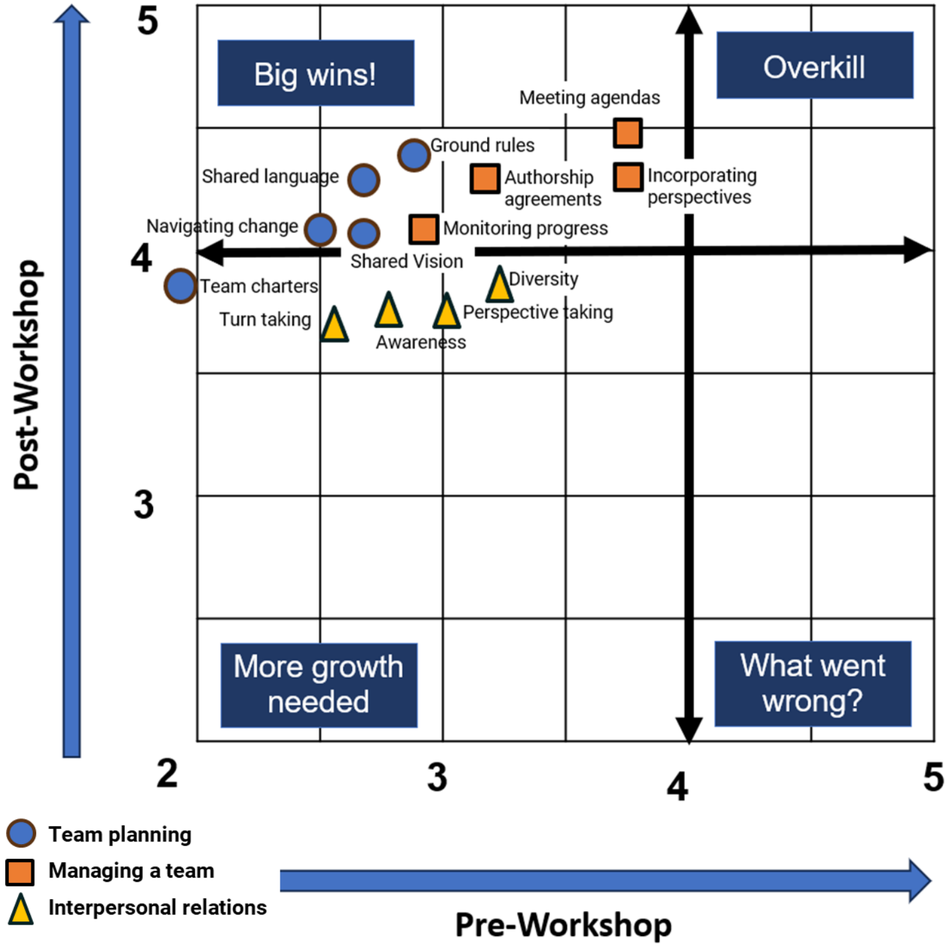
## 1. Measuring confidence in competencies

- Team planning
- Team management
- Interpersonal Relationships

## 2. Differences by group

- **Cohort:** recent cohort, started with lower confidence and had the biggest gains in interpersonal relationships

- **First Generation**: started and ended with lower scores on interpersonal relationships, had greater gains in team management



# Year 2 Plans

- **Leading and Teaming for Early Career Scientists**
  - 1 Hybrid workshop series, Colorado State University, Mosaic Classroom
  - 1 In-Person workshop series, CU Anschutz

# National Representation and D&I

- **SciTS Training and Education Special Interest Group (members)**
  - Jeni Cross, Heather Aldrich, Anne Mook, Verena Knerich
- **CTSA Team Science Affinity Group (TSAG) (members)**
  - Heather Aldrich
- **KU Frontiers**
  - Jeni Cross, EAC Member
- **D&I:**
  - Development of team science workshops for other CTSA sites

THE OHIO STATE UNIVERSITY
CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE

FRONTIERS
CLINICAL & TRANSLATIONAL SCIENCE INSTITUTE
AT THE UNIVERSITY OF KANSAS

University of Southern California • Children's Hospital Los Angeles
SCCTSI
SOUTHERN CALIFORNIA CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE
*Translating Science into Solutions for Better Health*

# Questions for EAC

1. **As you look at how the field of CTS is changing, what do you see as the greatest need for leadership and teaming training?**
   - We have enhanced the leadership focus of the team science workshops and professional development, yet we know that leadership training continues to be an area of deficit for university researchers broadly.

2. **What funding supplements might be appropriate to increase the level of teaming support we provide across institutions in the CCTSI?**
   - Requests for team science interventions and consultation are growing.
   - The evidence base for team interventions is growing, but it is unclear how to best fund higher levels of consultation, coaching, and service to help develop teams.