

# Team Science Boot Camp: Annual Trainings to Improve Team Performance

Science of Team  
Science Conference  
Lansing, Michigan



**Presenters:** Brenda Zierler, Jennifer Sprecher, Soyoung Kang

**ITHS**

Institute of Translational Health Sciences  
ACCELERATING RESEARCH. IMPROVING HEALTH.

# University of Washington (UW)

## INSTITUTE OF TRANSLATIONAL HEALTH SCIENCES (ITHS – CTSA)

### ITHS Team Science Aim (2017-2022):

To develop, implement, & evaluate team science education & training models to support existing & new interdisciplinary research teams



# Team Science Boot Camp – Foundation

Adapted from a national training model for health professions faculty & educators



**Train-the-Trainer Interprofessional Team Development Program (T3-ITDP)**



**Boot Camp training utilizes T3-ITDP core content areas:**

- ▶ Leading change
- ▶ Project management
- ▶ Team dynamics
- ▶ Interprofessional curricular design
- ▶ Assessment & evaluation

# Team Science Boot Camp – Training Goals



## Individuals:

- ▶ Personal or social styles
- ▶ Conflict preference modes
- ▶ Biases (implicit & professional) & stereotypes
- ▶ Leadership



## Teams:

- ▶ Structures
- ▶ Psychological safety & building trust
- ▶ Professional development



## Team Processes:

- ▶ Shared goals
- ▶ Roles & responsibilities
- ▶ Communication
- ▶ Shared decision-making

# Team Science Boot Camp – Program

## **PURPOSE: IMPROVE TEAM PERFORMANCE & PRODUCTIVITY**

- ▶ Offered annually:
  - ITHS-affiliated research teams
- ▶ Interdisciplinary team members required
- ▶ Size of team ranges from 3 to 12
- ▶ Total number of trainees capped at 60



# Team Science Boot Camp – Approach

- 1 Baseline assessment (team composition, structures & challenges)
- 2 Pre-work (e.g. Personal Styles Inventory, Thomas Kilmann Conflict Mode Instrument, Lean charter, articles)
- 3 In-person training (1.5 days) with team
- 4 Ongoing coaching as needed
- 5 Follow-up evaluations (immediate & 6 months)

# Team Science Boot Camp – Teaching Strategies



# Team Science Boot Camp – Sample Agenda

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Pre-work: 1) Pre-evaluation survey; 2) Google article; 3) Lean-R article; 4) PSI; 5)TKI; 6) TS Intro video  
End of Day 1: ART article  
End of Day 2: Immediate Post-Evaluation  
6-months out: Follow-up evaluation  
Electronic access: Facilitator and blank charter & articles  
Workshop Objective:  
Improve research by leveraging the strengths and expertise of all team members through increasing the effective functioning of the team as a whole.

Monday, February 25, 2019

| TIME                       | ACTIVITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LEARNING OBJECTIVE                                                                                                                                                                                       |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12:00–12:45 PM<br>(45 MIN) | <b>Lunch and Understanding My Team's Passion [Nicole]</b><br>1. Visual Explorer Activity:<br><ul style="list-style-type: none"> <li>Set up: Spread cards on table; encourage a card for each question; worksheet optional</li> <li>Prompt/directions on the slides</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1. Use visual imagery to facilitate a conversation to better understand passions & values of team members                                                                                                |
| 12:45–1:10 PM<br>(25 MIN)  | <b>Welcome from the Team Science Team [Brenda]</b><br>1. Team & participant introductions (15 minutes)<br>2. Objectives/Setting Context (psychological safety & trust) (5 minutes)<br>3. Introduction to teaching approaches (5 minutes)<br><br><b>Linkages:</b> Psychological safety is an outcome of all elements of team science from goal and role clarification to communication styles to meeting management.                                                                                                                                                                                                                                                                                                                                                                                                         | 1. Describe workshop objectives<br>2. Provide context & approaches to training<br>3. Model psychological safety & trust challenges teams will focus on & address<br>4. Acknowledge                       |
| 1:10–1:40 PM<br>(30 MIN)   | <b>Team Science Overview [Brenda]</b><br>1. Review objectives from Team Science didactic & answer questions (5-10 minutes)<br>2. Word Cloud of team's challenges & themes<br>3. Reflection on needs and challenges & training offerings (poster in room)<br><br><b>Clarification of Your Team's Challenges [Jennifer]</b><br>1. Liberating Structures: 1-2-Team (20-25 minutes)<br><ul style="list-style-type: none"> <li>1 minute: individually reflect and identify 1 challenge that you would like to improve during the Boot Camp (challenges are opportunities)</li> <li>2 minutes: share &amp; discuss with a partner</li> <li>12 minutes: As a team, identify the top 1-2 challenges that your team will work to improve overall team functioning over the next 1.5-days</li> <li>5 minutes: Room debrief</li> </ul> | 1. Define Team Science<br>2. Articulate & discuss common challenges (individual or team) experienced on research teams.<br>3. Identify strategies for improving/addressing individual & team challenges. |

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|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:40–3:00 PM<br>(65 MIN + 15 MIN BREAK) | <b>Lean Project Management Clarifying the Objective, Participants and Roles [Jennifer]</b><br>1. Team objective(s), team members and roles, adding new members, in/out scope, deliverables<br>2. Draft charter and 10 min debrief<br><br><b>Linkages:</b> See table which connects their challenges to course content to team science literature<br><br><b>Linkages:</b> Common goal, role clarification, psychological safety basis, understanding styles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. Describe a team challenge & common team goal to address challenge (e.g. build role clarity). Note: these form the basis for team agreement                                                                                                                                                                                                                                                                                                                                          |
| 2:45 – 3:00<br>3:00-4:20 PM<br>(80 MIN) | <b>Personal/Social Styles: Impact on Teams &amp; Teamwork [Brenda, Jennifer &amp; Nicole]</b><br><b>PSI &amp; Activity (30 minutes)</b><br>1. Didactic in Versatility & Flexibility (5 minutes)<br>2. Like-group question activity (15 minutes)<br><ul style="list-style-type: none"> <li>What are the strengths of this style?</li> <li>What other styles/behaviors create tension for me?</li> <li>How is this style misunderstood?</li> <li>Think of a song or slogan that describes this style!</li> </ul> 3. PSI didactic F/U (10 minutes)<br><b>Engagement in Difficult Meetings (30 minutes)</b><br>1. Balanced interactions<br>2. Table activity – addressing 2 challenging meeting dynamics:<br><ul style="list-style-type: none"> <li>Have teams identify current challenge w/meeting dynamics on any team they are on &amp; practice addressing <ul style="list-style-type: none"> <li>Recognize the effect of one's own style on other's behaviors</li> <li>Adapt working relationships with co-workers in order to meet their style expectations &amp; preferences</li> </ul> </li> </ul> 3. Managing the dynamics wrap up – “the group”<br>4. Role Play (our team role plays a meeting where styles are clearly shown)<br><b>PSI Versatility (20 minutes)</b><br>1. F/U didactic in Versatility & Flexibility (5 minutes)<br>2. Flexibility Dimension 1-2-ALL in Mixed Style Groups (15 | 1. Develop & expand your basic understanding of your own and your teammate's Personal/Social Styles<br>2. Understand how to enhance effectiveness in working with other styles<br>3. Determine others' styles & be able to approach in most appropriate manner<br>4. Explore strategic uses of how your team will use styles to support success of your team members & project<br>5. Identify 3 methods for improving communication and engagement of team members in virtual meetings |

# Examples of Team Challenges



# Team Science Boot Camp – Trainees

- ▶ Year 1 (February 2018):
  - ITHS core teams
  - N=53 (14 teams)
- ▶ Year 2 (February 2019):
  - Research teams
  - N=38 (6 teams)



# Measuring Impact of Team Training

## Psychological Safety

*To what extent do you feel psychologically safe in your work with your research team?*

Key: To no extent =1, To a small extent =2, To a moderate extent =3, To a great extent =4, To a very great

|                        | <b>N</b> | <b>Mean</b> | <b>Standard Deviation</b> |
|------------------------|----------|-------------|---------------------------|
| <b>Pre-Evaluation</b>  | 16       | 3.75        | 1.03                      |
| <b>Post-Evaluation</b> | 16       | 3.88        | 0.99                      |

## From Pre to Post Evaluation

**Change in mean:**

0.13

# Measuring Impact of Team Training

## Level of Agreement

Please rate your agreement with the following statements that pertain to your research team  
 Key: Strongly disagree =1, Disagree=2, Neither agree nor disagree=3, Agree =4, Strongly agree =5

| Questions:                                                                     | Pre-Evaluation |      |                    | Post-Evaluation |      |                    | Pre to Post    |
|--------------------------------------------------------------------------------|----------------|------|--------------------|-----------------|------|--------------------|----------------|
|                                                                                | N              | Mean | Standard Deviation | N               | Mean | Standard Deviation | Change in mean |
| I have a clear understanding of roles & responsibilities for all team members. | 16             | 3.25 | 0.90               | 16              | 3.31 | 1.04               | 0.06           |
| Our team is very hierarchical based on rank and position.                      | 16             | 2.69 | 0.77               | 16              | 3.00 | 1.00               | 0.31           |
| Having a different perspective is valued on this team.                         | 16             | 3.69 | 0.77               | 16              | 4.13 | 0.60               | <b>0.44</b>    |
| I am comfortable taking risks on this team.                                    | 16             | 3.63 | 0.86               | 16              | 3.81 | 0.95               | 0.19           |
| I value and respect others' contributions.                                     | 16             | 4.81 | 0.39               | 16              | 4.69 | 0.46               | <b>(0.13)</b>  |
| I can depend on other members of the team to do their work.                    | 16             | 3.75 | 0.90               | 16              | 3.94 | 0.75               | 0.19           |
| I value the different Personal/Social styles of our team members.              | 16             | 3.69 | 0.58               | 16              | 4.38 | 0.60               | <b>0.69</b>    |

# Measuring Impact of Team Training

## Level of Agreement

Please rate your agreement with the following statements that pertain to your research team

Key: Strongly disagree =1, Disagree=2, Neither agree nor disagree=3, Agree =4, Strongly agree =5

| Questions:                                                                                  | Pre-Evaluation |      |                    | Post-Evaluation |      |                    | Pre to Post    |
|---------------------------------------------------------------------------------------------|----------------|------|--------------------|-----------------|------|--------------------|----------------|
|                                                                                             | N              | Mean | Standard Deviation | N               | Mean | Standard Deviation | Change in mean |
| We have established processes for making decisions.                                         | 16             | 2.44 | 0.93               | 16              | 2.88 | 0.86               | 0.44           |
| We have established processes for communicating with geographically dispersed team members. | 13             | 3.31 | 0.99               | 13              | 3.46 | 1.15               | 0.15           |
| I understand how to address conflict when it arises on this team.                           | 16             | 2.94 | 1.03               | 16              | 3.19 | 0.95               | 0.25           |
| I receive feedback on my effectiveness as a member of this team.                            | 16             | 2.94 | 0.83               | 16              | 2.69 | 0.92               | (0.25)         |
| I provide feedback to members of the team for improving their effectiveness.                | 16             | 2.81 | 0.95               | 16              | 2.63 | 0.86               | (0.19)         |
| Our team leader(s) fosters a positive environment for collaboration.                        | 16             | 3.56 | 1.06               | 16              | 4.19 | 0.95               | 0.63           |

# Measuring Impact of Team Training

## Likely to Apply

*How likely is it that you or your team will apply learning from these Boot Camp topics in your project/work?*

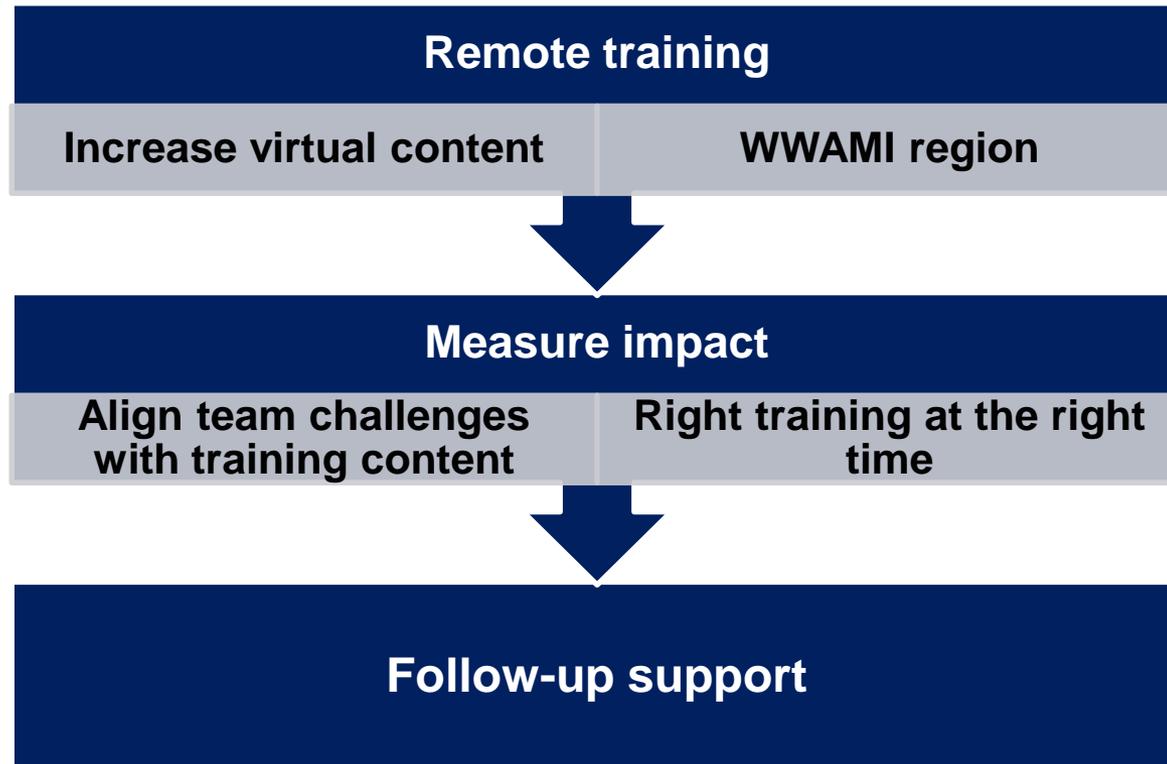
Key: Wont apply =1, Might apply =2, Will apply =3

### Post-Evaluation (only)

|                                        | <b>N</b> | <b>Mean</b> | <b>Standard Deviation</b> |
|----------------------------------------|----------|-------------|---------------------------|
| <b>Lean Project Management</b>         | 24       | 2.75        | 0.43                      |
| <b>Personal/Social Styles</b>          | 24       | 2.38        | 0.63                      |
| <b>Team Agreements</b>                 | 25       | 2.80        | 0.40                      |
| <b>Engaging with Conflict</b>          | 25       | 2.44        | 0.57                      |
| <b>Giving &amp; Receiving Feedback</b> | 24       | 2.50        | 0.58                      |

# Next Steps

## CONTINUE TO TRAIN RESEARCH TEAMS:



***“Attending the Team Science training made such a difference. I am a new leader and was struggling how to facilitate a feeling of a team and that we are working toward a common goal. Now the team feels more empowered and we are working together. (What I interpret as) the feeling of being part of a team has made each of them show more commitment to the study and also more open to share ideas. I am telling everyone about this training, it was like water to wine. ”***

**- Daniela Luquetti (2019 Boot Camp)**

# Questions?

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