

EVIDENCE-BASED TEAM DEVELOPMENT: A 6-YEAR PRE-POST ASSESSMENT OF TEAM EXPERIENCES WITH TEAM COACHING INTERVENTION

TUESDAY MAY 21, 10:30AM – 12NOON

Bonnie Richley, Ph.D.
Interaction Science, LLC.

Tony Lingham, Ph.D.
Antioch University



Approach: Engage with you all as a Thought-Partners



Agenda for our presentation:

Quick sense of folks here that have designed or attended team training and development programs

Presentation of our study

- Global trends
- Team training
- Our study
 - Methods
 - Findings



- Designing team training programs
- Attending team training programs



Presentation of our study

- Global trends
- Team training
- Our study
 - Methods
 - Findings



Global Trends

Importance of Team Training



Global Trends

- Organizations are designed using a team approach
- Leadership/membership in multiple teams
- People do not work alone
- 85% of work done is done in teams
- In a Gallup study (2012)¹, of 10,680 teams globally, only about 2% of teams fulfill 100% of their tasks
- Organizations are aware that a strong engaged workforce is critical for their success
- Another Gallup study (2017)² indicates that 84% of employees work in matrix teams

¹Hardy-Valle, B. 2012, February 7. The Cost of Bad Project Management. *Gallup Business Journal*.

²State of the American Workplace Report. 2017. *Gallup, Inc.*

Training Programs



- Most training programs are focused on developing individual leadership/supervisory skills
- In 2012, more than \$156B USD was pumped into training programs in the US (Miller, 2012)
- Most team training programs rarely focus on developing teams in their work context
- Most offsite team training are not based on actual data from their work environment
- Even less provide evidence-based training (Richley & Lingham, 2016; Raes, et al., 2015)
- Team programs seldom use valid, reliable, and robust assessments that have been tested globally (Richley & Lingham, 2016; Lingham & Richley, 2018)

Training Programs



- Team training and development programs seldom incorporate all three critical factors: 1) Individual, 2) Interpersonal, and 3) Teams
- Being able to develop self-awareness AND other-awareness is a key first step in developing higher levels of engagement when working with others
- Effective training programs should cover individual, interpersonal, and team levels with solid assessments and proven, reliable, and robust structured coaching at the individual and team levels.

Teams

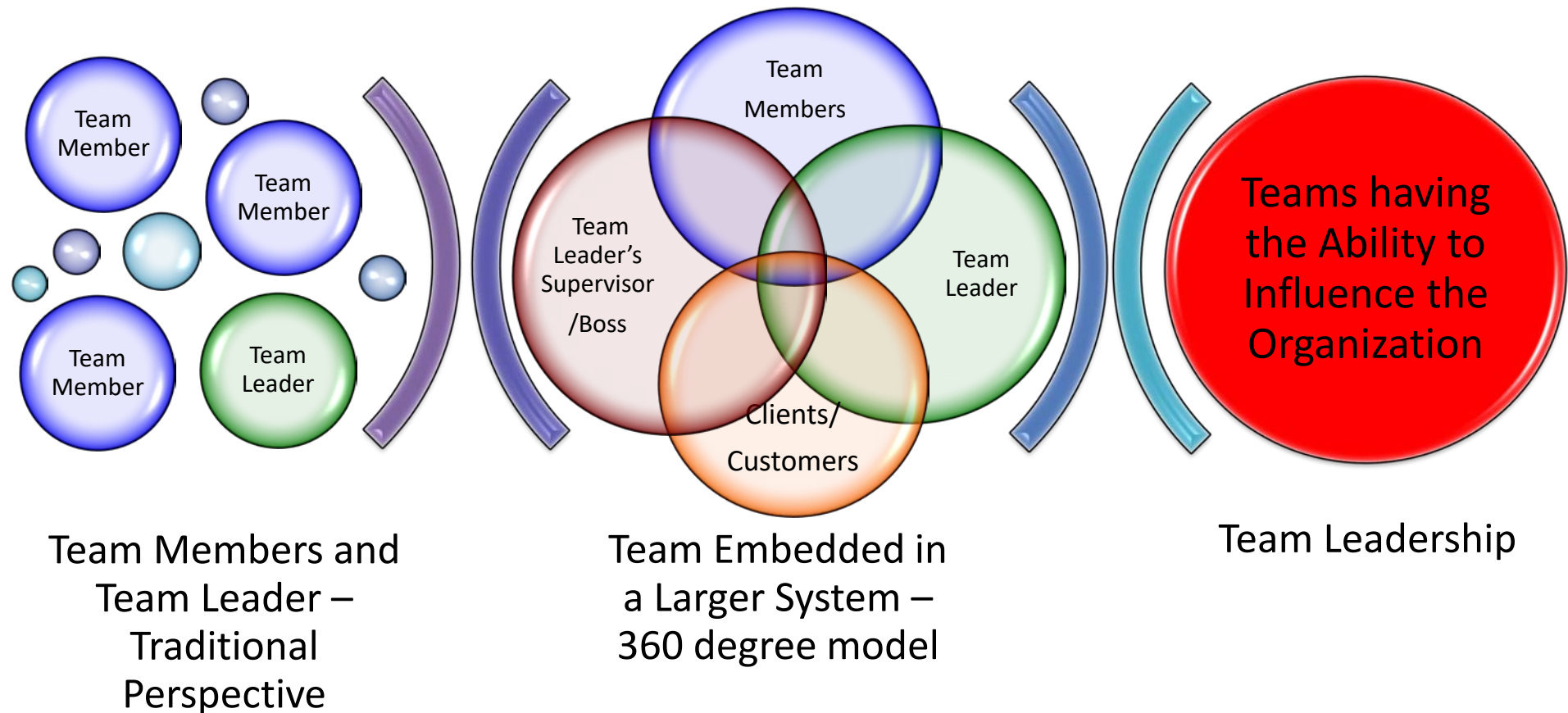


Teams are the engines that drive businesses, they are the force bringing innovations to life, and they are the central organizing form for all work relationships

Bonnie Richley, Ph.D.

10:45– 11:30

Our Model of Team Training



10:45– 11:30



The Experience of Teamwork in Their Work Context:

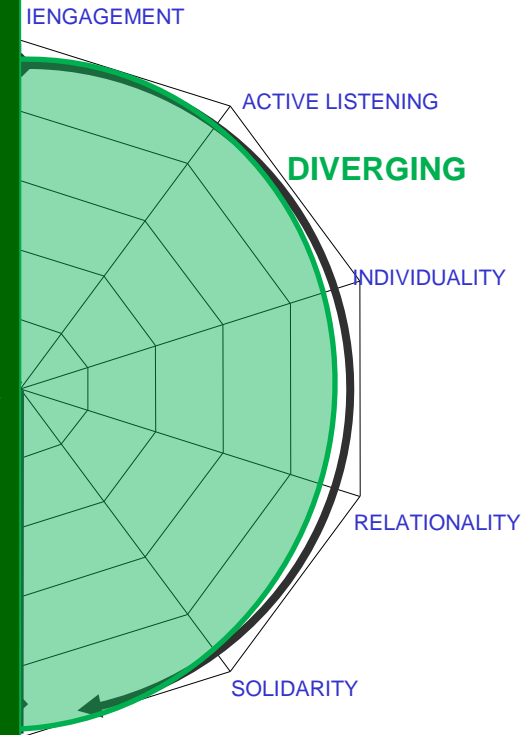
Team Interaction: Dimensions related to Quality of Engagement

THE DIVERGING DIMENSION:

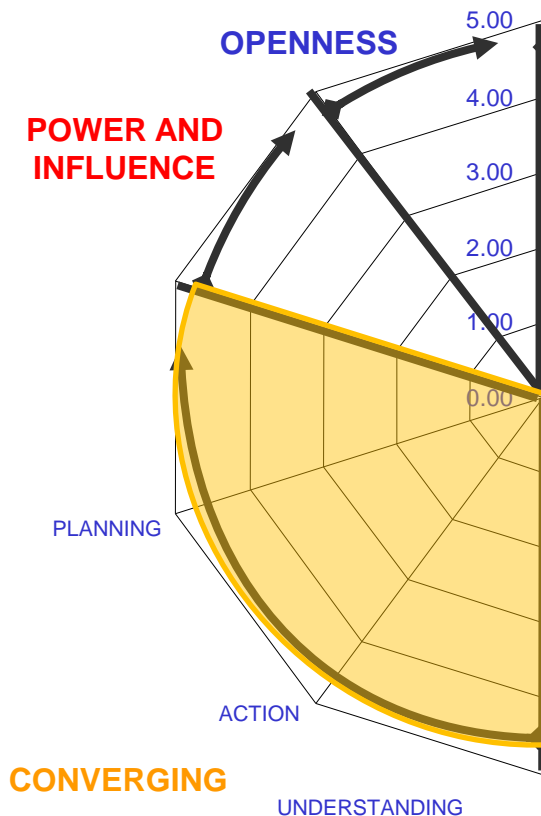
Definition. The Diverging dimension is defined as the extent to which a team is engaged in valuing one another, connecting with one another and where team members have the freedom to be individuals and relate to each other. This interaction is not task or purpose focused. The Diverging Dimension of team interaction can be identified as those interactions that focus on non-task aspects which affects the socio-emotional dynamics in a team. These interactions can impact:

1. Trust in the team as it is shaped by members' values, attitudes, moods, emotions, as well as personal experience;
2. Understanding and working or managing diversity in team (e.g., learning styles, nationalities, cultures, experiences and gender);
3. Social integration (i.e., members' attraction to the group, satisfaction with other members of the team, and social interaction among team members), group cohesiveness, member satisfaction, person group fit and team commitment;
4. Team bonding which reflects feelings that members' hold toward each other and the team going well beyond trust to reflect a strong sense of rapport and a desire to stay together, perhaps beyond the current task context;
5. Managing conflicts in a team setting; and
6. Developing skills to promote interpersonal understanding and interpersonal sensitivity.

Within this dimension are **FIVE** aspects of team interaction: Engagement, Active Listening, Individuality, Relationality and Solidarity



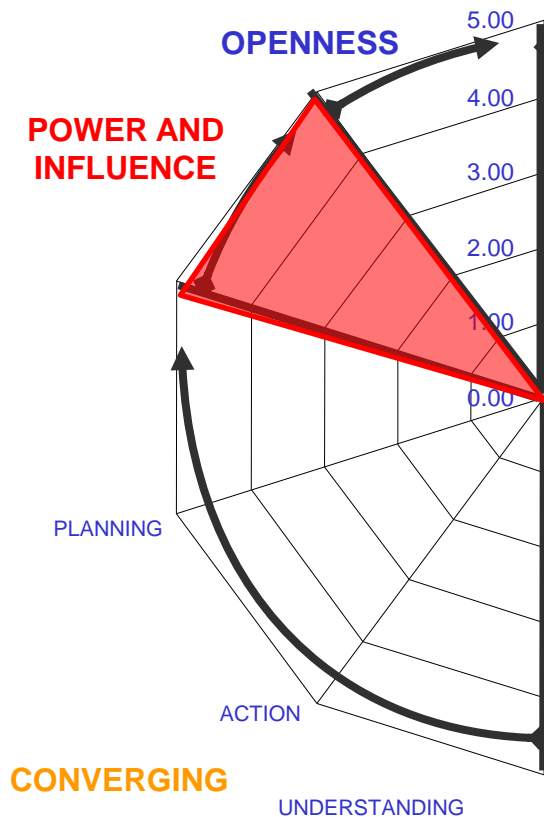
THE CONVERGING DIMENSION:



Definition. A team's Converging interaction is defined as the extent to which the team engages in decisions and is driven by agendas or directions that are related to the task or its purpose. This interaction is task or purpose focused. The Converging Dimension of team interaction is experienced as those that help the team accomplish a task, goal or objective. This dimension of team interaction can impact:

1. Team potency (i.e., team members' collective belief that they can be effective);
2. Task related conflict (e.g., social loafing, perceptions of indispensability, and scape-goating); and
3. Understanding of team roles

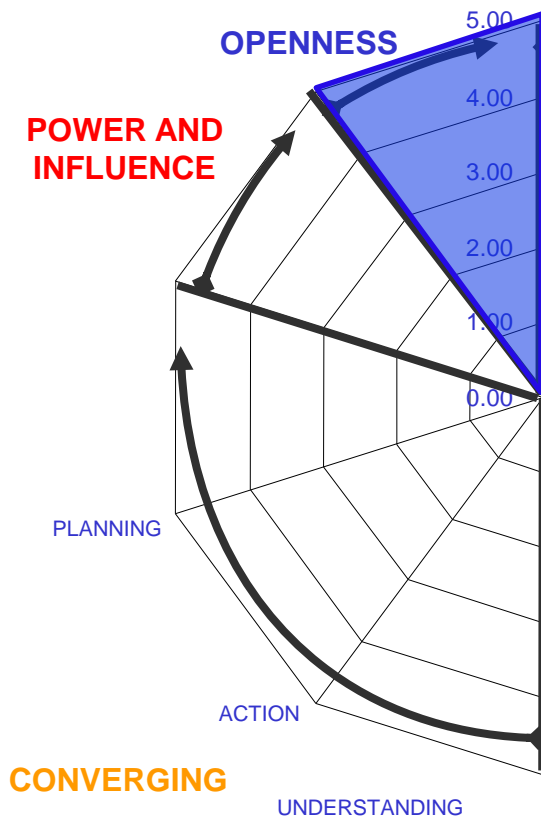
THE POWER AND INFLUENCE DIMENSION:



Definition. A team's Power and Influence Interaction is defined as the extent to which members of the team have equal ability and opportunity to influence and contribute to the team's purpose, goals and tasks. A high level of this dimension is experienced when the team does not depend on a strong single leader instead members can contribute to exceed the leader's expectations and requirements of the team. When a team is young, usually they would expect to have strong leadership from the legitimate leader of the team. As a team matures, the nature of leadership should evolve to become one that is shared and where members feel they can both influence the team's purpose and goals while also feeling able to contribute to the team and not just to complete tasks assigned to them.

This dimension is the most powerful dimension in the experience of team interaction (based on statistical analysis). Therefore even a small gap in this dimension could have a strong effect on team members' perception of team performance, member satisfaction and psychological safety.

THE OPENNESS DIMENSION:



Definition. A team's Openness Interaction defined as the extent to which members focus on issues or ideas that are of interest or concern to individual members or the group as a whole. This dimension is focused on how safe and accepted team members feel in terms of promoting behaviors that are inclusive at the individual and team levels. This dimension is indicated by the ability and freedom for team members to return to previously discussed issues, to stay with issues, or to discuss issues or matters that are important to them (even if it leads to tangential discussions).

This dimension focuses on the freedom of individuals to voice opinions, views or issues that are important to them without being ridiculed, brushed away as insignificant or unimportant or irrelevant, judged or evaluated. Thus it is the extent to which members focus on issues or ideas that are of interest or concern to individual members or the group as a whole. The Openness Dimension is the second most significant dimension of team interaction that would promote member satisfaction, psychological safety and group performance.

TEAM COACHING

Based on team interaction and experience in their work context

- Every team is unique
- We need a reliable and valid methodology to assess team experience in their work context
- Coaching should involve developing teams from one state to another (supported by up-to-date scientific theories of change)



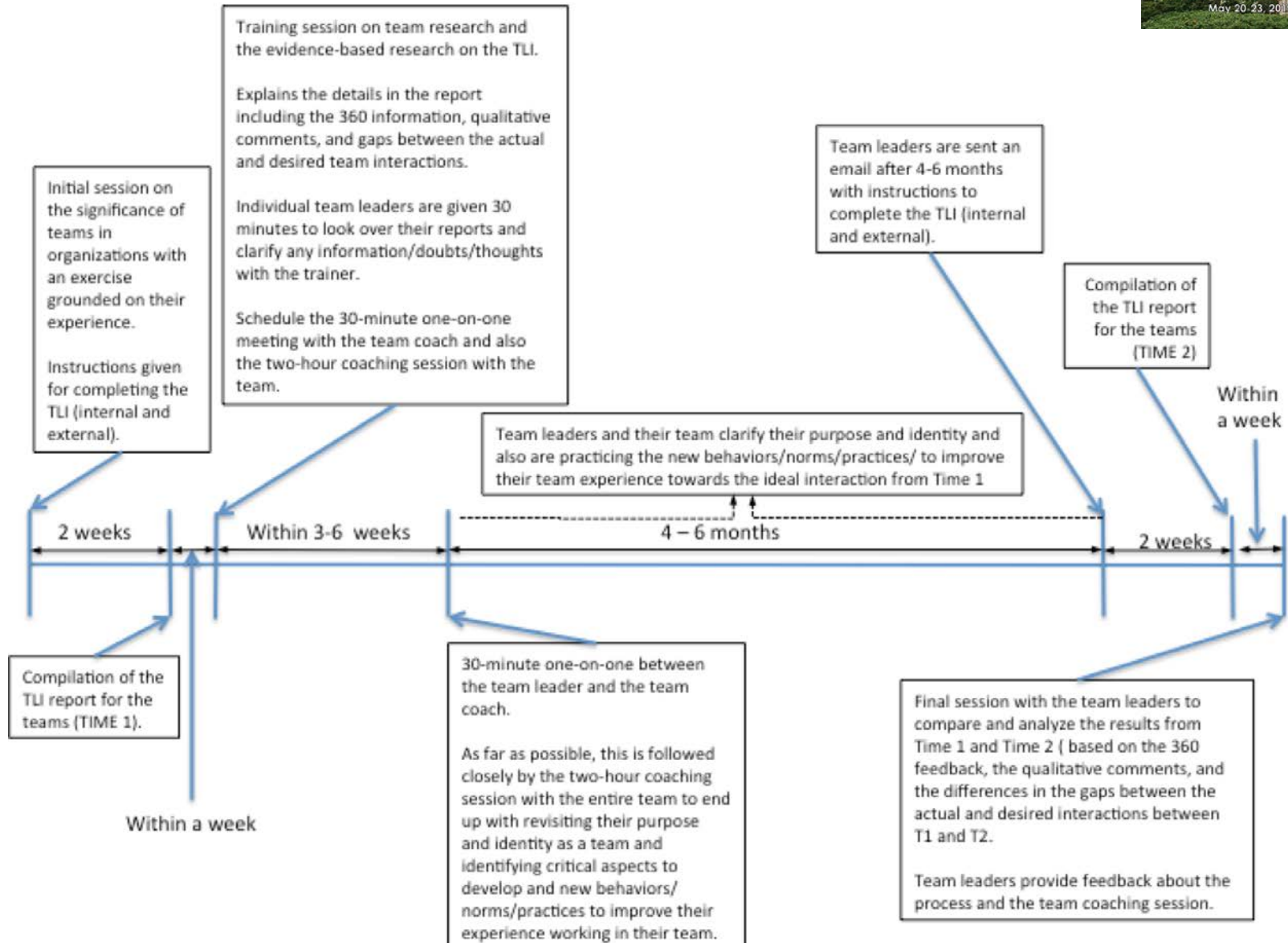
Based on team interaction and experience in their work context

- Every team is unique
- We need a reliable and valid methodology to assess team experience in their work context
- Coaching should involve developing teams from one state to another (supported by up-to-date scientific theories of change – specifically Chaos Theory (Gleick, 1987; Parker, 1996) and the Principle of Computational Equivalence (Wolfram, 2002))



Our 6-year study

EVIDENCE-BASED TEAM DEVELOPMENT: A 6-YEAR PRE-POST ASSESSMENT OF TEAM EXPERIENCES WITH TEAM COACHING INTERVENTION





Methods - Sample

General Descriptive Data^a of Teams used in this Study

Major Groups	Number of teams	Men	Women
Schools/Research ^b	23	$\bar{X}=1.83$	$\bar{X} =6.17$
Administration ^c	31	$\bar{X} =2.40$	$\bar{X} =7.10$
Total	54	54	54 ^d
Membership information			
Range of membership across all teams		3 – 21	
Range of men members across all teams		0 – 9	
Range of women members across all teams		0 – 21	

Notes:

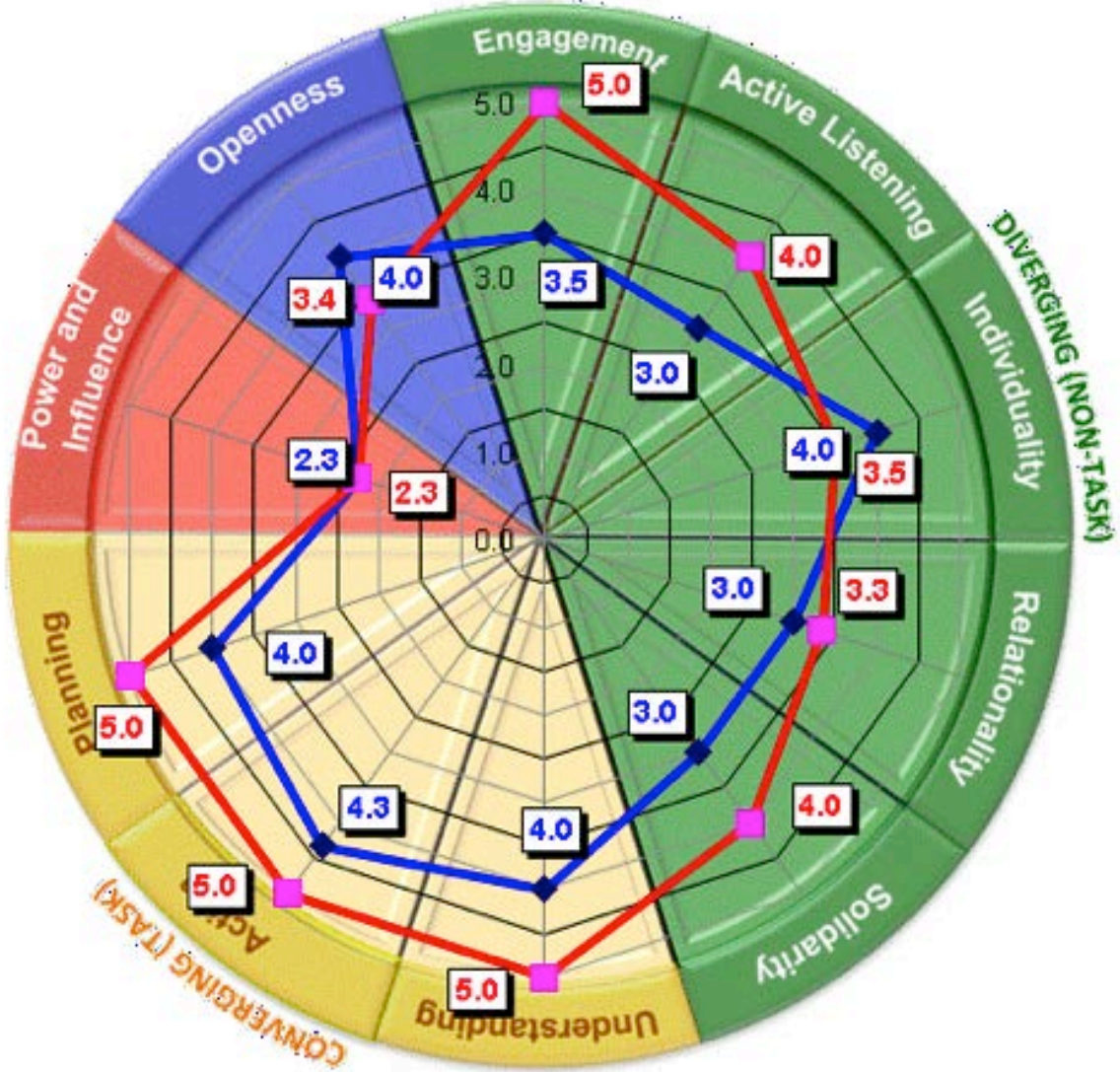
^aData was collected from six cohorts who attended the sessions from 2009-2015. Sessions began in November and ended in June/September.

^bSchools and Research teams are from the Hard Sciences, Social Sciences, Student Affairs and Office of Research.

^cAdministrative teams are from Human Resources, Information Technology, Maintenance, and University Administration.

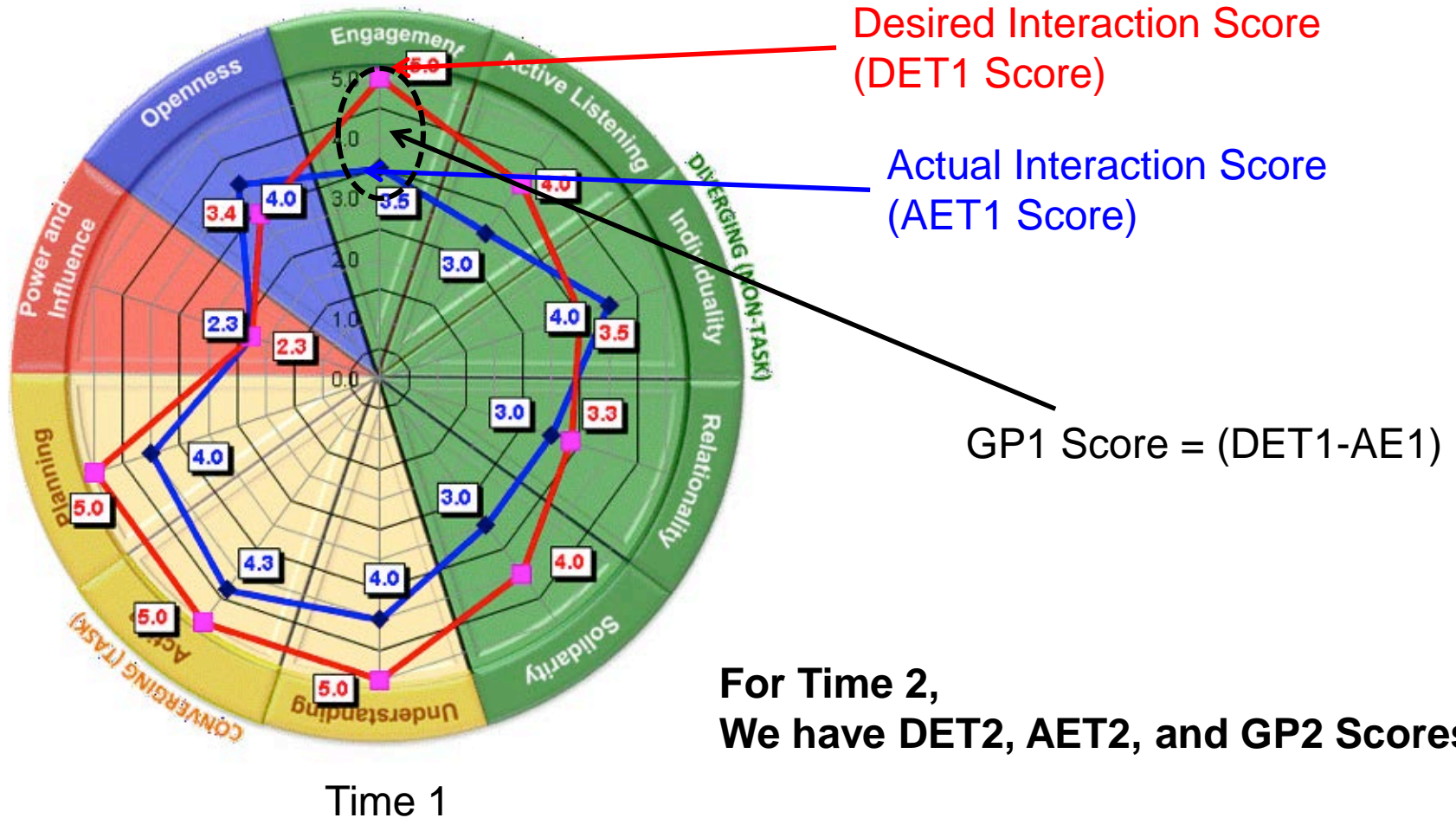
^dThe equal number of teams, men and women in the sample is purely coincidental.

Overall Team Mapping





Internal Team Members Actual and Desired Experience



EVIDENCE-BASED TEAM DEVELOPMENT: A 6-YEAR PRE-POST ASSESSMENT OF TEAM EXPERIENCES WITH TEAM COACHING INTERVENTION



- 1. Performance
- 2. Member Satisfaction
- 3. Psychological Safety

- 1. Efficiency of the team
- 2. Quality of work of the team
- 3. Comparison of the team to other similar teams they have worked with
- 4. The team's ability to collaborate with them
- 5. Satisfaction with the team
- 6. Wanting the work with the team in the future
- 7. Trust in the team
- 8. Safety in raising issues/concerns with the team
- 9. Safety in asking for help from the team
- 10. Feeling valued as a client/manager

Internal Team Members' Assessment (INT1)

External Evaluators' Assessment (EXT1)

Time 1

For Time 2,
We have INT2 and EXT2

Methods - Hypotheses



Hypothesis 1: The overall actual experience score in T2 is positively and significantly better than the overall actual experience score in T1.

Hypothesis 2: The overall desired experience score in T2 is positively and significantly better than the overall desired experience score in T1.

Hypothesis 3: The gap between the desired experience and the actual experience in T2 is smaller (negatively) and significantly than that of T1.

Hypothesis 4: The external evaluation in T2 is positively and significantly better than the external evaluation in T1.

Hypothesis 5: The internal evaluation in T2 is positively and significantly better than the internal evaluation in T1.

Hypothesis 6: The reduction in the teams' gap between the desired experience and the actual experience from T2 to T1 positively and significantly affect the teams' internal evaluation at T2.

EVIDENCE-BASED TEAM DEVELOPMENT: A 6-YEAR PRE-POST ASSESSMENT OF TEAM EXPERIENCES WITH TEAM COACHING INTERVENTION

Findings



Test of Homogeneity of Variance									
Gaps Between Actual and Desired Experiences		Levene's Statistic		df1	df2	sig. ^a			
T1 (Desired-Actual) Gap		0.448		1	52	0.5060			
T2 (Desired-Actual) Gap		0.01		1	43	0.9230			
T2 Gap – T1 Gap		0.78		1	43	0.3820			
Paired t-tests Where Pair 1- Pair 5 Represents Hypotheses 1 – Hypothesis 5 Respectively									
		Mean	sd	se	95% C.I.		t	df	sig.
					Lower	Upper			
Paired t-test 1	AET2 – AET1 ^c	-0.28	-0.39	-0.06	-0.39	-0.16	-4.84	44	0.000
Paired t-test 2	DET2 – DET1	-0.47	0.69	0.10	-0.67	-0.27	-4.63	45	0.000
Paired t-test 3	GPT2 – GPT1	-0.11	0.40	0.06	-0.23	0.01	-1.87	44	0.068 ^b
Paired t-test 4	EXTT2 – EXTT1	0.33	1.04	0.17	-0.01	0.68	1.95	36	0.059 ^b
Paired t-test 5	INTT2 – INT1	0.07	0.36	0.06	-0.04	0.18	1.26	41	0.214
Hypotheses Support									
Hypothesis 1		PARTIALLY SUPPORTED ^d							
Hypothesis 2		NOT SUPPORTED							
Hypothesis 3		SUPPORTED							
Hypothesis 4		SUPPORTED							
Hypothesis 5		NOT SUPPORTED							

Notes:

^aThe Levene's test for homogeneity all had $p > 0.01$ confirming that the two groups have equal variance.

^bAlthough the significance level is slightly larger than $p < .05$, we accepted the results as supportive of H3 and H4.

^cIn this column, "AE" is Actual Experience; "DE" is Desired Experience; "GP" is the Gap (value obtained by subtracting the Actual Experience from the Desired Experience); "EXT" is assessment from the external evaluators; "INT" is the internal assessment from team members; and "T1" and "T2" represents Time 1 and Time 2 respectively

^dWe indicate partial support as the standard deviations were much smaller in Time 2 (s.d. = .23) versus Time 1 where (s.d. = .42) -- a decrease of 45%.

10:45– 11:30

Hypotheses



- ✓ *Hypothesis 1: The overall actual experience score in T2 is positively and significantly better than the overall actual experience score in T1.*
- ✗ *Hypothesis 2: The overall desired experience score in T2 is positively and significantly better than the overall desired experience score in T1.*
- ✓ *Hypothesis 3: The gap between the desired experience and the actual experience in T2 is smaller (negatively) and significantly than that of T1.*
- ✓ *Hypothesis 4: The external evaluation in T2 is positively and significantly better than the external evaluation in T1.*
- ✗ *Hypothesis 5: The internal evaluation in T2 is positively and significantly better than the internal evaluation in T1.*

10:45– 11:30

Findings



Linear Regression Results to test the Impact of Coaching on Difference in Internal Assessment from T2 and T1 (Hypothesis 6).

ANOVA RESULTS with DV (GAPINTEVAL) and IV (T2GAPT1GAP) ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.514	1	0.514	4.288	0.045
	Residual	4.798	40	0.120		
	Total	5.313	41			
REGRESSION RESULTS ^b						
	Standardized Beta	R Square	Adjusted R Square	Std. Error of the Estimate	t	Sig
1	-0.311	0.097	0.074	0.346	-2.071	0.045

Notes:

^a“GAPINTEVAL” is the difference from the team members evaluation of the internal assessment (T2-T1); “T2GAPT1GAP” is the gap between the Desired Experience and the Actual Experience from T2 and T1.

^bThe regression results used the same DV and IV to test Hypothesis 6.

10:45– 11:30

Hypotheses



- ✓ *Hypothesis 6: The reduction in the teams' gap between the desired experience and the actual experience from T2 to T1 positively and significantly affect the teams' internal evaluation at T2.*

10:45– 11:30



Overall Findings

1. The results in the team assessment, coaching, and development study is very encouraging as it shows that the gaps between the Actual and Desired Experiences are much closer in Time 2 than in Time 1. This indicates that after the team coaching session, there was a much smaller gap (significant at, $p = .068$) in the teams' assessment which **demonstrates with empirical evidence that the teams do develop.**
2. We were also encouraged that the external evaluators rated the team significantly higher (or better) in Time 2 versus Time 1 ($\bar{X} = .33$, $p = .059$). This is another demonstration of the development of the team with **evidence to support that the team, as part of a larger system, did better after the team coaching.**
3. Finally, when we tested Hypothesis 6 for impact, the evidence shows that the reduction in the gap between the desired experience and the actual experience from Time 1 and Time 2 does impact the internal evaluation from the team members. Our evidence ($\beta = -.31$, $r^2 = .097$, $p < .05$) **The finding that this decrease in the gap being significant at $p < .05$ is indeed clear evidence that the team coaching process does indicate that teams actually develop.**

EVIDENCE-BASED TEAM DEVELOPMENT: A 6-YEAR PRE-POST ASSESSMENT OF TEAM EXPERIENCES WITH TEAM COACHING INTERVENTION



We have Evidence that teams improve using our assessment and our structured team coaching

We have used this approach globally over the past 18 years

We have used this approach as part of IPE at Case Western Reserve University

We have used this approach as part of the team skills development for BSN/MSN students at The Frances Bolton School of Nursing at Case Western Reserve University. We have published this work.

Petty, G., & Lingham, T. (2019). Coaching Teamwork in the classroom Using an Innovative Team-Coaching Process. *Nursing Education Perspectives*

We have also published our book: *High-Impact Engagement: A two-phase approach for individual and team development*. Available at Amazon.com

Post- Session Evaluation

Please take 2 minutes to complete this brief but valuable post session evaluation. *Responses are anonymous and will be used to improve future programming.*

Type <https://bit.ly/scits2019> into your browser to launch survey

or

Scan this QR code



Thank you!





INTERACTION SCIENCE, LLC.

The Team Learning Inventory
Training and Coaching Certification

The Team Learning Inventory©



INTERACTION SCIENCE, LLC.

The Team Learning Inventory
Training and Coaching Certification

The Team Learning Inventory© - Two profiles based on the lived experience of a team within their work context

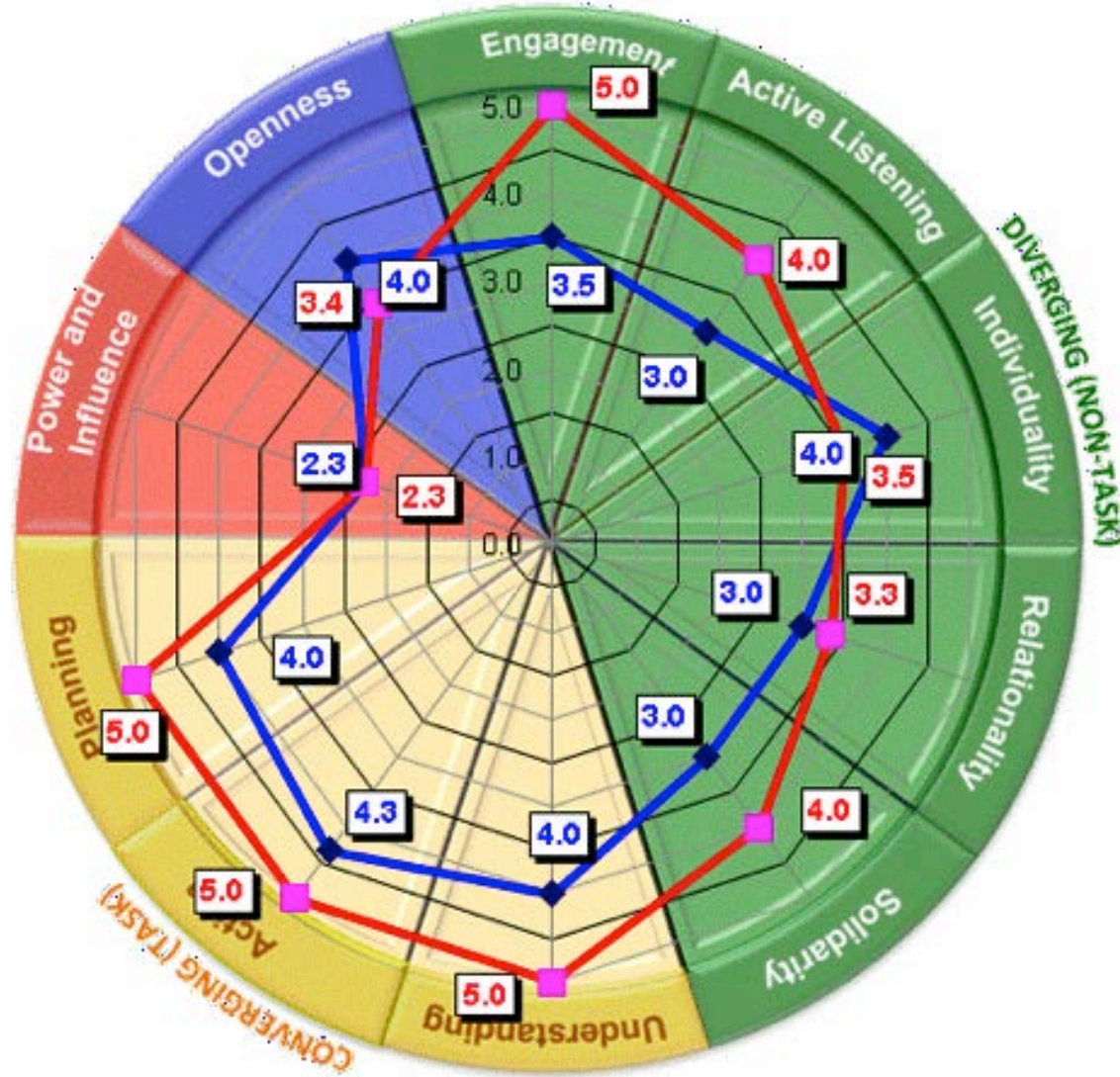
1. QUALITY OF TEAM ENGAGEMENT
2. INNOVATION AND EXECUTION CAPACITIES

The Team Learning Inventory (TLI)

Quality of Team Engagement

- The TLI profiles a team's current and desired states of engagement (the team's interaction) based on the lived experience of a team **WITHIN** their work environment

Quality of Engagement: Current and Desired States of Engagement

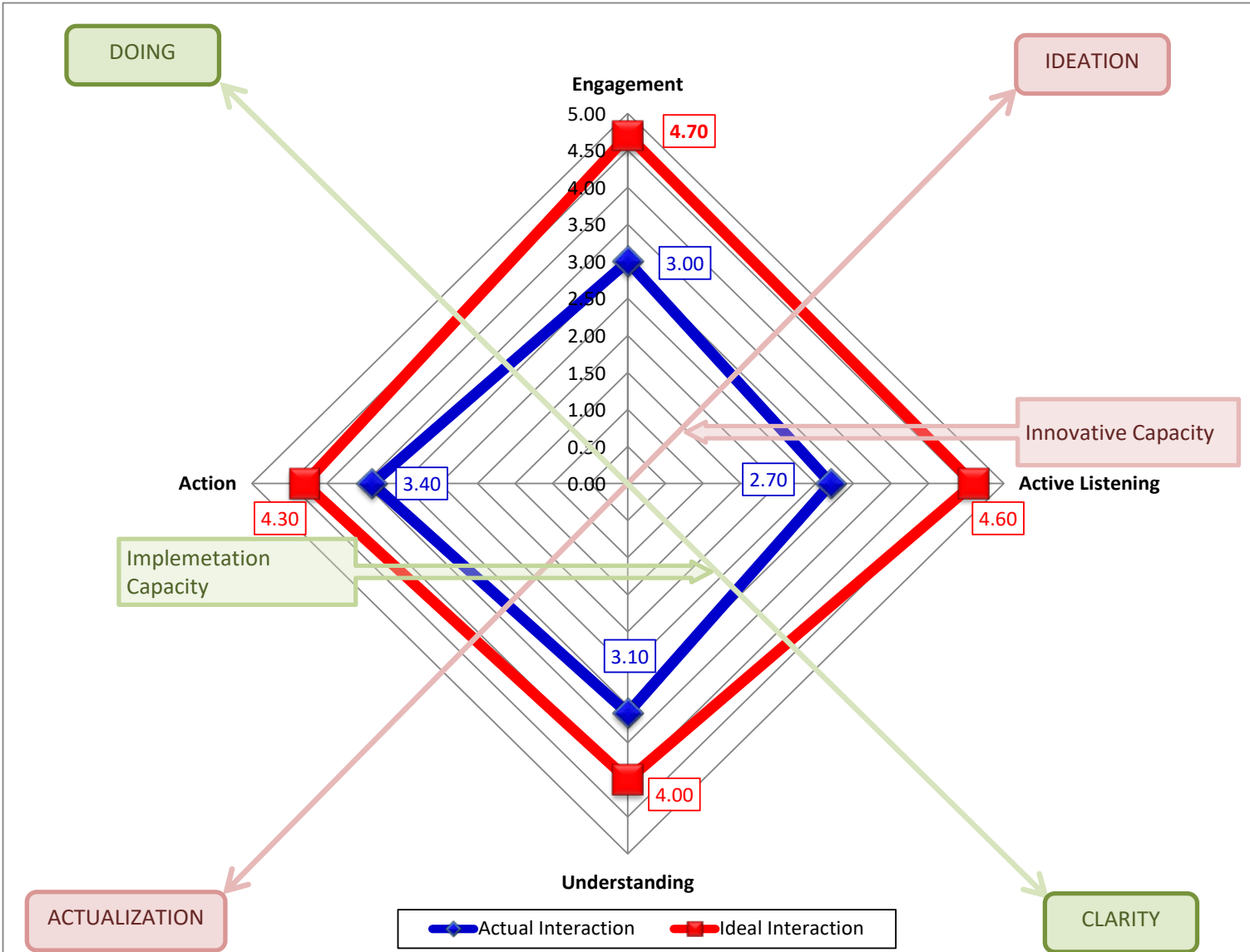


The Team Learning Inventory (TLI)

Innovative and Execution Capacities

- The TLI profiles a team's current innovative and execution capacities based on their lived experience while working on projects/tasks

Innovative and Execution/Implementation Capacities



The Team Learning Inventory (TLI)

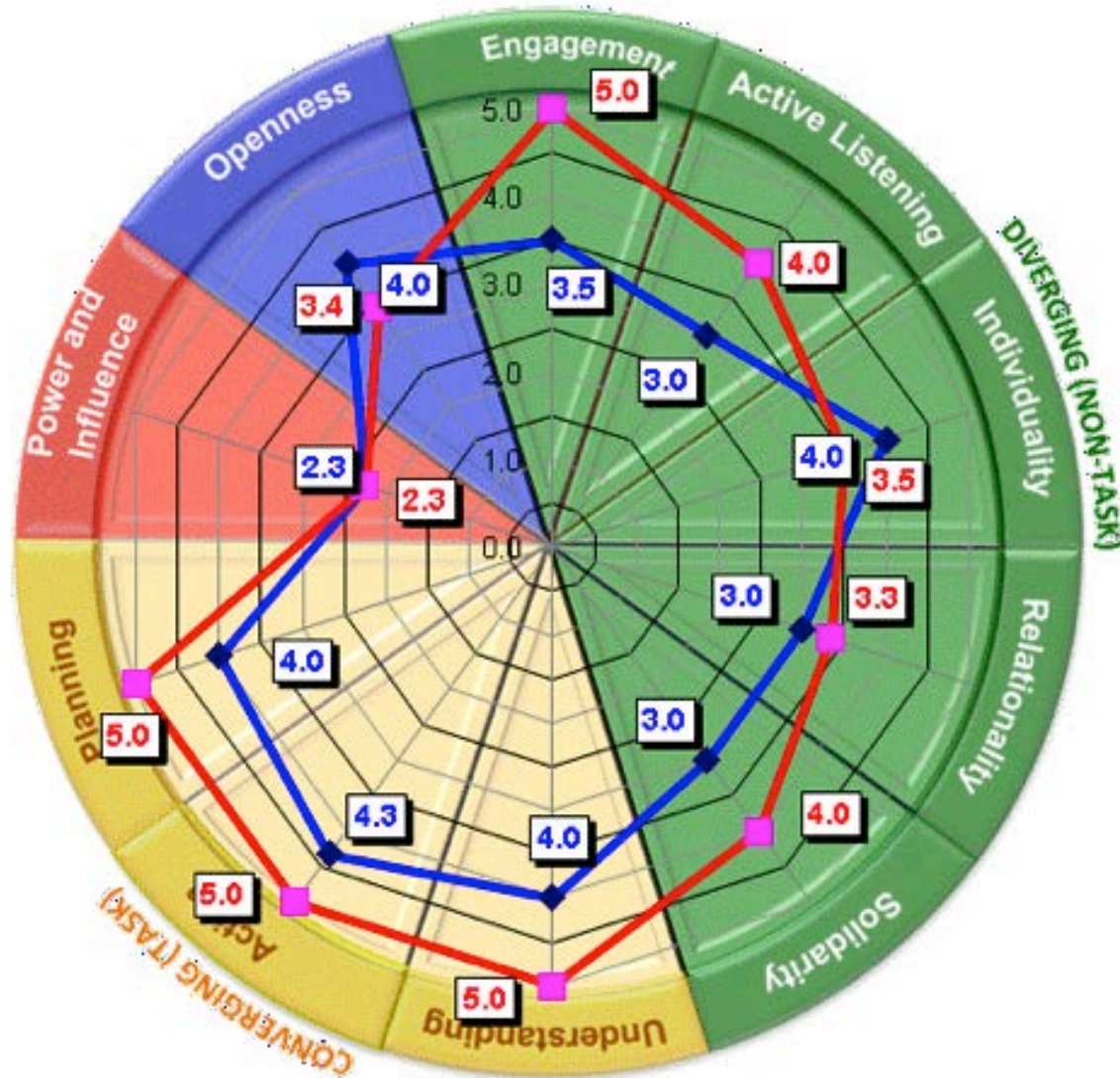
Team Coaching

- Aligned with up-to-date scientific change theories (states and emergent states)
- Focused on team interaction within their work context
- A team coach is able to help the team achieve its desired state of engagement and achieve a team's desired innovation and execution capacities
- This process helps a team contribute and influence its larger system(s) resulting in High Impact Engagement

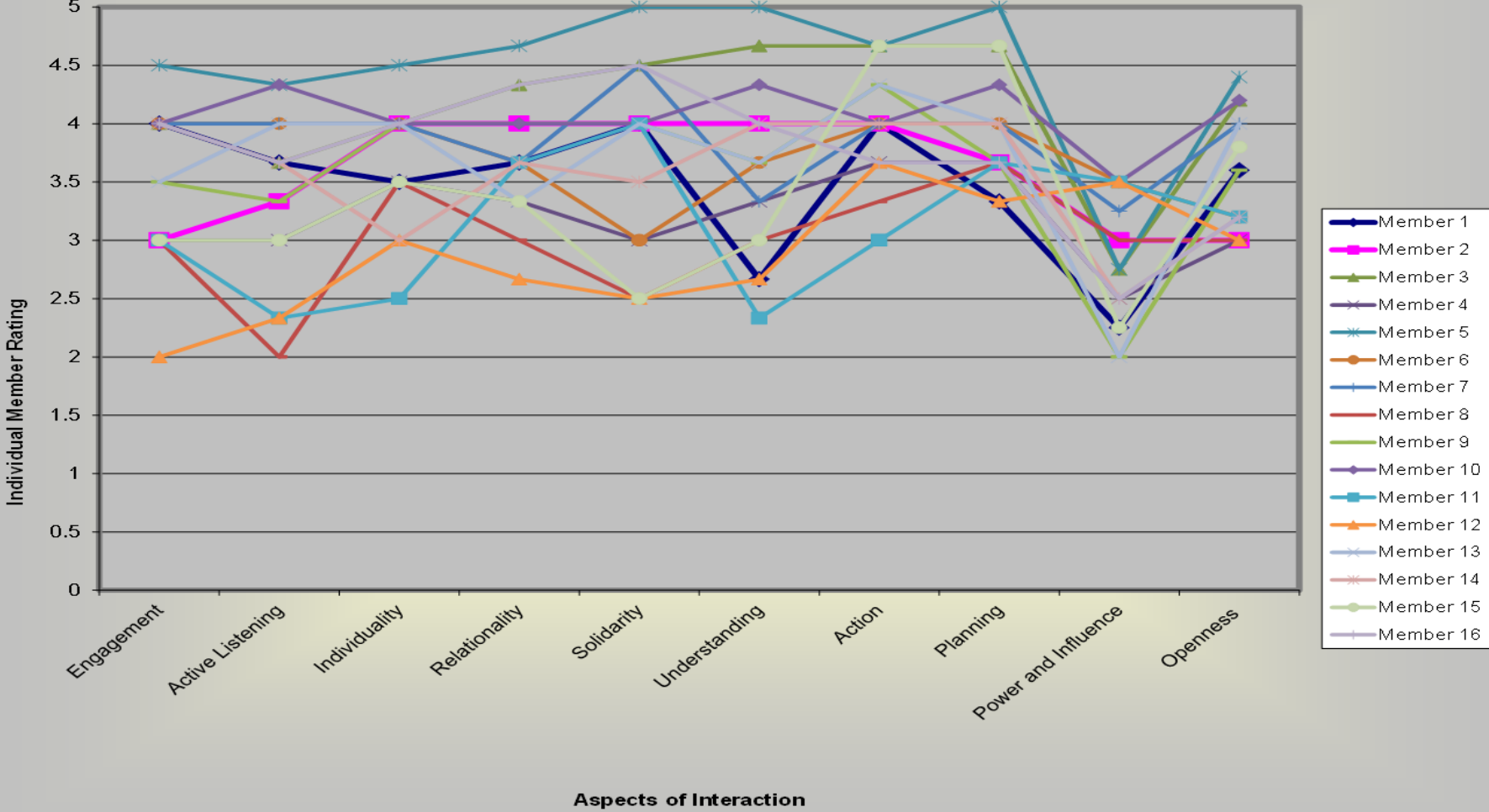
The Team Learning Inventory© (TLI)

- Comprehensive team coaching approach
 - Structured process to transition team from existing to “desired” state
 - 15 years testing and validation
- Benefits
 - Increase team productivity leading to reduced costs and increased revenues
 - Positively impacts employee satisfaction and employee engagement
 - Develops team’s capacity to innovate and implement
- Distinctiveness
 - 360 degree feedback
 - Based on Experiential Learning Theory, creativity, innovation and design thinking, work motivation; focused on team learning and development using up to date scientific change theories
 - Focused on the experience of ***teams in their work environment***
 - Provides evidence of team coaching (pre and post assessments)
 - Focused on unique dynamics of a specific team instead of using a general concept loosely based on team dynamics
 - Every team is unique;
 - Team coaching process that is focused on each team’s 360 data and results

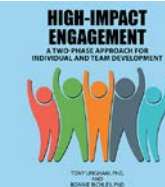
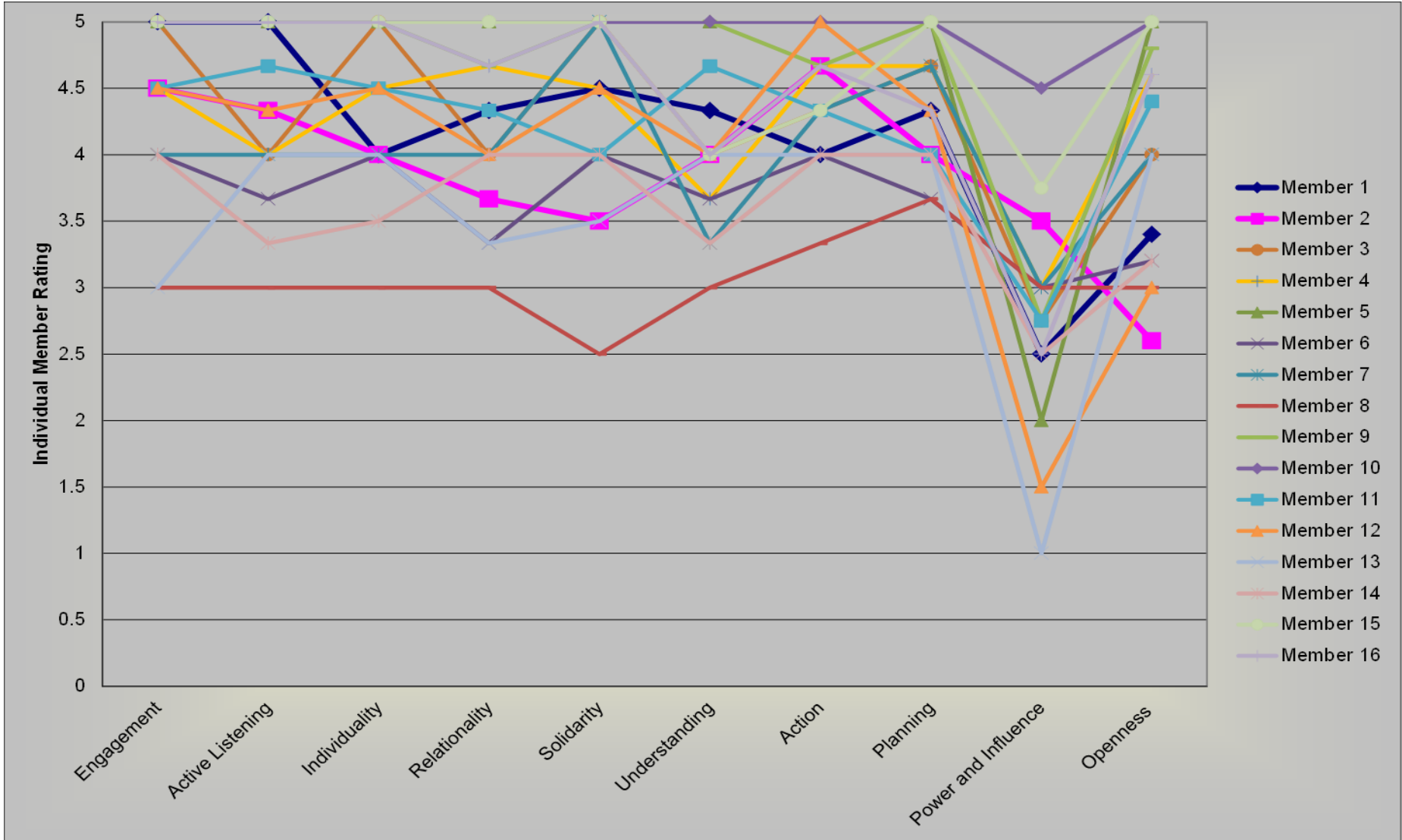
Overall Team Mapping



Variance of Member Ratings (Actual)



Variance of Member Ratings (Desired)



Qualitative Comments from Team Members

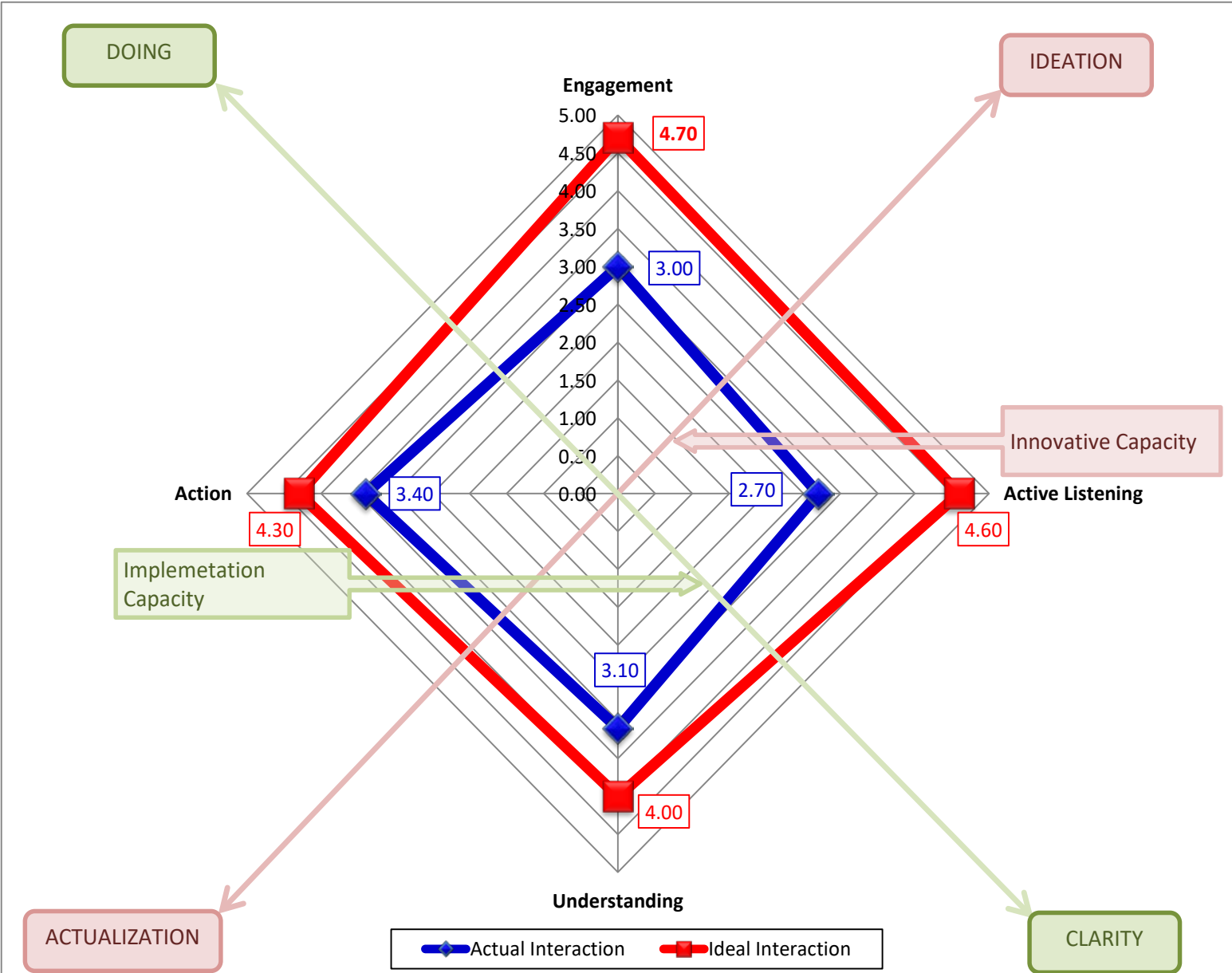
Members comments on strengths of the team:

Identify THEMES and CLUSTERS

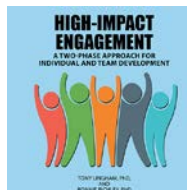
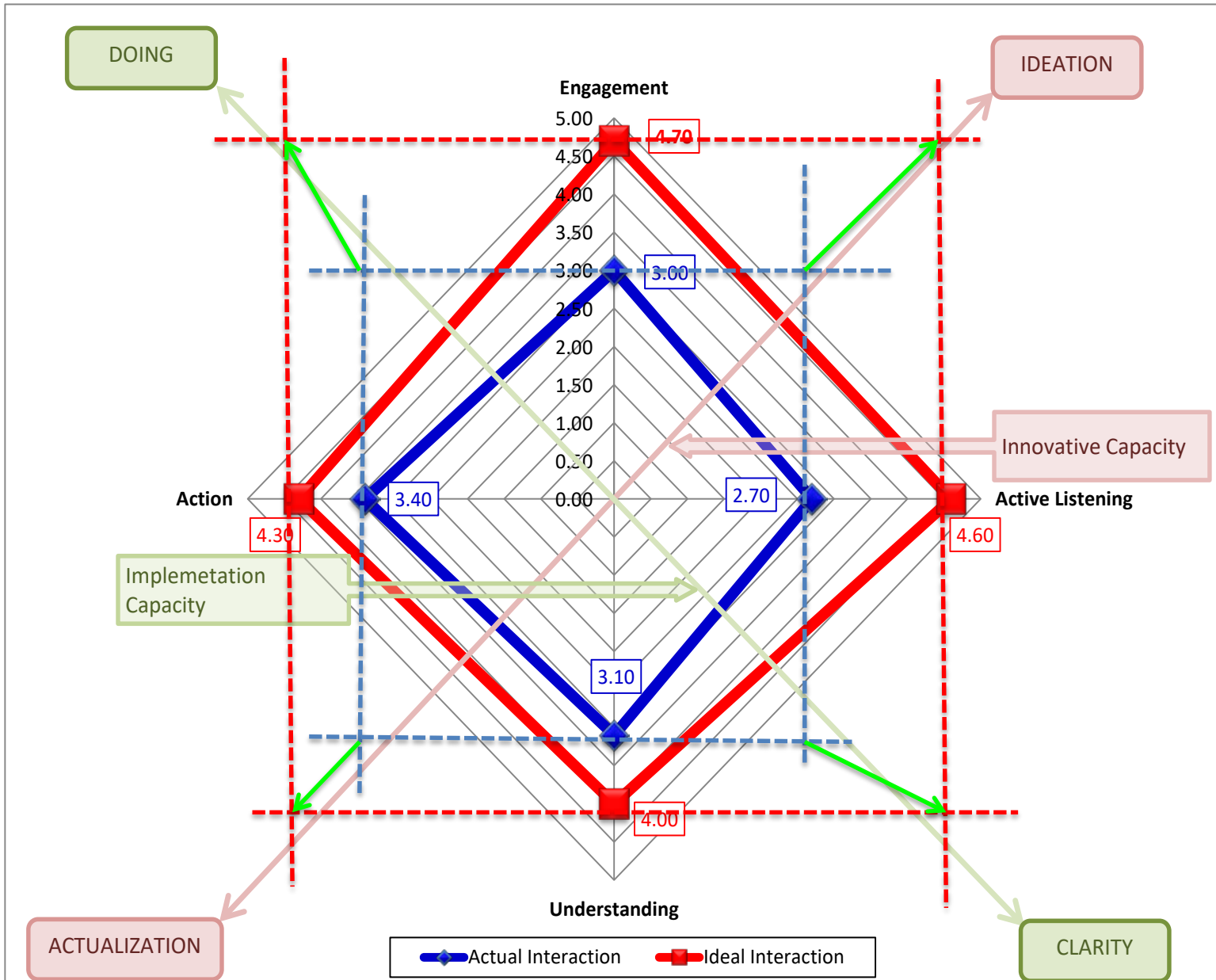
Members comments on areas the team could improve on:

Identify THEMES and CLUSTERS

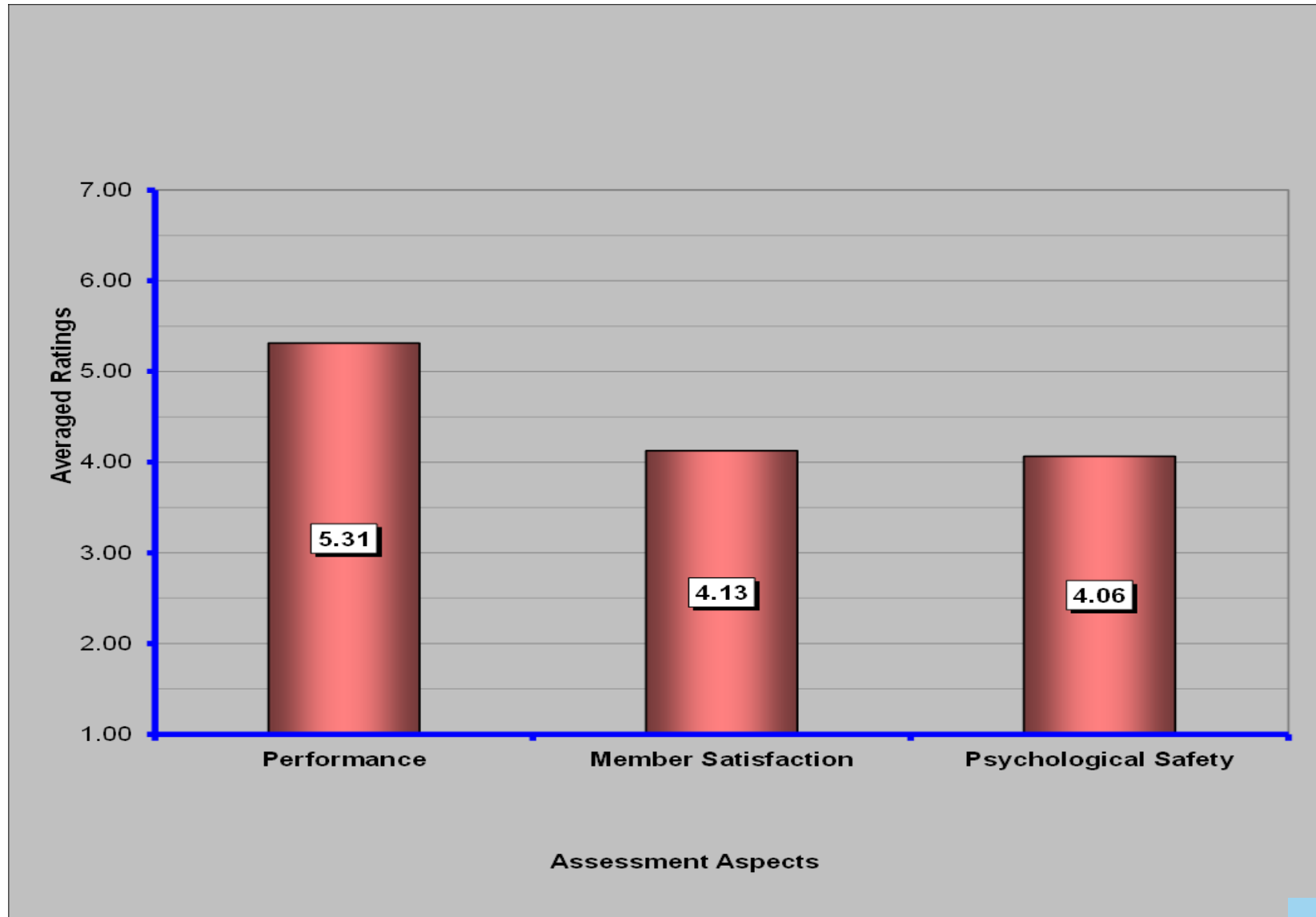
Innovative and Implementation Capacities



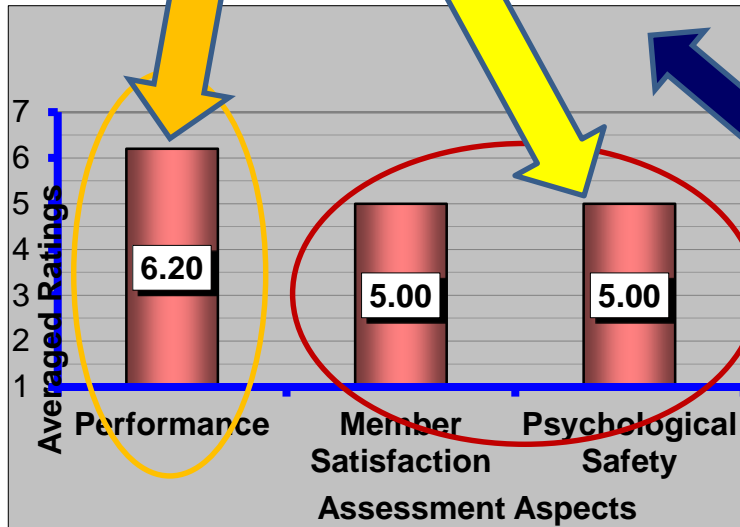
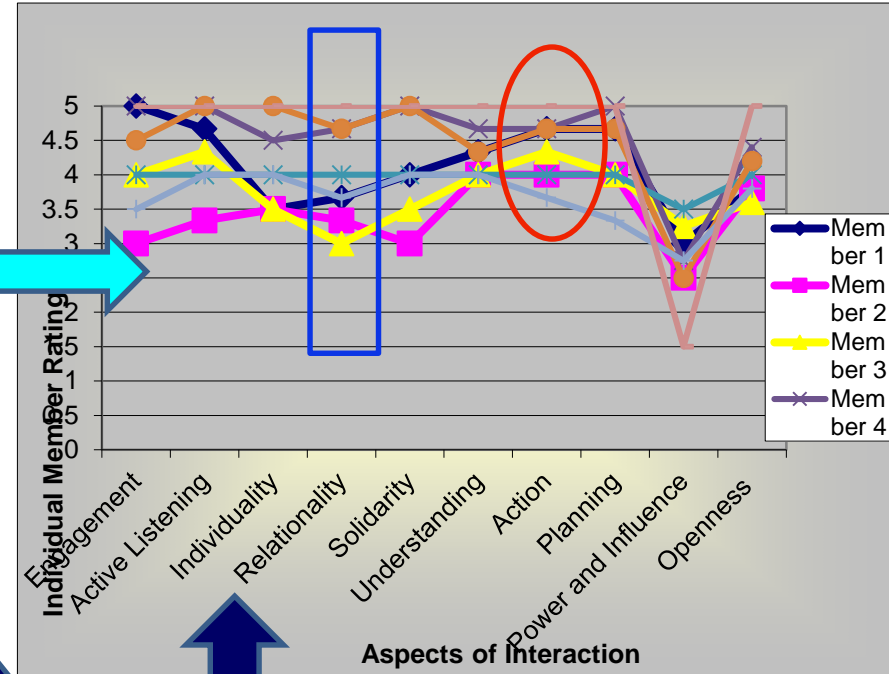
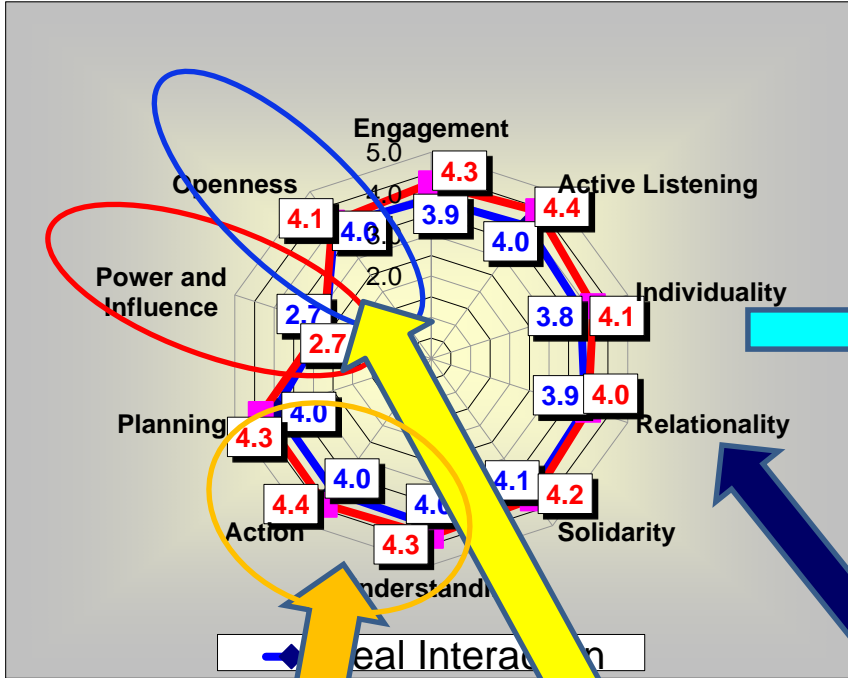
Innovative and Implementation Capacities



Team Assessment

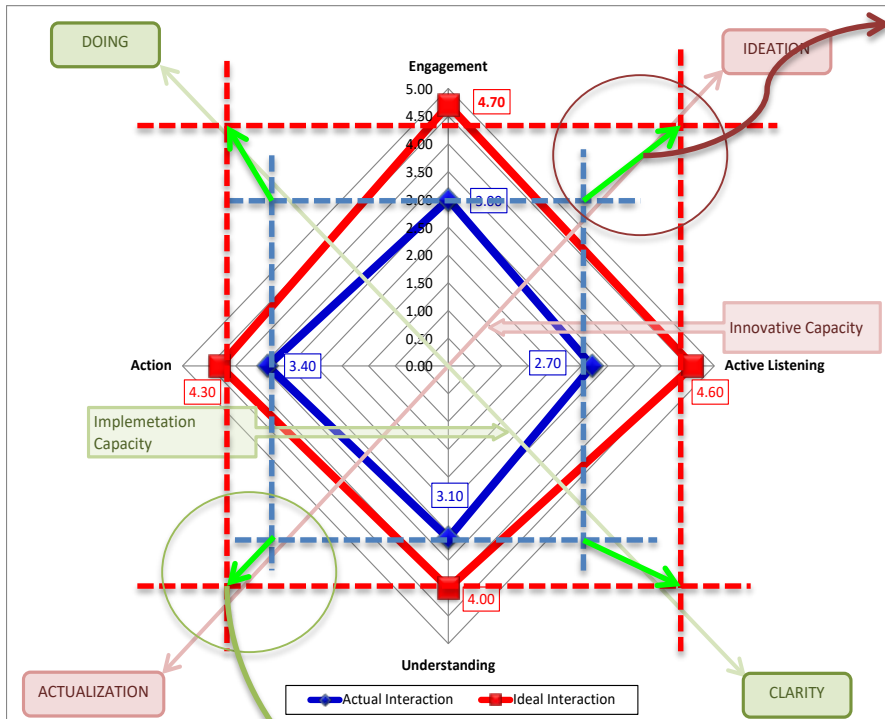


ANALYSIS

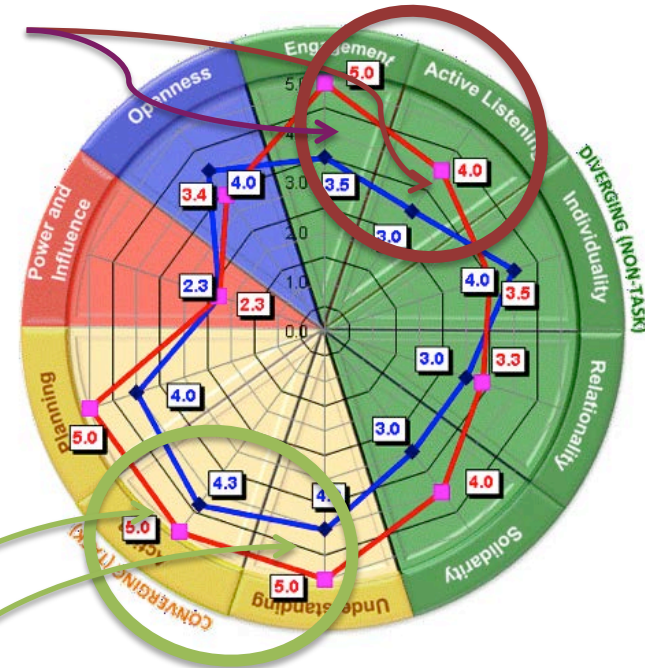


Qualitative Comments

Developing Innovative and Execution Capacities



Increasing skill TWO aspects



Step 2:

Team Interaction Profile

Step 1:
I-E Capacity Chart

Increasing skill TWO aspects

Step 3:

Add to Team Development Plan



TEAM COACHING SKILLS

1. Pattern Recognition – from analysis and during coaching session
2. Perspective Taking – during coaching session
3. Listening to how members frame their opinions/comments as a way to identify learning needs
4. Good pre-analysis of TLI before meeting with the team leader and team

The Structured Team Coaching Process

Step 1 - Preparation

Look Through the TLI report to identify patterns and questions for clarification

- Overall mapping against team member variance charts
- Internal comments
- Team members assessment of team
- Innovative and Execution capacities
- External evaluation and comments

Step 2 – Meeting with the Team Leader

- We will not be doing this for this session. However, the process is outlined in Section 5 of the TLI Team Coaching-Facilitator Guidebook under “Team Coaching Process – Fundamental Steps” (which you will receive as a separate document).

Step 3 – Team Coaching

- Ask members to introduce themselves and their role/responsibilities in the team
- Ask them to share something non-work related about themselves (e.g., their dream when they were young)
- Discuss the TLI report following the TLI Results Workbook
- Have the team discuss the results
- Ask everyone to write down what they think their team's purpose/goal is (team leader goes last)
- Discuss and get consensus (pay attention to patterns of behavior)
- Develop clear goals and action steps

Post- Session Evaluation

Please take 2 minutes to complete this brief but valuable post session evaluation. *Responses are anonymous and will be used to improve future programming.*

Type <https://bit.ly/scits2019> into your browser to launch survey

or

Scan this QR code



Thank you!

