

## PARTICIPANT WORKBOOK

**Team Science** 

Workbook: Developing Cognitions



getflowtrained.com/playbook/developing-cognitions/

## **Developing Cognitions**

Cognition includes the conscious and unconscious processes by which knowledge is accumulated.

Developing cognitions at the individual level involves development of knowledge, skills, problem-solving techniques, and dispositions.

Knowledge structures are categorized into four types of knowledge:



- Procedural
- Declarative
- Conceptual
- Conditional

Team members must develop a shared understanding of their goals.

Team members need to know who is working on what task or subtask, who has what skill or knowledge, what contacts each team member has external to

the group, what resources are available to each member, and what experiences each member has.

Transactive memory system (TMS) is the ability of team members to encode, store, and retrieve knowledge during team activities.

In the following exercise, you will guide your team through the following questions to help develop shared cognitions among team members. These questions are designed to be discussed with all team members present. The main goal is to leave this activity with all team members having the same understanding of the team's goals, vision, tasks, and roles.

Developing Shared Cognitions		
Discussion Question	Focus Areas	
Where are we headed?	Vision Purpose Goals	
What's important?	Priorities	
Who should?	Roles	
How to?	Tasks Norms Interdependencies	
Why to?	Rationale	
Who knows?	Expertise	
What if?	Contingencies If-then	
What's up?	Situation Cues	
(Tannenbaum & Salas, 2021, p. 135)		

## Connect the Three Helixes:

Flow can only be achieved when the three helixes are interconnected. To identify how this could occur, the next exercise requires the reader to identify examples of different methods from each of the other two helixes (complexity thinking, distributed leadership) that will support developing cognitions. Knowledge of all three helixes will be required to make these connections.



CONNECT THE HELIXES	
Select a scenario or problem that would benefit from developing cognitions.	
Identify three methods from complexity thinking that could work with developing cognitions. Give a brief description about how they complement one another.	
CT Method 1:	
CT Method 2:	
CT Method 3:	
Identify three methods from the distributed leadership helix that could work with or support developing cognitions. Give a brief description about how they complement one another.	
DL Method 1:	
DL Method 2:	
DL Method 3:	
Provide a description explaining which methods from each of the three helixes (with developing cognition being the TS method) work best for the scenario/problem identified earlier.	