

# Lean Six Sigma Green Belt Certification Course

DIGITAL  
OPERATIONS





## Project Management Basics



# Learning Objectives

By the end of this lesson, you will be able to:

- 👁 Describe team stages and dynamics
- 👁 List the team roles and responsibilities
- 👁 Define team communication
- 👁 List the team tools



## Do You Know

Q

What is the key to successfully completing Lean Six Sigma Projects?

A

Teamwork!

Understanding the dynamics of a team throughout a project will put you in a better position to work within the team and succeed.





## Team Stages and Dynamics

# Group vs. Team Dynamics

Group



Team



6σ

A Six sigma team is a true team because each member is dependent on the others to be successful.

# Team Dynamics: Scenario

Negative team dynamics impacting performance can be:

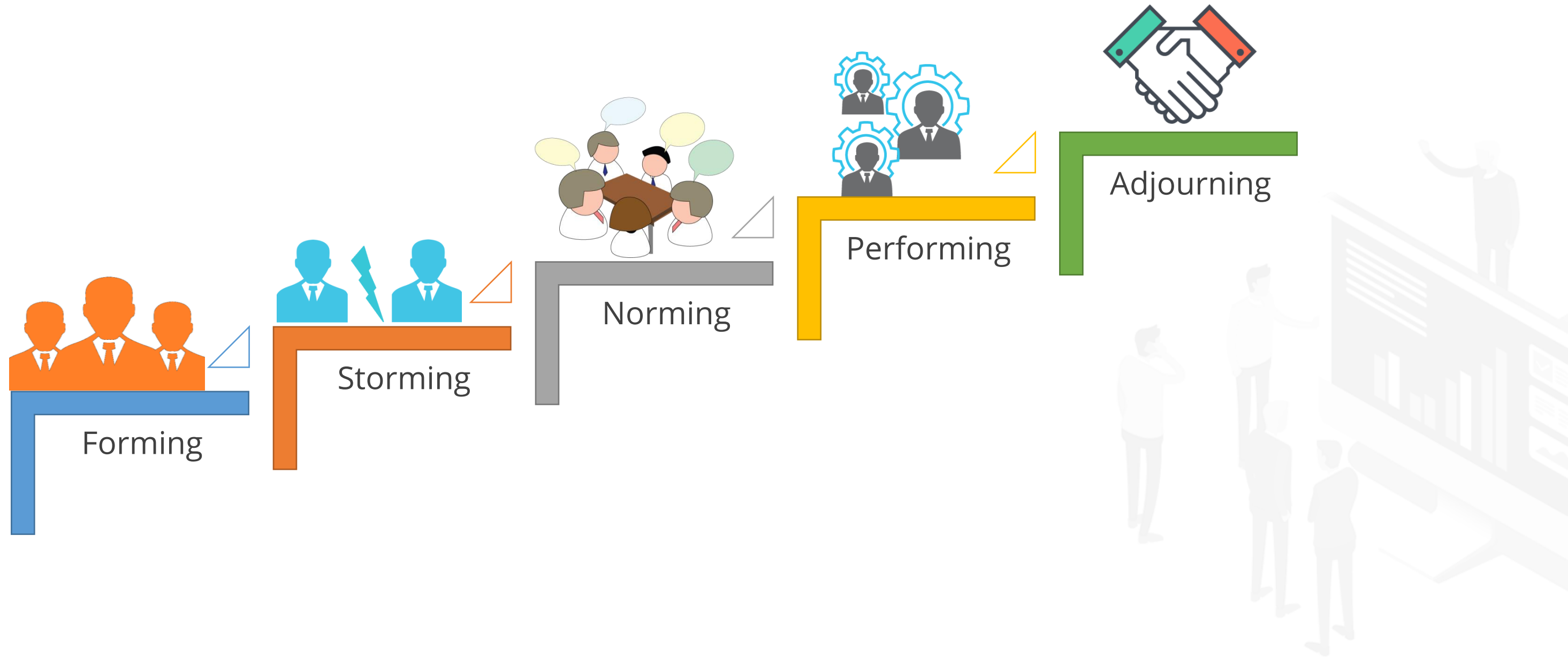
A seasoned team resisting any recommendations from a new team member because she has an adverse impact on team dynamics

The personalities of a manager and supplier conflict, impacting the service deliverables thereby leading to a negative perception of the service provided by the entire team

Relationships between the members of a Six Sigma team deteriorating due to a feeling that some members were not contributing enough to the team activities

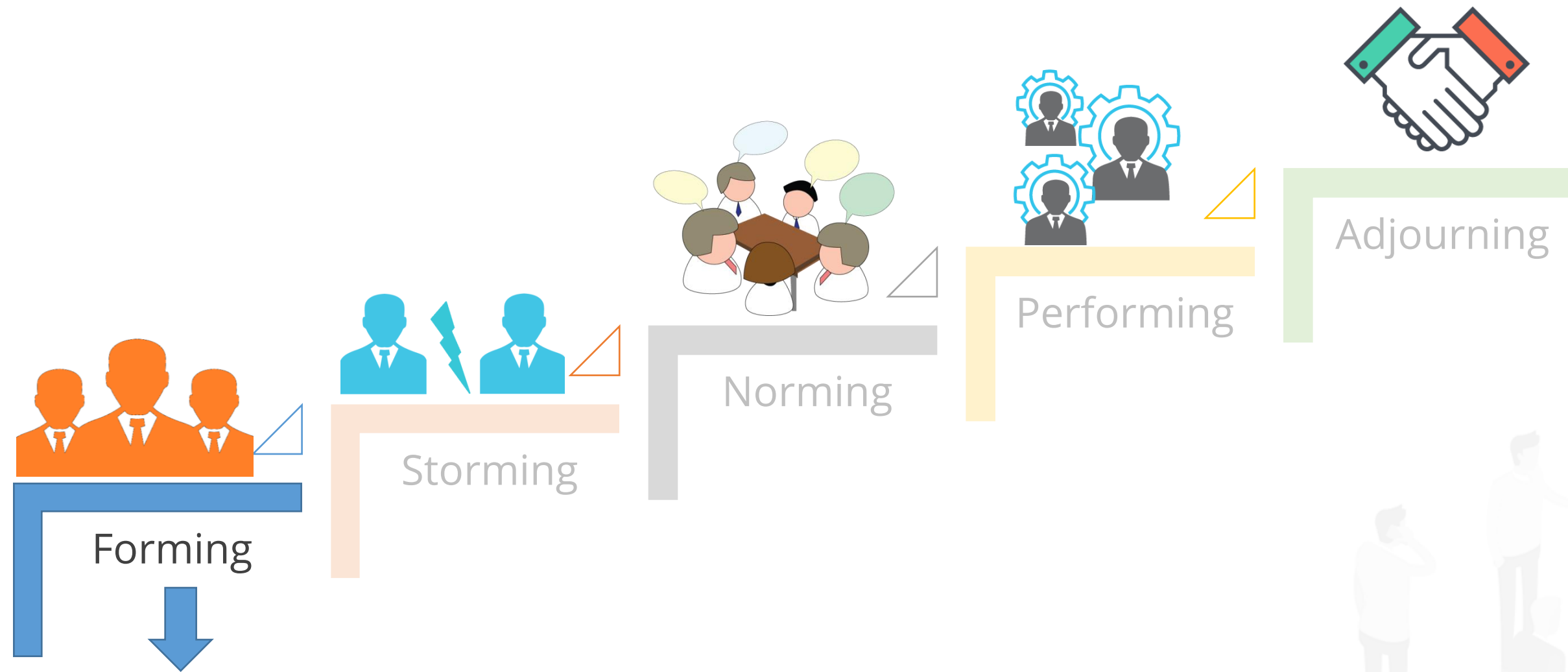


# Team Stages: The Five Stages



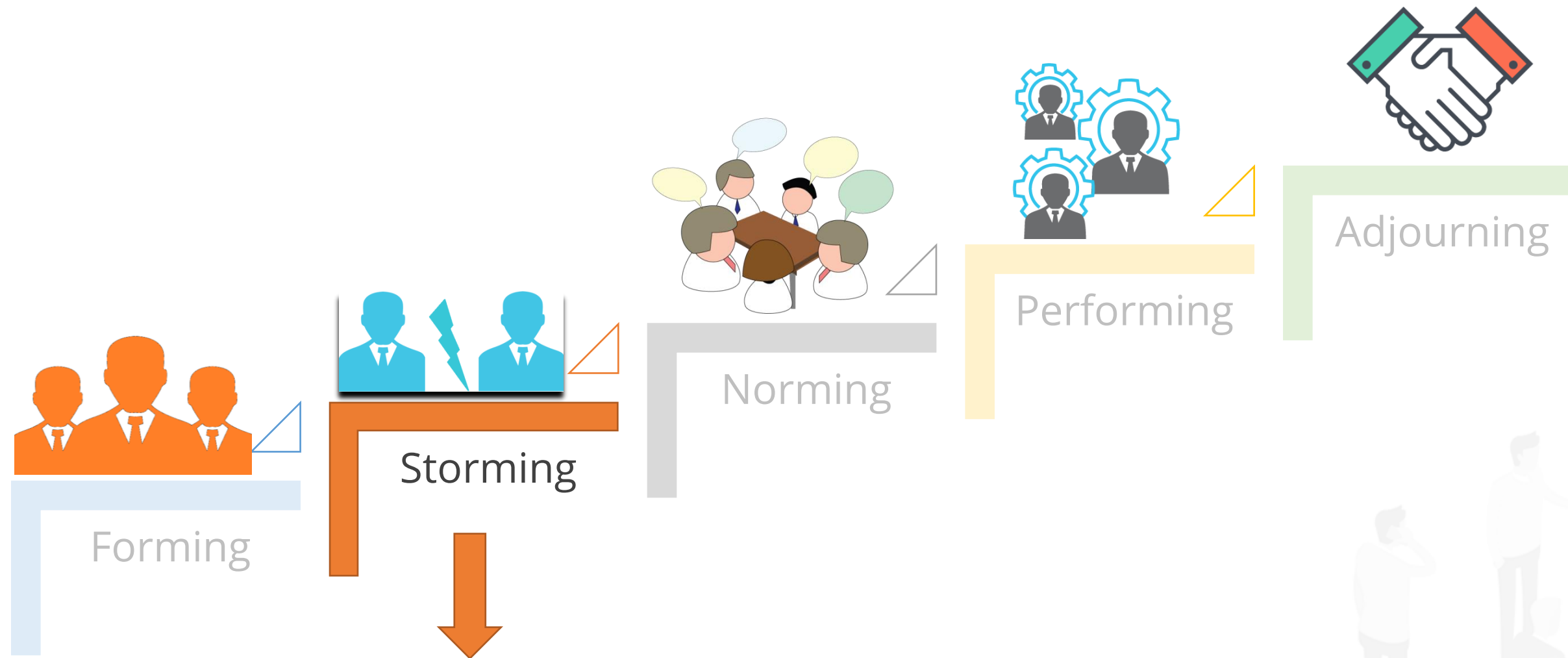


# Team Stages: The Five Stages



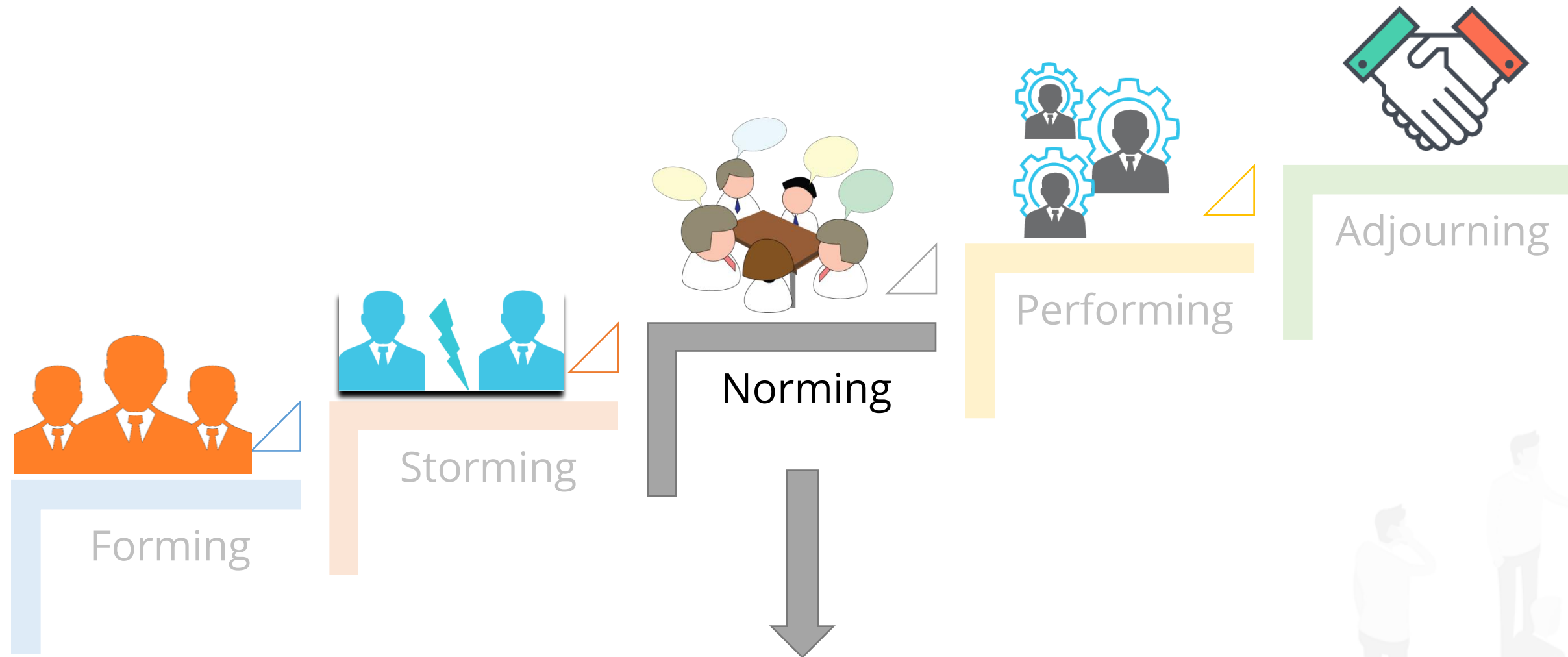
- Team comes together and the team leader directs and assigns responsibilities
- Team leader employs a directive style of management
- Team members are generally enthusiastic and motivated by a desire to be accepted

# Team Stages: The Five Stages



- Conflicts start to arise within the team over responsibilities and control
- Team leader employs a coaching style of management

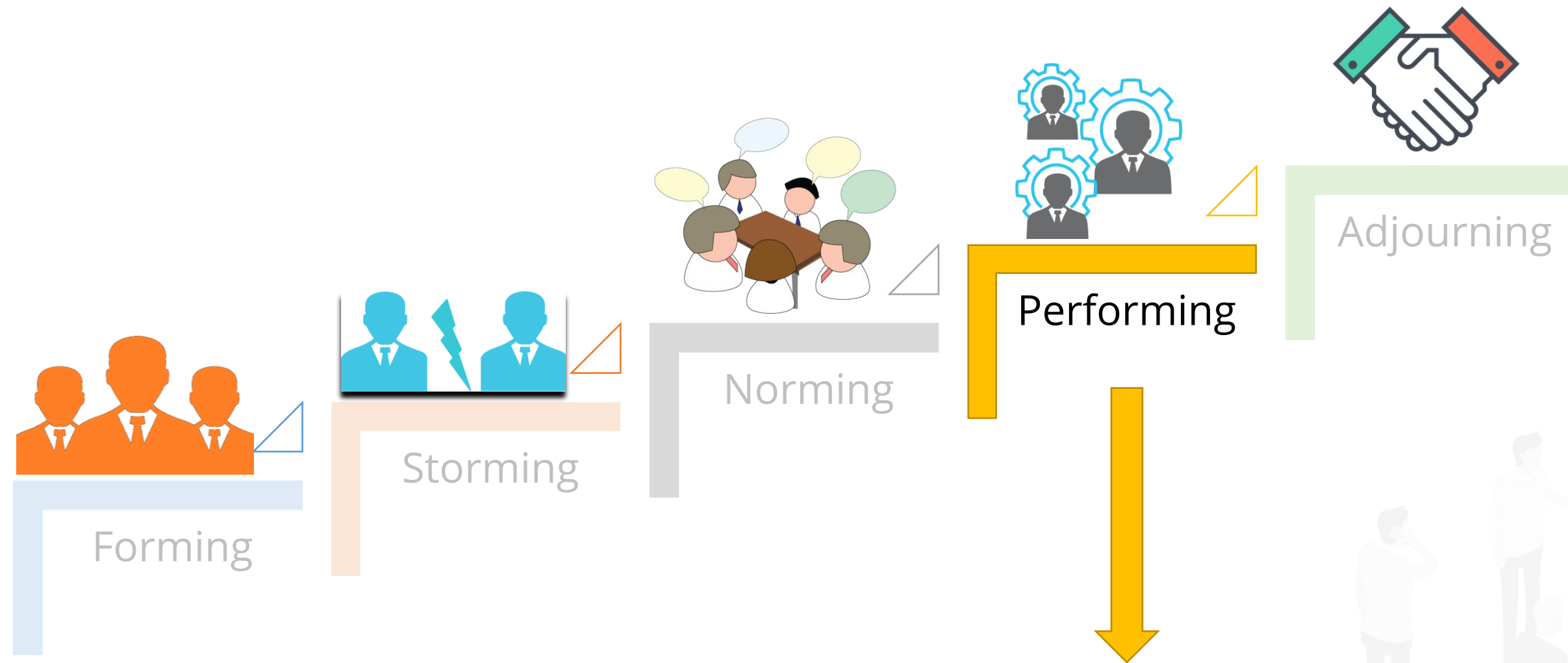
# Team Stages: The Five Stages



- Team develops a unified commitment to the project goal and look to the leader for clarification
- Team leader promotes and participates in the team activities and employs a participatory style of management

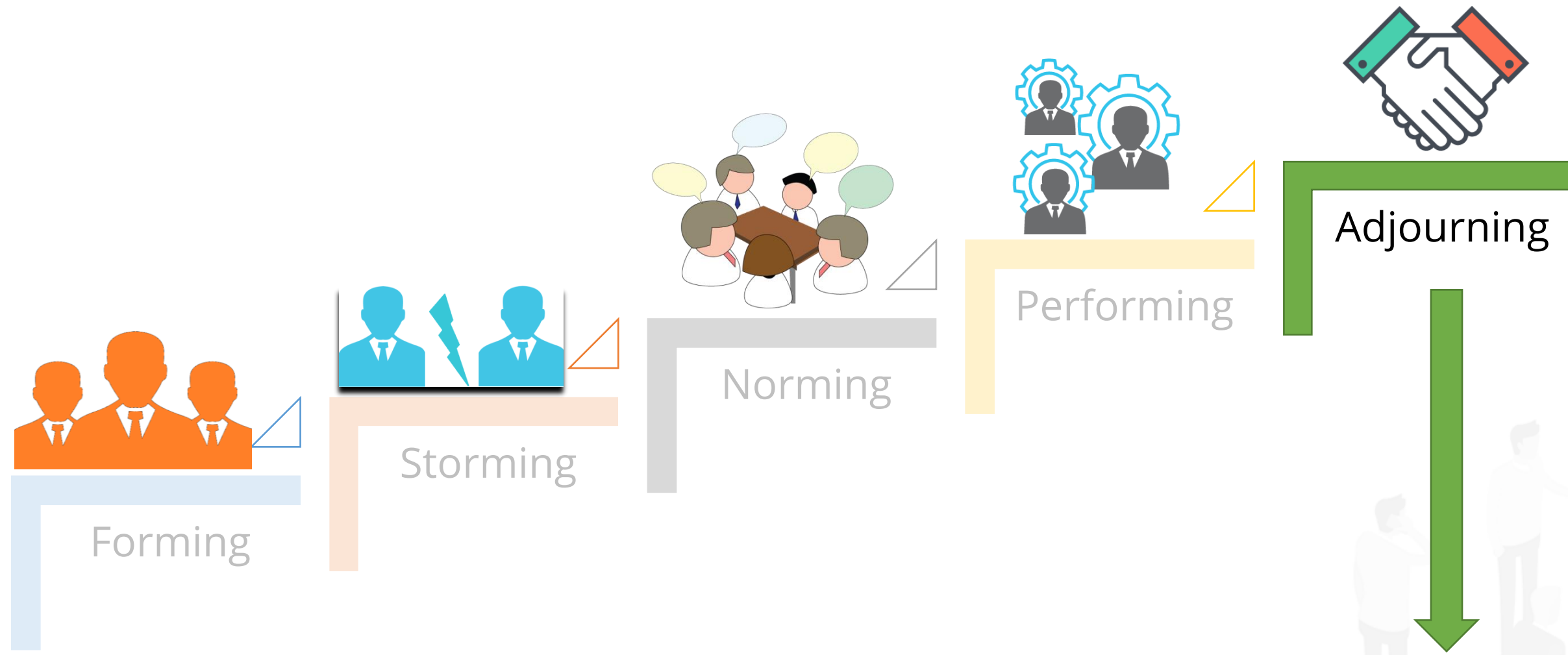


# Team Stages: The Five Stages



- Team evolution happens successfully
- Team members manage complex tasks and work toward common goals
- Team leader employs a supervisory style of management and delegates work

# Team Stages: The Five Stages



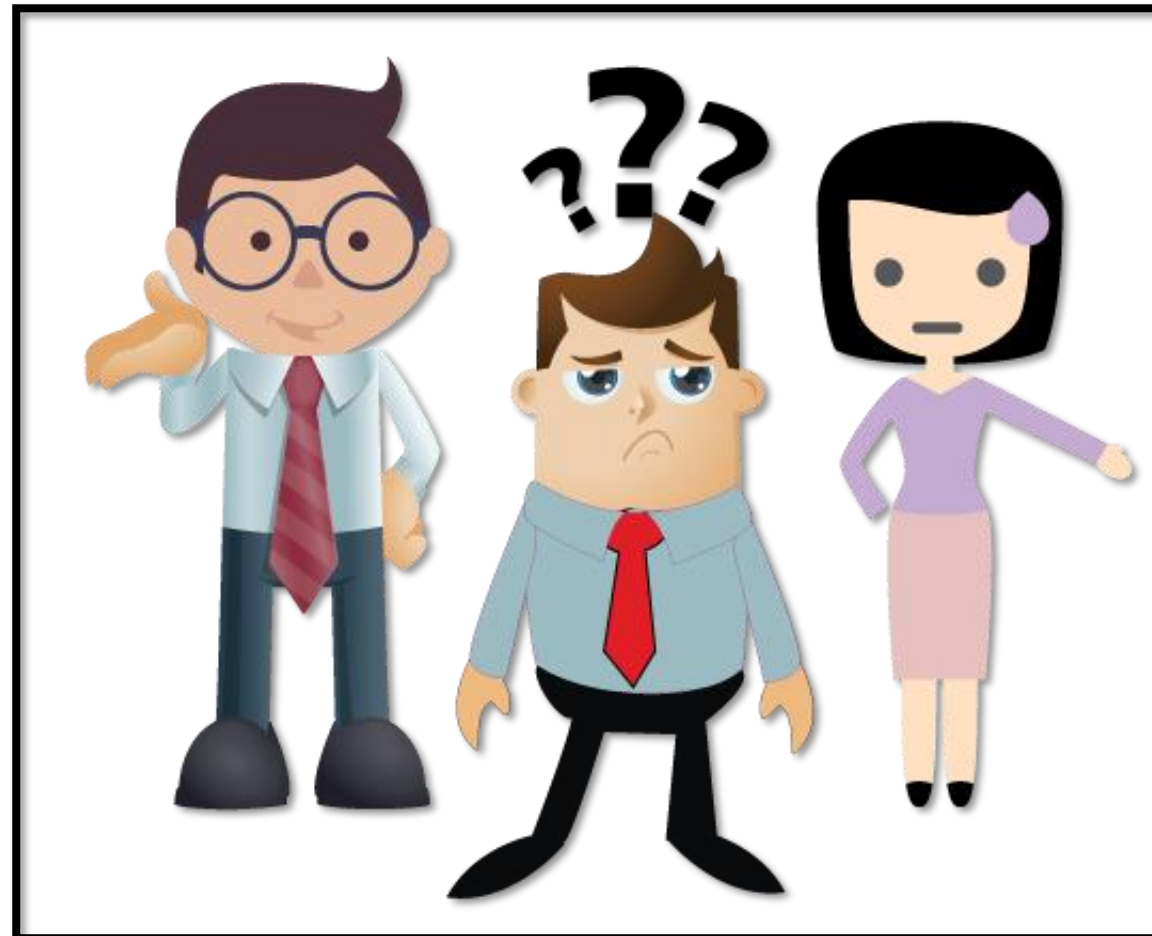
- The project starts winding down and the goals are within reach
- Team members deal with their impending separation from the team
- Team leader provides feedback to the team and employs a supportive style of management

# Negative Team Dynamics: Types of Participants

Overbearing Participants

Dominant Participants

Reluctant Participants





# Negative Team Dynamics: Types of Participants

## Overbearing Participants

## Dominant Participants

## Reluctant Participants

### Negative Behavior

### Solution



Take on a position of authority and discounts contributions from other team members


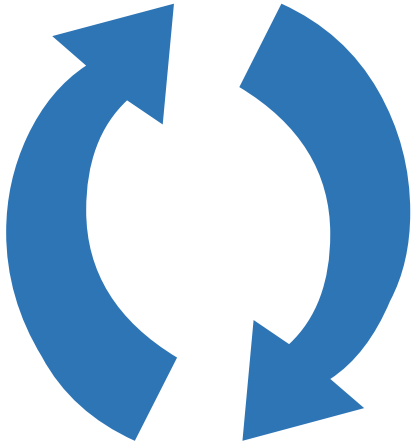
Establish ground rules for participation

# Negative Team Dynamics: Types of Participants

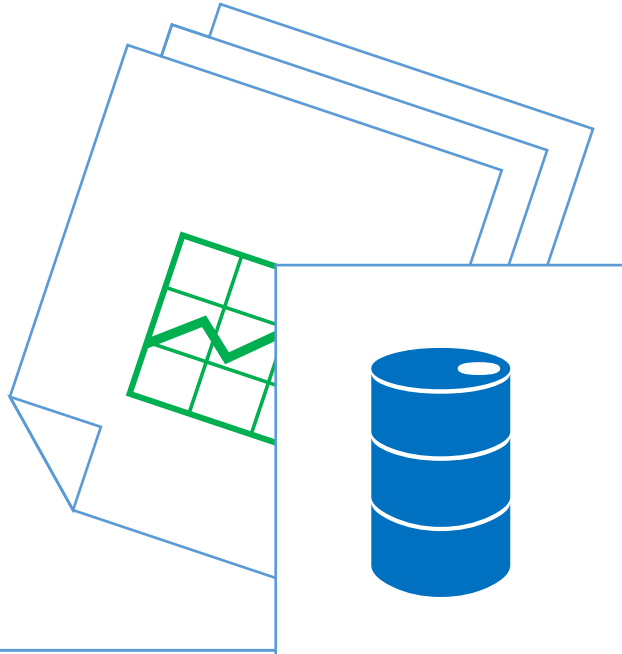

Overbearing Participants

Dominant Participants

Reluctant Participants

| Negative Behavior   | Solution   |
|---|--|
|    |  |
| Take up an excessive amount of group time by talking too much, focusing on trivial concerns, and otherwise preventing participation by others | Provide constructive feedback without curbing their enthusiasm                       |

# Negative Team Dynamics: Types of Participants

| Overbearing Participants  |  | Dominant Participants |  | Reluctant Participants |  |
|---|--|-----------------------|--|------------------------|--|
| Negative Behavior   |  |                       | Solution   |                        |  |
|  |  |                       |  |                        |  |
| Miss opportunities to bring up data that is valuable to the project                 |  |                       | Offer encouragement by responding positively to their contribution                   |                        |  |



# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents



# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents

## Challenges:

- Opinions, when confused for facts, can lead to miscalculations or misinterpretations, and affect the project adversely.

## Prevention:

- Decisions should be based on data.



# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

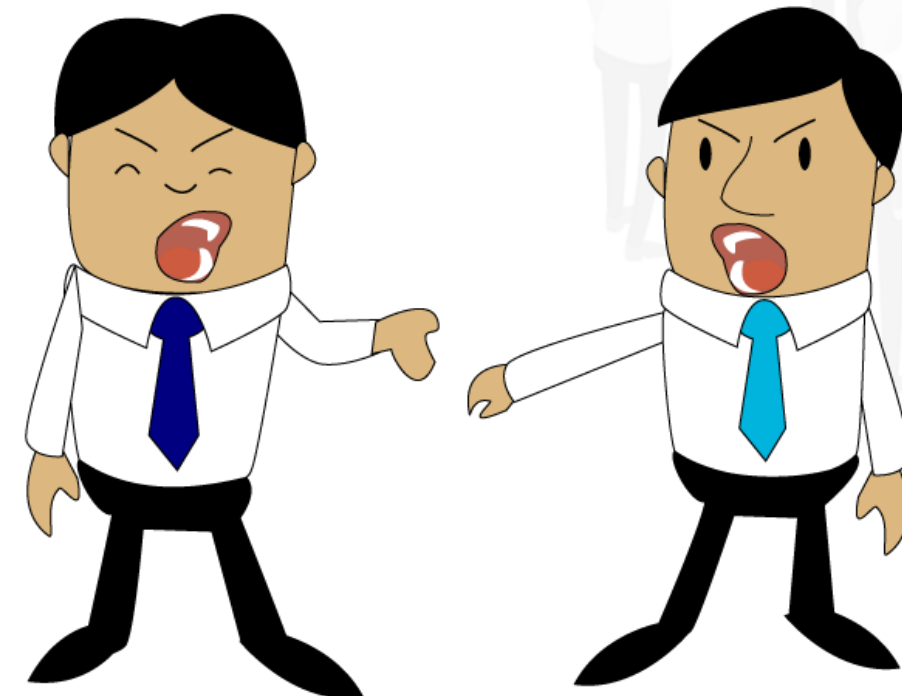
Plops, Digressions, and Tangents

## Challenges:

- Feuds between team members negatively affect the group dynamic and can be intimidating to people not involved in them.

## Prevention:

- Team leader sets the right tone and creates rules for interpersonal behavior.





# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

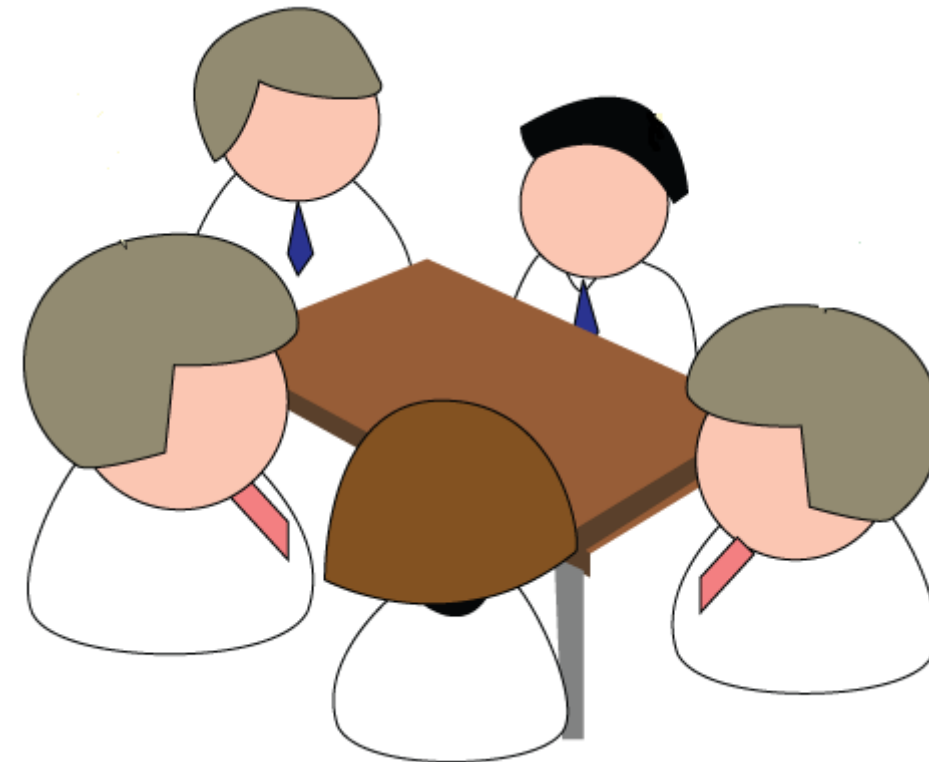
Plops, Digressions, and Tangents

## Challenges:

- Groupthink occurs when team members reach a consensus without critical analysis.

## Prevention:

- One of the team members plays the role of the devil's advocate.



# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents

## Challenges:

- In floundering, teams are unable to make or commit to decisions.

## Prevention:

- The team relook at the roles and responsibilities and improve communication.



# Types of Group Challenges

Opinions

Feuding

Groupthink

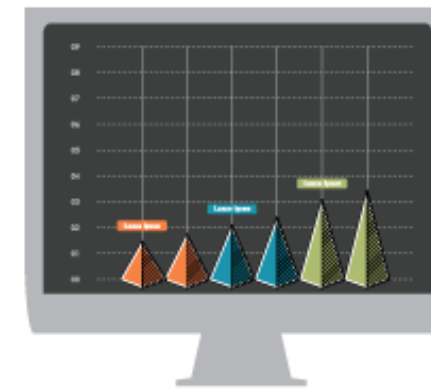
Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents



## Challenges:

- Rush to achieve occurs when the team is more concerned about getting results than analyzing different options.

## Prevention:

- Team members are reassured that they have sufficient time to do quality work.

# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents



## Challenges:

- Decisions are based on inferences and unverified data.

## Prevention:

- Inferences should be analyzed for their veracity and applicability.



# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents



## Challenges:

- Discounts occur when group members are dismissive of others' contributions.

## Prevention:

- Refocus the team's attention on the individual's contribution to ensure it is not overlooked.

# Types of Group Challenges

Opinions

Feuding

Groupthink

Floundering

Rush to Achieve

Attribution

Discounts

Plops, Digressions, and Tangents



## Challenges:

- Plops is when one member criticizes others in the group. Digressions and tangents occur when group members lack focus and discuss unrelated topics or face interruptions.

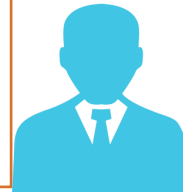
## Prevention:

- The team leader has to ensure that the team remains focused and constructive.

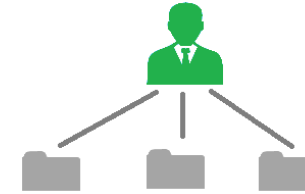
## Six Sigma Team

# Six Sigma Team: Roles and Responsibilities

Executive Sponsor



Black Belt



Facilitator



Process Owner



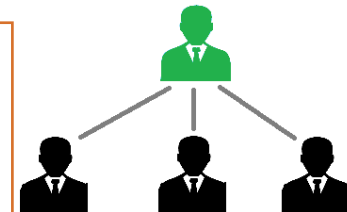
Green Belt



Sponsor



Champion



Executive



Team Member



Master Black Belt



Coach



# Six Sigma Team: Roles and Responsibilities



## **Executive Sponsor:**

Source or conduit for project resources and is usually the recipient of the benefits the project will produce.



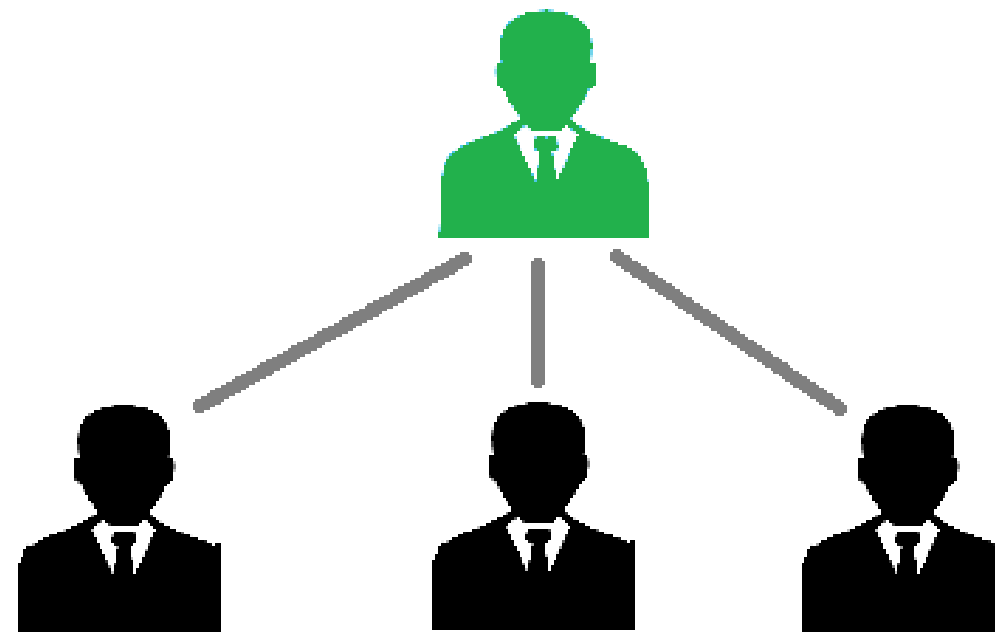
# Six Sigma Team: Roles and Responsibilities



## **Process Owner:**

Works with the Black Belts to improve their respective process and provides functional expertise.

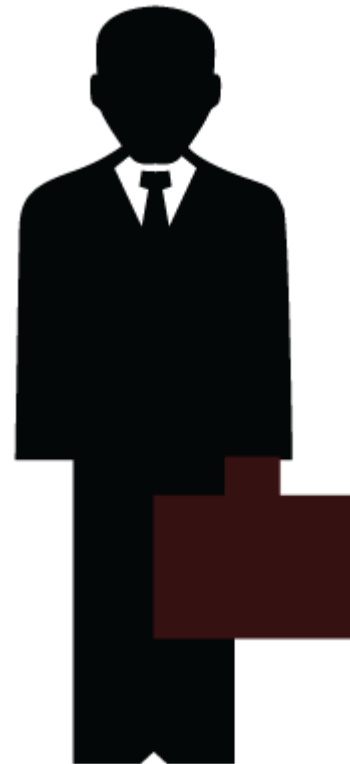
# Six Sigma Team: Roles and Responsibilities



## **Champion:**

Upper-level manager who controls and allocates resources to promote process improvements.

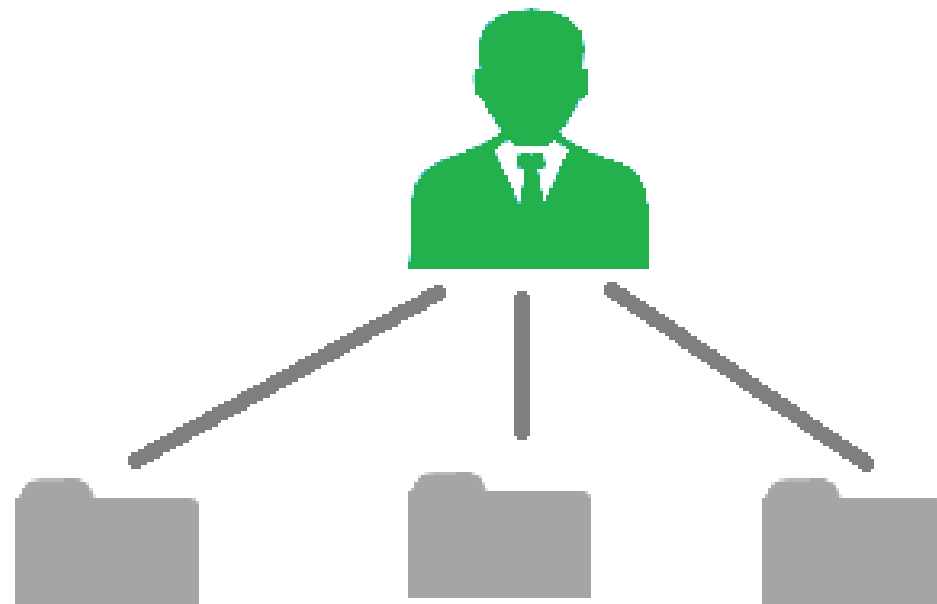
# Six Sigma Team: Roles and Responsibilities



## **Master Black Belt:**

Consultant who offers expertise in the use of Six Sigma tools and methodologies to team leaders.

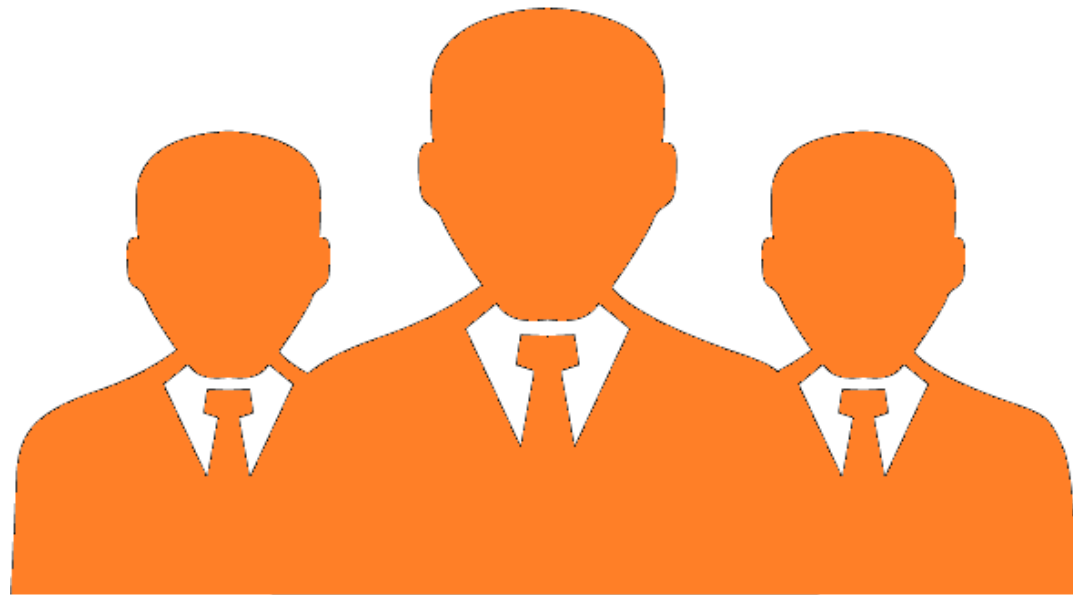
# Six Sigma Team: Roles and Responsibilities



## **Black Belt:**

Leader of individual Six Sigma projects who mentors Green Belts by educating them in Six Sigma tools.

# Six Sigma Team: Roles and Responsibilities



## **Green Belt:**

Leads project teams who are working in their areas of expertise.



# Six Sigma Team: Roles and Responsibilities



## **Executive:**

Manages and leads the team to ensure smooth working of tasks and has the power to execute decisions.

# Six Sigma Team: Roles and Responsibilities



## **Coach:**

Trains, mentors, teaches, and guides the team when required.

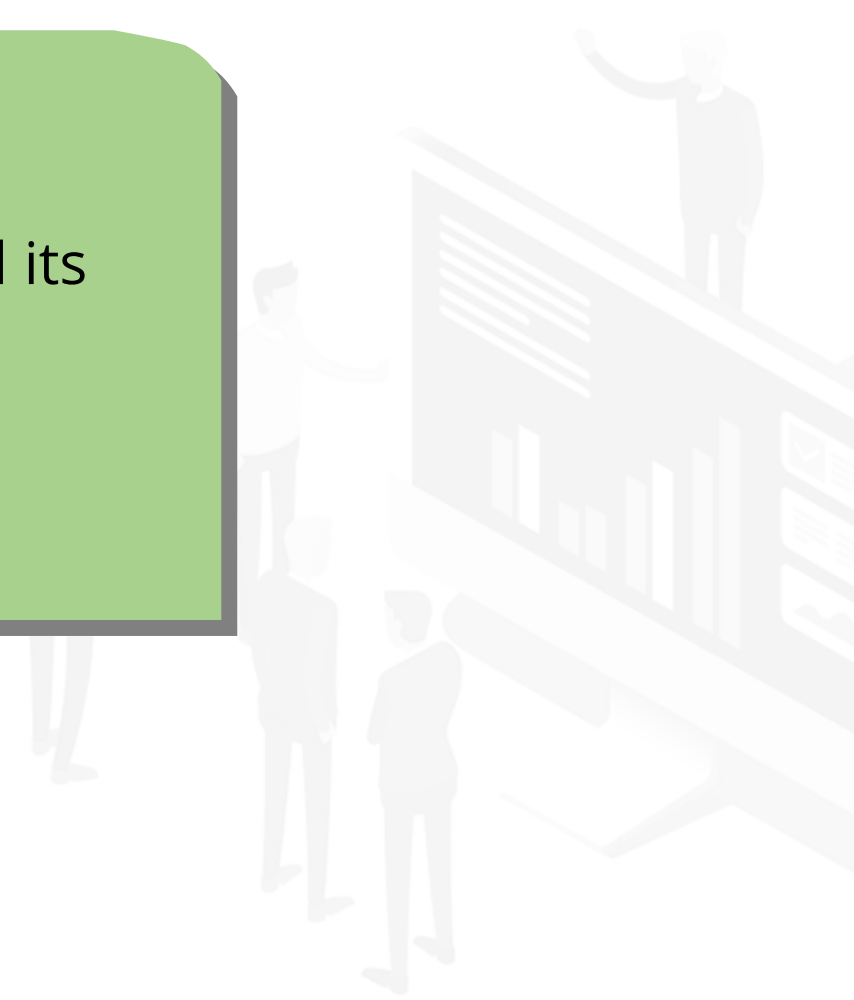


# Six Sigma Team: Roles and Responsibilities

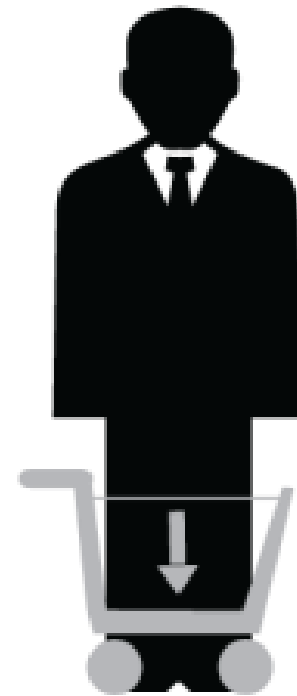


## **Facilitator:**

Acts as a guide and helps the team understand its common objective.



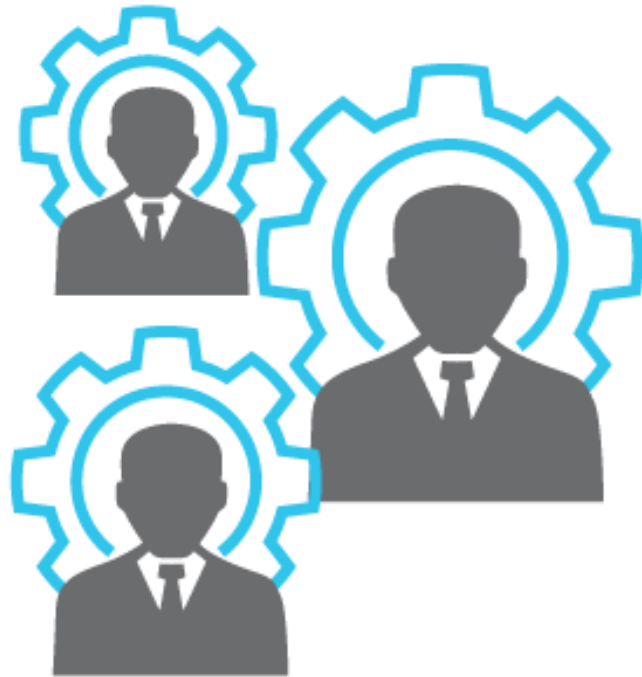
# Six Sigma Team: Roles and Responsibilities



## **Sponsor:**

Supports the event or the project by providing all the required resources.

# Six Sigma Team: Roles and Responsibilities



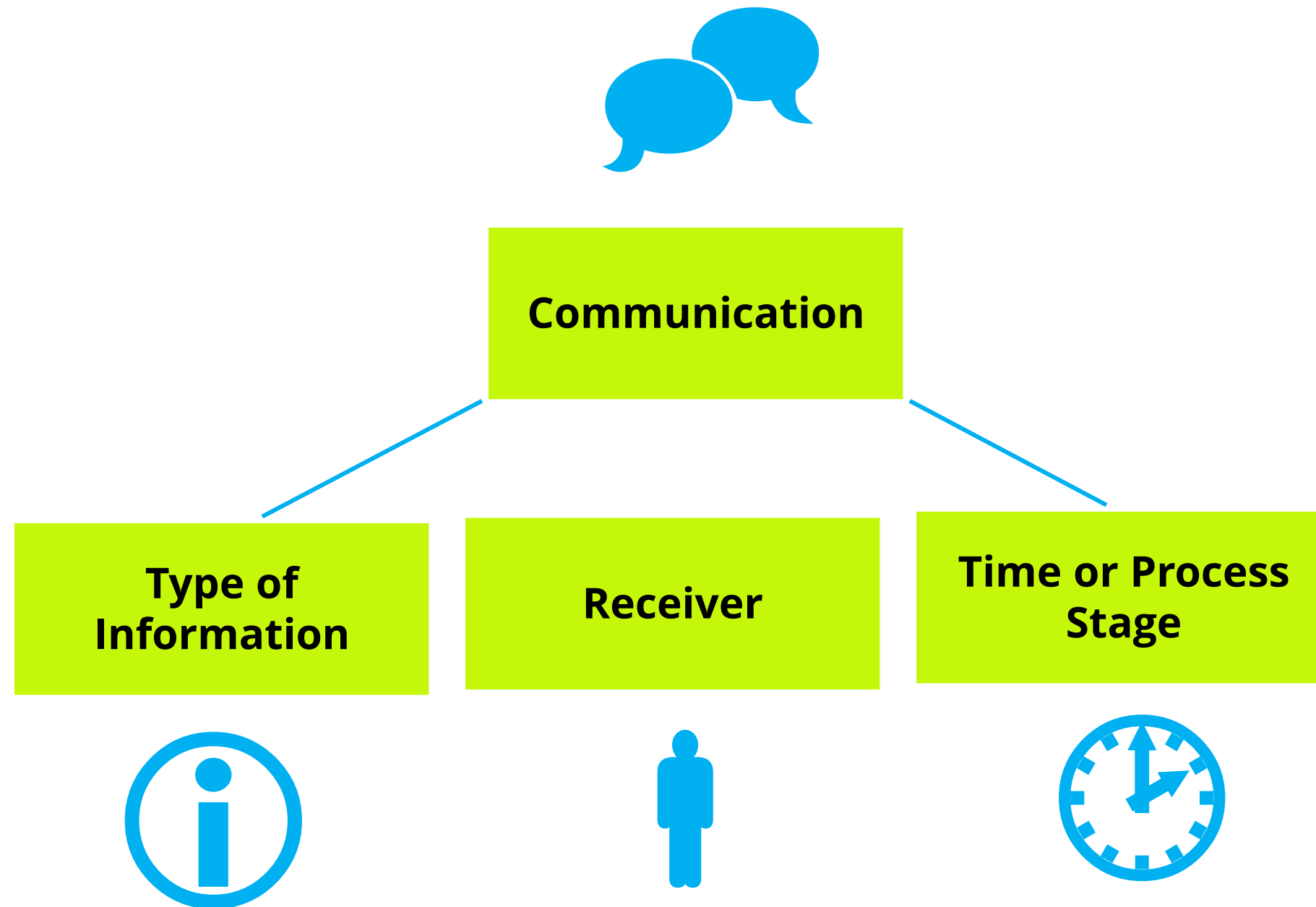
## **Team Member:**

Contributes to the performance of the team and actively participates to fulfill project objectives.



## Team Communication

# Modes of Communication



Meetings

Memos

Emails

Newsletters

Events

# Modes of Communication



Meetings are good for analyzing, discussing, and presenting information for everyone.

**Meetings**

Memos

Emails

Newsletters

Events

# Modes of Communication



Memos are short business letters used to exchange limited information.

Meetings

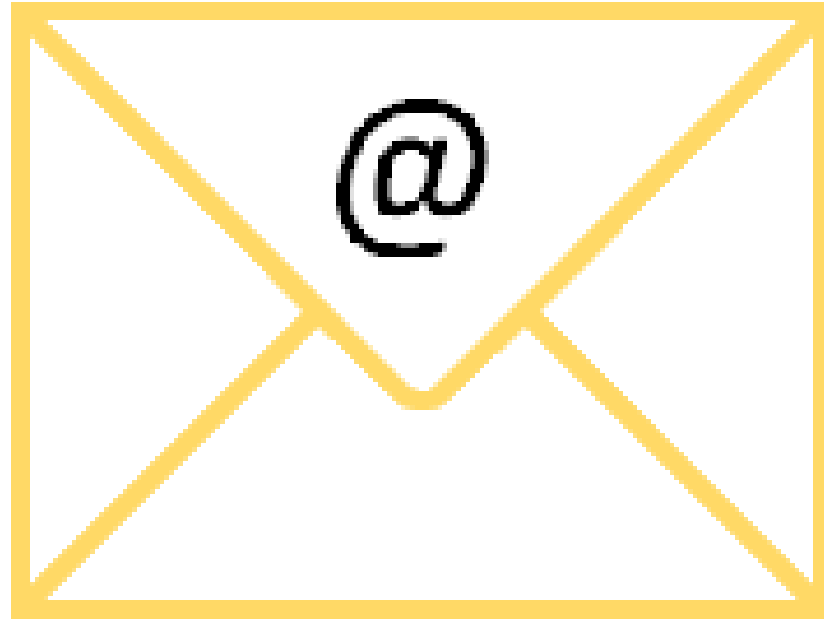
**Memos**

Emails

Newsletters

Events

# Modes of Communication



Emails are major modes for information communication through text format.

Meetings

Memos

**Emails**

Newsletters

Events



# Modes of Communication

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Newsletter is a regularly circulated publication in the office.

Meetings

Memos

Emails

**Newsletters**

Events

# Modes of Communication



Event is an occasion where people exchange information.

Meetings

Memos

Emails

Newsletters

**Events**

# Communication within the Team

Communicate the roles and responsibilities



Understand the status of the project



Identify the outstanding tasks, risks, and their corrective actions



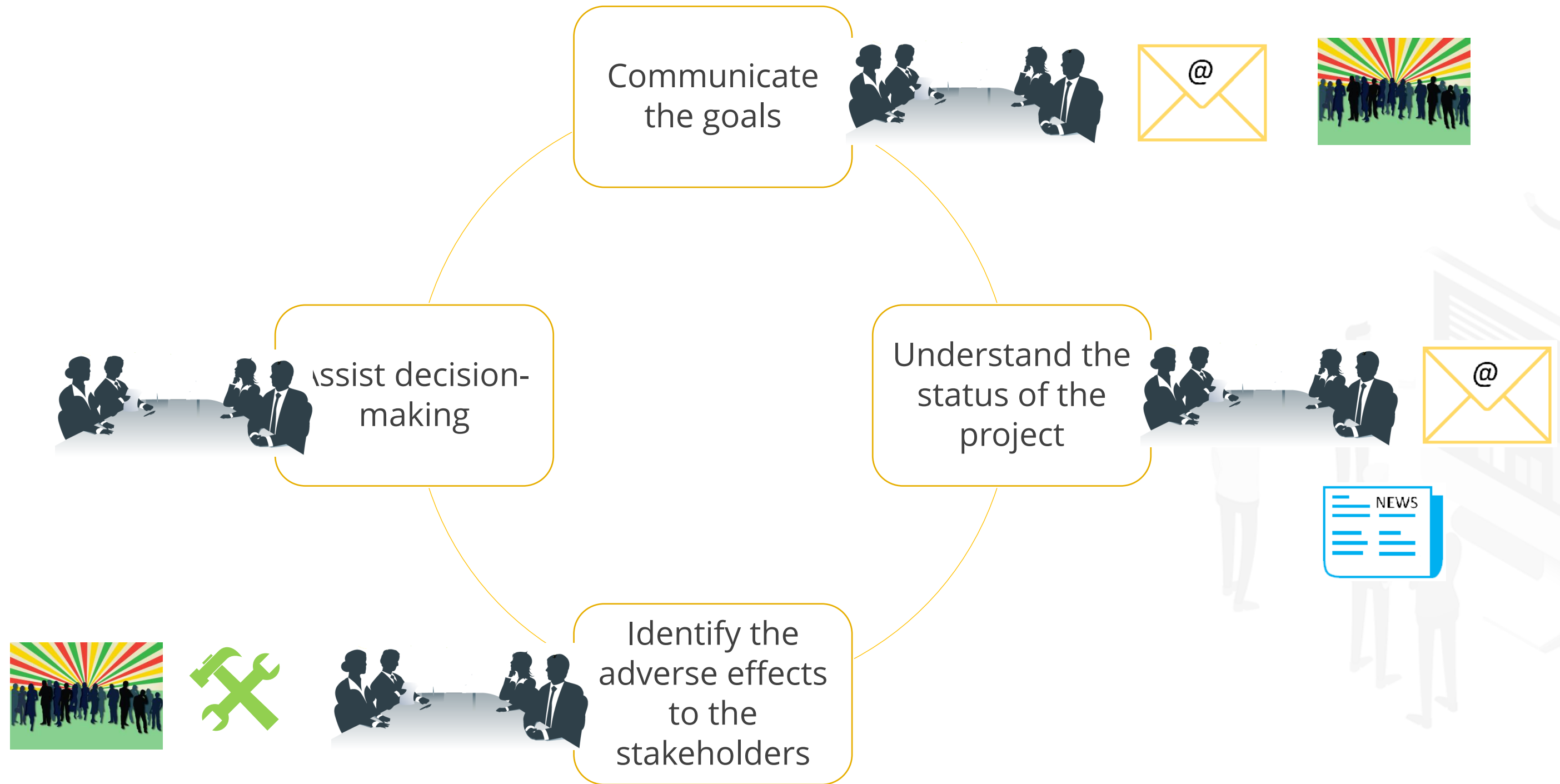
Decision making



Coordinate and work efficiently

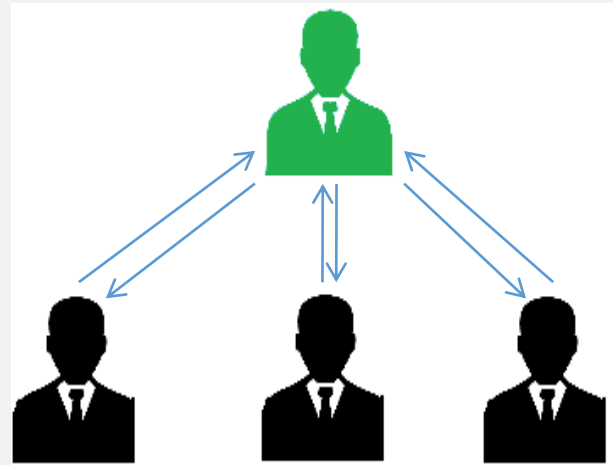


# Communication with Stakeholders

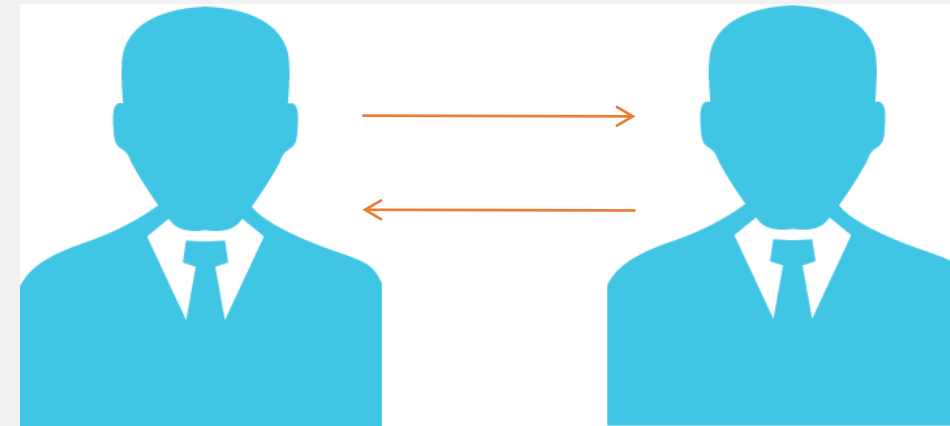


# Communication Techniques

## Vertical Communication



## Horizontal Communication



## Verbal and Non-verbal Communication



## One-way and Two-way Communication

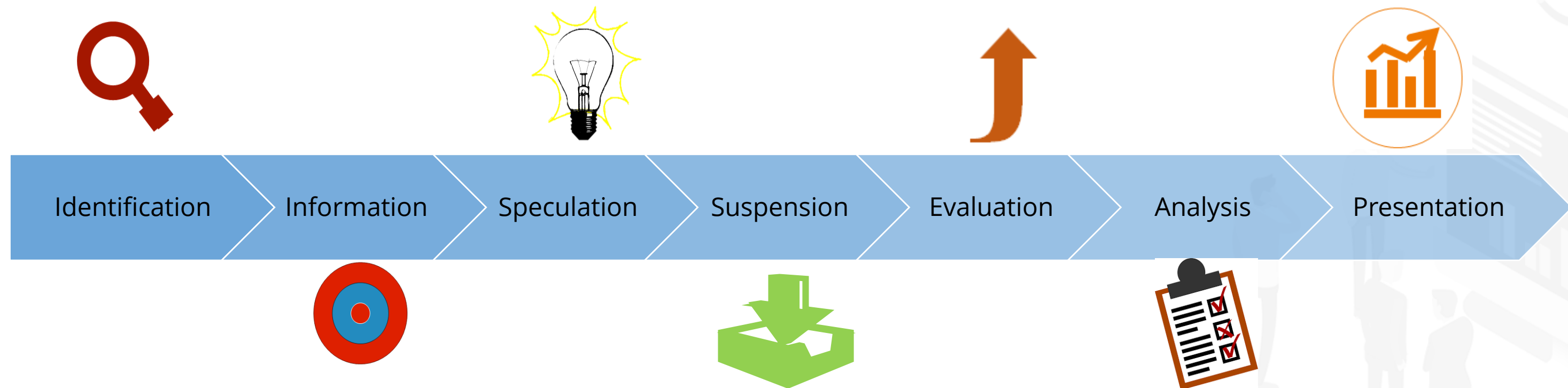




## Team Tools

# Brainstorming

Brainstorming is a tool used by the project team to generate solutions to predefined problems.





# Nominal Group Technique



Explain issue

Note idea individually

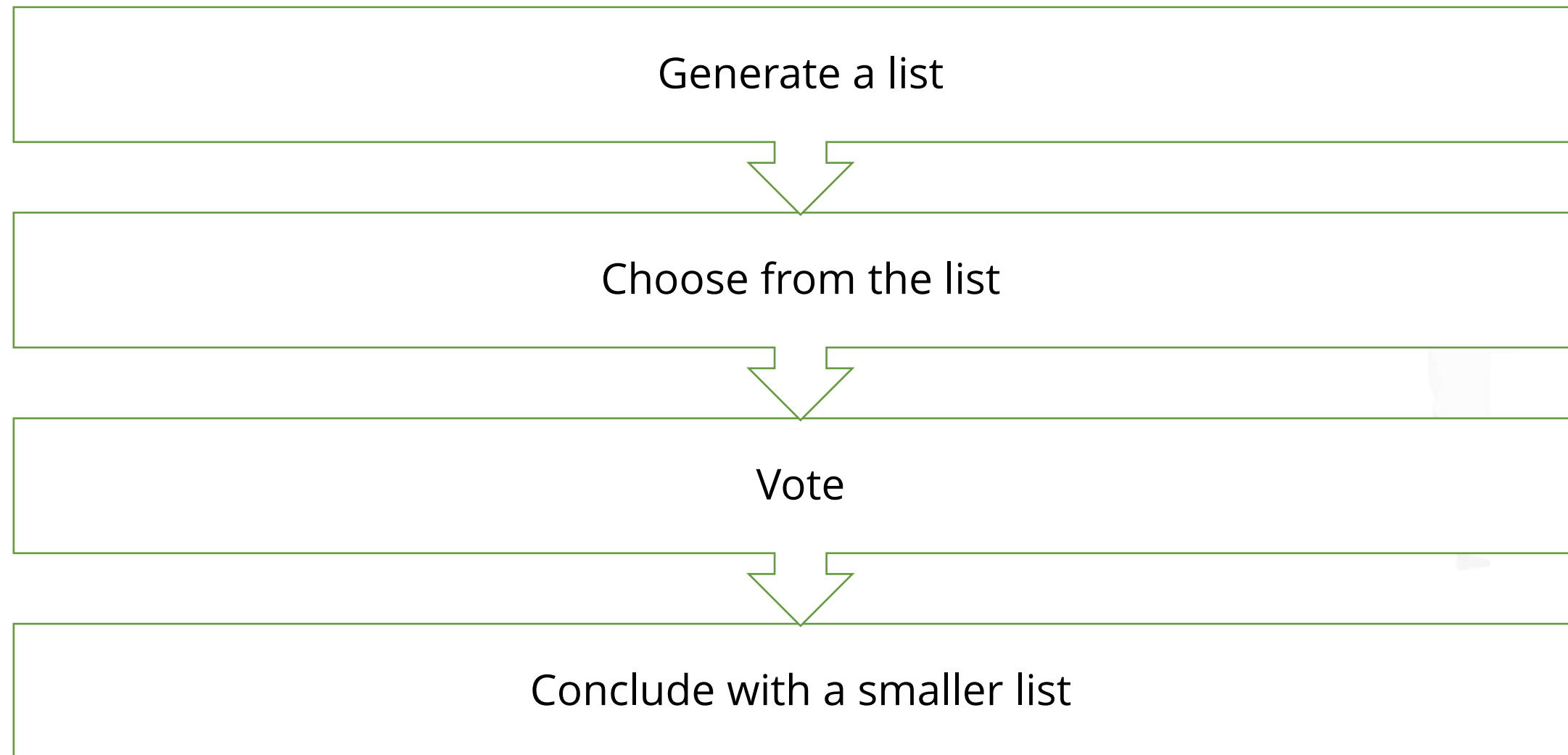
Vote

Prioritize

# Multivoting



Multivoting is used to arrange and enlist a long list of items to a considerably smaller or manageable number.



## Key Takeaways

- A team is a special type of group in which the members share a common objective or goal.
- There are five stages in the team building process.
- The different group challenges are Opinions, Feuding, Groupthink, Floundering, Rush to Achieve, Attribution, Discounts, and Plops, Digressions, and Tangents.
- The different modes of communication are meetings, memos, emails, newsletters, and events.
- The team tools are brainstorming, nominal group technique, and multivoting.

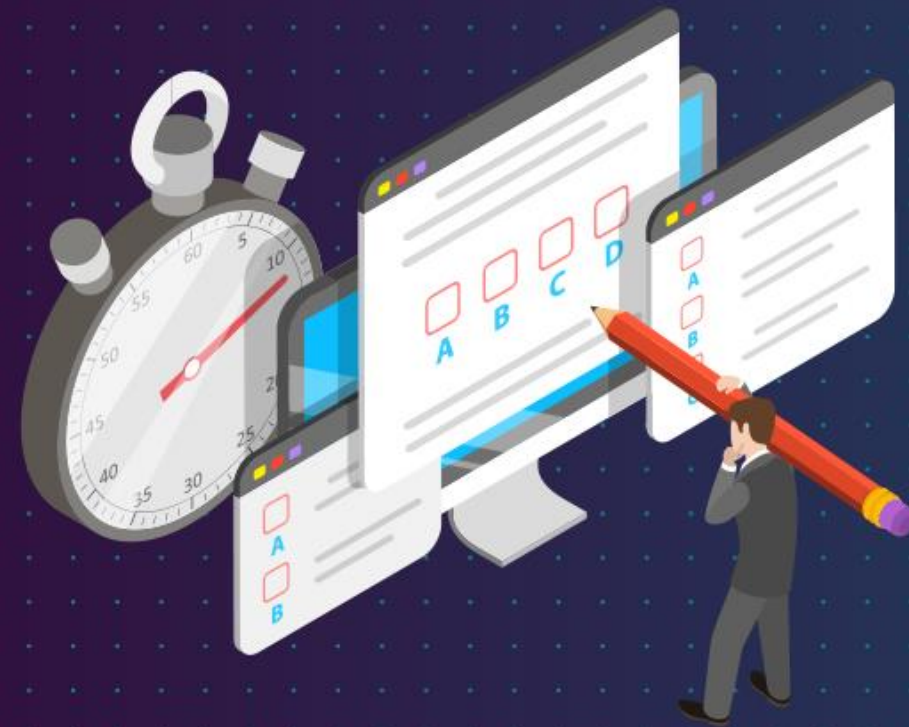


## Key Takeaways

- A project's scope is derived from the problem statement and project charter using a variety of tools.
- A project plan is an approved document used to control and manage a project.
- The WBS, network diagrams, Gantt, and PERT are tools used in project scheduling and monitoring.







## Knowledge Check

## Knowledge Check

1

A team was formed recently, and the members have skipped over helpful analysis in hopes of seeing quick results. Which group challenge is this an example of?

- A. Floundering
- B. Rush to Achieve
- C. Groupthink
- D. Discounts

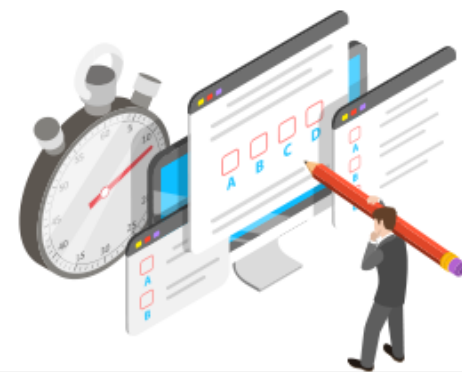


## Knowledge Check

1

A team was formed recently, and the members have skipped over helpful analysis in hopes of seeing quick results. Which group challenge is this an example of?

- A. Floundering
- B. Rush to Achieve
- C. Groupthink
- D. Discounts



The correct answer is **B**

**Rush to Achieve** is the group challenge that occurs when results matter more than analysis to ensure the best options have been identified.



**Knowledge  
Check**  
**2**

**Which of the following roles works with the Black Belts to improve its respective process and provides functional expertise?**

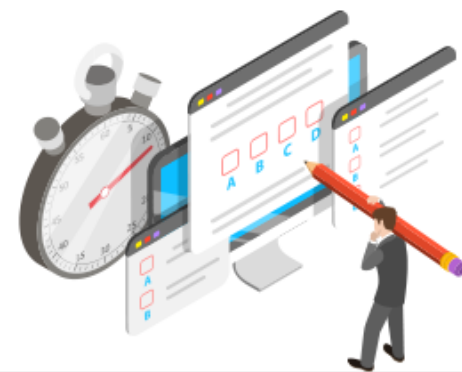
- A. Champion
- B. Master Black Belt
- C. Green Belt
- D. Process Owner



**Knowledge  
Check**  
**2**

**Which of the following roles works with the Black Belts to improve its respective process and provides functional expertise?**

- A. Champion
- B. Master Black Belt
- C. Green Belt
- D. Process Owner



The correct answer is **D**

**Process owners works with the Black Belts to improve their respective process and provide functional expertise.**

**Knowledge  
Check**  
**3**

**If you want to analyze a topic in detail with your team, what mode of communication should you try to use first?**

- A. Meeting
- B. Newsletter
- C. Email
- D. Memo



**Knowledge  
Check**  
**3**

**If you want to analyze a topic in detail with your team, what mode of communication should you try to use first?**

- A. Meeting
- B. Newsletter
- C. Email
- D. Memo



The correct answer is **A**

**A meeting is a great mode of communication to analyze and discuss ideas.**

## Knowledge Check

4

Which of the following is NOT a stage in team dynamics?

- A. Forming
- B. Adjourning
- C. Storming
- D. Process Improvement



## Knowledge Check

4

Which of the following is NOT a stage in team dynamics?

- A. Forming
- B. Adjourning
- C. Storming
- D. Process Improvement



The correct answer is **D**

**Process Improvement is not a stage in team dynamics.**

## Knowledge Check

5

Which of the following is NOT a goal when communicating with stakeholders?

- A. Communicate project objective
- B. Understand team member conflicts
- C. Identify adverse effects to stakeholders
- D. Assist decision making



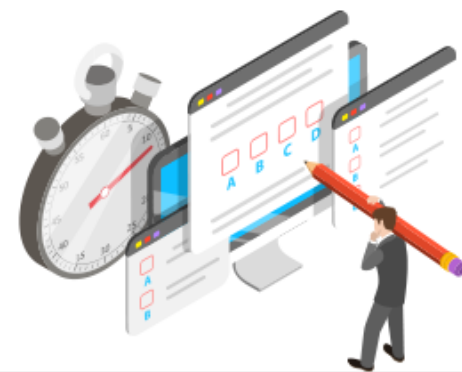


Knowledge  
Check

5

Which of the following is NOT a goal when communicating with stakeholders?

- A. Communicate project objective
- B. Understand team member conflicts
- C. Identify adverse effects to stakeholders
- D. Assist decision making



The correct answer is **B**

Understanding team member conflicts is not considered when communicating with stakeholders.

## Knowledge Check

6

Who trains, mentors, teaches, and guides the team when required?

- A. Champion
- B. Master Black Belt
- C. Coach
- D. Sponsor

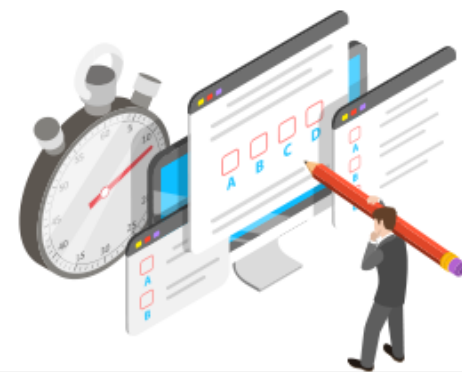


## Knowledge Check

6

Who trains, mentors, teaches, and guides the team when required?

- A. Champion
- B. Master Black Belt
- C. Coach
- D. Sponsor



The correct answer is **A**

**A meeting is a great mode of communication to analyze and discuss ideas.**

## Knowledge Check

7

You have a team member with great ideas when you talk in private, but he does not contribute much in team meetings. This may be an example of a participant who is \_\_\_\_\_.

- A. Reluctant
- B. Overbearing
- C. Dominant
- D. Floundering

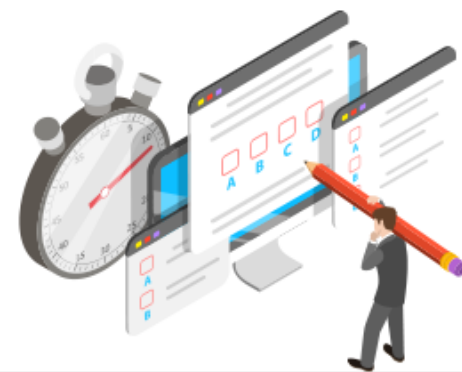


## Knowledge Check

7

You have a team member with great ideas when you talk in private, but he does not contribute much in team meetings. This may be an example of a participant who is \_\_\_\_\_.

- A. Reluctant
- B. Overbearing
- C. Dominant
- D. Floundering



The correct answer is **A**

**A reluctant team member misses opportunities to bring up data that is valuable to the project.**

## Knowledge Check

8

**What is the primary difference between NGT and Brainstorming?**

- A. The number of participants allowed
- B. Identifying the problem
- C. Use of a facilitator
- D. Interaction of team members



## Knowledge Check

8

What is the primary difference between NGT and Brainstorming?

- A. The number of participants allowed
- B. Identifying the problem
- C. Use of a facilitator
- D. Interaction of team members

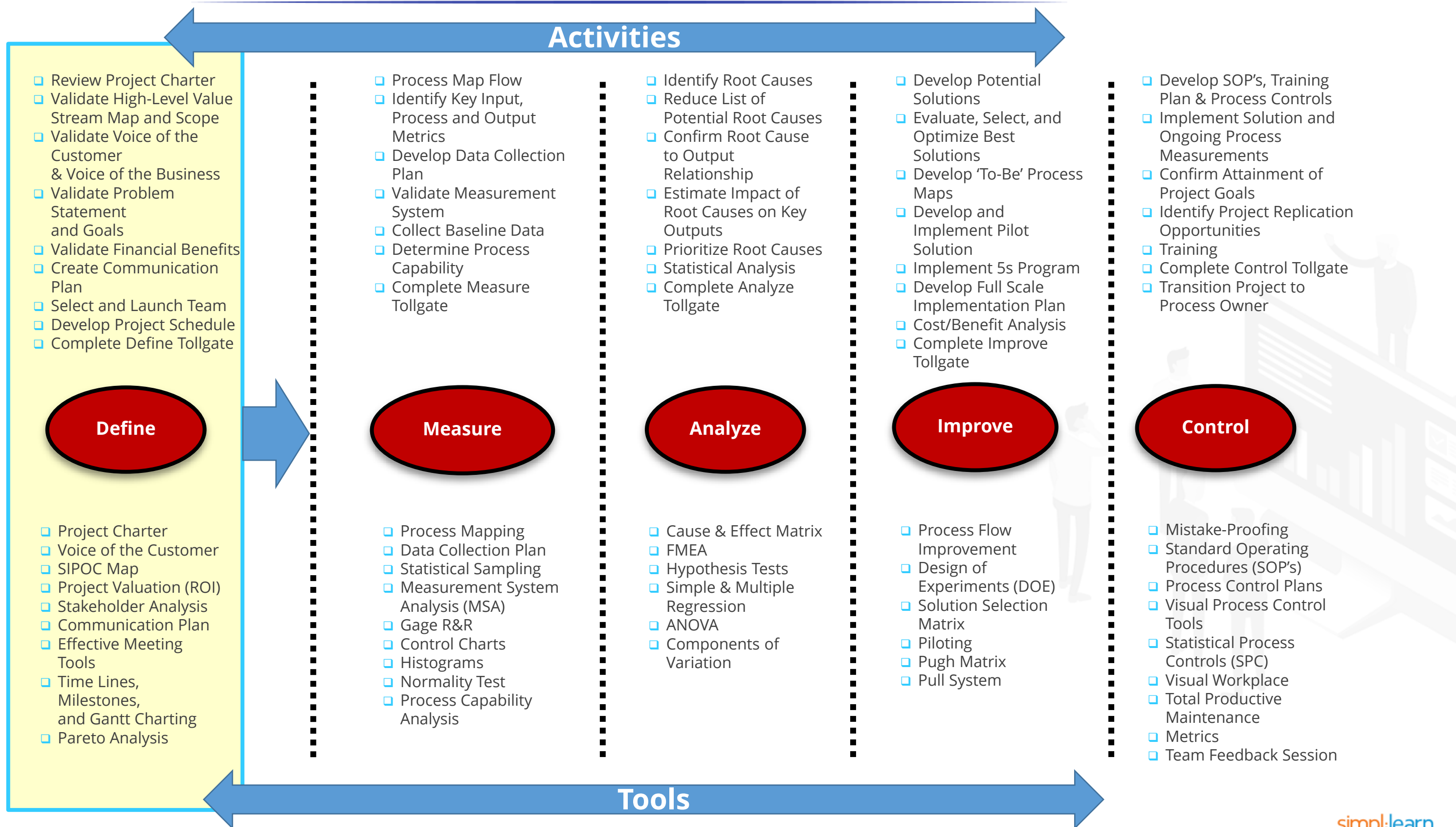


The correct answer is **D**

**For the Nominal Group Technique, the team members do not interact as much as brainstorming during the session since ideas are noted individually.**



# Lean Six Sigma Activities and Tools: Define



# Define Tollgate Questions

- ☐ Is this project important, i.e. has the project been chosen because it is in alignment with business goals and the strategic direction of the 'business'?
- ☐ What is the problem statement – detailing (what) is the problem, (when) was the problem first seen, (where) is it seen, and what is the (magnitude or extent) of the problem. Is the problem measured in terms of Quality, Cycle Time or Cost Efficiency, or direct financial benefits? Ensure there is no mention or assumptions about causes and solutions.
- ☐ Does a goal statement exist that defines the results expected to be achieved by the process, with reasonable and measurable targets? Is the goal developed for the “what” in the problem statement, thus measured as Quality, Cycle Time, or Cost Efficiency metric?
- ☐ Does a financial business case exist, explaining the potential impact (i.e. measured in dollars) of the project on the process, department, division, suppliers, customers, etc.?
- ☐ Is the project scope reasonable? Have constraints and key assumptions been identified?
- ☐ Who is on the team? Are they the right resources and has their required time commitment to the project been confirmed by Management and Deployment Team?
- ☐ What is the high level work plan? What are the key milestones (that is, dates of tollgate reviews for DMAIC projects)?
- ☐ Who are the customers (internal/external) for this process? What are their requirements? Are they measurable? How were the requirements determined?
- ☐ Who are the key stakeholders? How will they be involved in the project? How will progress be communicated to them? Do they agree to the project?
- ☐ What kinds of barriers/obstacles will need assistance to be removed? Has the development of a risk mitigation plan to deal with the identified risks been developed

**Note :With answers to these questions you are now ready to move to the Measure Phase.**