Project Management

MGT 30725

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Lesson 9 – Organizing and staffing Project Tram

Agenda

➢ Skill and abilities required for project managers

➢ Project structure

➢ Project team

The Importance of Human Resource Management

- Many corporate executives have said, "People are our most important asset"

- People determine the success and failure of organizations and projects

What is Project Human Resource Management?

- Making the most effective use of the people involved with a project
- Processes include
  - **Planning human resource management:** identifying and documenting project roles, responsibilities, and reporting relationships
  - **Acquiring the project team:** getting the needed personnel assigned to and working on the project
  - **Developing the project team:** building individual and group skills to enhance project performance
  - **Managing the project team:** tracking team member performance, motivating team members, providing timely feedback, resolving issues and conflicts, and coordinating changes to help enhance project performance

Project Human Resource Management Summary

Planning
Process: **Plan human resource management**
Output: Human resource plan

→

Executing
Process: **Acquire project team**
Outputs: Project staff assignments, resource calendars, project management plan updates
Process: **Develop project team**
Outputs: Team performance assessments, enterprise environmental factors updates

→

Monitoring and Controlling
Process: **Manage project team**
Outputs: Change requests, project management plan updates, project documents updates, enterprise environmental factors updates, and organizational process assets updates

→

Project Start   **Project Finish**

→

- Psychologists and management theorists have devoted much research and thought to the field of managing people at work
- Important areas related to project management include
  - motivation theories
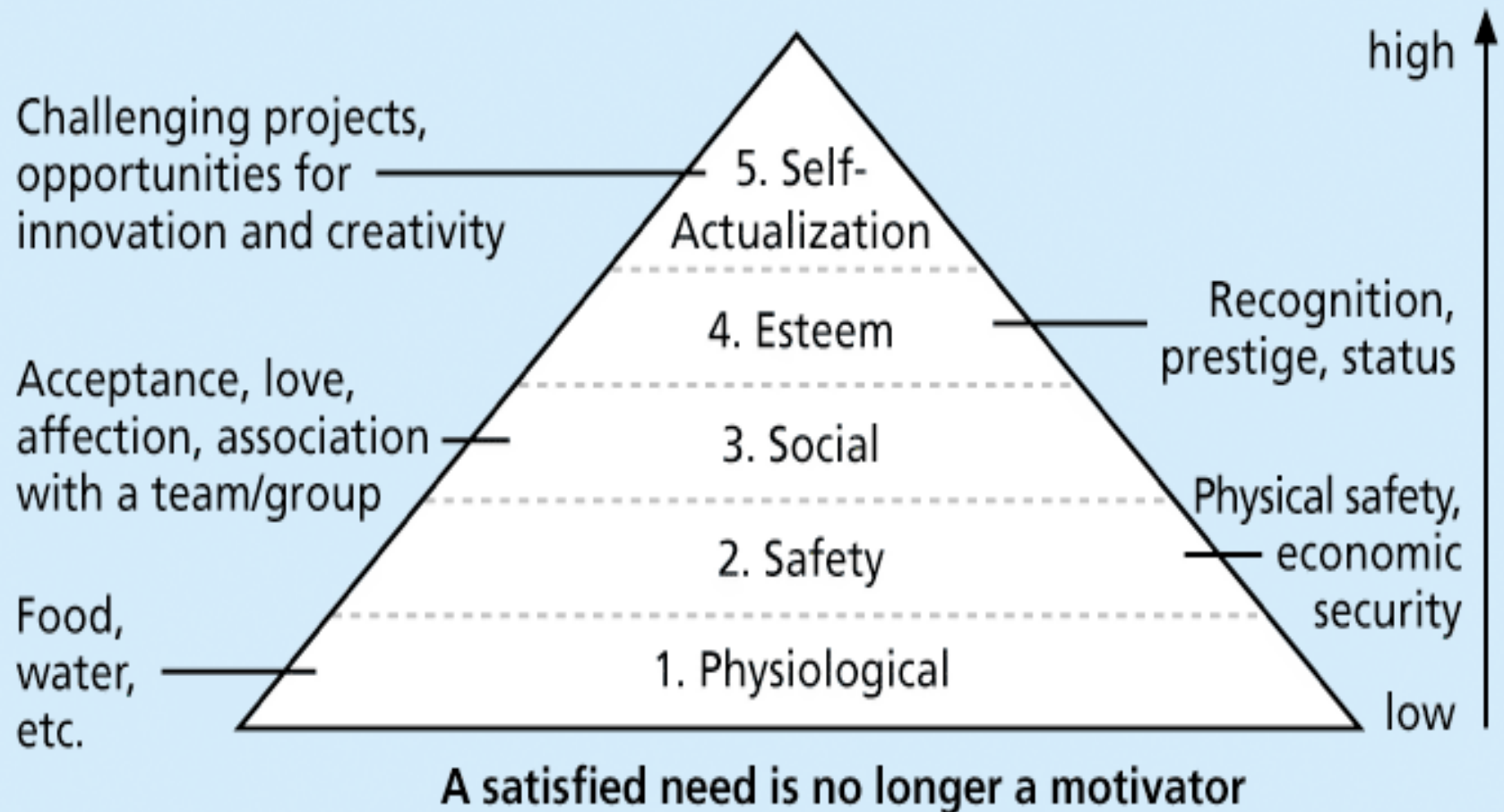 - influence and power
  - effectiveness

Intrinsic and Extrinsic Motivation

- **Intrinsic motivation** causes people to participate in an activity for their own enjoyment

- **Extrinsic motivation** causes people to do something for a reward or to avoid a penalty

- For example, some children take piano lessons for intrinsic motivation (they enjoy it) while others take them for extrinsic motivation (to get a reward or avoid punishment)

- Abraham Maslow argued that humans possess unique qualities that enable them to make independent choices, thus giving them control of their destiny

- Maslow developed a **hierarchy of needs** which states that people's behaviors are guided or motivated by a sequence of needs

Maslow's Hierarchy of Needs

- Frederick Herzberg wrote several famous books and articles about worker motivation. He distinguished between

  - motivational factors: achievement, recognition, the work itself, responsibility, advancement, and growth, which produce job satisfaction

  - hygiene factors: cause dissatisfaction if not present, but do not motivate workers to do more. Examples include larger salaries, more supervision, and a more attractive work environment

Examples of Herzberg's Hygiene Factors and Motivators

HYGIENE FACTORS	MOTIVATORS
Larger salaries	Achievement
More supervision	Recognition
More attractive work environment	Work itself
Computer or other required equipment	Responsibility
Health benefits	Advancement
Training	Growth

McClelland's Acquired-Needs Theory

- Specific needs are acquired or learned over time and shaped by life experiences, including:
  - Achievement : Achievers like challenging projects with achievable goals and lots of feedback
  - Affiliation : People with high nAff desire harmonious relationships and need to feel accepted by others, so managers should try to create a cooperative work environment for them
  - Power: People with a need for power desire either personal power (not good) or institutional power (good for the organization). Provide institutional power seekers with management opportunities

McGregor's Theory X and Y

- Douglas McGregor popularized the human relations approach to management in the 1960s

- Theory X: assumes workers dislike and avoid work, so managers must use coercion, threats and various control schemes to get workers to meet objectives

- Theory Y: assumes individuals consider work as natural as play or rest and enjoy the satisfaction of esteem and self-actualization needs

- Theory Z: introduced in 1981 by William Ouchi and is based on the Japanese approach to motivating workers, emphasizing trust, quality, collective decision making, and cultural values

Thamhain and Wilemon's Ways to Have Influence on Projects

1. Authority: the legitimate hierarchical right to issue orders

2. Assignment: the project manager's perceived ability to influence a worker's later work assignments

3. Budget: the project manager's perceived ability to authorize others' use of discretionary funds

4. Promotion: the ability to improve a worker's position

5. Money: the ability to increase a worker's pay and benefits

6. Penalty: the project manager's ability to cause punishment

7. Work challenge: the ability to assign work that capitalizes on a worker's enjoyment of doing a particular task

8. Expertise: the project manager's perceived special knowledge that others deem important

9. Friendship: the ability to establish friendly personal relationships between the project manager and others

- Projects are more likely to *succeed* when project managers influence with
  - expertise
  - work challenge

- Projects are more likely to *fail* when project managers rely too heavily on
 - authority
  - money
  - penalty

- **Power** is the potential ability to influence behavior to get people to do things they would not otherwise do

- Types of power include
  - Coercive – leaders are forced to punish in situations
  - Legitimate – leader is elected or appointed. Has a Title.
  - Expert – Leader has information, knowledge or skills needed and valued by group
  - Reward – Leader can give or takeaway items or values. Tangible or intangible
  - Referent – Leader is admired and respected, other group members try to copy his/her behavior.

Developing the Human Resource Plan

- Involves identifying and documenting project roles, responsibilities, and reporting relationships

- Contents include
  - project organizational charts
  - staffing management plan
  - responsibility assignment matrixes
  - resource histograms

Sample Organizational Chart for a Large IT Project
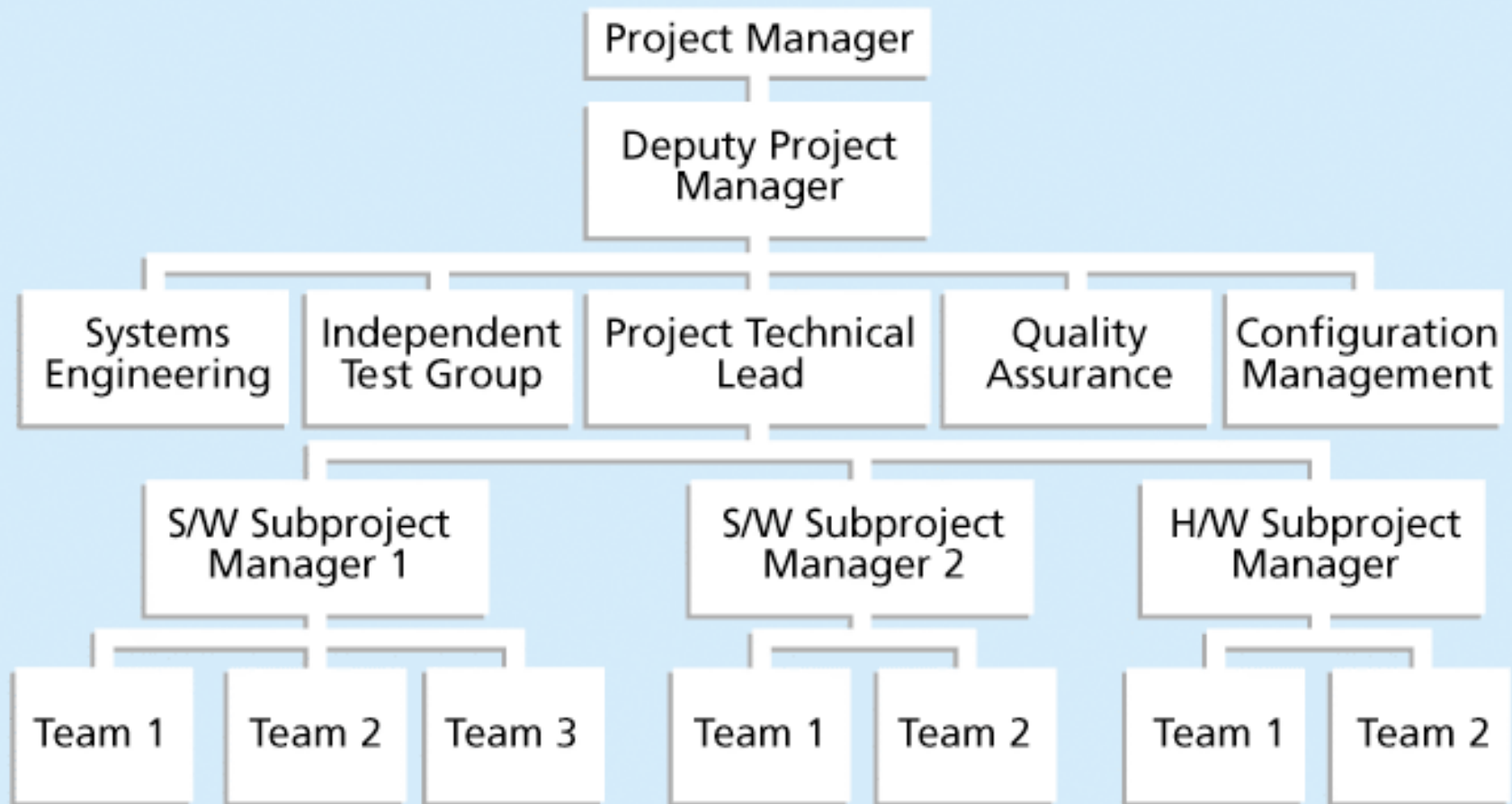
Work Definition and Assignment Process

RFP, Contract, Charter, Scope Statement

Steps

Key Outputs

Requirements Finalization → Finalized Project Scope Baseline
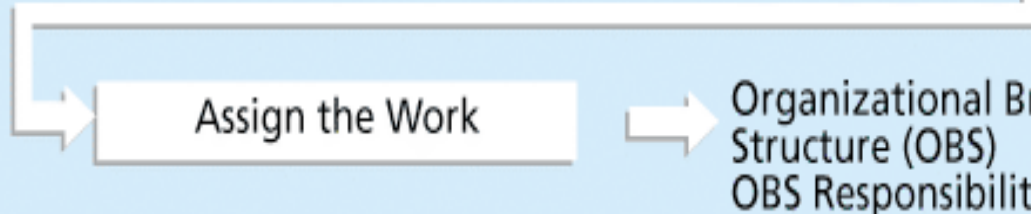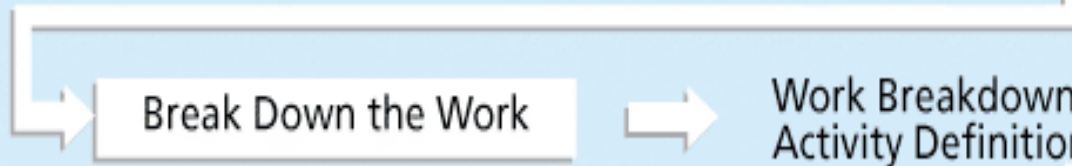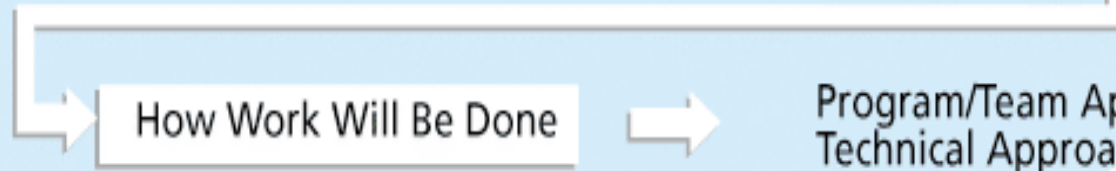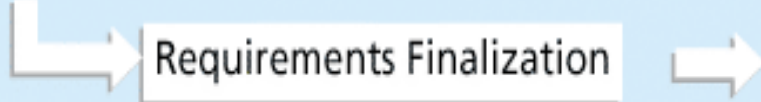Finalized Technical Baseline

How Work Will Be Done → Program/Team Approach
Technical Approaches

Break Down the Work → Work Breakdown Structure (WBS)
Activity Definitions

Assign the Work → Organizational Breakdown Structure (OBS)
OBS Responsibilities

Responsibility Assignment Matrices

- A **responsibility assignment matrix (RAM)** is a matrix that maps the work of the project as described in the WBS to the people responsible for performing the work as described in the OBS

- Can be created in different ways to meet unique project needs

Sample Responsibility Assignment Matrix (RAM)

WBS activities ⟶

	1.1.1	1.1.2	1.1.3	1.1.4	1.1.5	1.1.6	1.1.7	1.1.8
Systems Engineering	R	R P					R	
Software Development			R P					
Hardware Development				R P				
Test Engineering	P							
Quality Assurance					R P			
Configuration Management						R P		
Integrated Logistics Support							P	
Training								R P

OBS units ↓

R = Responsible organizational unit
P = Performing organizational unit

Sample RACI Chart

	Group A	Group B	Group C	Group D	Group E
Test Plans	R	A	C	C	I
Unit Test	C	I	R	A	I
Integration Test	A	R	I	C	C
System Test	I	C	A	I	R
User Acceptance Test	R	I	C	R	A

R = responsibility
A = accountability, only one A per task
C = consultation
I = informed

Note that some people reverse the definitions of responsible and accountable.

- A **staffing management plan** describes when and how people will be added to and taken off the project team

- A **resource histogram** is a column chart that shows the number of resources assigned to a project over time

What Went Right?

- In addition to providing technical training for IT personnel, several companies have made significant investments in project management training to provide career paths for project managers

  - Hewlett Packard employed only six registered PMPs in 1997, but by August 2004, it employed more than 1,500 PMPs and was adding 500 more per year

  - While most consulting firms offer a single path to a leadership position, IBM has four to allow their people to succeed by focusing on their strengths and interests in one or more disciplines

Acquiring the Project Team

- Acquiring qualified people for teams is crucial

- The project manager who is the smartest person on the team has done a poor job of recruiting!

- It's important to assign the appropriate type and number of people to work on projects at the appropriate times

Resource Assignment

- Staffing plans and good hiring procedures are important, as are incentives for recruiting and retention
  - Some companies give their employees one dollar for every hour a new person they helped hire works
  - Some organizations allow people to work from home as an incentive
- Enrollment in U.S. computer science and engineering programs has dropped almost in half since 2000, and one-third of U.S. workers were over the age of 50 by 2010
- CIO's researchers suggest that organizations rethink hiring practices and incentives to hire and retain IT talent

Best Practice

- Best practices can be applied to include the best places for people to work
  - For example, Fortune Magazine lists the "100 Best Companies to Work For" in the United States every year, with Google taking the honors in 2007, 2008, and 2012
  - Working Mothers Magazine lists the best companies in the U.S. for women based on benefits for working families
  - The Timesonline (www.timesonline.co.uk) provides the Sunday Times list of the 100 Best Companies to Work For, a key benchmark against which UK companies can judge their Best Practice performance as employers
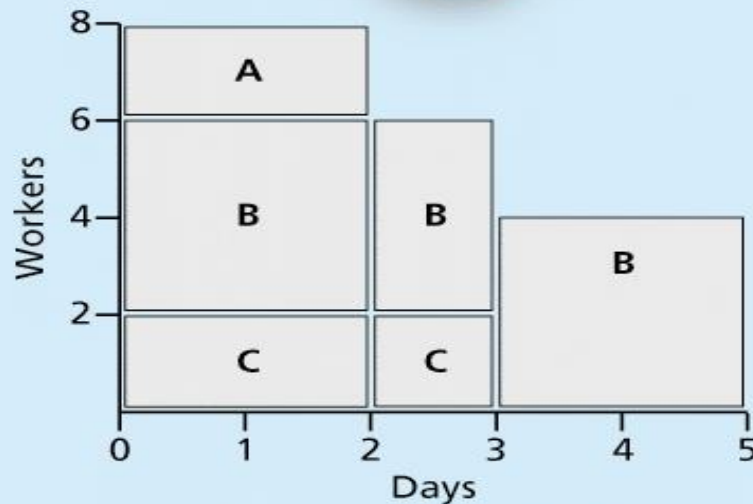
Resource Leveling

- **Resource leveling** is a technique for resolving resource conflicts by delaying tasks

- The main purpose of resource leveling is to create a smoother distribution of resource usage and reduce overallocation
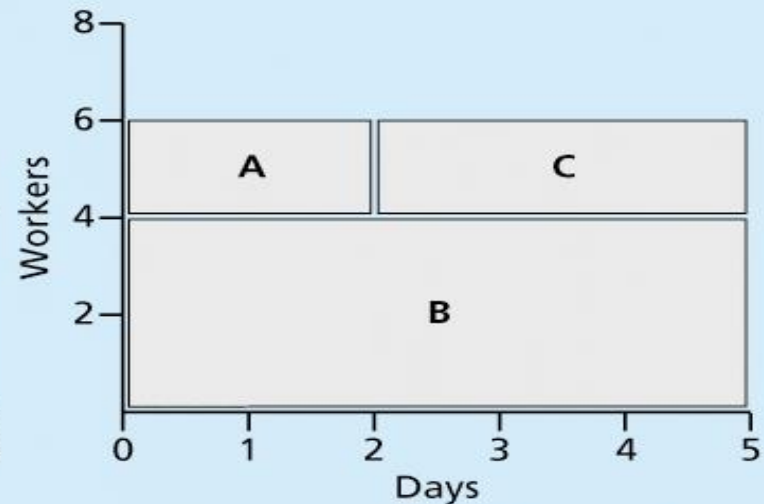
Resource Leveling Example
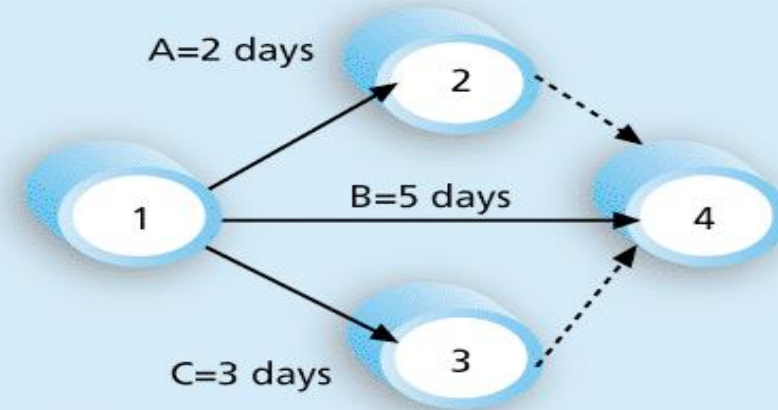
Project network with Activities A, B, and C and durations as shown. Activity A has 3 days of slack, and Activity C has 2 days of slack. Assume Activity A has 2 workers, B has 4 workers, and C has 2 workers.

A=2 days

B=5 days

C=3 days

Resource usage if all activities start on day one

Resource usage if Activity C is delayed 2 days, its total slack

- When resources are used on a more constant basis, they require less management
- It may enable project managers to use a just-in-time inventory type of policy for using subcontractors or other expensive resources
- It results in fewer problems for project personnel and accounting department
- It often improves morale

- The main goal of **team development** is to help people work together more effectively to improve project performance

- It takes teamwork to successfully complete most projects

Tuckman Model of Team Development

- Forming
  - The team comes together for the first time. This is the getting to now you stage, with lot of questions about purpose, roles, the other team members, and so on. Leader directs the team
- Storming
  - A period of turmoil, as people learn to work with each other. This is the "me" stage, where conflicts and disagreements results from people mostly looking out for their own interests. Leader coaches the team.
- Norming
  - Team members start using "we" thinking. People begin to unite around their common purpose and develop healthy group dynamics. Team norms emerge for roles and procedure. Leader supports the team
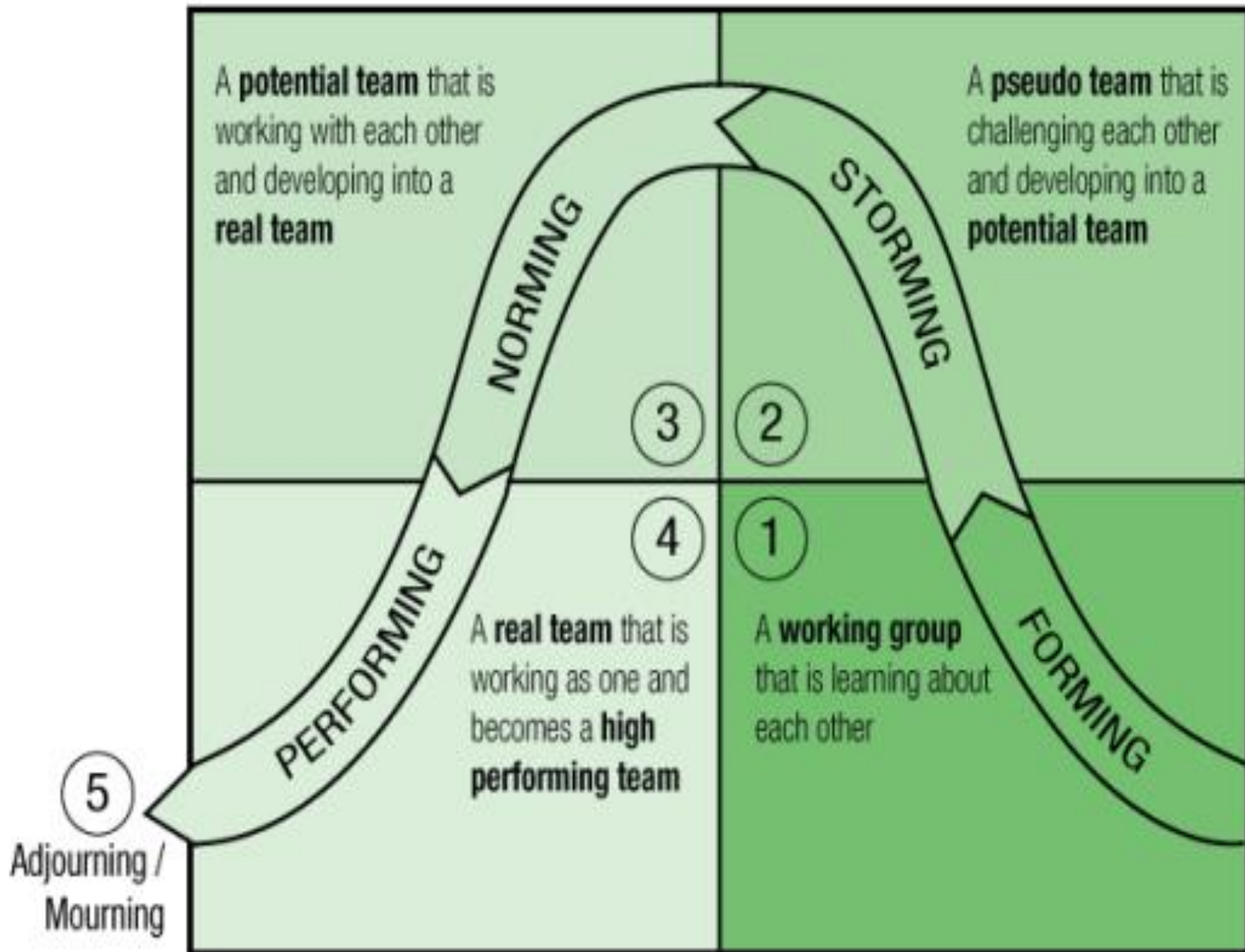
- Performing
  - Team members have been comfortable in their roles and relationships and work effectively together. This is the stage where the team works on improving their processes and becoming lean and efficient. Leader delegates and overseas the team
- Adjourning
  - The team disengagement phase. This is sometimes called mourning, since people often miss being on a high-performing team after it's disbanded.

The Stage of Team formation.

A **potential team** that is working with each other and developing into a **real team**

A **pseudo team** that is challenging each other and developing into a **potential team**

NORMING

STORMING

③ ②

④ ①

PERFORMING

A **real team** that is working as one and becomes a **high performing team**

A **working group** that is learning about each other

FORMING

⑤
Adjourning /
Mourning

- Team-based reward and recognition systems can promote teamwork

- Focus on rewarding teams for achieving specific goals

- Allow time for team members to mentor and help each other to meet project goals and develop human resources

Managing the Project Team

- Project managers must lead their teams in performing various project activities
- After assessing team performance and related information, the project manager must decide
  - if changes should be requested to the project
  - if corrective or preventive actions should be recommended
  - if updates are needed to the project management plan or organizational process assets.

- Observation and conversation

- Project performance appraisals

- Interpersonal skills

- Conflict management

Conflict Handling Modes

1. **Confrontation**: Directly face a conflict using a problem-solving approach

2. **Compromise**: Use a give-and-take approach

3. **Smoothing**: De-emphasize areas of difference and emphasize areas of agreement

4. **Forcing**: The win-lose approach

5. **Withdrawal**: Retreat or withdraw from an actual or potential disagreement

6. **Collaborating**: Decision makers incorporate different viewpoints and insights to develop consensus and commitment

Conflict Can Be Good

- Conflict often produces important results, such as new ideas, better alternatives, and motivation to work harder and more collaboratively

- **Groupthink**: Conformance to the values or ethical standards of a group. Groupthink can develop if there are no conflicting viewpoints

- Research suggests that task-related conflict often improves team performance, but emotional conflict often depresses team performance