

# Research Team Management skills

**Sayed F Abdelwahab, PhD**

Prof. of Microbiology and Immunology  
College of Pharmacy, Taif University

[icpminia@yahoo.com](mailto:icpminia@yahoo.com)



College of Pharmacy, Taif University

27-11-2023



أَهْلًا وَسَلَامًا

# Teamwork

<https://www.youtube.com/watch?v=jop2I5u2F3U>





**"Three sentences for success:  
Know more than others, work  
more than others, expect less  
than other. *William Shakespeare***

**"Getting good players is easy. Getting them to  
play together is the hard part"  
*Casey Stengel***

# Expectations



# Objective

- This program aims to provide the participants with the basic **knowledge**, **skills**, and **positive behaviors** that enable them to prepare and manage the research team efficiently and effectively to ensure the success of the research project.



# Specific Aims

**By the end of this section, the attendee should be able to:**

- 1. Defines the concept and importance of the team**
- 2. Explains the concept of managing a research team**
- 3. Lists the most important skills of the research team**
- 4. Adopts a positive attitude towards managing research teams**
- 5. Adopts a positive attitude towards forming and managing research teams**
- 6. List the basic competencies to prepare and manage research teams**



# Outline

- **Introduction**
- **What is research team and its building steps?**
- **Characteristics of an efficient team**
- **Roles of the team leader?**
- **Team management: importance and examples from nature**
- **Tips for an effective team management**
- **Indicators of success and common mistakes in team management**
- **Conclusions**



---

# *Introduction*

---

## **Research Team Building**

# Research team

- It is a **group of researchers** who belong to **different specialties** or scientific and practical backgrounds and come together to achieve a **research goal** under the **management of the PI**, who is often the director of the research team and the manager of the research project.
- Sometimes the research team includes **non-research members**, such as **data entry personnel**, electronic **program designers**, and others whose work does not fall directly within the scope of “scientific research,” but the outputs of their work are essential to achieving the research goals of the research team.

# Research team skills

## Technical skills

- Mastering the technical aspects in terms of how to **perform** the work and its precise stages
- Familiarity with how to use **devices and equipment**, as well as scientific research **methods** and the subtleties of specialization

## Human skills

- The art of dealing with others
- Familiarity with the determinants and motivators of human behavior and how to deal with different types of people

## Intellectual skills

- Innovative thinking, analytical and critical thinking, creative problem solving, and a comprehensive view of things
- Understanding the concepts related to work at the administrative and the specialized scientific level

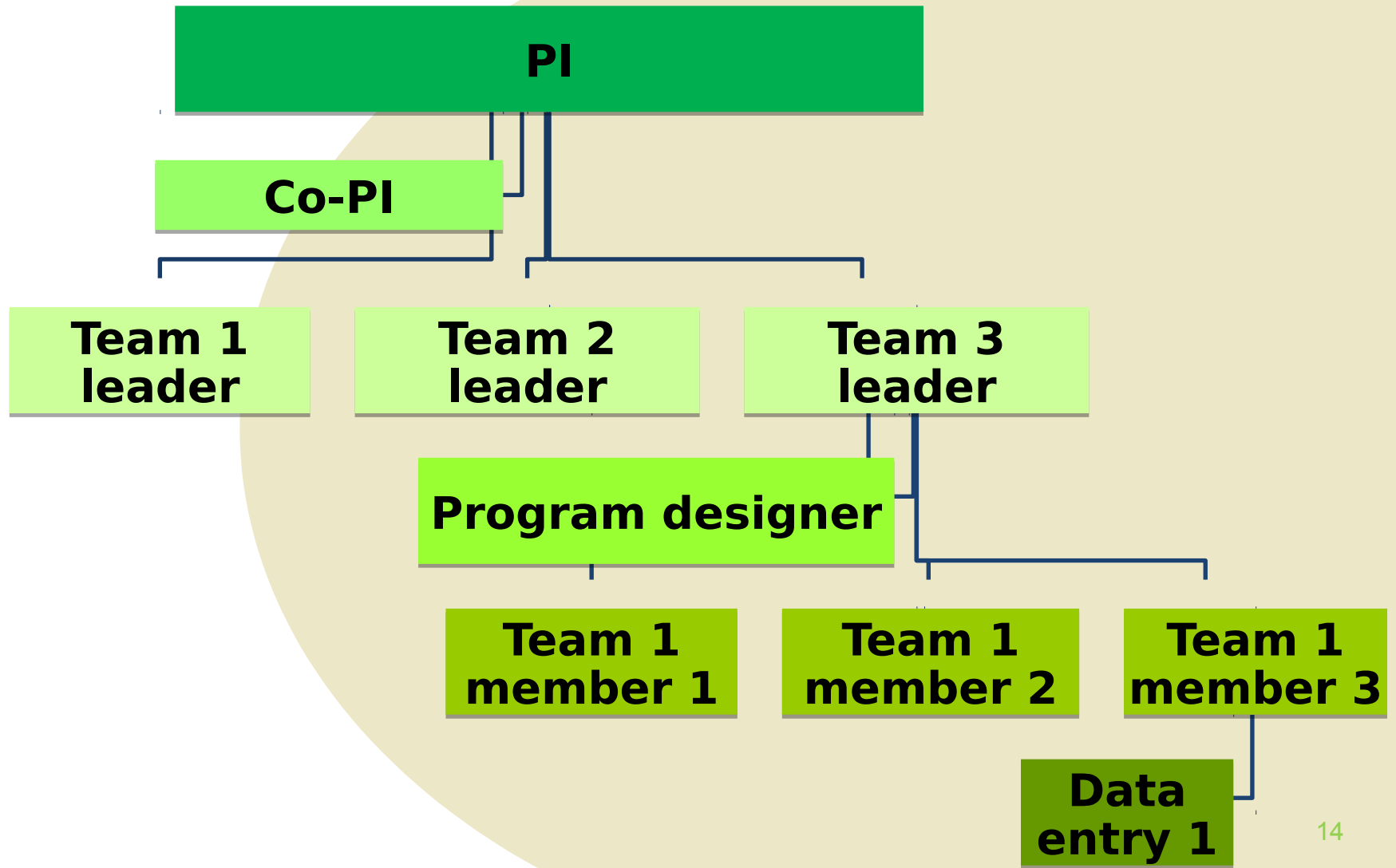
# Human resources planning

- Develop a plan to **meet the needs** of the research project in terms of human resources, including
  - determining their **numbers**,
  - **competencies** and **specialties**,
  - **motivation**, rewards and **development** plan,
  - the coordination **structure**, and
  - defining **roles and duties**.

# Principles for selecting the research team members



# Example of Organizational structure of the team



# Team composition stages

**Forming:** The team begins to gather, get to know each other, define tasks, roles, work style, and communicate

**Storming:** Some conflicts arise as some members show resistance to tasks and to each other

**Norming:** Members begin to cohesive, accept work rules, help each other, and competition turns into cooperation

**Performing:** The team begins to perform its tasks effectively by understanding strengths and weaknesses, cohesion increases, and conflicts are resolved

**Adjourning:** Achieve project objectives, deliver it to beneficiaries and resolve the team

# Characteristics of an efficient research team (1)

Members give credit to its owners

Members unselfishly support outstanding people

Team members believe in their ability to succeed and achieve goals

Team members are familiar with the tasks required of them

There is transparency, trust and a spirit of cooperation among members



# Characteristics of an efficient research team (2)

Team members respect the system and work rules

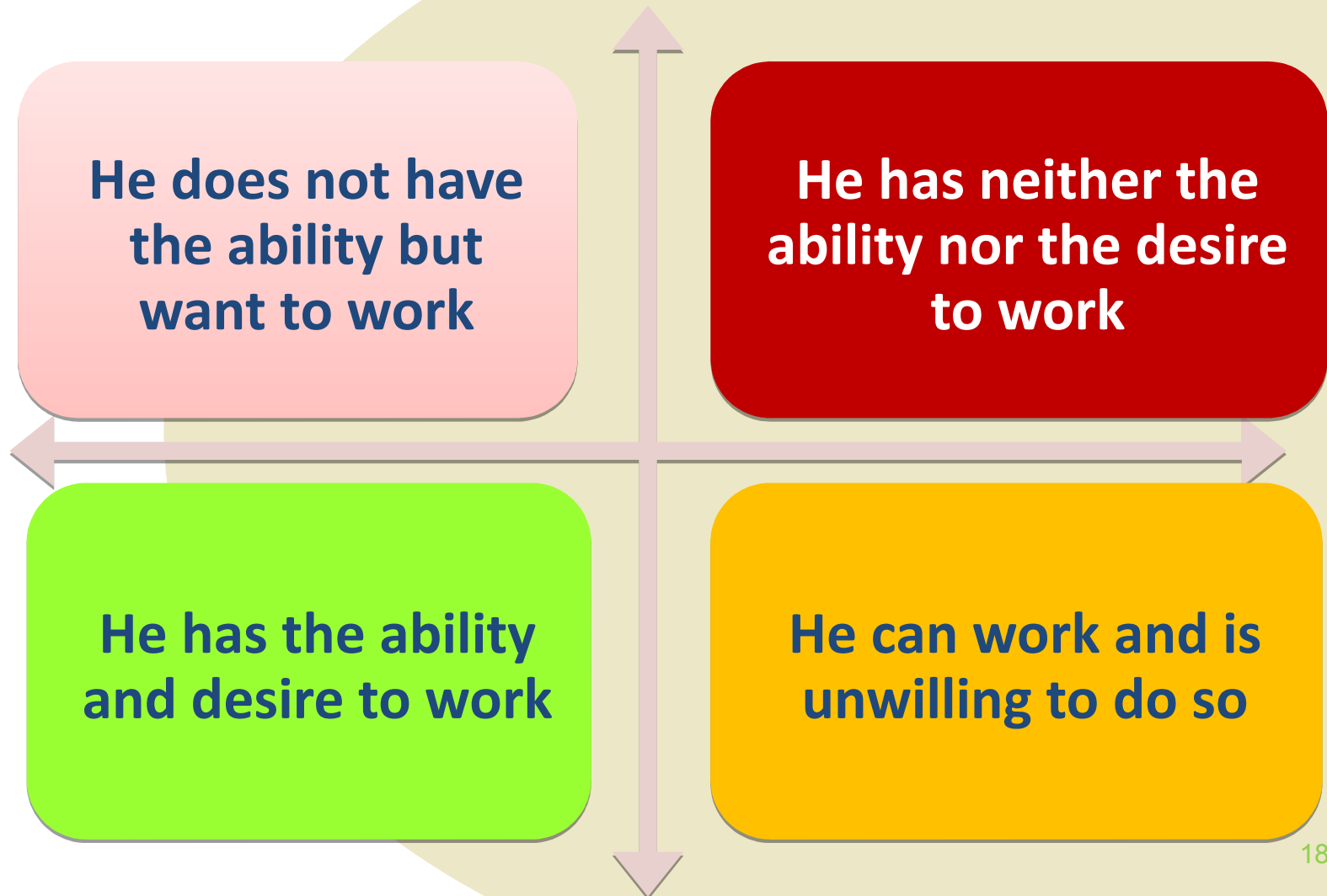
The team members are scientifically and skillfully proficient

Team members learn from their mistakes

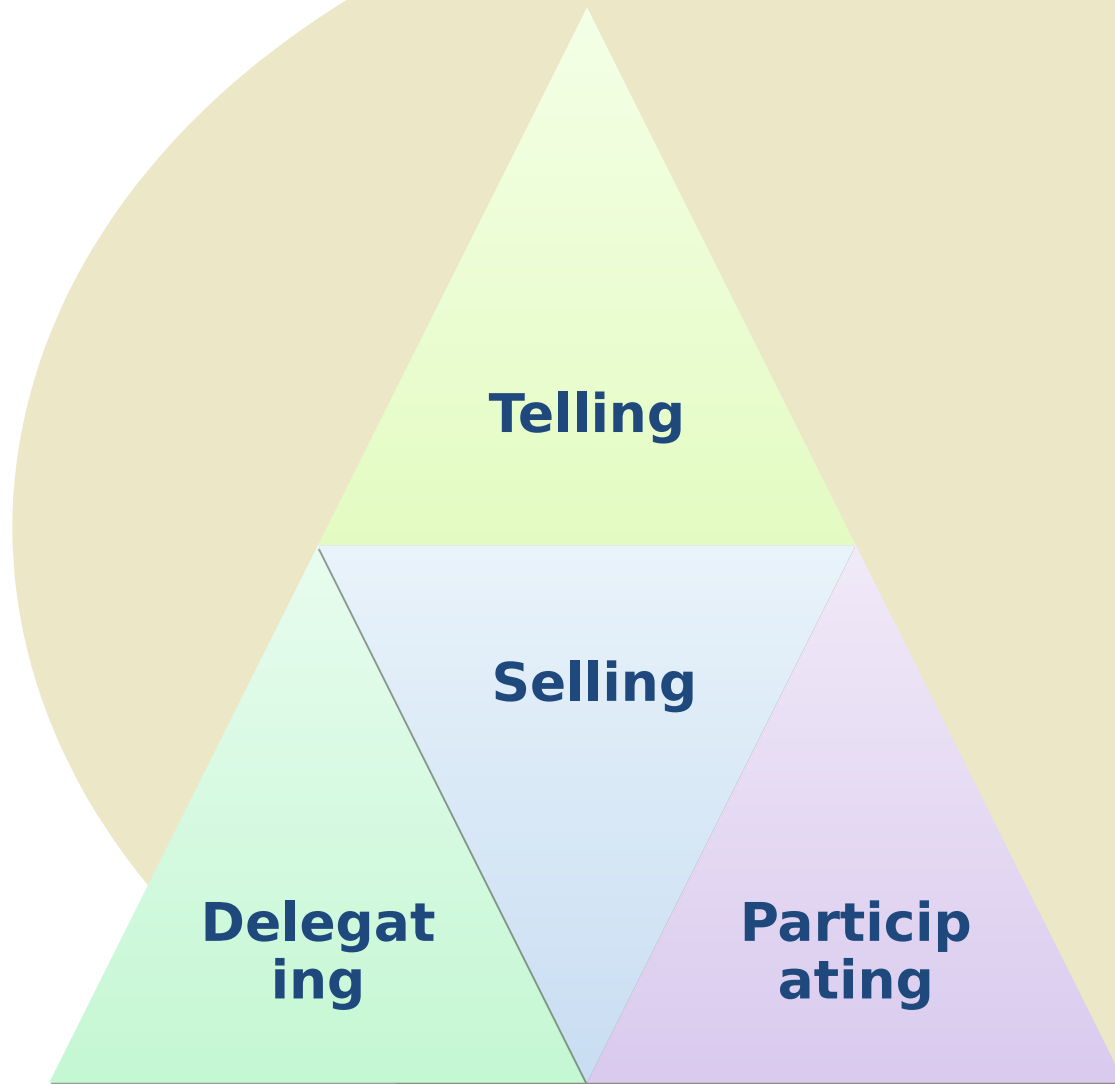
Team members work together for the success of the project, not for purely personal purposes

All members bear full responsibility

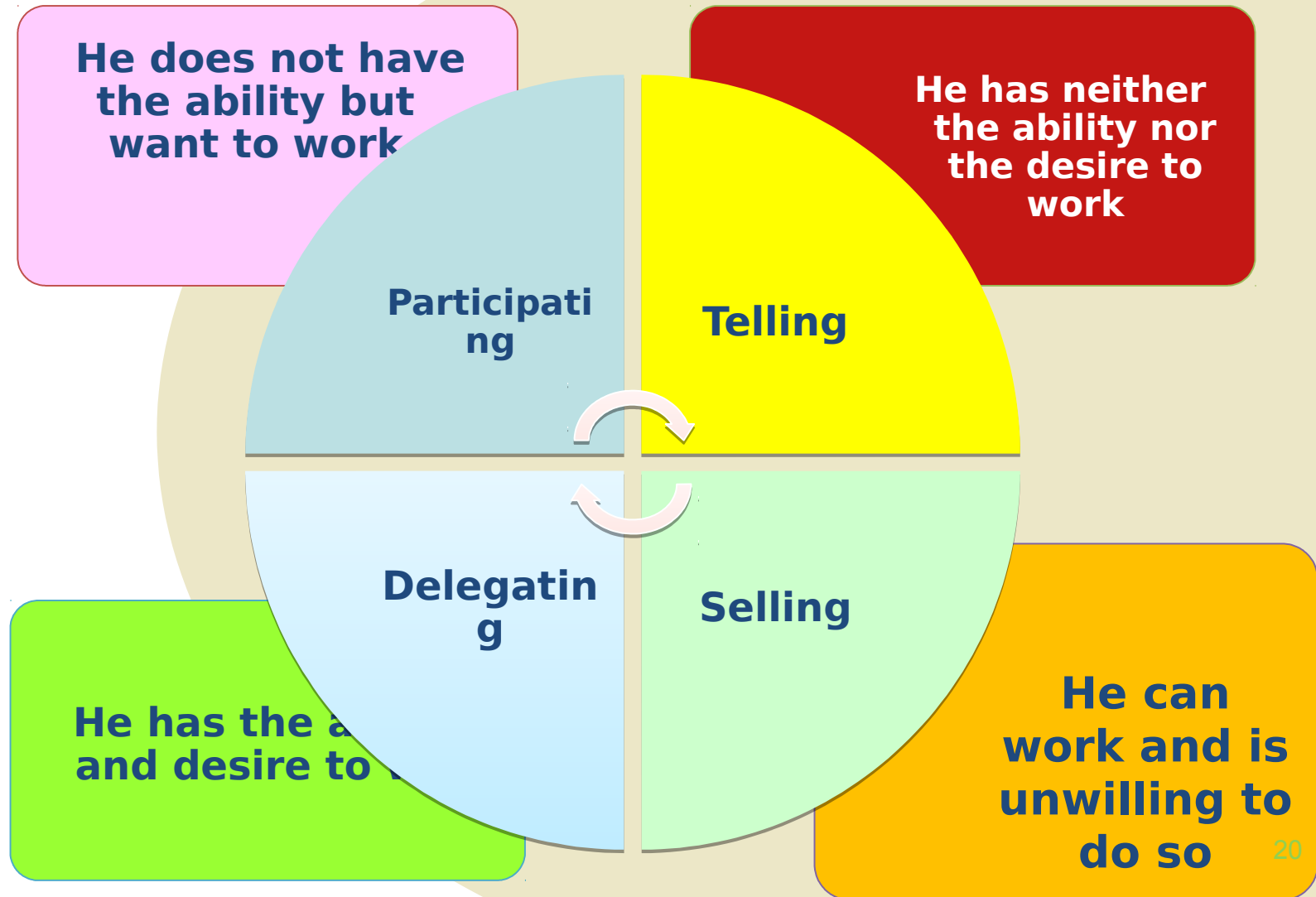
# Classifying team members in terms of their readiness to work



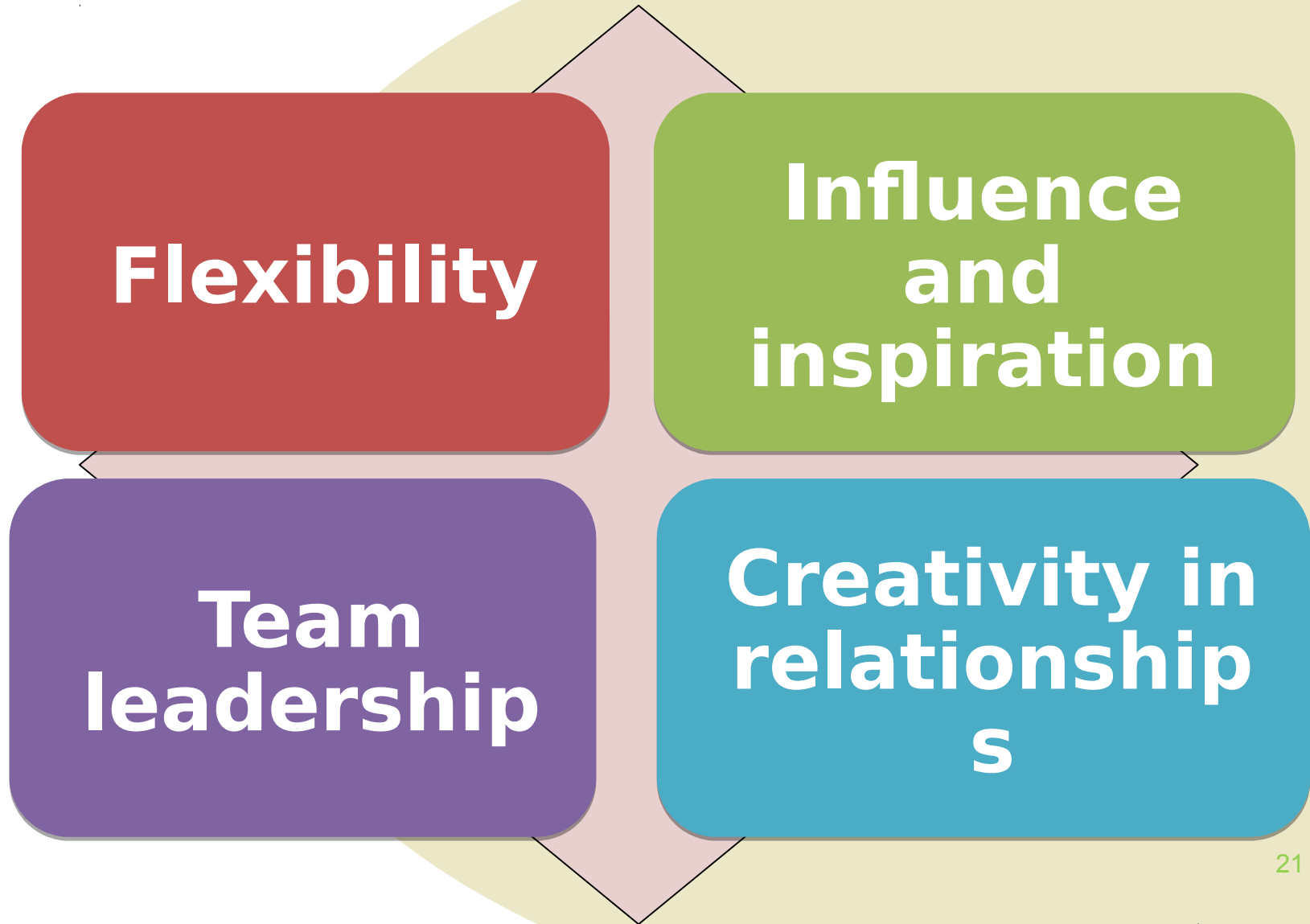
# Patterns of leader behavior appropriate to the types of readiness of team members



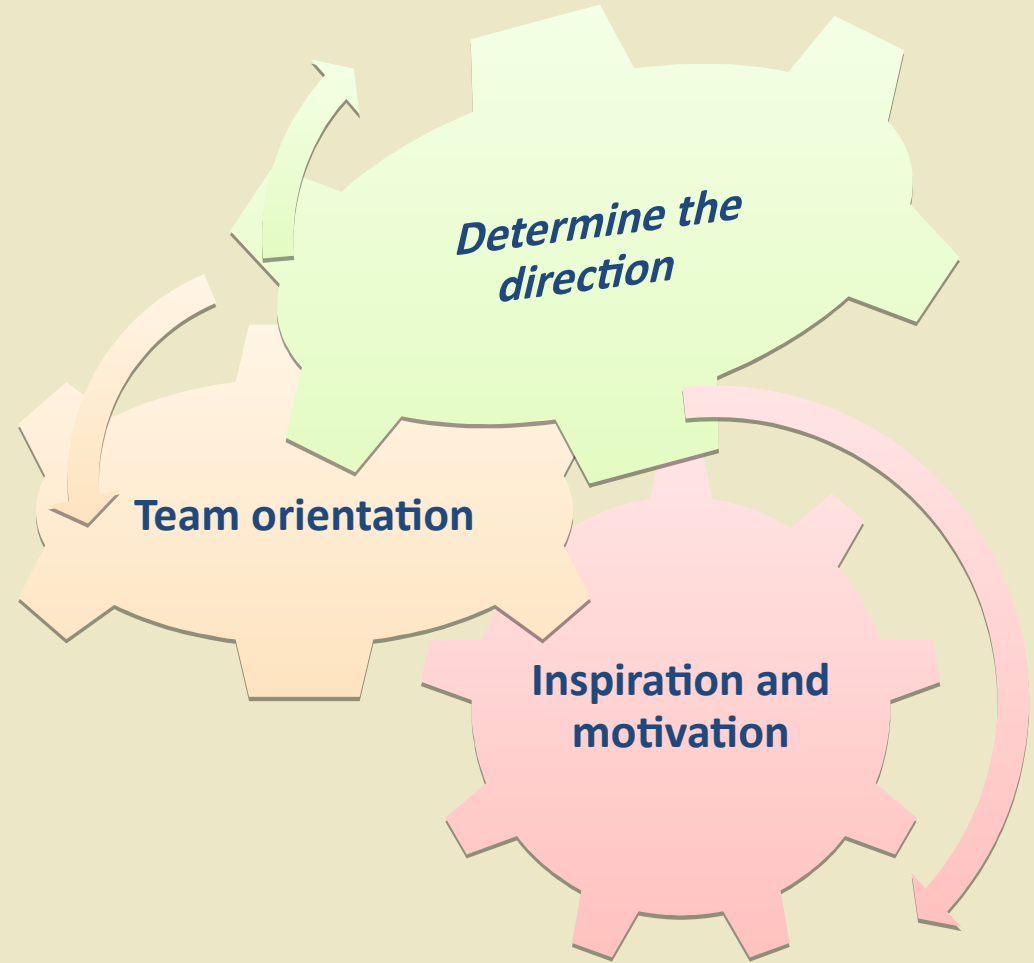
# The ideal way for the PI to deal with different types of individuals in the team



# Dimensions of teamwork



# Essential components of leadership competence



# Methods of preparing a research team leader

**Off-the-job training**

**On-the-job training**

**Coaching and mentoring**

**Leader shadowing**

**Meetings**

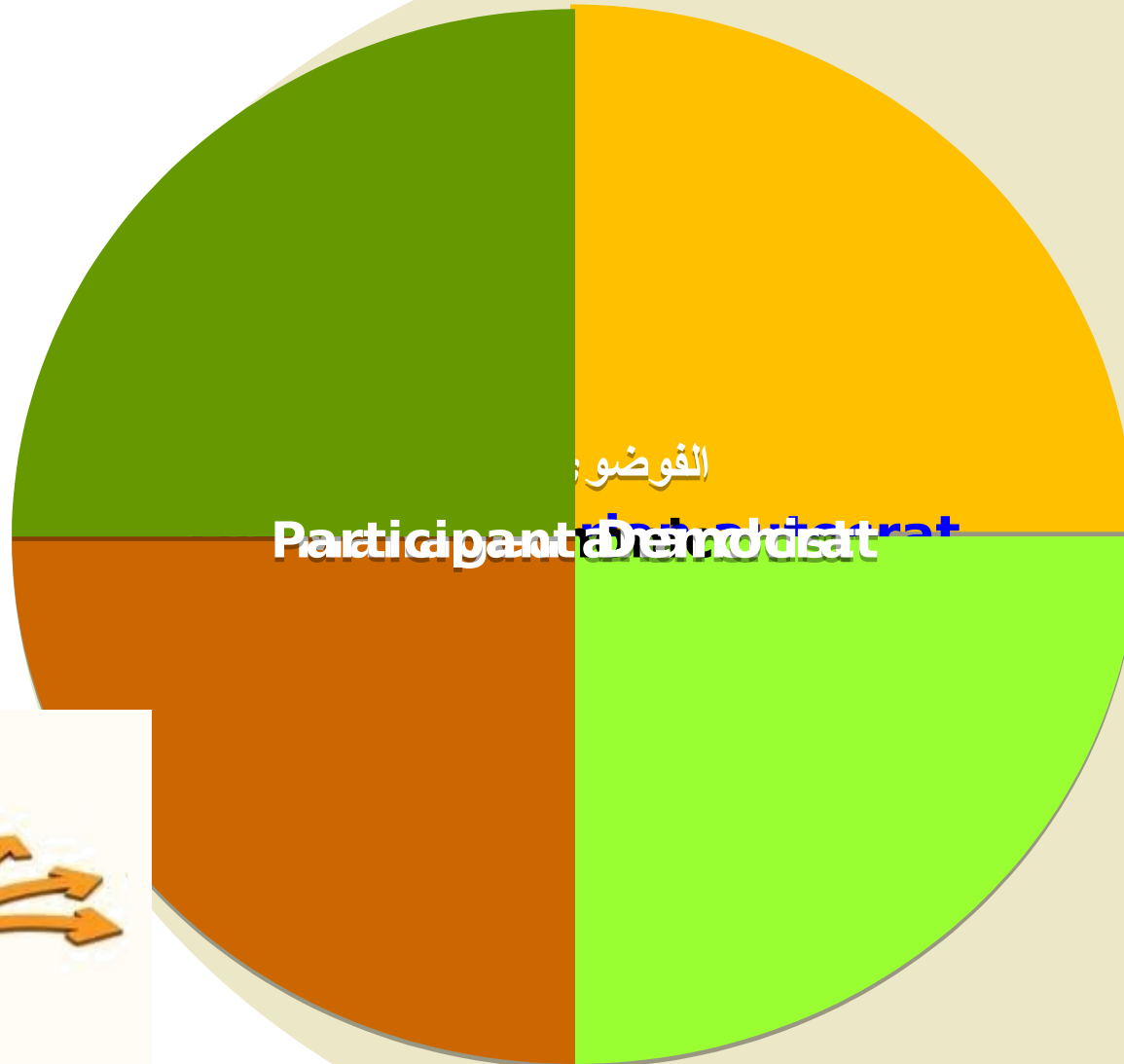
# Roles of the research team

## leader

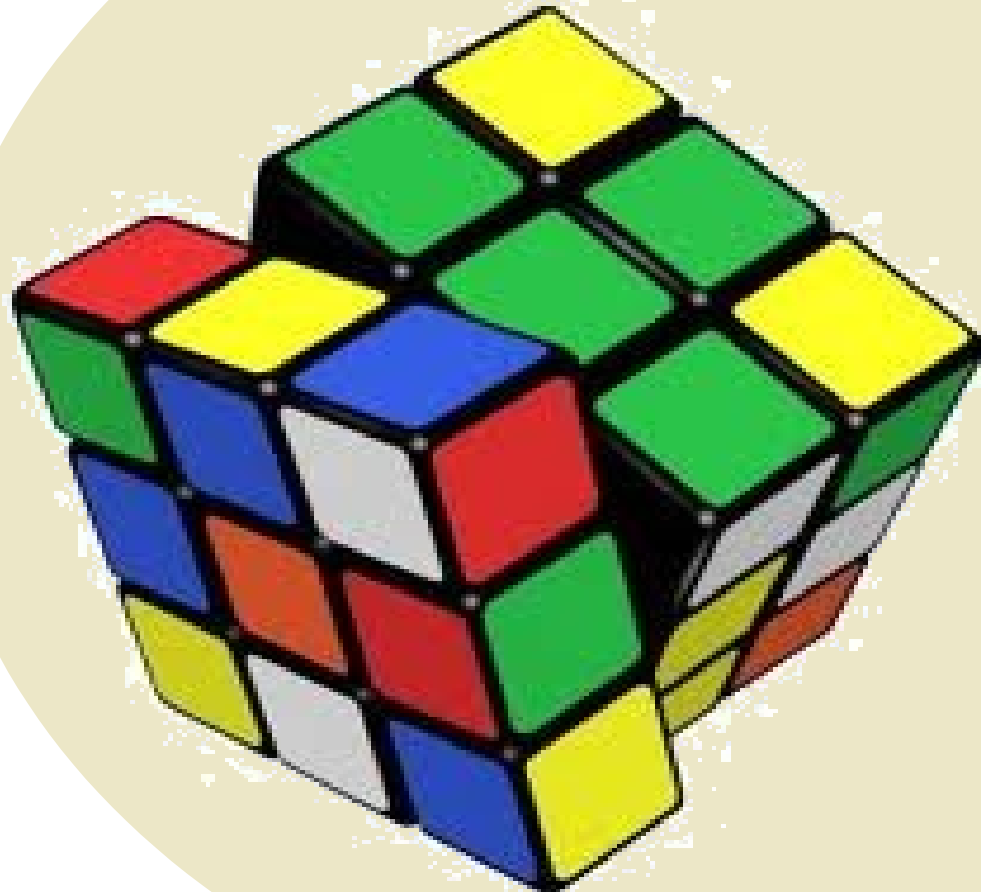




# Decision-making styles among research team leaders



# Problem solving and crisis management **skill**

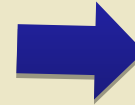


# Steps to solve problems using scientific methods

**1. Definition and definition of the problem**



**2. Analyze the causes of the problem**



**3. Develop alternatives to solve it**



**4. Evaluation of alternatives (solutions)**



**5. Choose the optimal solution**



**6. Implementing ideas**



**7. Follow-up and evaluation**

# Negotiation skills

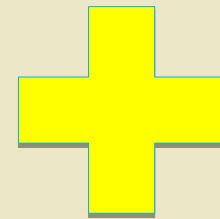
- **Negotiation** is consulting with others to reconcile or reach an **agreement**.
- Examples of topics that the research team leader commonly negotiates within research projects are:
  1. Objectives, scope, cost and schedule
  2. Contract terms and conditions
  3. Team roles and responsibilities
  4. Resources needed for implementation
  5. Dates and times for completing tasks



# Follow up and evaluation skills

**Methods of monitoring and evaluating the work of the research team**

**Interim evaluation (during implementation)**



**Final (post) evaluation**



# Team Management

- The various **activities** which bind a team together by bringing the team members closer to achieve the set goals.
- For the team members, their team must be their priority.



# Why team management is necessary?

- **Better outcome**
- **Increased efficiency**
- **Better ideas**
- **Increased competency**
- **Sense of accomplishment**
- **Mutual support**



# Fundamentals of research team management

**The team leader (PI) acts as a role model**

**Use delegation and participatory style to maintain team belonging and esprit de corps**

**Conduct an ongoing evaluation of the team's performance**

**Obtain member approval for all major actions**

**Do not put pressure on team members or use deceptive methods with them**



# Stages of managing a research team

**Human  
resources  
planning**

**Selection  
of the  
research  
team**

**Team  
building**

**Follow the  
team**

# Stages of managing a research team

## Human resources planning

- Determine the human resources needs of the project in terms of quantity and quality

## Selection of the research team

- Selecting team members, preparing, and placing them on the project tasks

## Team building

- Improving the team's teamwork efficiency to improve performance

## Follow the team

- Follow up on the performance of team members, solve emerging problems, and take the necessary corrective actions

# Basic competencies to manage the research team efficiently and effectively

**Leadership and management**

**Effective communication**

**Negotiation**

**Capacity to make decisions**

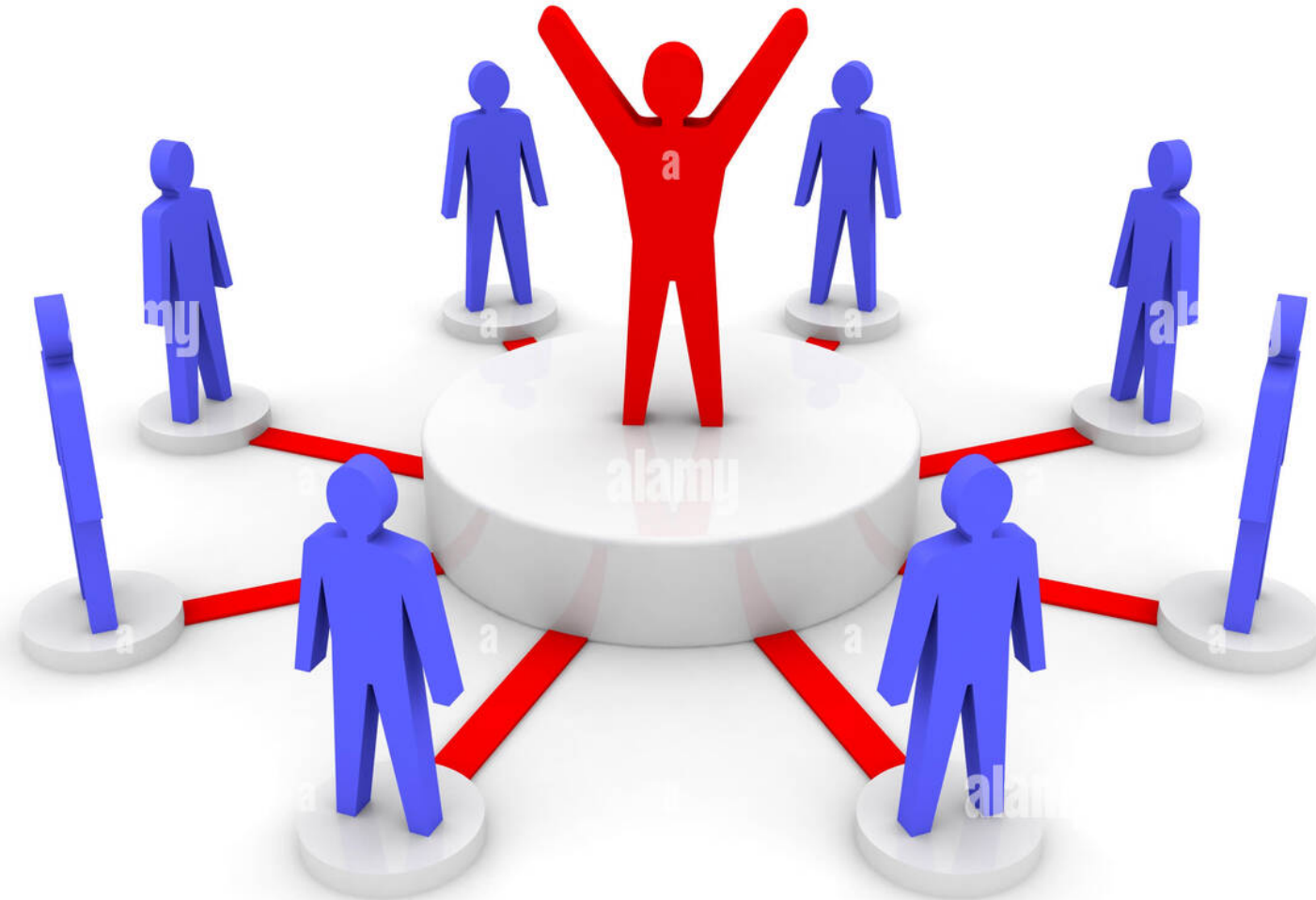
**Problem solving and crisis management**

**Motivation and influence**

**Teamwork**

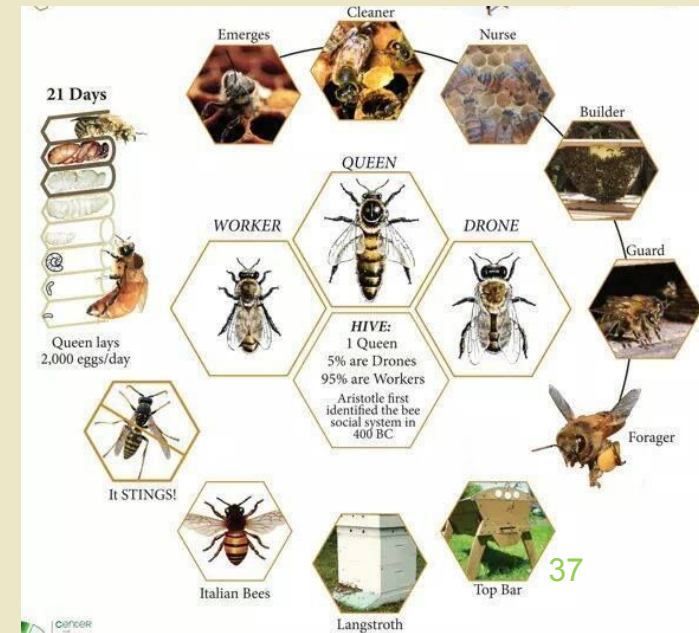
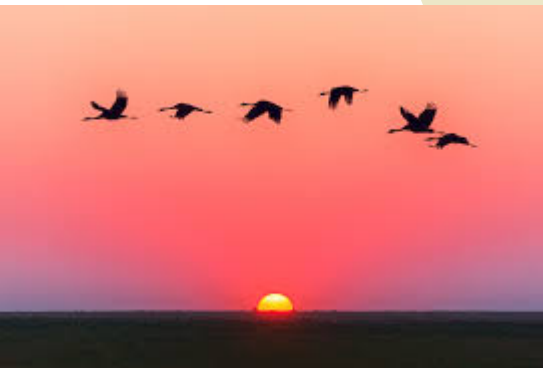
**Monitoring and evaluation**

# What is an effective team management?



# Team management from nature

- **Honeybees** teach us work division
- **Ants** teach us about communication
- **Gees** teach us about leadership



# Tips for effective team management



# Tips for effective team management

- **Avoid favoritism**
- **Allow mistakes**
- **Give credit if necessary**
- **Set processes**
- **Communicate effectively**
- **Do not criticize**
- **Motivate your team**
- **Maintain discipline**
- **Manage conflicts**
- **Group decision**



# There are eight parts of team management





# 1-Communication

- A good **stream-lined** and honest discussion with team members is essential for team management.
- The team members **must be constantly communicating business ideas** and institution strategies which the leadership is thinking about so that employees are **aware** of what the institution



# Effective Communication



**Informal  
correspondence**

**Official  
correspondence**

**Means of  
communication  
in the team**

**Informal word  
of mouth**

**Speaking  
officially**

# 2. Motivation

- **Effective team management requires constant motivation** of employees
- **A strong team requires that all members are motivated and full of positive energy to complete their tasks**



## 2. Motivation (cont.'ed)

**Push members** of the research team to exert **high levels** of effort to **achieve** certain **goals** using **positive** methods that depend on their desire for **reward** or **negative** methods that depend on their fear of **punishment**.



# 3. Feedback

- **Seniors and peers** feedback to different team members is very important for effective team management.
- **Institutions** usually evaluate employees using techniques and help employees improve.



# 4. Transparency

- Having a **transparent organizational structure** is critical for team management.
- Subordinates and team members should have **easy access to top management**, discuss new ideas, revolt certain wrong practices, employees voice should be heard,...et



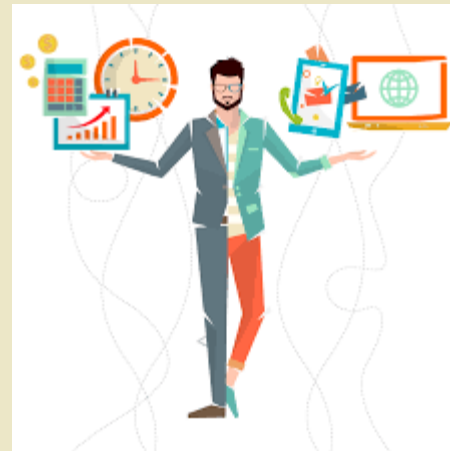
# 5. Delegation

- **Effective team management ensures a team leader uses delegation of **authority** while giving **tasks** to team members**
- **This helps in employee's **confidence** who feel that the PI trusts their work skills and abilities.**



# 6. Flexibility

- Team members who have **flexibility at work** using methods like work-life balance help in their business **output** , which is important for effective team management.





# 7. Reward

- Recognition of the efforts of team members through **rewards**, **awards**, prizes, **promotions**...etc. are essential for effective team management and this helps in employees' **confidence**.

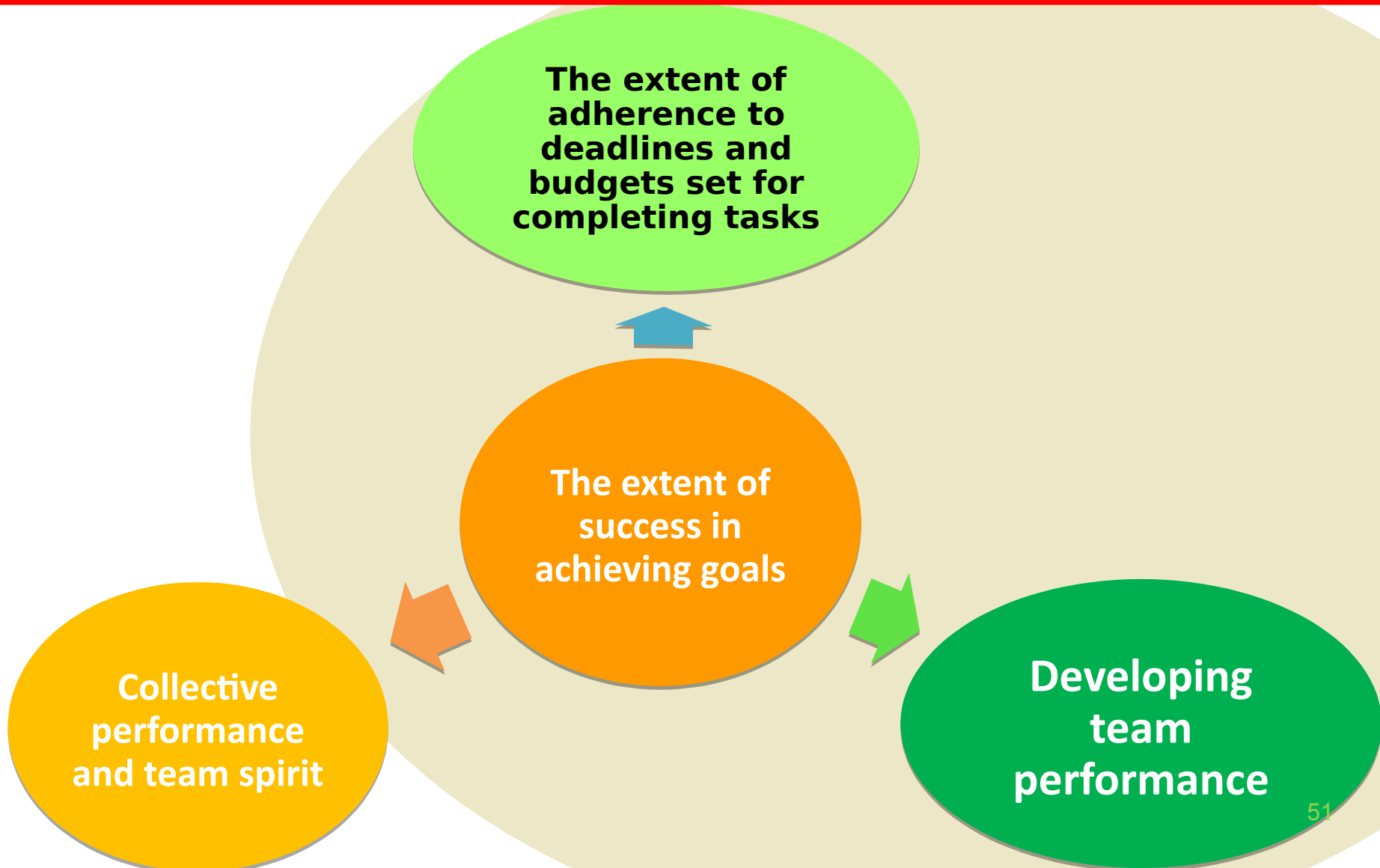


# 8. Training

- **Regular** training and development to update the skills of the team helps in strong team management.
- **New skills**, tools, learning methods, training sessions ...etc. improves the employees' skills and team **output**.



# Indicators of the quality of the research team's performance



# Common mistakes in managing a research team

**Trying to prevent the team from raising differences and resolving them**

**Not providing adequate support to the team**

**Push the team to make decisions too hastily**

**Not setting general rules for the team and working in accordance with them**

**Treat team members as separate individuals**

**Failure to develop commitment to the main task in the team**

**The leader plays the traditional supervisor role**

# Conclusions

```
graph LR; A[Effective Team Management] --> B[Successful Team Work]; B --> C[Successful Organization];
```

**Effective  
Team  
Managem  
ent**

**Successfu  
l Team  
Work**

**Successf  
ul  
Organiza  
tion**



**Let's review  
what we've  
learned...**



[www.aktyadh.com](http://www.aktyadh.com)



**Thanks**

**Any questions!**