

# Strategies for managing your research team

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UMN CTSI  
Research Career Development Seminar  
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# Getting to know you

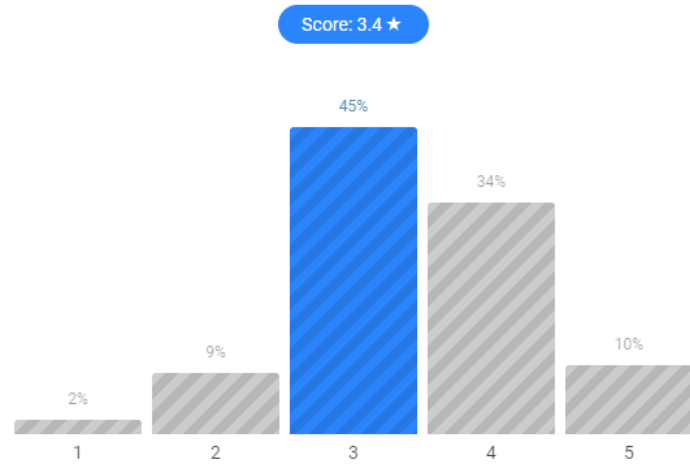
Q1: What does a successful Research Team mean to you?



# Getting to know you

Q2: How comfortable are you with leading a team?  
1 - least, 5 - very comfortable

How comfortable are you with leading a team? 1 - least, 5 - very comfortable



# Getting to know you

Q3: What would you like to take away from today's seminar?

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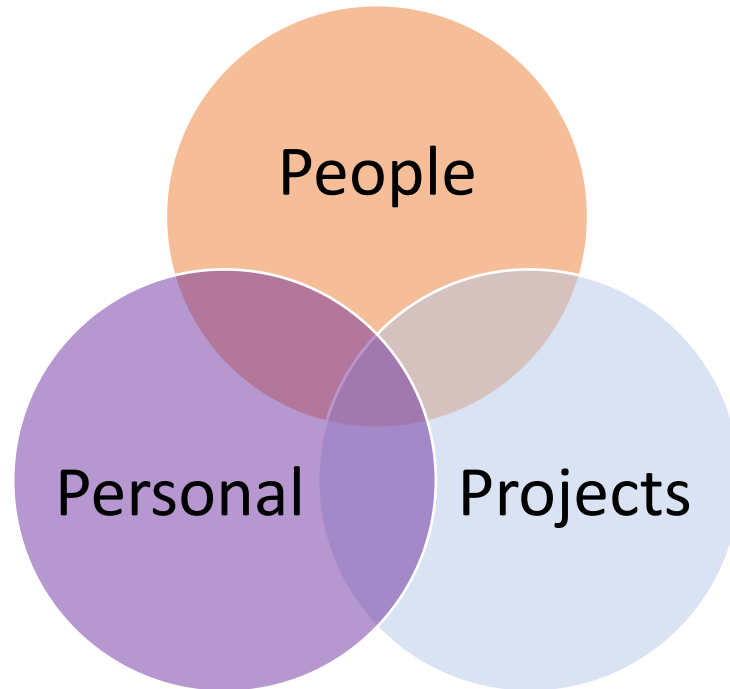
A word cloud visualization of responses to the question 'What would you like to take away from today's seminar?'. The words are arranged in a circular pattern, with the most prominent words in the center and smaller words towards the edges. The colors of the words vary, with some in blue, green, and black. The words include:

- how to lead an effective team
- good strategies
- strategies to manage lab members
- productivity
- tools to lead
- increase
- cultures/diverse
- Resources
- tips
- team
- tools
- manage
- new skills
- practical strategies
- new ideas
- research
- groups
- items
- apply
- nuggets
- Strategies
- ideas
- roadmap
- future
- members
- development
- Confidence
- strategies for supporting NEW teams
- tips and tricks on how to efficiently manage a team
- growth as a new team members
- collaboration

# Objectives

## 3x P's in Research Management

- Personal
- People
- Projects



# Planning Innovative Research is challenging

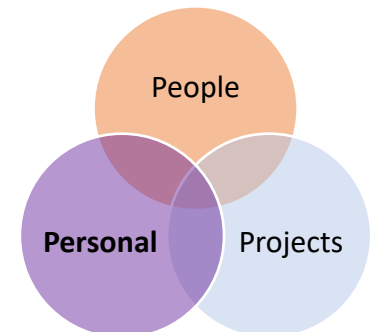


- Research findings are usually unknown and unpredictable.
- Many different areas of expertise required.
- Many failures (\$\$\$) before something is right.
- Managing research progress and people are challenging.

# Personal

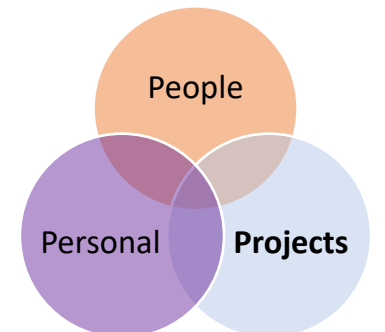
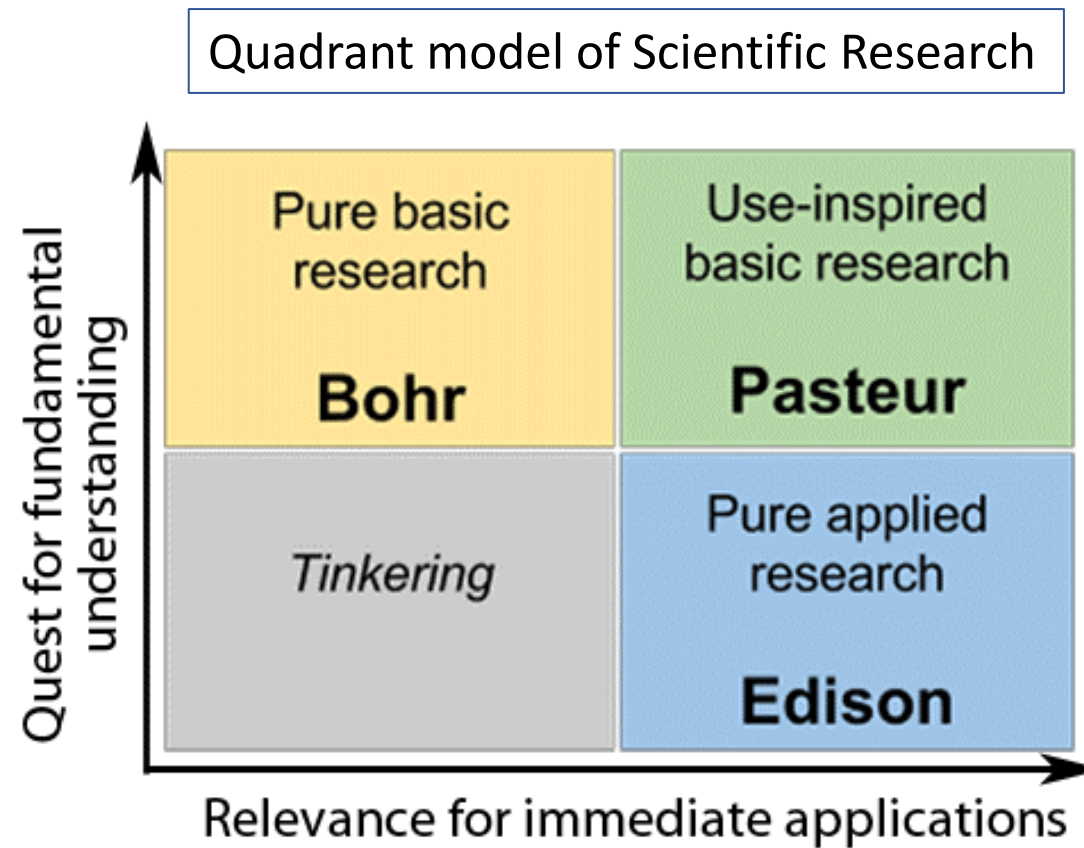
## Self evaluation

- What is your motivation?
- How do you solve problems? – think out loud, brainstorm, etc...
- What kind of research do you like to do?
- How much risks/uncertainties can you cope with at work?
- How many people & projects can you manage at the same time?
- Leadership style: leader vs supporter



# Projects

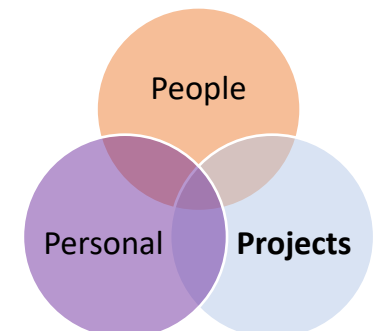
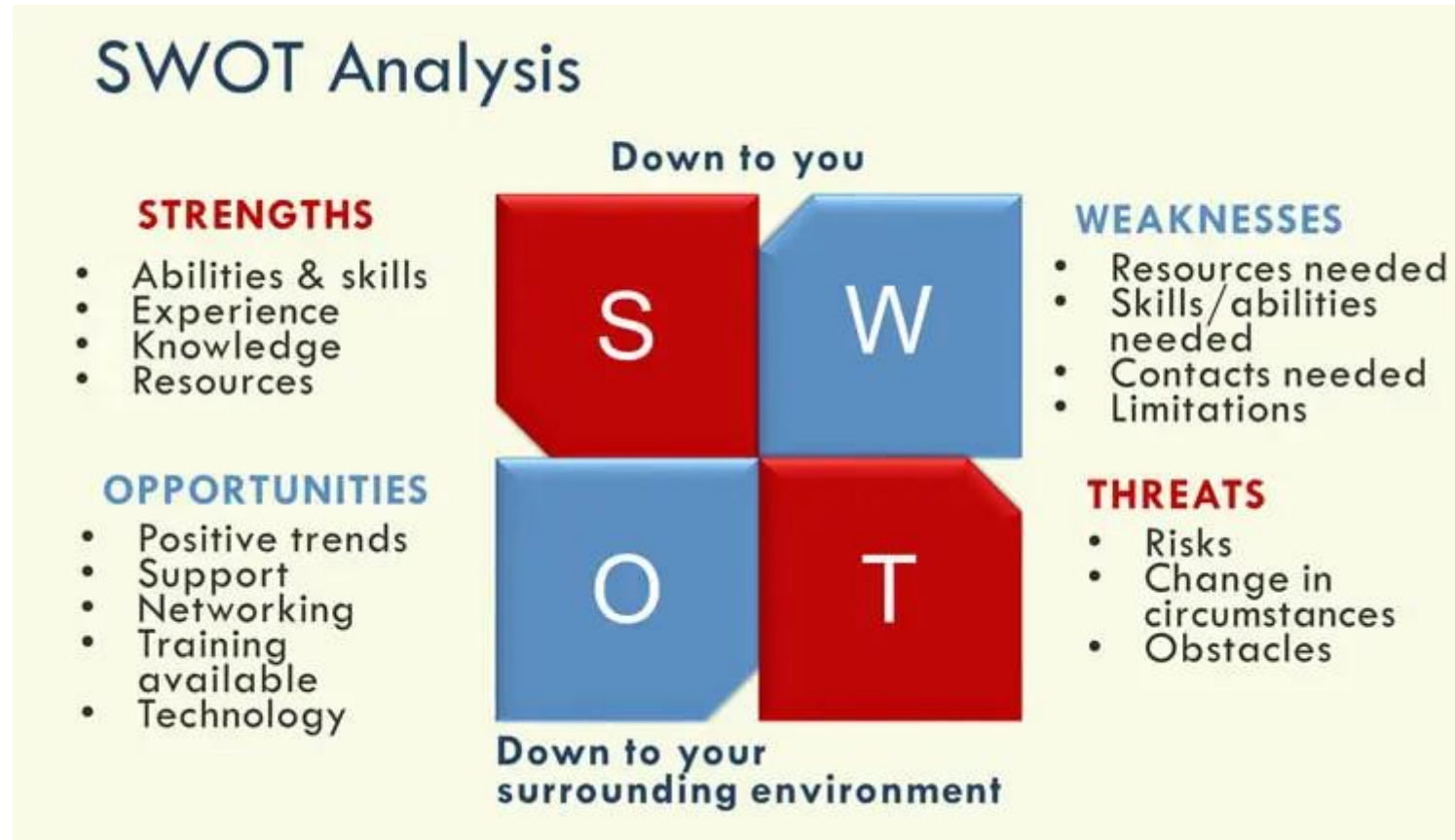
- Understand the goal of the research project





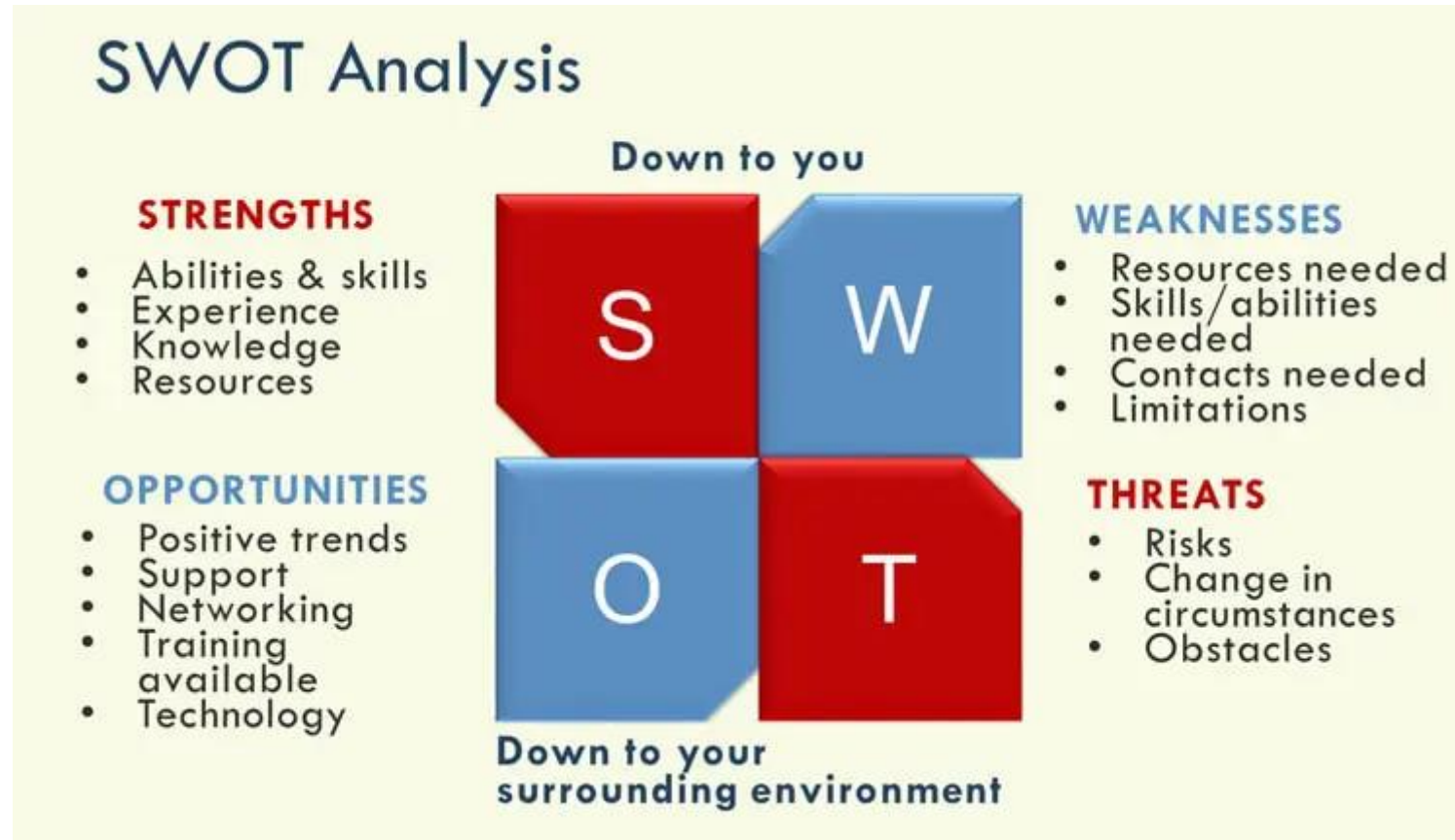
# Projects

- Evaluate potential risks of projects

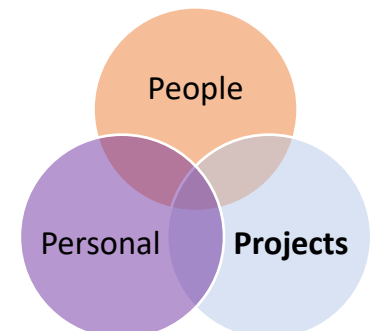


# Projects

- Evaluate potential risks of projects



- What if the project is too big to plan (ie. multi-year, high-risk)?
  - Breakdown the Quadrant Model of Scientific Research & SWOT analysis
  - MECE Frameworks



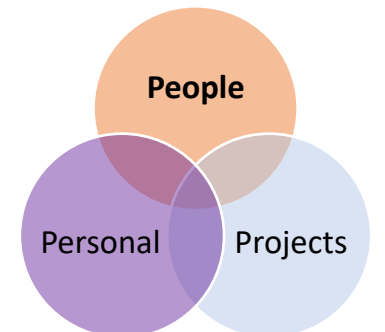
# People

## Staffs Employees

- What is your motivation?
- How do you solve problems? – think out loud, brainstorm, etc...
- What kind of research do you like to do?
- How much risks/uncertainties can you cope with at work?
- How many people & projects can you manage at the same time?
- Leadership style: leader vs supporter

## Trainees

- What is an individual's motivation?
- How much risks/uncertainties can an individual cope with at work?
- How does an individual solve problems? – think out loud, brainstorm, etc...
- How many projects can an individual manage at the same time?
- How flexible or adaptive to change is the individual?
- How do trainees work in teams?



# People

## Tolerance for Failure **but No Tolerance for Incompetence**

- Competent people will fail, but performance standards should be high. No sloppy execution.

## Willingness to Experiment **but Highly Disciplined**

- Having a clear idea of what you are doing and why. Kill bad ideas quickly and keep moving.

## Psychologically Safe **but Brutally Candid**

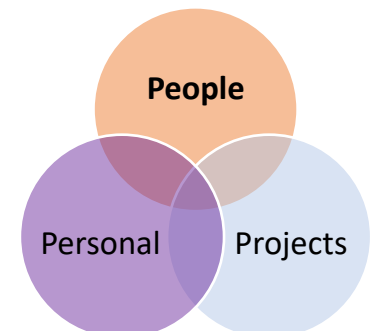
- Innovative cultures blend both. “In high-individual-accountability environments, decisions can be traced back to specific individuals.”

## Collaborative **but Individually Accountable**

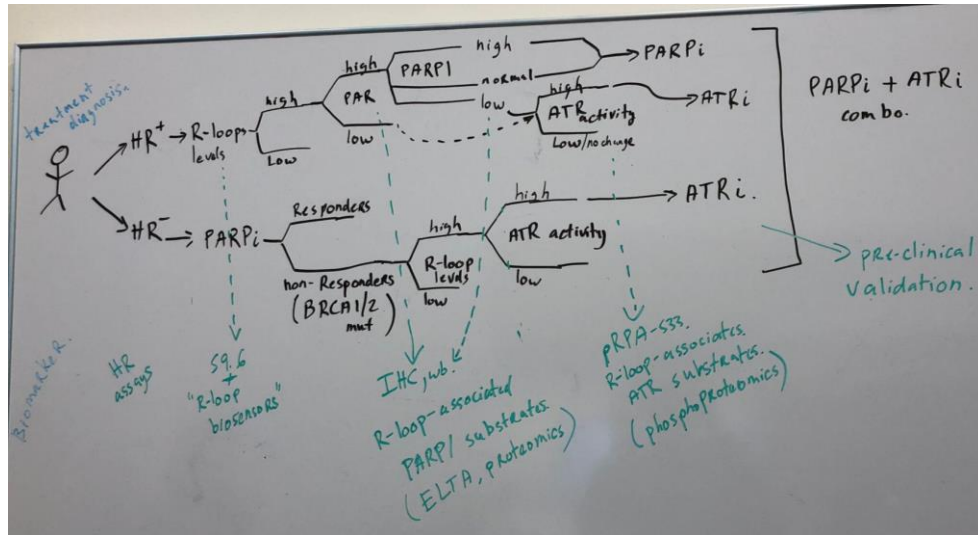
- Innovative cultures blend both. “In high-individual-accountability environments, decisions can be traced back to specific individuals.”

## Flat **but with Strong Leadership**

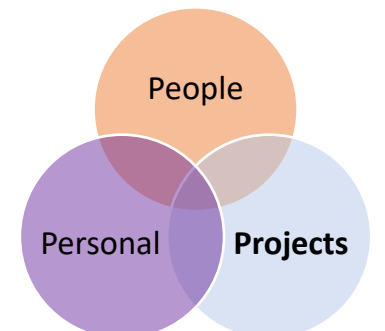
- “Paradoxically, flat organizations require stronger leadership than hierarchical ones.”



# Projects: Planning stage



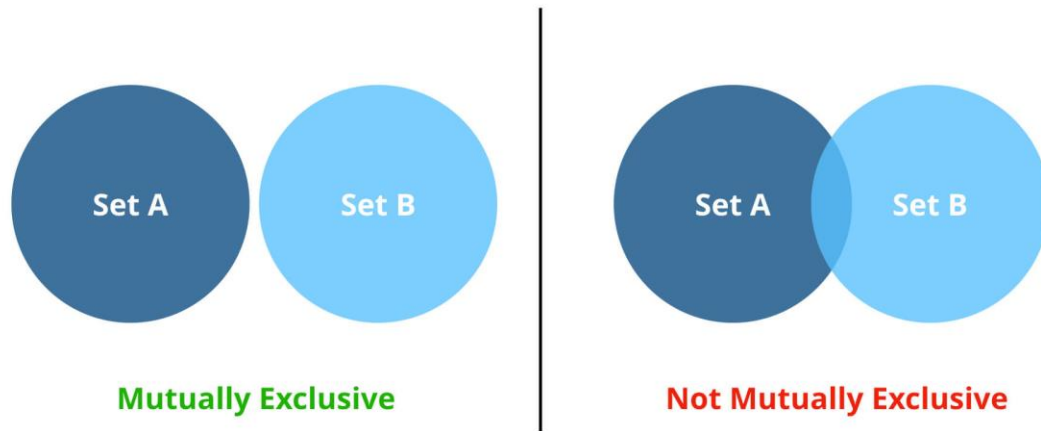
- What's the research strategy map?
- What resources or technical challenges must be met to complete the project?
  - Training? Establishing new protocols/assays?
  - Collaborators?
- What's the timeline?
- What's the end result?
  - New assays, new publication, new clinical trial, etc...



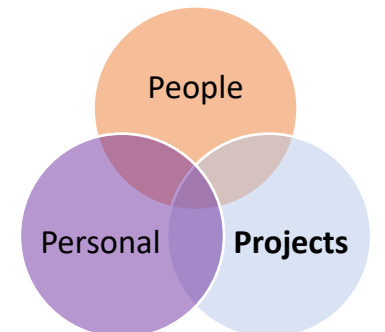
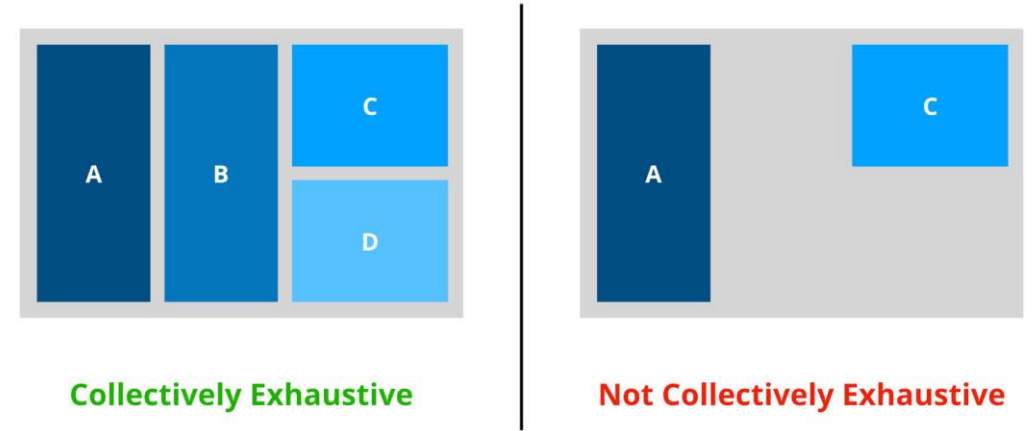
# Projects: Planning stage – MECE Frameworks

- The **MECE principle** is used to break down a concept, topic, or question into separate, smaller parts.
  - Being mutually exclusive
  - Being collectively exhaustive

## Mutually Exclusive Definition



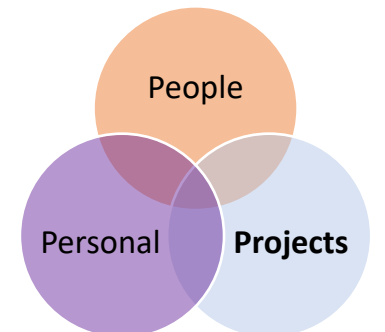
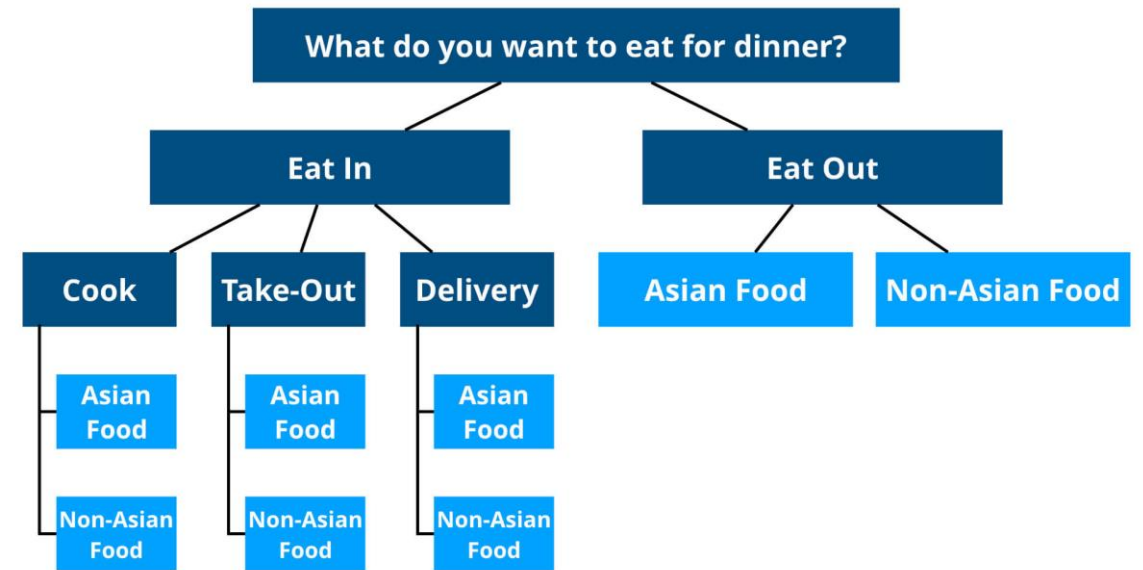
## Collectively Exhaustive Definition



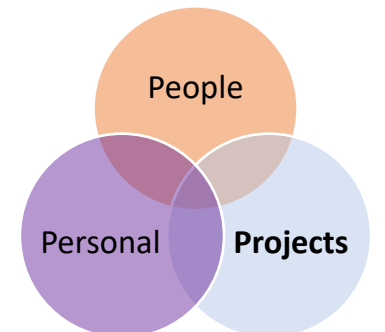
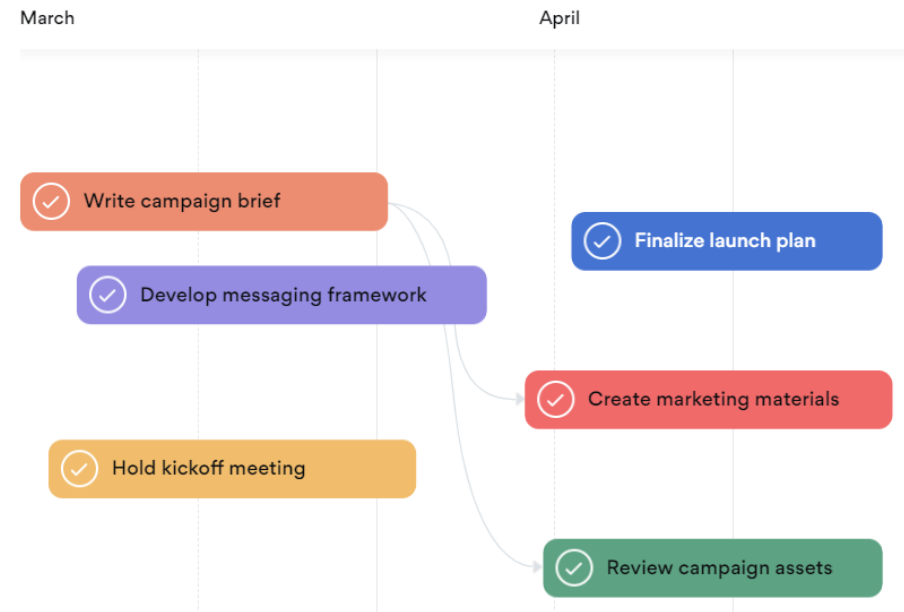
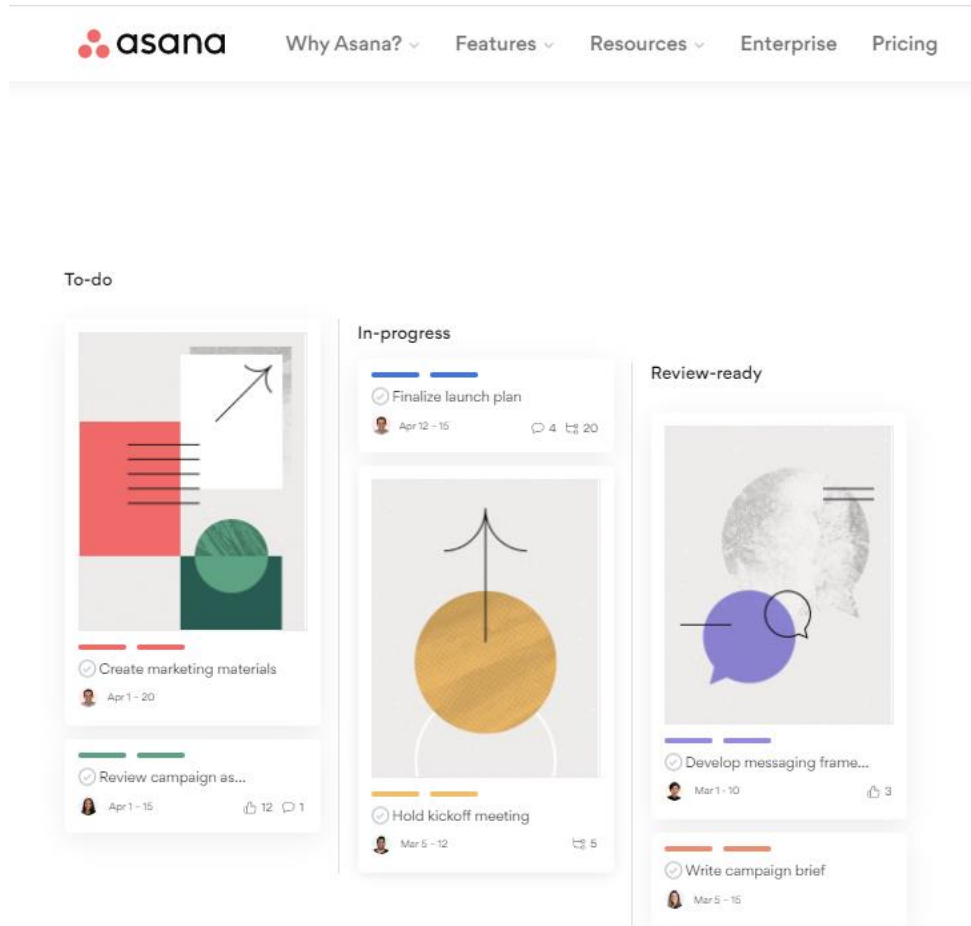
# Projects: Planning stage – MECE Frameworks

What do you want to eat for dinner?

- Do you want to eat Chinese food?
- Do you want to cook dinner instead?
- Do we want to order take out?
- Do you want to eat pasta?
- Do you want to eat sushi?
- Do you want to eat tacos?



# Projects – Progress monitoring





# Projects – Progress monitoring

## LAB PROGRESS UPDATE

Name:

Week #:

Date:

### Current experiments

- Update here... See example below
- Exp #1: to determine PAR status in U2AF1<sup>S34F</sup> cells.
- Exp #2:

### Progress update

- Update here... See example below
- Exp #1: to determine PAR status in U2AF1<sup>S34F</sup> cells.
  - Collected samples, will run gel for analysis by...
- Exp #2: Same as Exp #1 but by IF

### Results

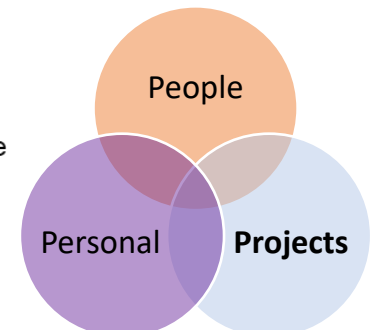
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- Exp #2: samples need to be imaged

### Next experimental plans

- Exp #3: to determine PAR status in U2AF1<sup>S34F</sup> cells. (replication #2)
  - Brief experiment setup: Seed # of cells/6-well in 3mL. Next day add olaparib 10uM for 24h.
- Exp 2 – data analysis completed by...

### Challenges

- Make any notes for challenges that you are facing that may need help with (so I can make sure to be able to help you or find someone who can help).



# In the end – Ask your individual member and team

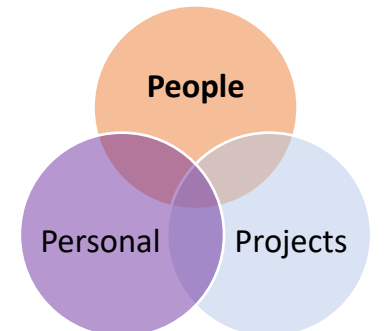


## Individual

- What is your work habit?
- What motivates you about this job?
- How would you like your tasks to be assigned?
- How should we discuss about timeline or deadlines on assigned projects?
- How do you like to track your progress?
- How would you like to receive and to provide feedbacks?
- How do you work in teams ( under or over 5 people)?
- How would you like to communicate challenges to be discussed?

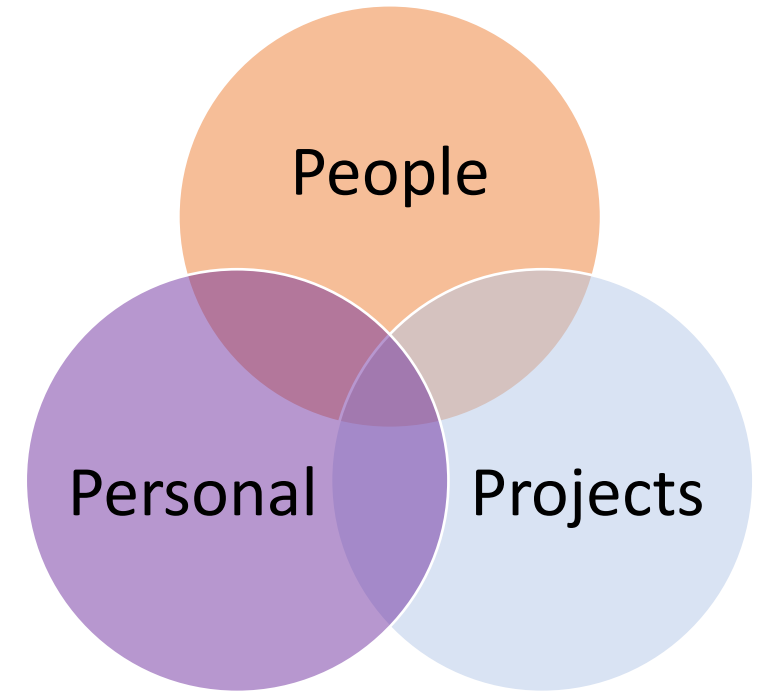
## Team

- How do we discuss and decide on goals of the projects?
- How would you like your tasks to be assigned?
- How should we discuss about timeline or deadlines on assigned projects?
- How do you like to track your progress?
- How would you like to receive and to provide feedbacks?
- How do you work in teams ( under or over 5 people)?



# Key Takeaways

- Managing a team is tough!!!
  - Aligning priorities (academic vs career), personalities
  - A diverse teams – cultural differences, learning styles, languages, age differences
- No one way fits all!!!
  - Managing a research team has to be dynamic
  - Must be authentic to you. Find what managing styles work for you and your team



# Appendix

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Date:

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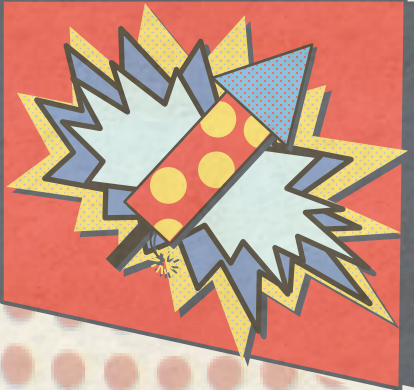
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## Challenges

- Make any notes for challenges that you are facing that may need help with (so I can make sure to be able to help you or find someone who can help).



## Example Goal

Create and send applications for my seven top college choices, meeting all deadlines.

## Actions / tasks

This week

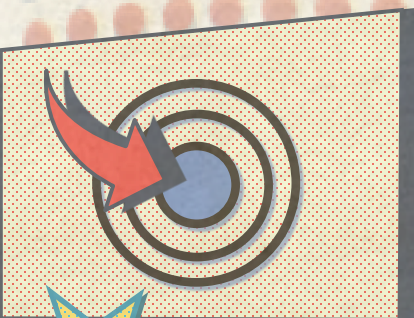
- ☐ Review application requirements for each school
- ☐ Gather common information needed for all applications
- ☐ Identify different specific requirements needed for each school
- ☐ Create application schedule with deadlines, including financial aid dates

This month

- ☐ Complete common/basic application portions
- ☐ Gather school-specific application information
- ☐ Draft personal and school-specific essays
- ☐ Contact teachers and employers for recommendations
- ☐ Prepare information needed for financial aid applications and send by deadlines.

Within 6 months

- ☐ Complete personal and school-specific essays, including proofreading
- ☐ Complete school-specific application portions
- ☐ Follow-up on recommendations; send thank you notes
- ☐ Submit applications by deadlines!

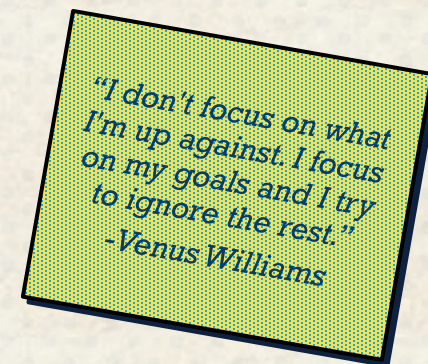


## Inspiration



What does success look like?

All applications completed and submitted on time.



Reward

Bike trip!

## Resources

- Official test scores and grades
- Work/volunteer history, with dates and people
- Extracurricular activities
- Recommendations
- School Web sites and contact information
- Financial aid sites and contact information

## Reflection

\* When it's all over, reflect on the process and the outcome. \*

## Goals

You can easily customize this goal template with your own information. To replace any placeholder text (such as this), just select it and enter your own.

## Actions / tasks

This week

■ Add text

This month

■ Add text

Within 6 months

■ Add text

## Inspiration

*Add text*

What does success look like?

Add text

Reward

Add text

## Resources

Add text

## Reflection

Add text