



Project Management for Graduate Students

COURSE WORKBOOK

January 22nd, 2018 from 9:00AM-3:30PM

(LUNCH & NETWORKING - 11:45AM-1:15PM)



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Welcome, Overview and Introductions

Intended Course Audience

This course has been especially designed for UW-Madison graduate students who want to enhance their capability to successfully lead a project (or multiple projects) to completion (e.g., a capstone project, a dissertation, field work, etc.)

Course Goals:

This course will help you...

1. Set clear, actionable, and attainable goals that you can measure and monitor
2. Identify and engage those who may influence and affect the attainment of your goals
3. Learn and apply proven and practical project management techniques used by professional project managers
4. Tailor your communication and planning to maximize the value and impact
5. Enhance your project leadership, management, collaboration, and teamwork skills

Major Topic Areas for this Course

1. Understanding the project management lifecycle—from beginning to the end of a project (and why the lifecycle is important)
2. How to identify and engage your stakeholders in defining and endorsing the project requirements
3. Managing risk, communication, and change
4. Executing and controlling the tasks, timeline, and resources
5. Preparing for a successful project closure and transition

Tips for Getting the Most from this Course

- Be open to learning
- Ask questions
- Listen actively
- Share your experiences
- Respect others

Introductions

Opening Activity

1. Introduce yourself (~1 minute)

Project / Portfolio Lifecycle

Basic Definitions

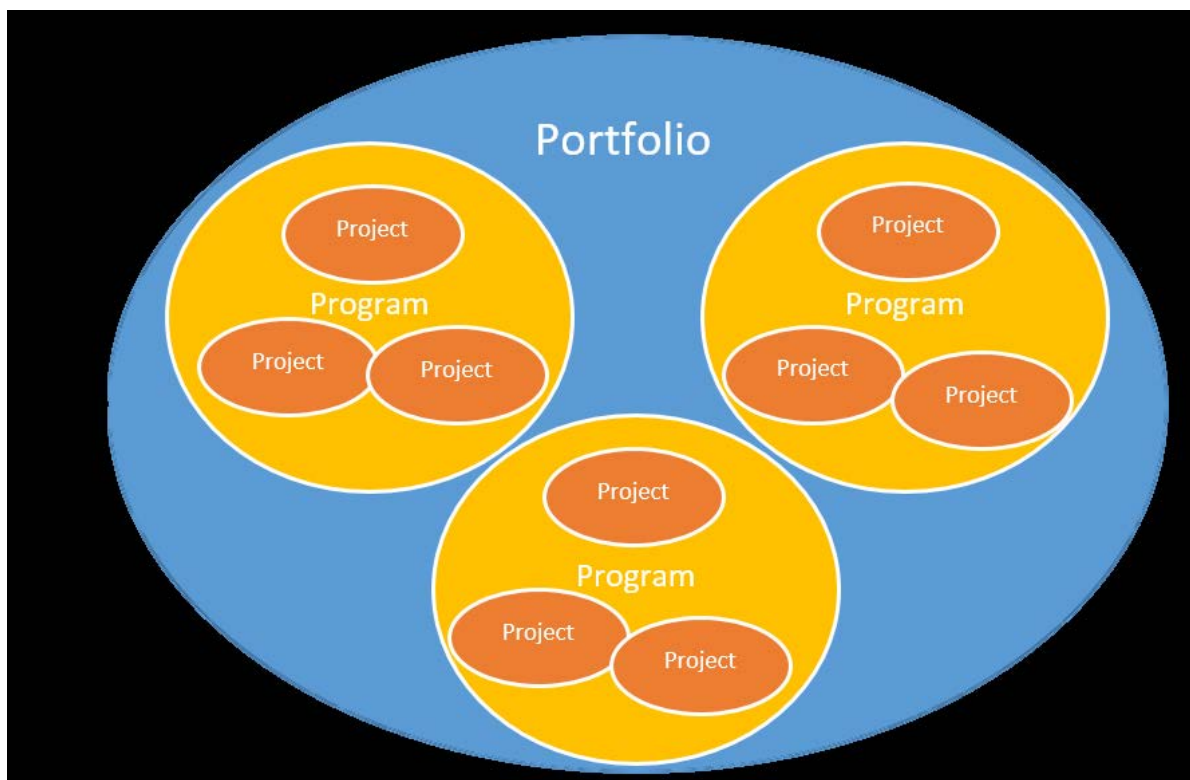
Portfolio: A combination of projects and programs that help achieve an overarching strategy.

Program: A group of projects that focuses on an area of a portfolio

Project: A specific set of tasks that need to be complete to achieve the goals of the program / portfolio.

As an example....

- Your Education Goals might be one of your “Portfolios”
- Attending Graduate School might be one of your “Programs”
- Completing your dissertation or your capstone might be one of your “Projects”



Adapted from Technical Project Management in Living and Geometric Order:
A Practical Perspective by Russell, Pferdehirt, and Nelson (2017)
and by Morgan, Levitt and Malek (2007)

Aligning Projects with Strategies

Portfolio management translates strategy into action

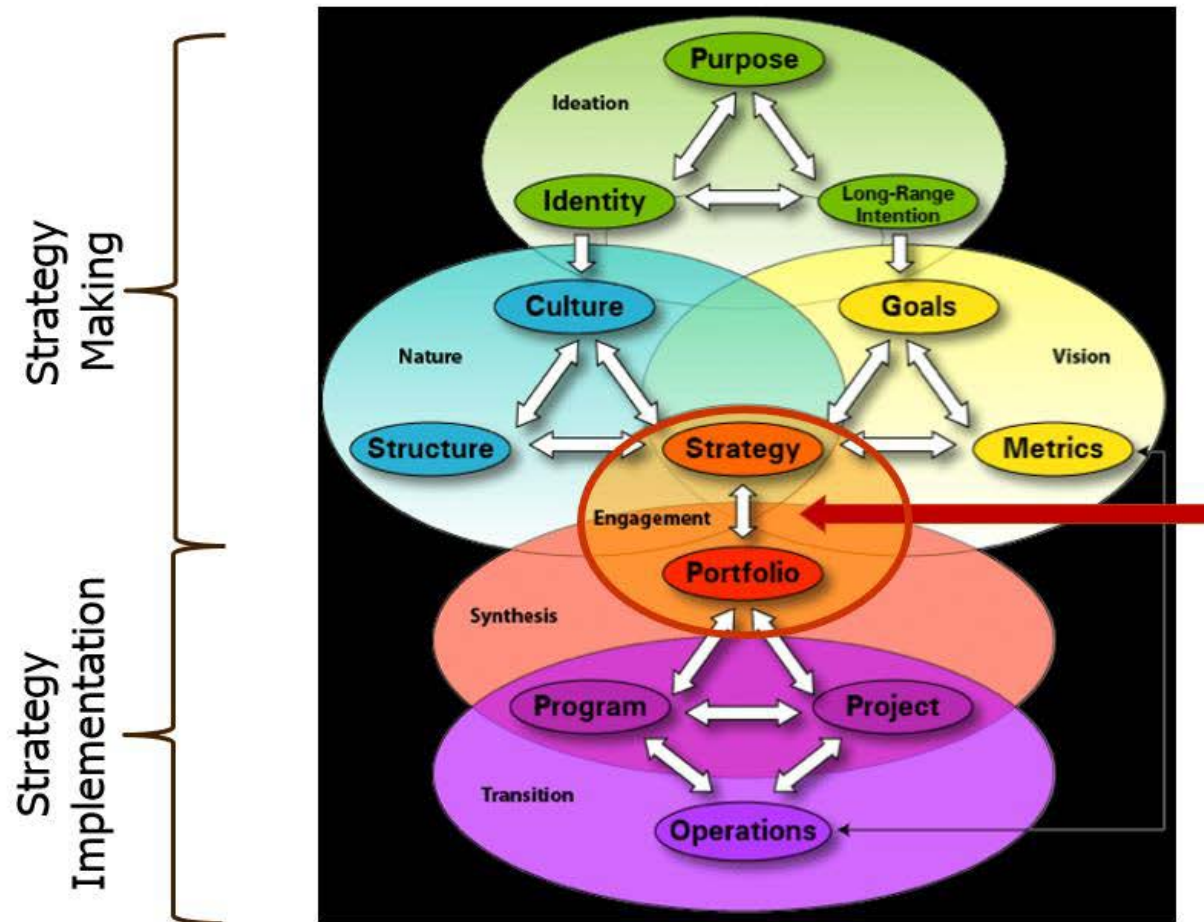
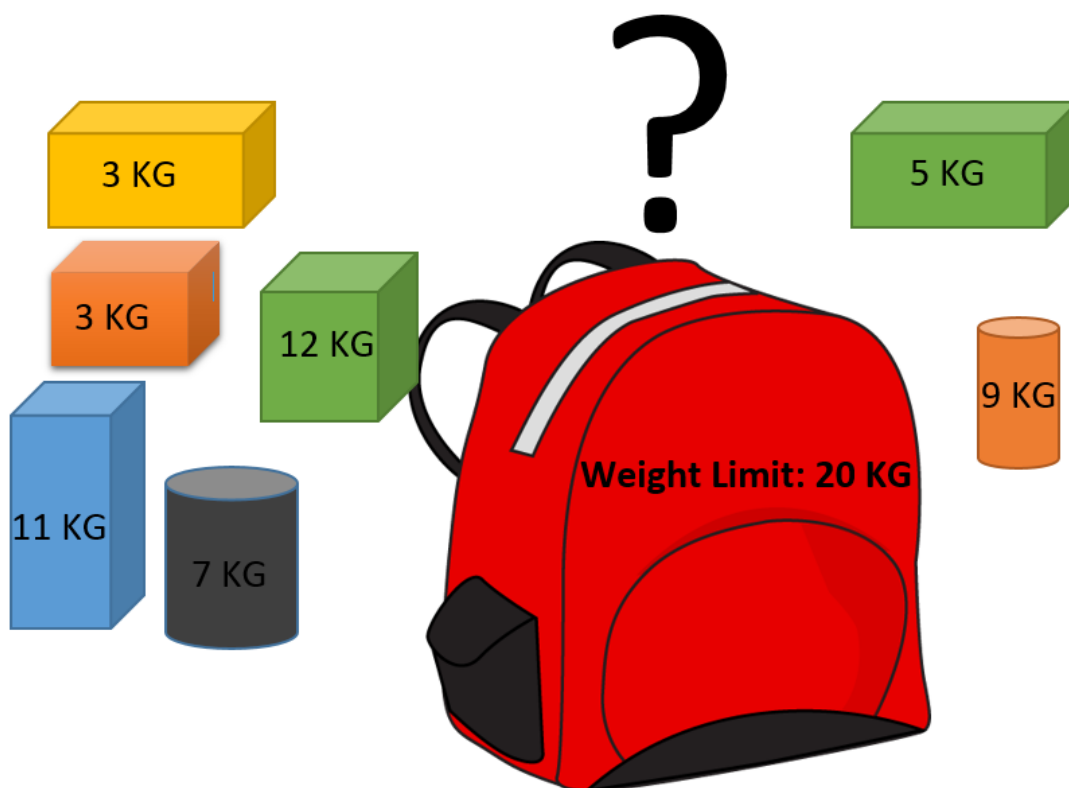


Figure Adapted from Mark Morgan, Raymond E. Levitt, and William A. Malek. Executing Your Strategy: How to Break It Down and Get It Done, Harvard Business School Publishing, 2007.

So Many Projects – Such Limited Time and Resources...

How to decide what to take and what to leave behind???

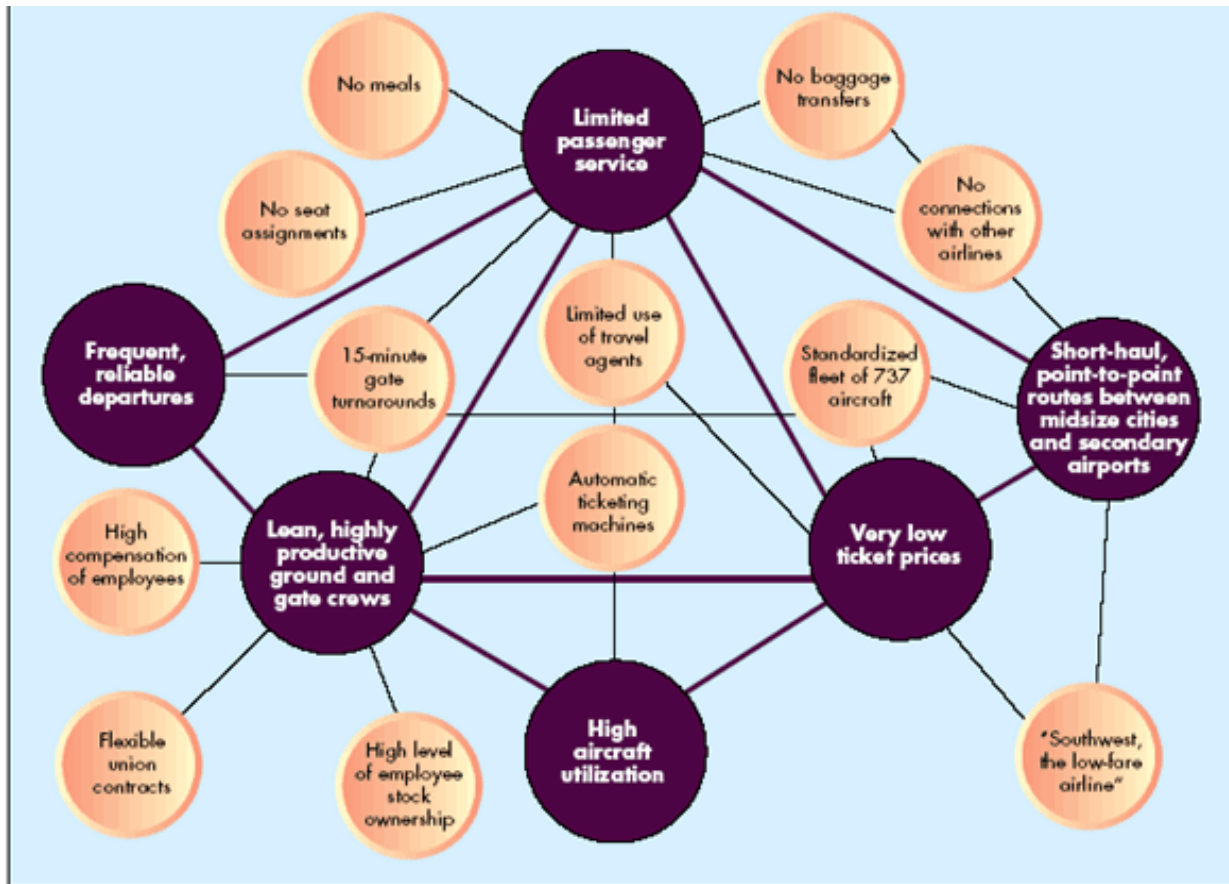


One technique for scenario planning is based on the knapsack problem, which conceives of a portfolio as a knapsack of a fixed size into which a backpacker can fit only a certain number of items.

Adapted from Technical Project Management in Living and Geometric Order

An Example from Southwest Airlines

Southwest Airlines Company...offers short-haul, low-cost, point-to-point service between midsize cities and secondary airports in large cities.



Adapted from Technical Project Management in Living and Geometric Order A Practical Perspective by Russell, Pferdehirt, and Nelson (2017)

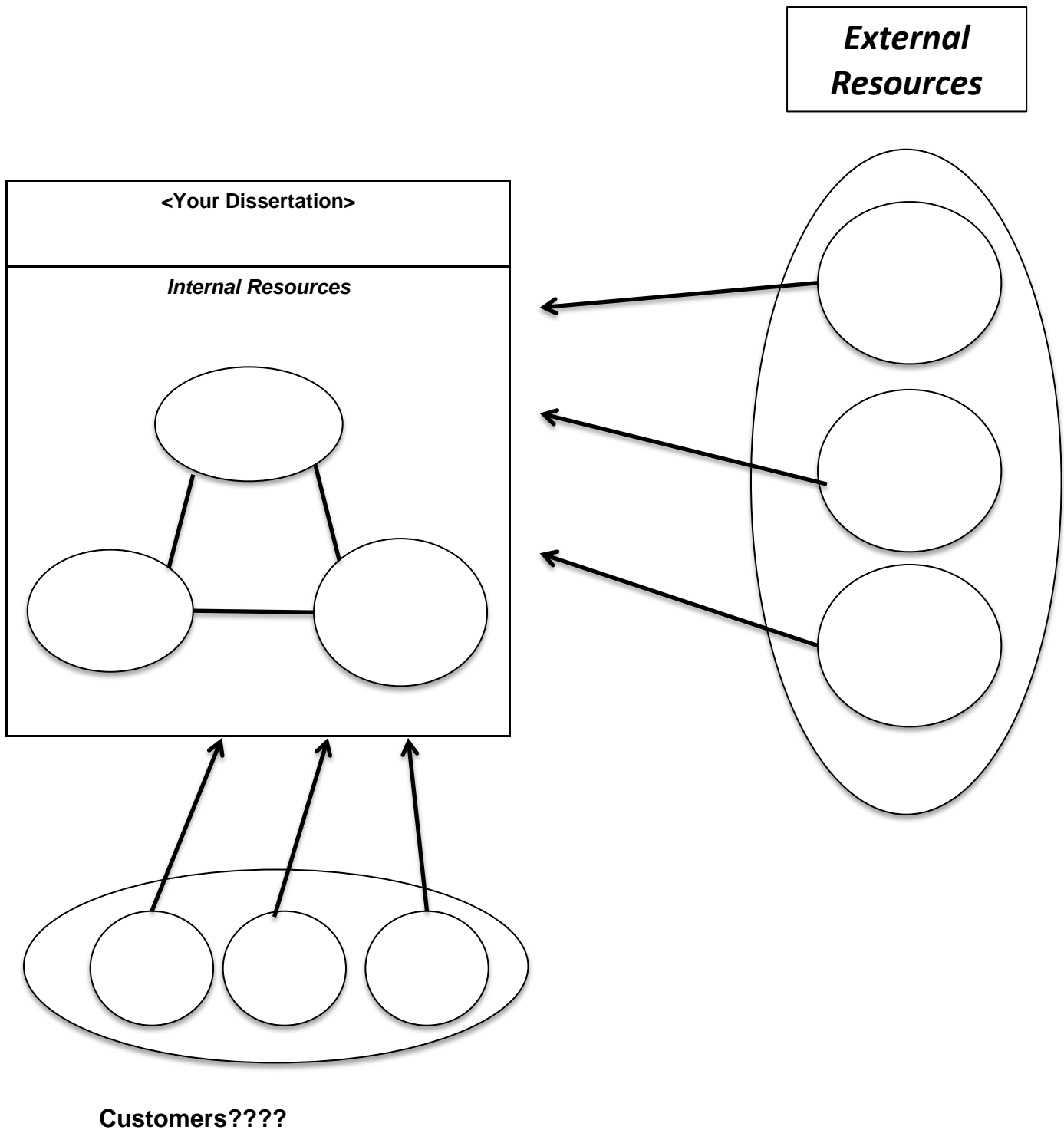
Your Goals

Think, Pair and Share

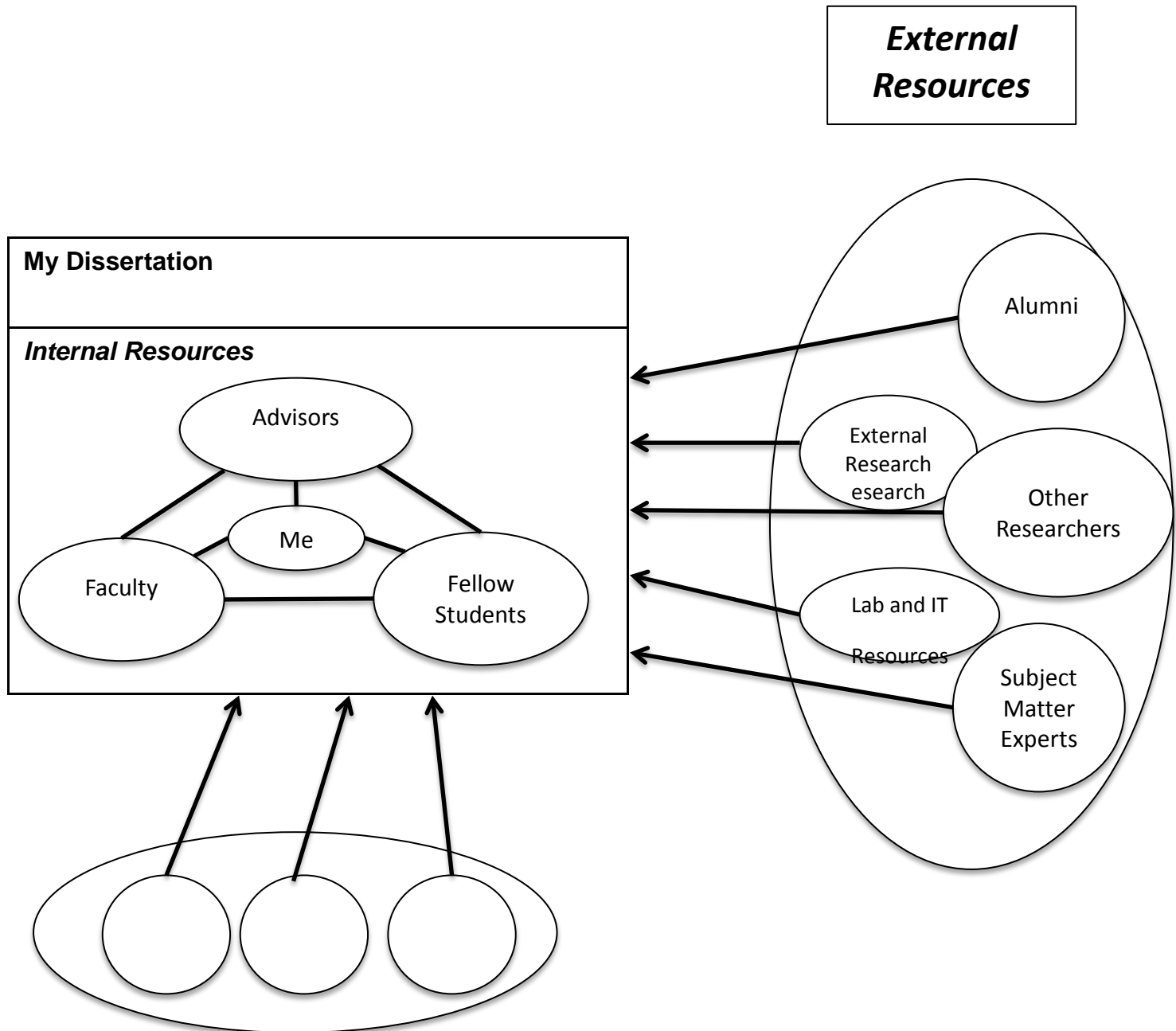
- 1. Write 2-3 goals that you have for your current project**
 - a.
 - b.
 - c.
- 2. Pair up and describe your goals to your partner**
 - a. *Your partner should listen and ask 1-2 clarifying questions*
 - i.
 - ii.
 - b. *Switch roles and repeat*
 - i.
 - ii.

Identifying and Engaging your Stakeholders

Stakeholder and Relationship Map Template



Stakeholder and Relationship Map Example - Leverage Your Support Systems



Customers (Future employers, Grant agencies, Foundations, etc.)

Identifying Your Stakeholders

Refer to Exercise 1 in the Case Study

Project Charter Template

Project Name		
Executive Sponsor		
Project Manager		
Primary Stakeholder(s)		
Project Description / Statement of Work		
Business Case / Statement of Need <i>(Why is this project important and why is it important now?)</i>		
Customers <i>(Direct users/Those impacted by the project)</i>	Customer Needs / Requirements	
Project Definition		
Project Goals		
Project Scope		
Project Deliverables		
Project Risks <i>(Actions, events, and situations outside the project plan that may positively or negatively impact the project)</i>		
Implementation Plan / Milestones <i>(Due dates and durations)</i>		
Marketing Plan <i>(Market Analysis, Tactical Plan, Budget, and Timeline)</i>		
Project Budget / Resources <i>(Money, people, services, materials, etc.)</i>		
Communication Plan <i>(What needs to be communicated? When is communication needed? To who? How?)</i>		
Change Management / Issue Management <i>(How decisions will be made? How changes will be made?)</i>		
Project Team Roles and Responsibilities		
Team members	Roles	Responsibilities

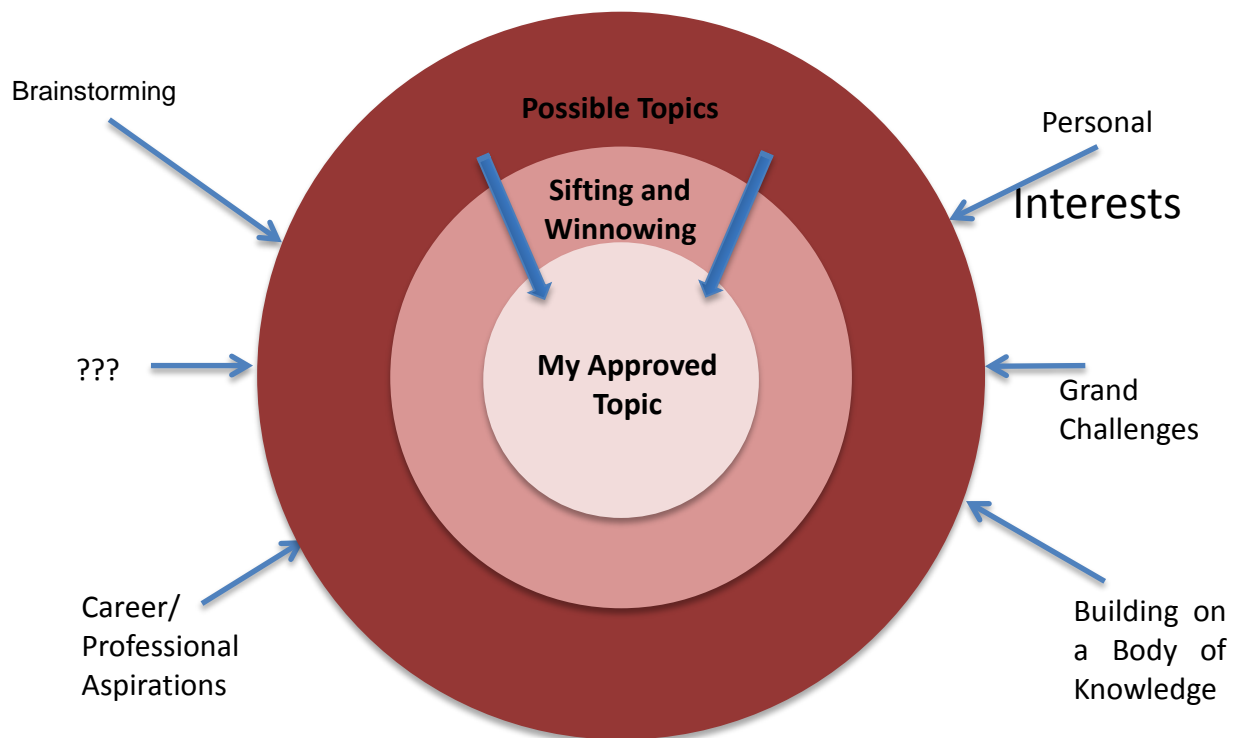
Source: <https://quality.wisc.edu/project-management-tools-and-templates.htm>

Project Charter

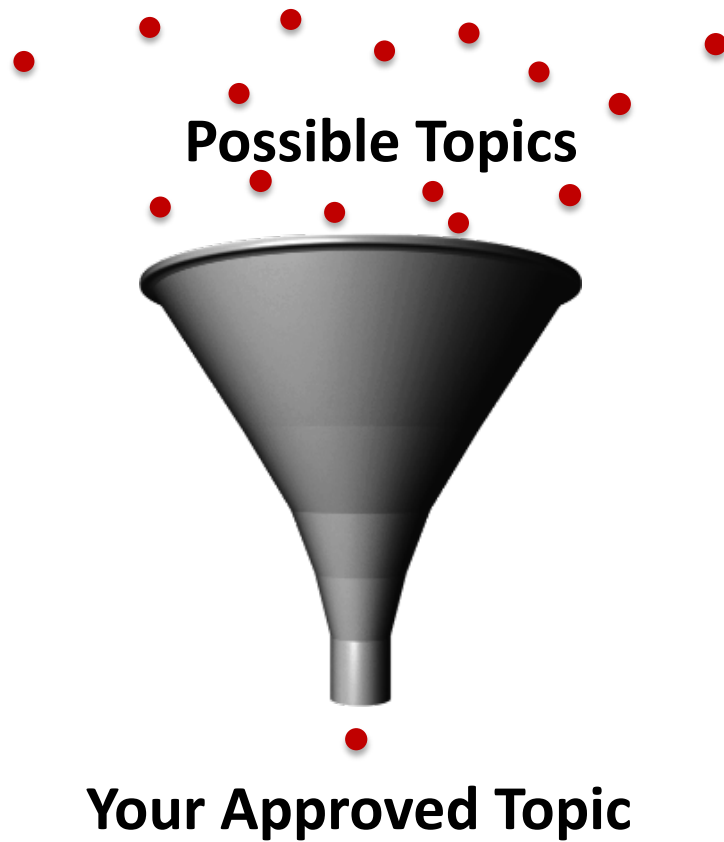
Refer to Exercise 2 in the Case Study

Identifying and Validating Project Requirements and Tasks

Topic Selection—Sifting and Winnowing



Topic Selection – Funnel Perspective



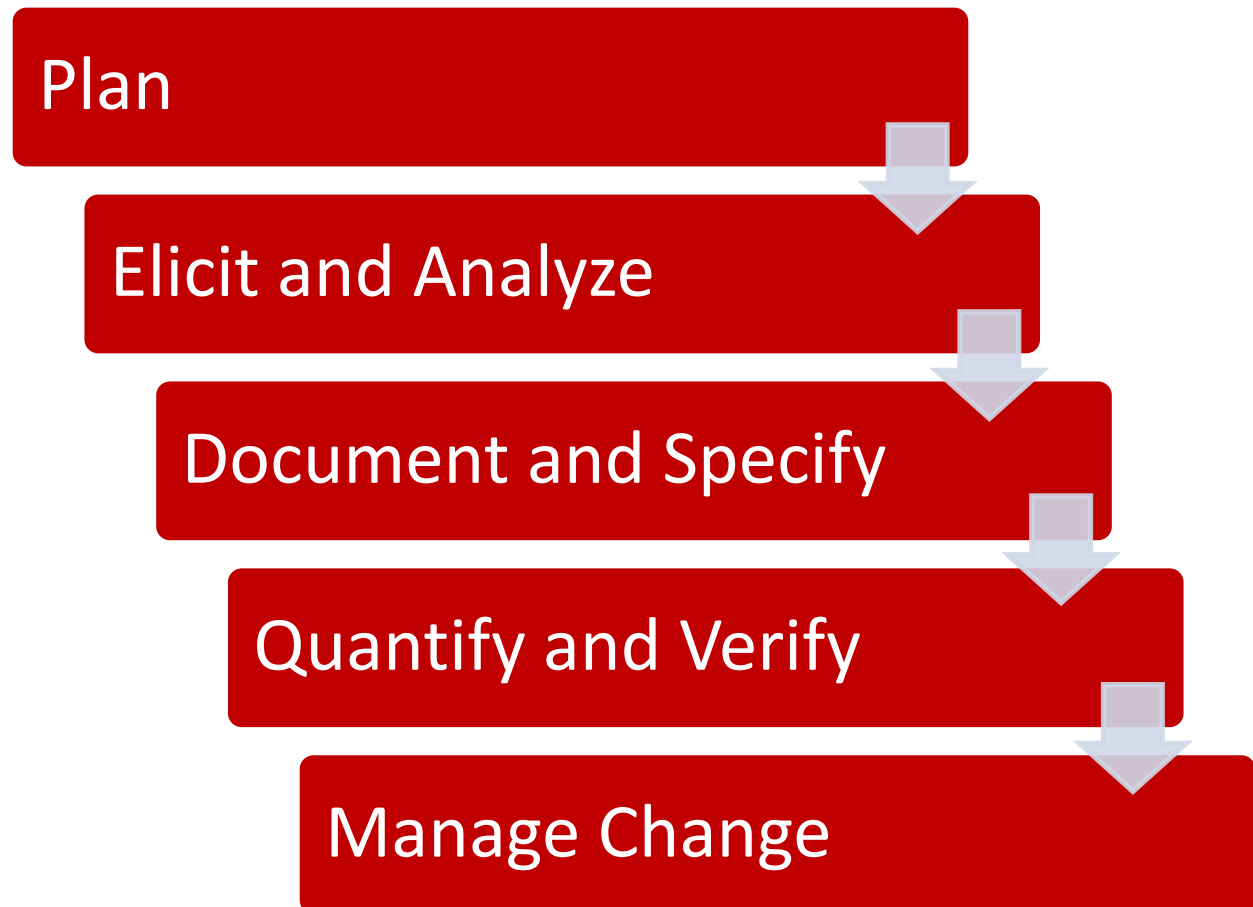
**Tip: Begin with the
“End in Mind”**

(Remember the \$25,000
Shower Curtain)

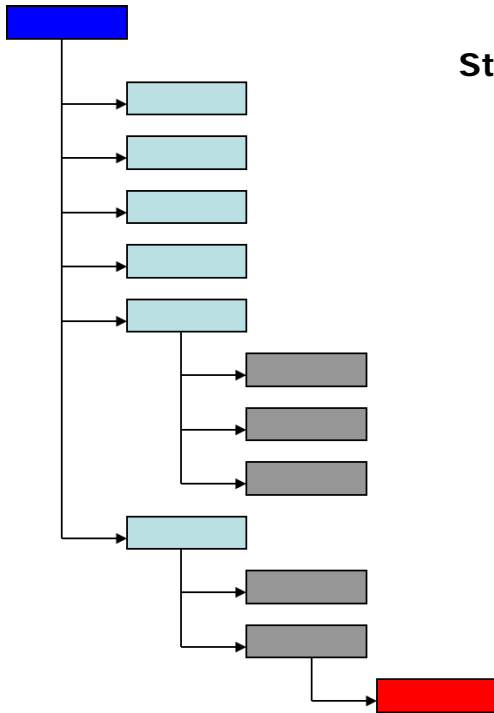
Requirements Gathering

Refer to Exercise 3 in the Case Study

Requirements Gathering (Step-by-Step)



Identifying Project Tasks

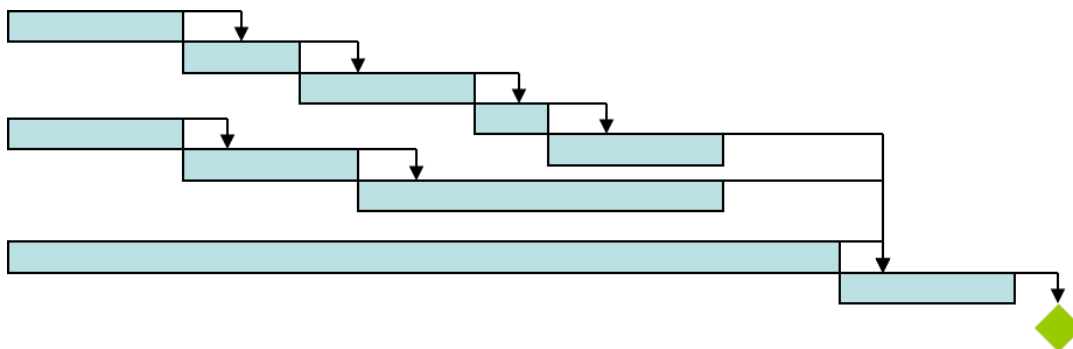


Step One

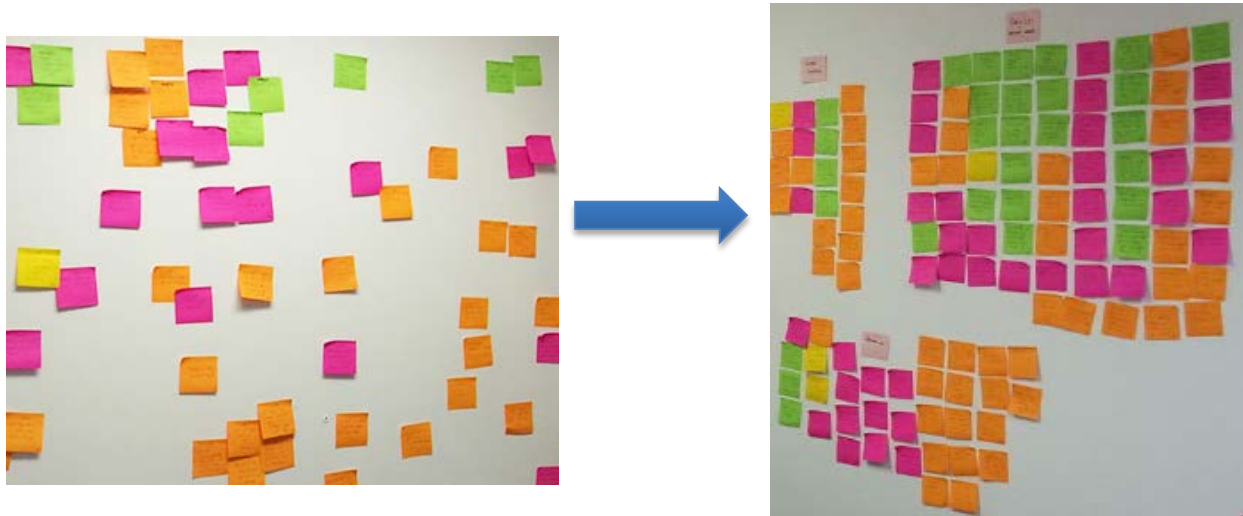
- Identify the high-level tasks
- Identify additional details as needed
- Sequence the tasks
- Identify the resources/people needed to perform / complete the tasks

Step Two

- Use the tasks, available resources, and project timeline to create a schedule



Identifying / Validating Your Requirements



Brainstorm ideas - - - - - Organize, Arrange, Cluster...

Organizing Project Tasks

Refer to Exercise 4 in the Case Study

Managing Risk and Communication Planning

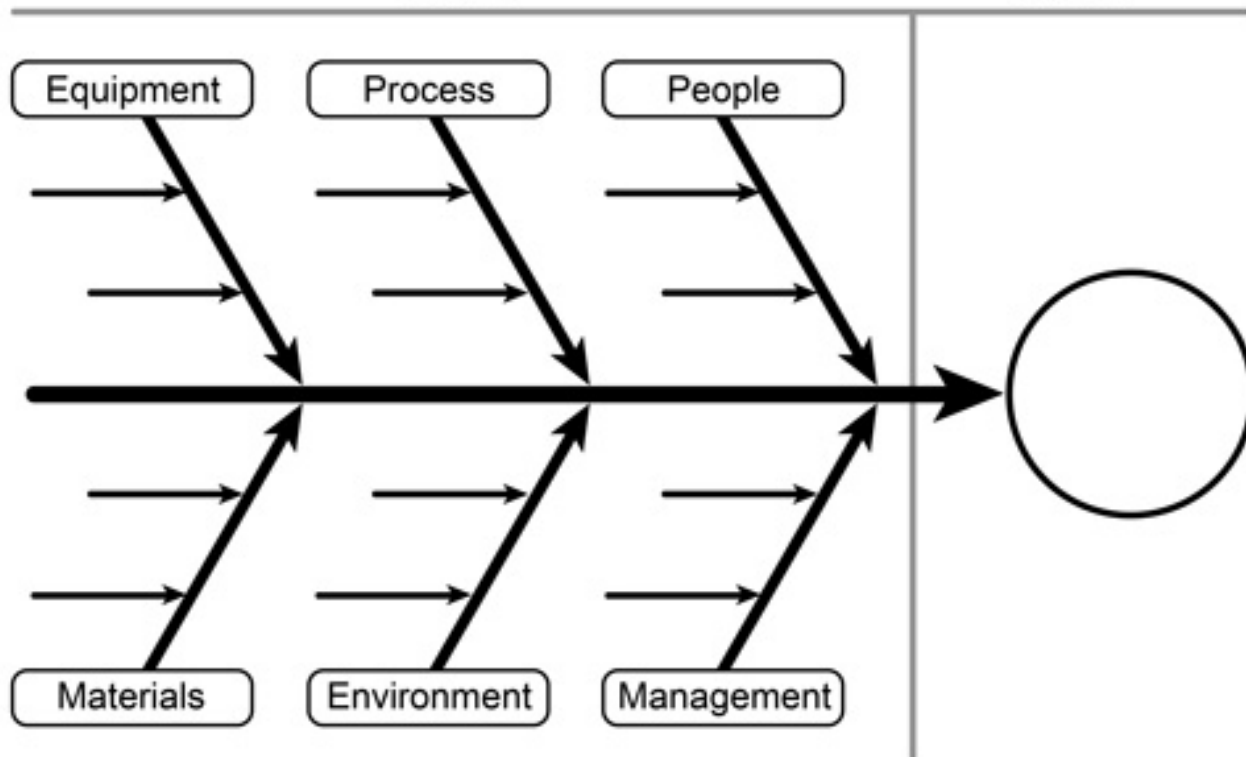
Identifying Risks and Risk Management

Risk—An uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives (*Project Management Institute*).

Risk Management—The process of identifying, quantifying, and managing the risks that an organization faces (*Financial Times*).

Fishbone Diagram—Identifying Risks

Possible Causes.....



Risk Identification: What could possibly go wrong...go wrong...go wrong?

What is the best-case scenario?

What is the worst-case scenario?

Generate a list of questions – such as....

- Are you performing a new technique?
- Do you have to wait on a lengthy submission / approval process with your Internal Research Board?
- Could your equipment delivery be delayed?
- Could your advisor retire or go on a sabbatical?
- What variability is possible due to unforeseen events?

What are the critical steps?

What are the deadlines / timelines?

How can I prepare for delays and changes?

Typical Risk Response Strategies

	Negative Risks	Positive Risks
Mitigation Strategies	<ol style="list-style-type: none"> 1. <u>Accept</u> the Risk 2. <u>Avoid</u> the Risk 3. Prepare <u>Mitigation Plan</u> in Case the Risk Happens 4. <u>Transfer</u> the Risk 5. Escalate the Risk 	<ol style="list-style-type: none"> 1. <u>Accept</u> the Risk 2. Ensure the Risk Occurs to <u>Exploit</u> the Risk 3. <u>Enhance</u> the Chance of the Risk Occurring 4. <u>Share</u> the Risk 5. Escalate the Risk

Risk Matrix Template

	Risk Description	Impact / Consequence(s)	Timing	Probability	Mitigation Strategy
	Briefly describe the situation that is causing the concern or uncertainty.	Briefly describe possible negative outcomes that may occur – (e.g. cost, schedule, or quality impacts)	Identify when this risk is likely to occur	Determine the likelihood the risk will occur (e.g. High, Med. Low or percentage)	<ol style="list-style-type: none"> 1) Accept the Risk 2) Avoid the Risk 3) Monitor the Risk and Prepare Contingency Plan 4) Transfer the Risk
Example	I won't pass my Final Oral Defense.	Failure to pass your Oral Defense results in not receiving your Ph.D.	At the end of the Dissertation Process	Medium	Contingency Plan – Identify critical steps in passing my Final Oral Defense and get expert advice on how to mitigate the risks
Your Risk					

Refer to Exercise 5 in the Case Study

Communication Planning Template using Chronological Sequence

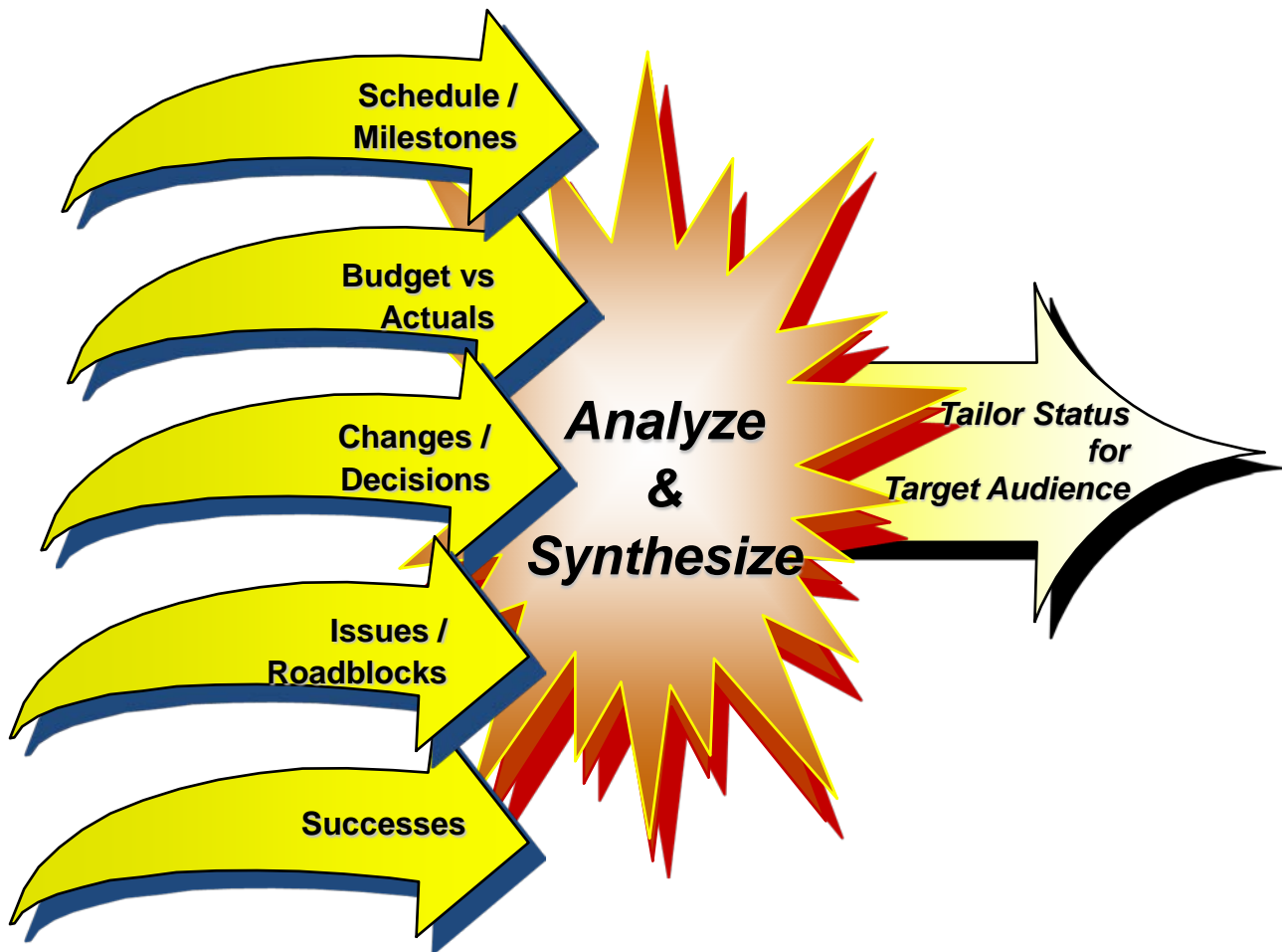
Timing	Message(s)	Audience(s)	Method(s)	Responsibility
Project Launch	Launch your project	Sponsors / stakeholders	Initial meeting	You
6 Months Prior to Completion				
1 Month Prior				
1 Week Prior				
Day of Completion				
1 Week After				
1 Month After				

Communication Planning Template for Milestones and Tasks

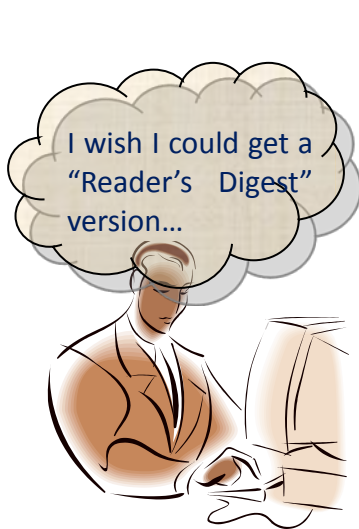
Project Tasks	Message(s)	Audience(s)	Method(s)	Responsibility
Identify Stakeholders				
Project Requirements				
Project Design				
Project Implementation				
Post-Project Review / Debrief				

Monitoring Progress and Status Reporting

Status Reporting



Status Reporting—Who, What, When, How and Why?



ADVISOR / SPONSOR



KEY STAKEHOLDERS



YOU (PROJECT MANAGER)



YOU (PERFORMING THE WORK)



THOSE HELPING YOU

Status Report Discussion Questions

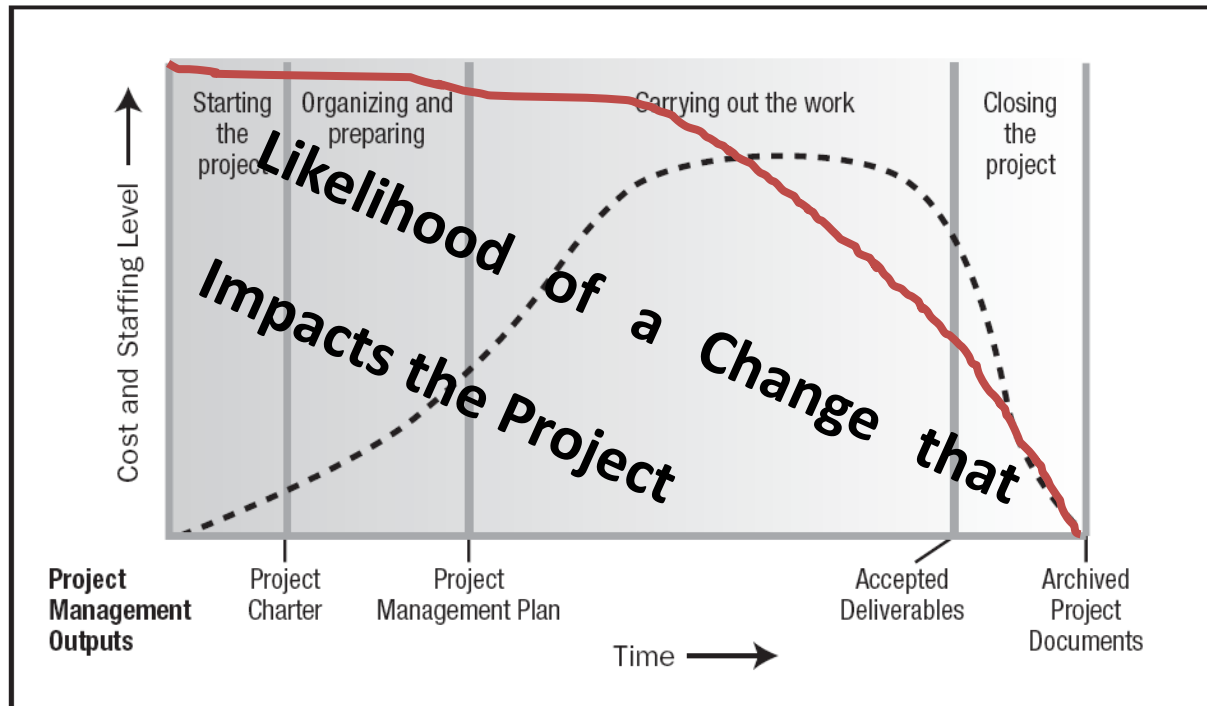
- What have you tried?

Refer to Exercise 6 in the Case Study

Managing Change

Change Happens!

Plan for it....(P.S. Conflict often travels with it as well)



Change may occur as a result of... Leadership Change, Technology Change, Regulatory Change, New Competition, Weather Events, Global Events, New Knowledge...

Discussion Questions

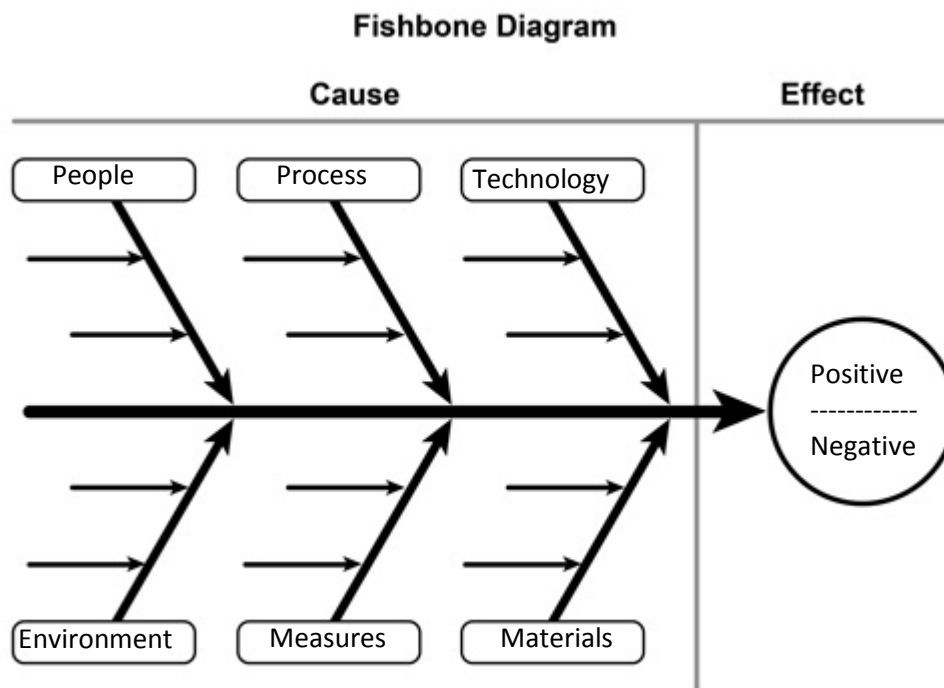
- How might a “Project Charter” help you manage change?
- How might “stakeholders/relationships” help you manage change?
- How might “risk management” help you to manage change?
- How might the “communication plan” help you manage change?
- How might “status reporting” help manage change?

Refer to Exercise 7 in the Case Study

Project Close Out

Project Closeout / Lessons Learned

Assess your Current Project	Think Ahead to Future Projects
Goals - - Results (Did I attain the desired results?)	New Goals (What should change?)
What Worked Well? What Could Have Been Better?	What Should Be Repeated? What Should Be Done Differently?



Recap

Major Topics in This Course

1. Project / portfolio lifecycle
2. Identifying and engaging your stakeholders / resources
3. Identifying / validating your requirements and project tasks
4. Managing risks and communications
5. Monitoring progress
6. Managing change
7. Project closeout
8. Next Steps?

Course Evaluation / Follow-up

1. Complete the course evaluation
2. Meet post-docs and schedule follow-up session(s)