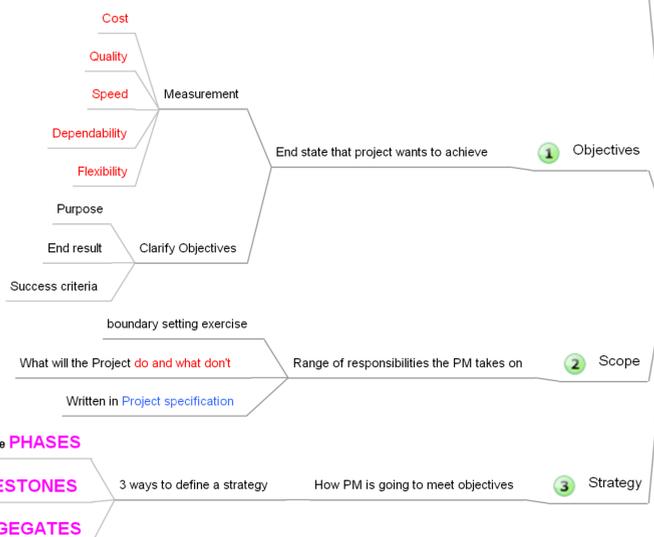


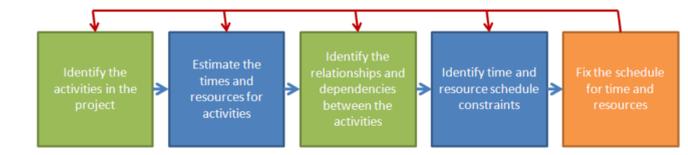
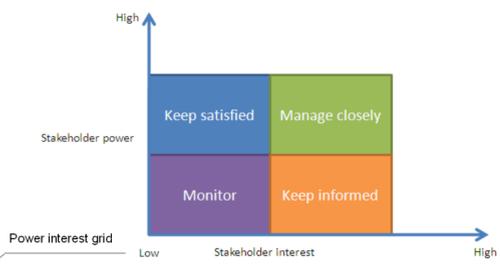
Before starting to define, be clear **about what** the project is

Project management
 Slack et al chapter 15 (2009)



Stakeholders

- have an interest in outcome
- involve at early stage to prevent issues
- have rights and responsibilities
- "Identify, Prioritize and understand the stakeholder"



- Determines
- Cost & Duration
 - Resources
 - Allocate work & Monitor it
 - Impact of changes identify

Requires knowledge about time, resources, relationship between activities

1 Identify activities work breakdown structure (WBS) with a "Family tree"

2 Estimate times and resources

- Always "best guess"
- Optimistic activity time t_0 (3), most likely time t_1 (5), pessimistic time t_p (13)

Formula: $\frac{t_0 + 4t_1 + t_p}{6}$
 Variance: $\frac{(t_p - t_0)^2}{36}$

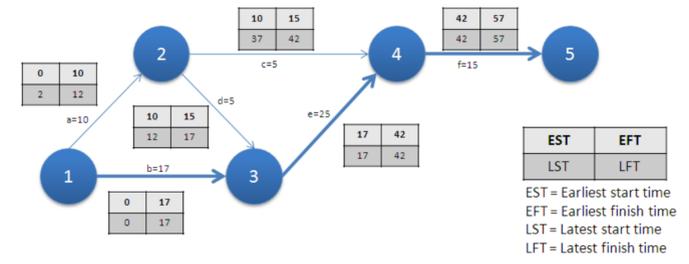
3 Identify relationship between activities

Predecessors: What needs to be done to proceed to next stage (parallel or not parallel work)

Planning tools: GANTT Chart

CPM - Determine the Critical path
 To determine the relationships between activities diagrammatically
 Longest Path is = Critical path
 Delay in CP leads to delay of project

	11.03	12.03	1.04	2.04	3.04	4.04	5.04	6.04
Preparation and Planning								
Develop project proposal	█							
Approve project proposal		◆						
Recruit project team		█						
Development and Test								
Specify detail requirements			█					
Develop prototype			█					
Approve prototype				█				
Develop beta version				█				
Test beta version					█			
Apply final corrections						█		
Approve final version							█	
Implementation								
Train users							█	
Roll-out final version								█



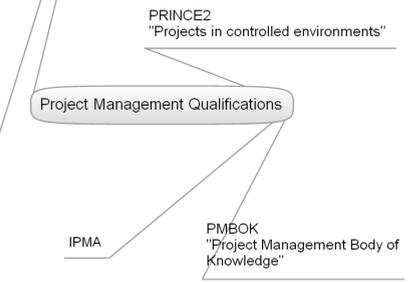
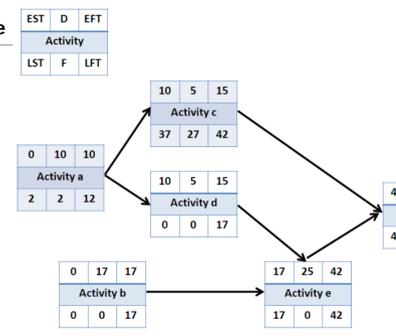
EST = Earliest start time
 EFT = Earliest finish time
 LST = Latest start time
 LFT = Latest finish time

4 Identify time an resource schedule constraints

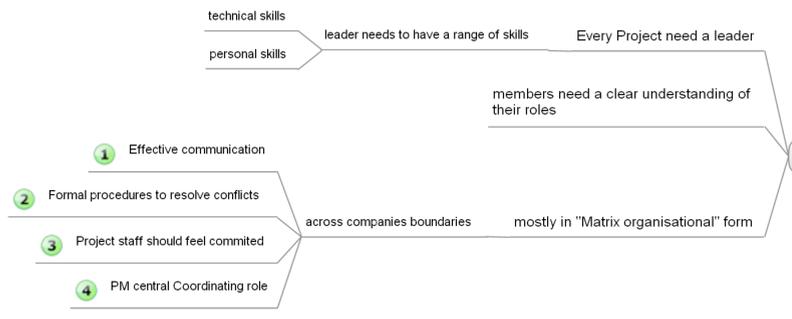
- use "float" to smoothen out resource requirement
- Float = Activities not on the critical path certain flexibility

5 Fix the schedule

Variations on planning: Activity on node



2 Project management



Project control

