Introduction

This version of PM Fundamentals has changed significantly. A brief list of the changes follows:

The case study has been updated to be more current. It is now based upon the World Gymnastic Games. The technology of the deliverables and the communications has been updated. A significant amount of the complexity of the Olympics case study and a lot of the reading that the participants need to do has been removed. This has reduced the amount of time that is spent on the case study.

A spiral bound Learning Log has been added to course. The material from PM Orientation and PM Fundamentals has been summarized, providing the participants with a good reference book that they can refer back to during their PM career.

The case study materials are now presented in a separate Case Study Book. The participants can discard the notebook after class if they do not want to keep the case study information.

The Seven Keys material has been integrated into each module. An overview of the Seven Keys has been added to Module 2. Then at the end of each module the students take 5 minutes to do a Seven Keys assessment of the project focusing on one or two keys. The Seven Keys Simulation was added on the afternoon of the third day. In the Simulation the participants have an opportunity to see how the keys interact with each other.

The course has also been changed to be more interactive, employing more Learner Center aspects than before. At the beginning of the course and in each module the instructor notes are structured so the instructor is soliciting experiences and input from the participants. The materials are still structured to talk about how to do project management, while the class discussions have been added to talk about why it is important and how the participants can apply what they are learning on their projects.

At the end of each exercise in PMF the teams provide feedback to their PM, talking about what was done well and what could have been done better. In the pilot of the course, this was very well received by the students.

Finally the exam has been changed to be more application based. PM Orientation teaches students the concepts and that exam is based upon those concepts. PM Fundamentals teaches the students how to apply those concepts via the case study and the Seven Keys, so the PMF exam needs to ensure that they understand more than the concepts.

The PM Curriculum in IBM is very successful thanks to the excellent instructors who teach the courses. The entire PM Curriculum team thanks you for your dedication to the IBM PM community and your enthusiasm for the PM profession in IBM.

Project Management Fundamentals
Timetable

PMF Timetable

Day 1	Start	End	Length	Subject
Module 1	8:30	9:45	75	Getting Started
	9:45	10:00	15	Break
	10:00	11:15	75	Bridge Game
	11:15	12:00	45	Debriefs and Administration
	12:00	13:00	60	Lunch
Module 2	13:00	13:20	20	Organizing Teams Discussion
	13:20	13:40	20	Seven Keys Discussion
	13:40	14:10	30	Team Charter Activity
	14:10	14:30	20	Debrief and Feedback
	14:30	14:45	15	Break
Module 3	14:45	15:15	30	Discussion
	15:15	15:35	20	Stakeholder Plenary
	15:35	16:05	30	Stakeholders Activity
	16:05	16:20	15	Break
	16:20	16:50	30	Requirements Activity
	16:50	17:10	20	Debrief and PM Feedback
	17:10	17:20	10	Reflections on Day 1

Day 2	Start	End	Length	Subject
	8:30	9:00	30	Review Day 1
Module 4	9:00	9:15	15	PBS/WBS/OBS discussion
	9:15	10:00	45	PBS/WBS Acitivity
	10:00	10:20	20	Debrief and PM Feedback
	10:20	10:35	15	Break
Module 5	10:35	11:00	25	Discussion
	11:00	11:50	50	Risk Activity
	11:50	12:50	60	Lunch
	12:50	13:10	20	Debrief and PM Feedback
Module 6	13:10	13:40	30	Discussion
	13:40	14:30	50	Estimating Activity
	14:30	14:50	20	Debrief and PM Feedback
	14:50	15:10	20	Break
	15:10	15:25	15	Energizer
Module 7	15:25	15:45	20	Discussion
	15:45	16:00	15	Critical Path Activity
	16:00	16:10	10	Debrief
	16:10	17:10	60	Scheduling Activity
	17:10	17:30	20	Reflections on Day 2

Project Management Fundamentals
Timetable

Day 3	Start	End	Length	Subject
	8:30	8:50	20	Debrief and PM Feedback
	8:50	9:10	20	Review Day 2
Module 8	9:10	9:30	20	Discussion
	9:30	9:45	15	Change Mgmt Activity
	9:45	10:00	15	Debrief and PM Feedback
	10:00	10:15	15	Break
Module 9	10:15	10:40	25	Discussion
	10:40	11:00	20	Earned Value Activity
	11:00	11:15	15	Seven Keys Assessment
	11:15	12:15	60	Lunch
	12:15	13:45	90	Seven Keys Simulation
	13:45	14:00	15	Break
Module 10	14:00	14:15	15	Discussion
	14:15	15:00	45	Project Review Activity
	15:00	15:15	15	Debrief and PM Feedback
Module 11	15:15	15:30	15	Discussion
Module 12	15:30	16:00	30	Course debrief
	16:00	16:45	45	Exam

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Welcome

Project Management Fundamentals: PM10G

Important

Please check-in with your instructor as soon as you arrive...

Your completion certificate for the
PM Orientation PM54D
must be verified by the instructor
before you may be admitted into this class.

1-1

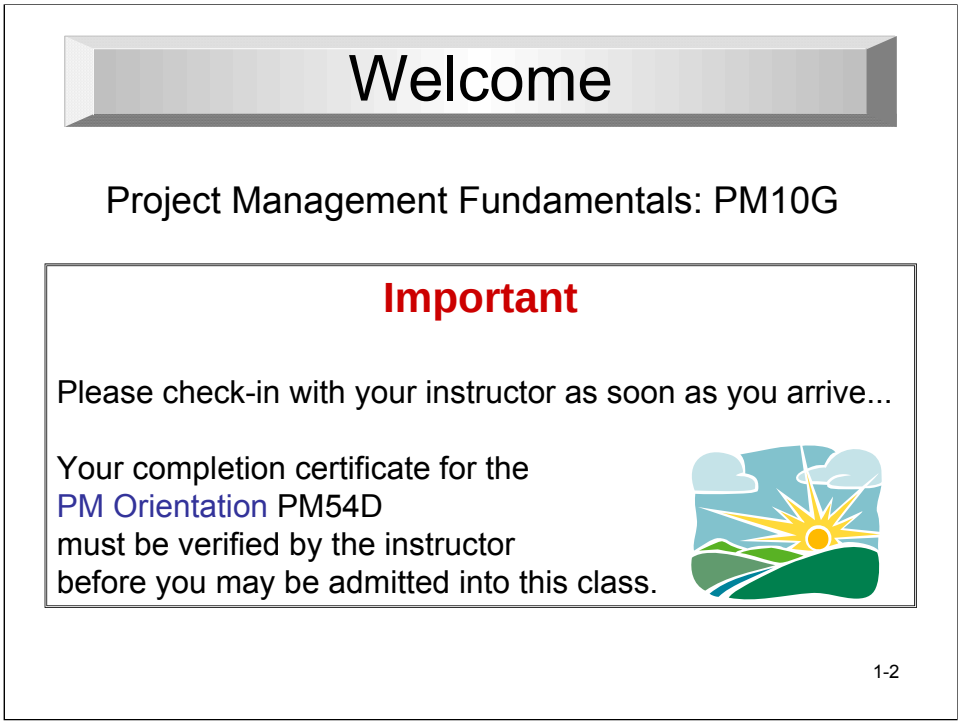
Module 1 - Welcome to *Project Management Fundamentals*

Module 1 Timing
This module lasts for 3 hours and 30 minutes, 08:30 – 12:00, on day 1.

Start	End	Length	Subject
08:30	09:45	75	Getting Started
09:45	10:00	15	Break (Instructor sets up Bridge Game)
10:00	11:15	75	Bridge Game with presentation of results
11:15	12:00	45	Bridge Game debrief and course administration
12:00	01:00	60	Lunch

Objective of This Module
Welcome students, practice project management skills and behaviors, and discuss administrative information and course requirements.

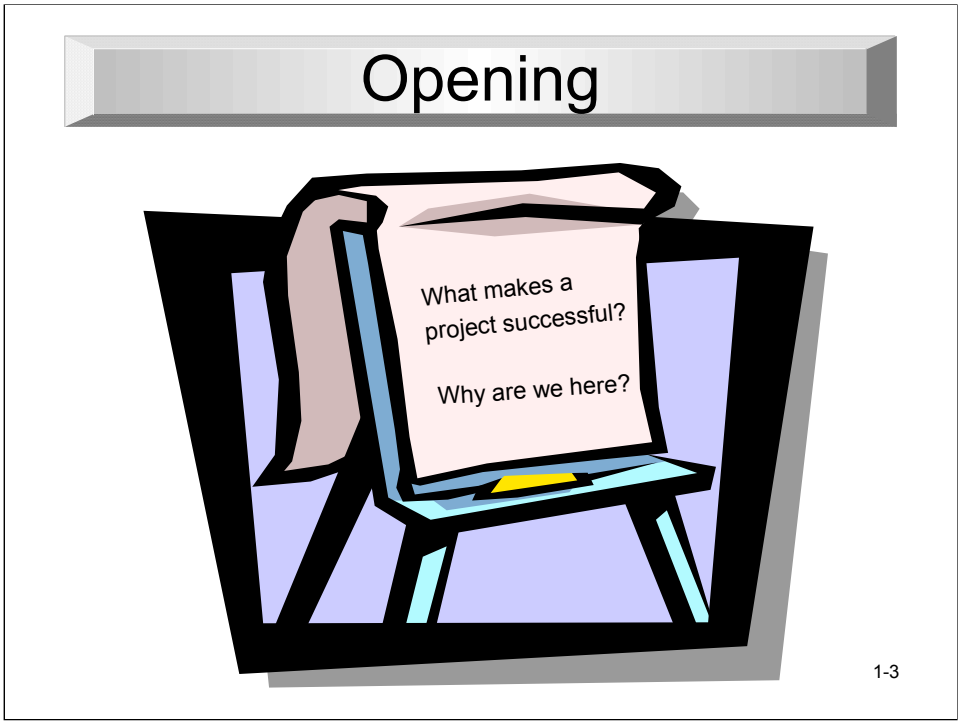
Summary of Documents to Hand Out - for the Bridge Game
1. Handout 1-1 Project Manager Instructions
2. Handout 1-2 Official Bid
3. Handout 1-3 (after the bridge is completed, prior to the team debrief)



Module 1 - Welcome to *Project Management Fundamentals*

Before the module starts:
Prepare flip charts:

1. "What makes a project successful?"
2. "PM experience" Put a time line on the flipchart labelled None, 3 months, 6 months, 12 months, 18 months, and 24+ months that participants can write their name next to.
3. "What I Want to Take Away from the Course" with three columns: Process, Objectives, Goals, for participants to add their Post-it notes to.
4. Post the Seven Keys Chart on the wall.



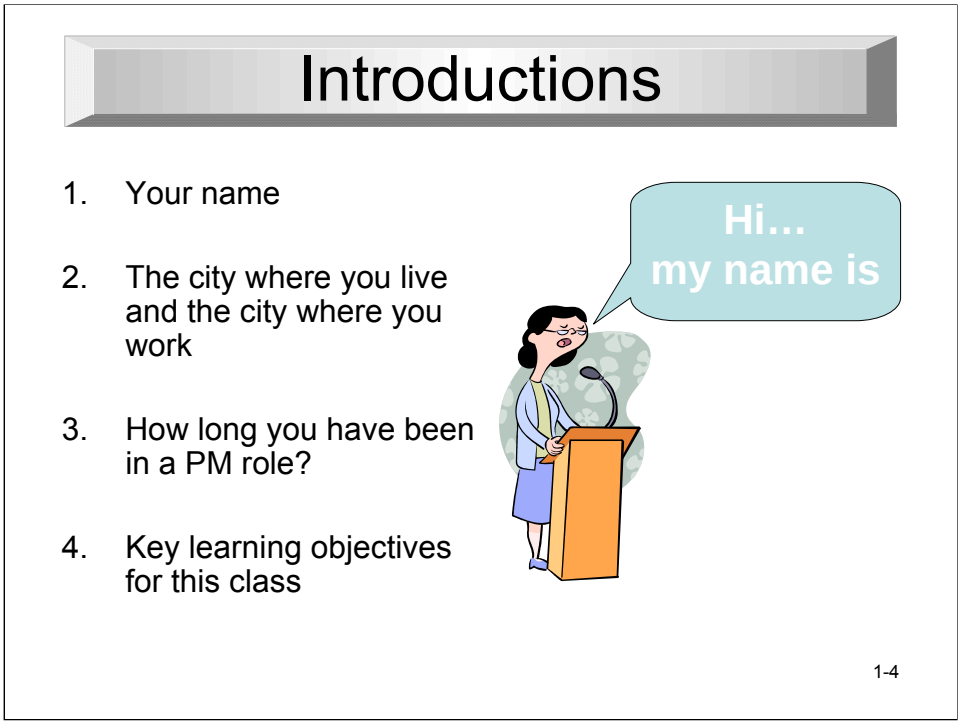
Ask: What makes a project successful?

Document participants answers on the flip chart

Challenge participants to think about success factors besides time and cost such as:

- Stakeholders delighted with results
- Client is achieving business benefits
- Quality of deliverables is appropriate
- Team worked well together
- Staff developed new skills
- Good communication between team and stakeholders
- Risks managed well, did not have to put out fires
- Schedule slippage was anticipated and managed
- Change management process worked well
- IBM's reputation increased with client
- Delivery organization's reputation increased
- Captured and shared lessons learned
- Captured and shared intellectual capital

Say: Link back to your pre-course work on the Seven Keys to Success. When you look at this list here, it maps very closely to the Seven Keys, and that is one of the reasons why we use it to monitor how close we are to success on our projects.



Student Introductions

Say: Moving on, I would like to understand why you are here? Apart from hopefully wanting to be involved in running successful projects, I would like to ask each of you to complete the following details for me -for the first 3 items just think about your reply. In the last module of the PM Orientation class you were asked to write down what you wanted to get from this class. Take a couple of minutes to write those items on a Post-it note. You can use as many Post-it notes as you like!

Say: When thinking about what you want to take away from this course, try to be specific. Think about specific processes you want to learn about, such as risk analysis. Process learning is usually completed while we are doing an exercise. Objectives are usually achieved at the end of an exercise, such as understanding the risk management procedure used at IBM. And finally goals are long-term, usually achieved after the course.

Introduce yourself to the class, highlighting any project management experience you may have and your key learning objectives for the class.

Ask each participant in turn to introduce themselves. For point 3 ask them to mark their PM experience levels on the prepared flipchart (and it is okay to have none!) and ask them to add their Post-it notes to the flipchart called “What I Want to Take Away from the Course”.

Note to trainers: Recommend spending a bit of time with each participant to understand their real objectives for being in the class and their specific knowledge levels (using the PM experience chart) so that you can draw on that experience during the course.

PMF Agenda

Day 1

AM

Module 1 Getting Started and Defining the Project

PM

Module 2 Organizing the Team and Planning for Communication

Module 3 Stakeholders and Requirements

Day 2

AM

Module 4 Creating Hierarchical Decomposition Structures

Module 5 Risk Management

PM

Module 6 Estimating

Module 7 Creating a Project Schedule

1-5

Say: Thanks to all for sharing their experience levels and objectives – for those objectives that you know in advance you definitely won't be covering, make that clear to those participants up front and suggest that they speak with you at a break to think of other ways they can still meet their objectives.

For the rest of the objectives, link them to the agenda for the next three days, covered on the following slides.

PMF Agenda

Day 3

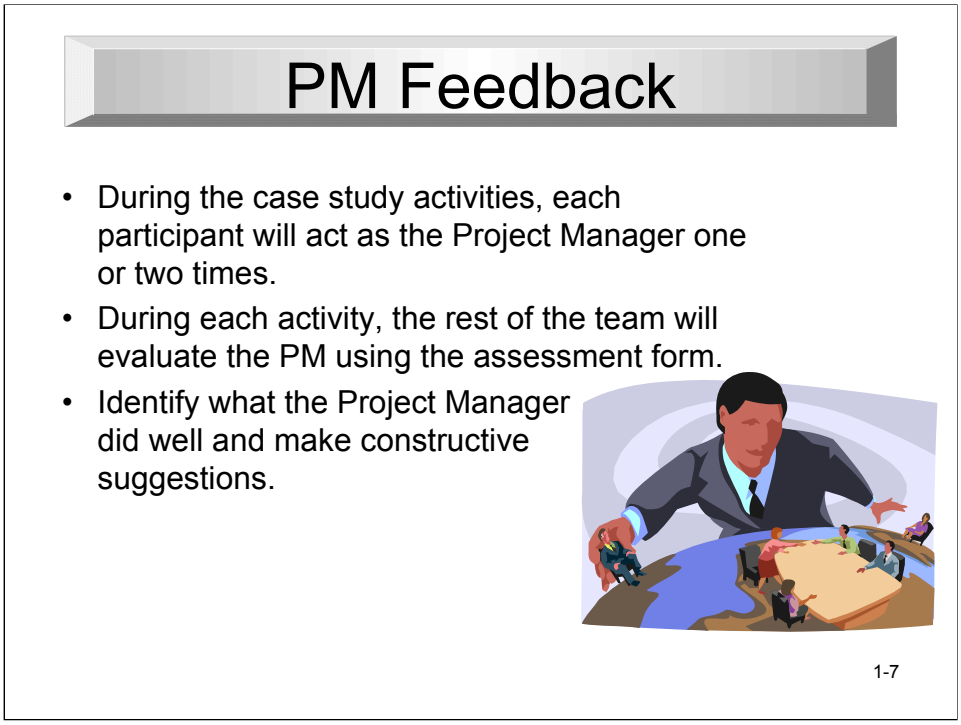
AM

Module 8 Understanding Change Management
Module 9 Executing and Controlling a Project

PM

Module 9 S**even Keys Simulation**
Module 10 Project Reviews and The 7 Keys
Module 11 Closing the Project
Module 12 Course Wrap-up and Exam

1-6



Objective: Practice PM soft skills

Before teams start to work on the case study, explain the Project Manager assessment and the next slides on guidelines for receiving and giving feedback.

Say: We will be running a number of case study activities where you will role play being PMs. This is a completely safe environment for you to try out some of the appropriate attitudes and behaviors we have just discussed.

As we work through activities this week, the participants on each team will take turns acting as the project manager for their team.

I know it will be difficult for some of you to sit back and allow the designated PM to run the exercise. Those of you, and you probably know who you are, that might have this tendency, be aware of this and please try not to take over the exercise when it is not your turn.

Instead, if a PM is having difficulty, perhaps try to facilitate, to help the PM do their job.

Another Note:

If there are 5 or more people per team, ask that each team also assign an Observer for each exercise. This be a rotating role like the PM role. This person would give feedback to the PM and the team members at the end of each exercise.

Receiving Feedback

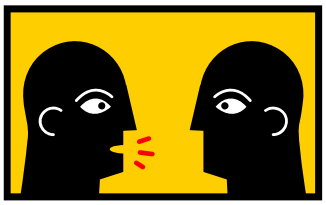
- Breathe
- Listen and do not interrupt
- Ask for clarification
- Paraphrase, summarize
- Acknowledge valid points
- Sort out what you heard

1-8

Say: You will all have the opportunity to give and receive feedback on your role as PM. Let's just briefly look at some pointers to ensure this is a successful and helpful exchange.

Giving Feedback

- Give both the positive and "even better if"
- Catch people doing something right
- Be descriptive
- Speak for yourself, not others
- Stay with known things, not hearsay
- Be sensitive - understand your audience



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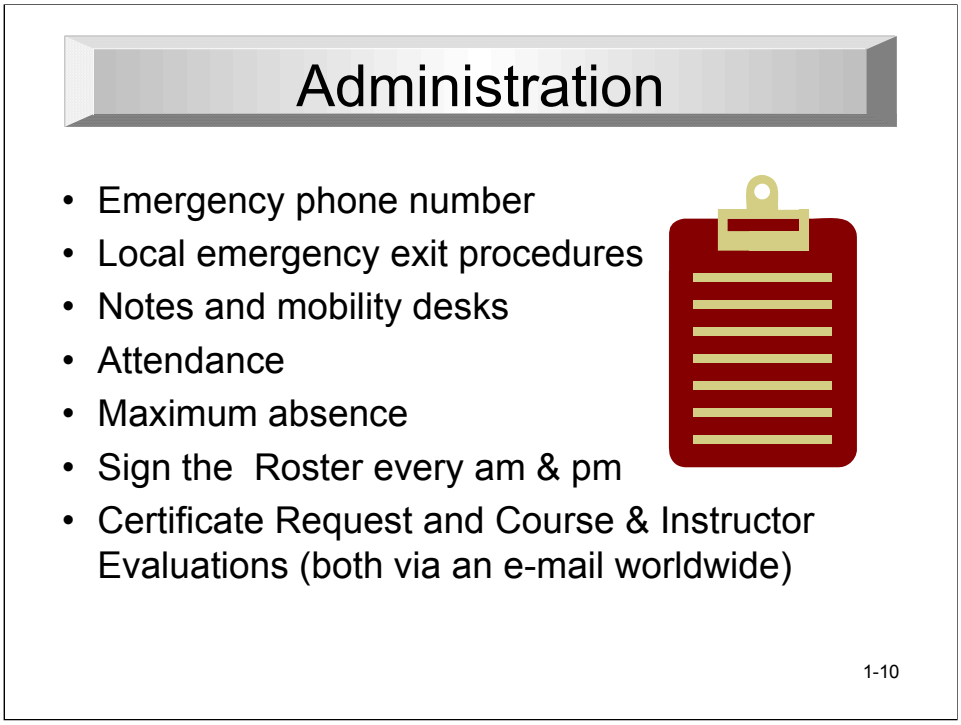


Say: Before we take a break, I want to remind you of some key administration points that I would like you to commit to before we move on to the next module.

Discuss administrative information

Review your break schedule. Talk about keeping to the schedule.

Class will start on time. Lunches will be managed to a +/- 15-minute schedule. Each day should end within -15/+45 minutes before or after normal business hours.

Remind students that missing class puts a burden on their teammates.

If a student misses 2 hours of class, the student fails the class and must repeat the entire class.

Discuss the examination that will be given at the end of the class.

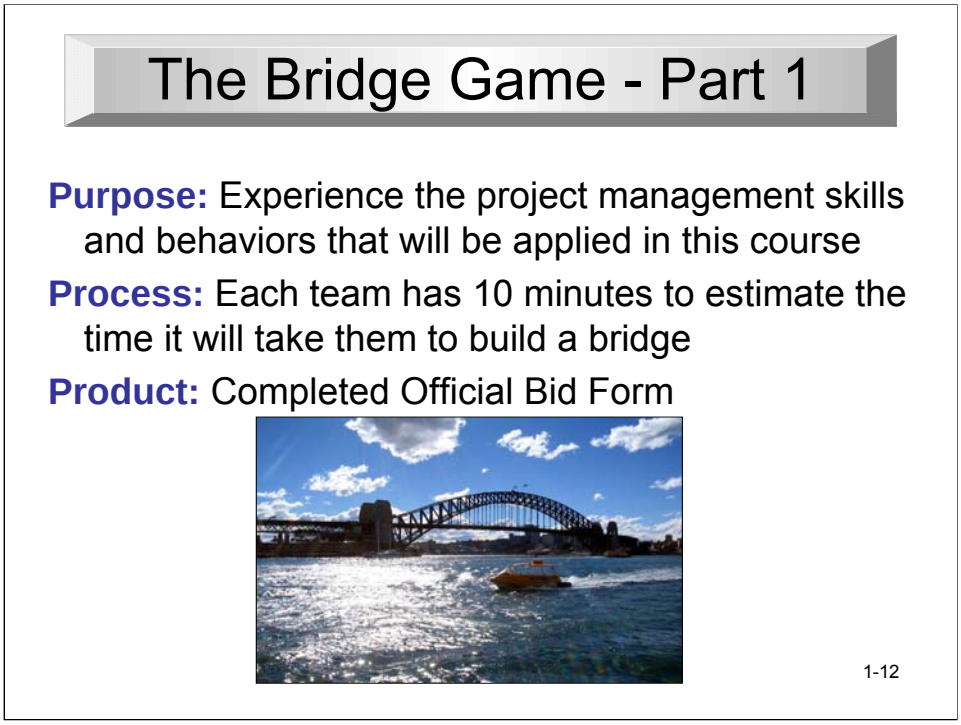
If a student fails the examination, the student can take it again on another day. If the student fails the second time, the student must take the course again

Ground Rules

- Cell phones ... off ... or vibrate only
- Laptops off
- Be on-time
- Others you would like to add?

1-11

Say: Can we ensure for all future modules that you agree and adhere to the following Ground Rules – do you have some more that you would like to see the class commit to?



Note to trainer: During the Bridge Game, you should ask the least experienced PMs to assume the role of the project manager.

Summary of Documents to Hand Out to Teams

1. Handout 1-1 Project Manager Instructions
2. Handout 1-2 Official Bid
3. Handout 1-3 (after the bridge is completed, prior to the team debrief)

Further Instructions - Place one box with the Bridge Game materials at each team's table,

Activities during the Estimating Phase

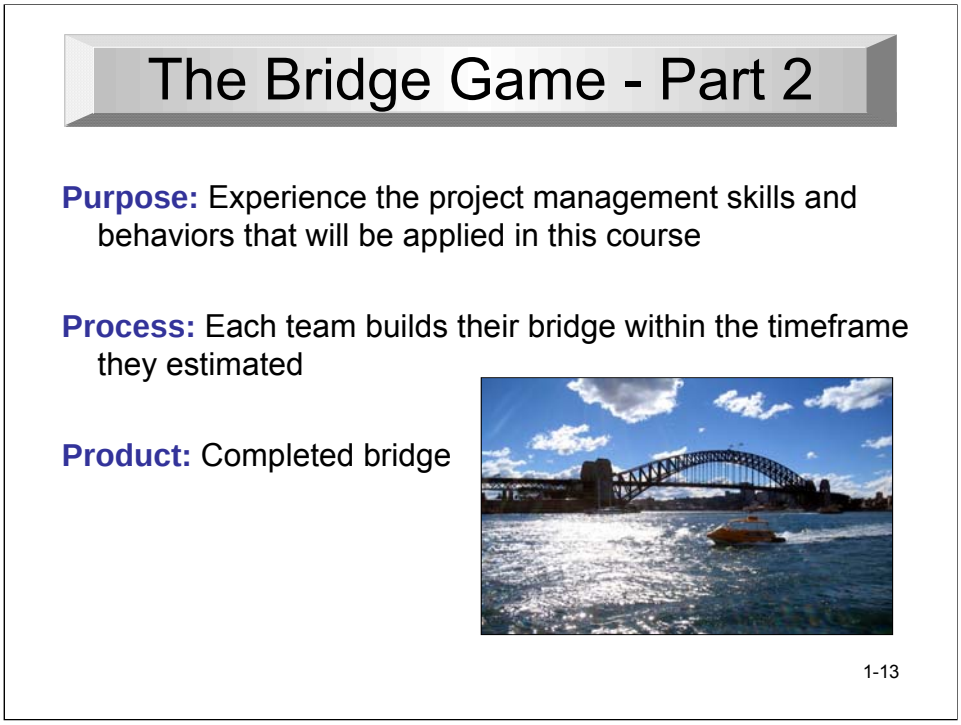
When the Bridge Game starts, select a project manager for each team. Give the team's project manager the Project Manager Instructions, the Official Bid form, and the box with the bridge materials and blueprint.

You are playing the role of the client. Tell participants that you need a bid for building a bridge. The bid is an estimate of how many minutes it will take their team to build the bridge. The estimate or bid is based on the given blueprint and materials. Tell the teams to also pick a name for their team and write it on the Official Bid form.

Participants have 10 minutes to develop an estimate. They will need to complete the official bid form. The project managers should complete the form and give it to you. You will then fill in the Bridge Game result visual with the given information.

If participants used the bridge material to develop an estimate, ask them to place the material back in its original state.

Update the flip chart with the bids from each team.



Activities during the Build Phase

Tell participants that you now need not one, but X number of bridges where X equals the number of teams. On a flip chart or a white board, write down the time and tell participants to start building their bridges. While the participants are building their bridges, walk around and observe their progress. At some point before the first change has been issued, go to one of the team members, not the project manager, and tell this person either of two things:

- The team member has the 2-minute flu. Use this option with one student per team.
- You are a headhunter and you have found a better job for the team member. Tell this person that another team will pay more money and take them over to the other team. Introduce the new team member to the team's project manager. After a little while, take the same student to another team. Move the student two or three times, but ensure that the student's final team is the student's original team (If you take this option, do this with only one student, not one student per team).

Note: The point of making a team member sick or moving the team member around is to see how the project manager will react to a resource change.

At the point when each team has almost completed building the bridge, give each team's project manager the change request.

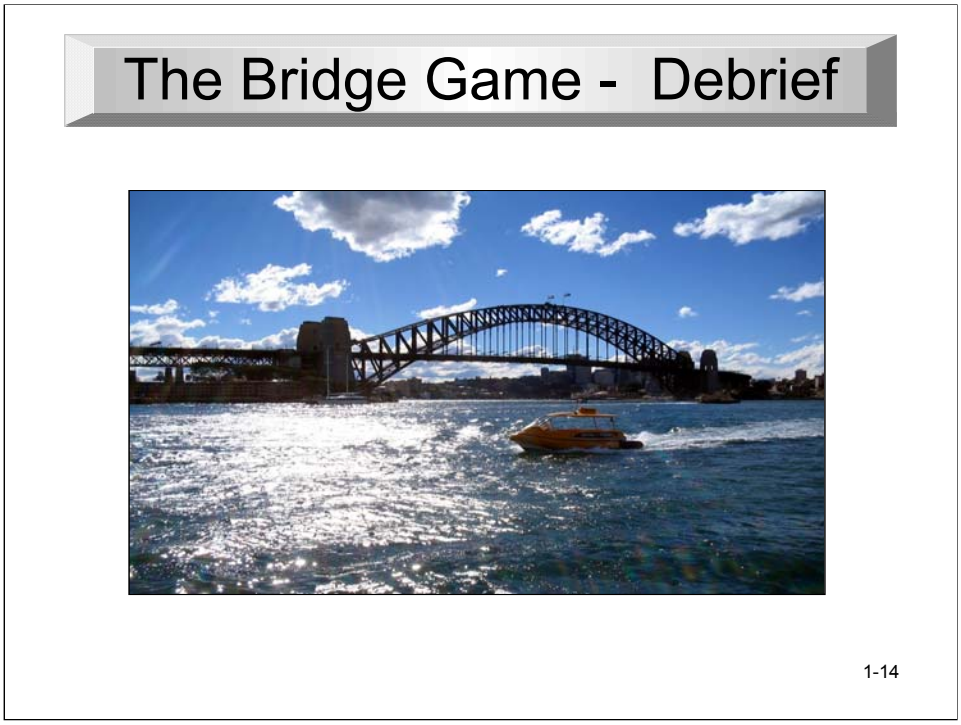
If the team's project manager requests additional time to implement the change, you should accept the change request and document the additional time requested by the team.Enter the time requested by the team in the PCR 1 time box, and enter the new total time on the Bridge Game results visual.

When the team has almost completed the requested change, the sponsor project manager should tell the team's project manager that the City Safety Board has told the safety board that the new design is unsafe and that the team will have to go back to the original blueprint.

If the team's project manager requests additional time to implement the change, you should accept the change request and note the amount of additional time requested by the team. Enter the times requested by the team in the PCR 2 time box,

When a team has completed their bridge, enter the actual time and actual cost in the boxes on the Bridge Game results visual (actual cost = actual time multiplied by the number of staff).

Tell the teams to take the bridge apart and put the material back in its original state.



Debrief Activity

Give the participants a few moments to gather their thoughts and complete Handout 1.3.

Start the debrief by asking the teams to only focus on items 2, 3, and 4 for now:

- What happened during the estimate phase?
- What happened during the build phase?
- What happened when the scope changed?
- What happened when the resources changed?
- What made the activity difficult/easy to do?
- Would having more screwdrivers and blueprints have helped?
- Did anyone think to ask for extra materials? Why not?
- What did you learn from this activity?

.

Leave these as very open questions for everyone to comment on, after there has had plenty of opportunity to comment it is worth showing the team's information on the Bridge Game results visual. The instructor should make some comments about the information as it relates to the team's performance and profit, or lack of profit. One common thing that can occur is that a team will underestimate its original bid and then try to make up for it with changes.

Complete the debrief with the questions:

- How does this relate to your work?
- How could you apply some of what we have just looked at in a real life work environment?

PM Feedback

After the Bridge Game:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback. Document your lessons learned on page 8 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.

1-15

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity. Encourage them to consider the comments they recorded on Handout 1.3 section 1 – Management

There is a pocket on the back cover of the Case Study Book for their feedback forms and handouts.

About the Case Study

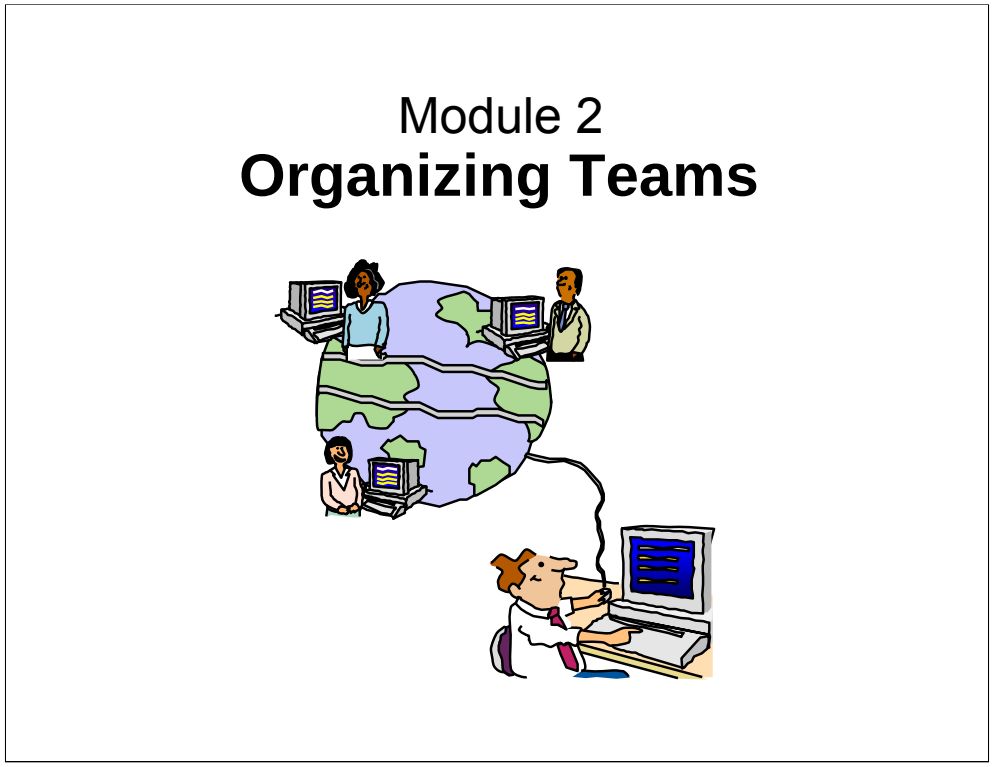
- World Gymnastics Games Project
- It is representative of an actual project.
- The class is divided into groups.
- Within each group, students play different roles throughout the case study.
- Each student serves as the project manager for different exercises.
- Exercises in the case study relate to the content of each module.

1-16

Say: There are a couple of key points to be aware of from this slide – talk through the slide.

For full details on the background to the Case Study see the separate document called **"Module 1 Opening and case study background"**

Emphasize that this case study runs throughout the entire course.



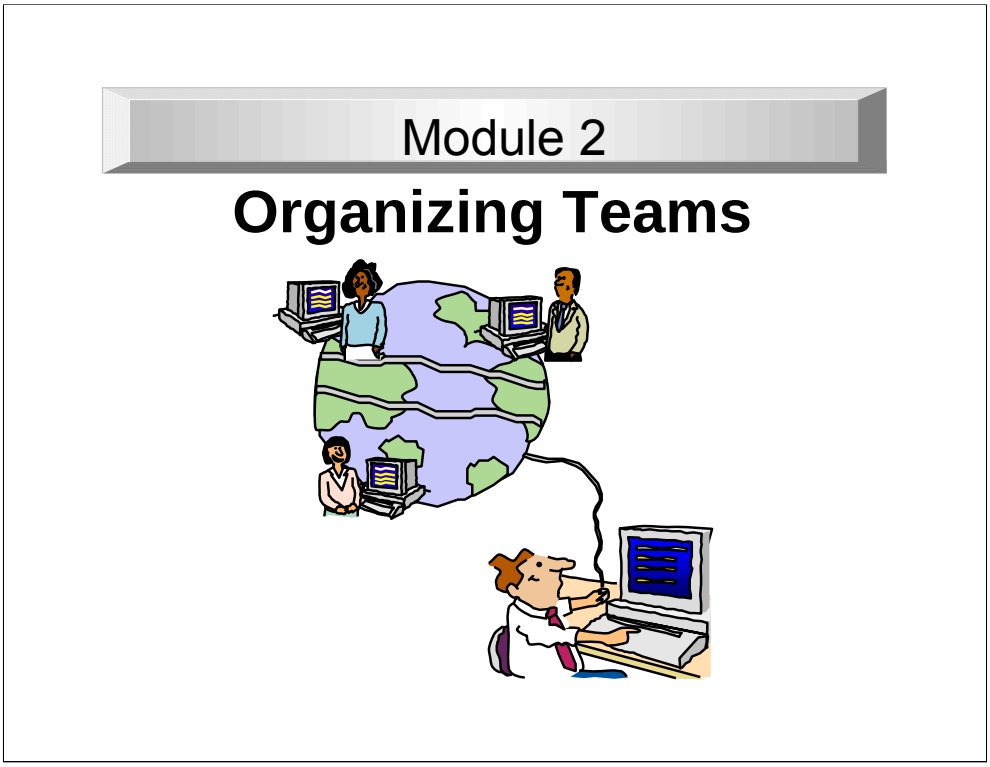
Before starting Module 2 explain to the participants that they have 2 books. The PMF Learning Log is a reference guide. This books contains most of the key material from PMO and PMF. They should reference it as they proceed through the course. At the end of each module in the Learning Log there is a page that says Course Notes. They should use those pages to document any notes.

The Case Study book Module 2 contains the case study materials that the students will need for the exercises.

This module refers to pages 9-18 in the Learning Log.

Objective of This Module

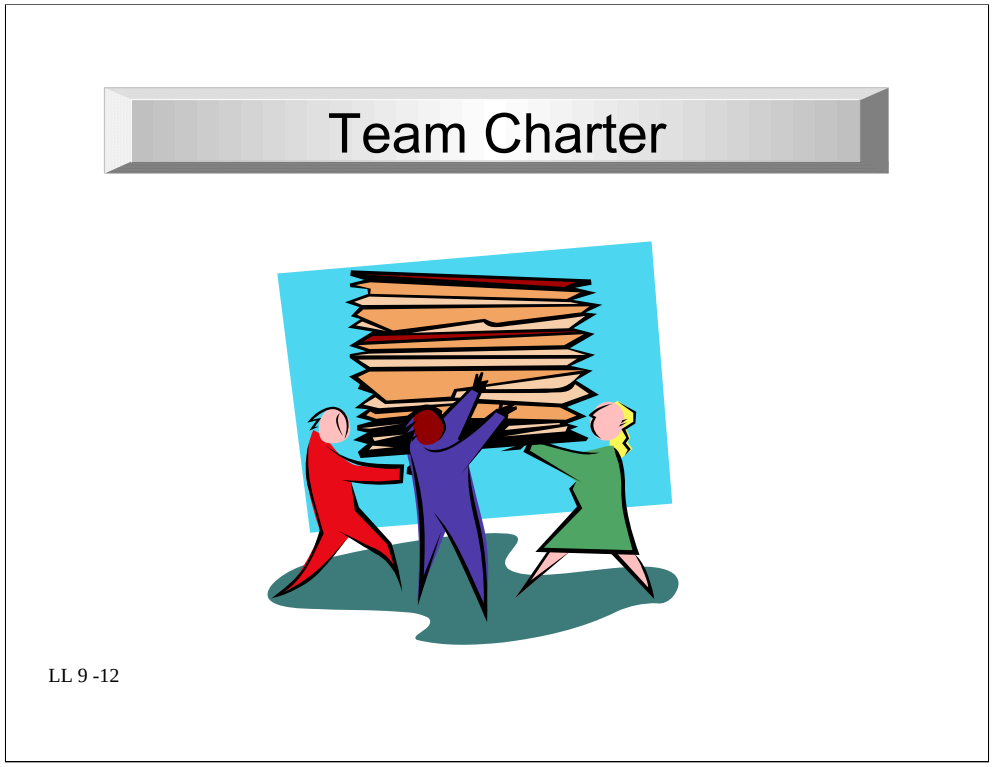
Using the documents provided, teams will assign case study roles to each participant, assign a project manager for each activity, and assign an observer to observe the team as they develop a team charter that contains a set of rules that all team members agree to follow while working on the project. This team charter has been tailored for the classroom.



Module 2 Timing

This module lasts for 1 hour and 30 minutes, 13:00 – 14:30, day 1. The agenda is:

Start	End	Length	Subject
13:00	13:20	20	Organizing Teams Discussion
13:20	13:40	20	Seven Keys Discussion
13:40	14:10	30	Exercise Team Charter
14:10	14:30	20	Debrief and Feedback
14:30	14:45	15	Break



Note to the Participants:
Notice on the slide on the bottom left corner there is a notation LL 9-12. This means that the material we are discussing can be found in the Learning Log on pages 9 -12.

Create a flip chart "Forming a Project Team"

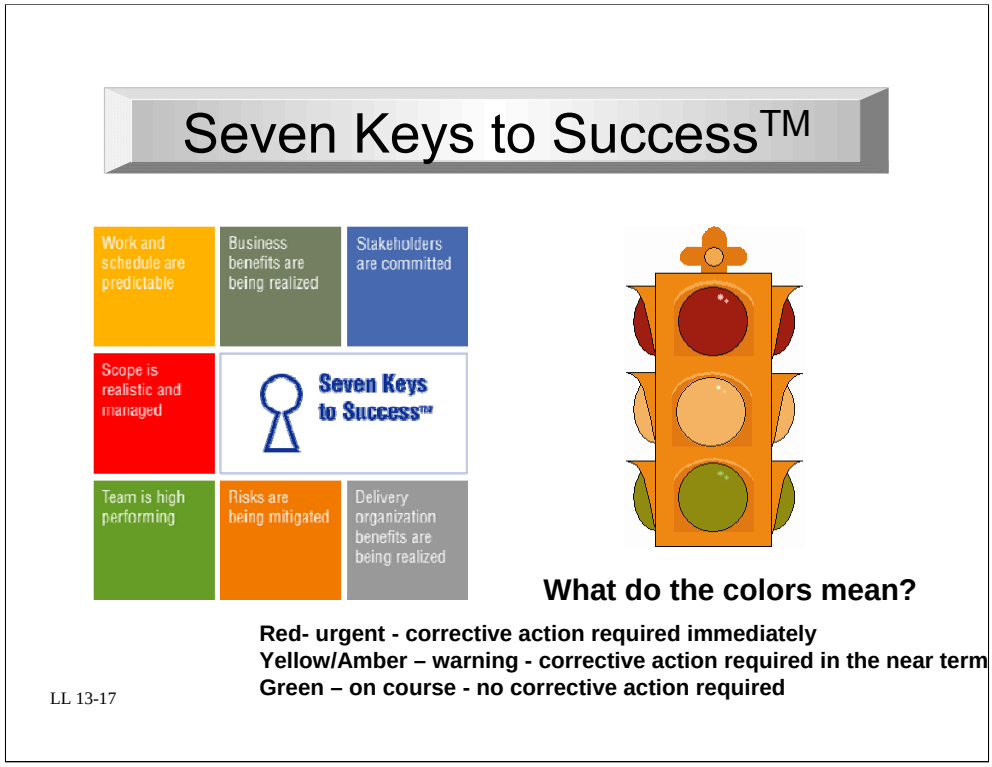
Taking from PMO, the bridge game, and other experience we have, when you receive a new assignment as a PM and show up at the new project location along with a new set of team members, what do you need to do to establish a "team" out of a group of people getting together for the first time?

Record participant responses on flip chart.

WWPMM defines Project Team as "The team responsible for the project , led by the project manager . The team may include members from different functions and/or internal or external suppliers." There are two critical parts to this definition. First "the team", who is and is not on the team, an idea of who will be expected to do what, and how the team will operate. Second, "the project", the purpose for our team, which might be one aspect of a larger project.

The challenge of this module, is to design, build and deploy the team. WWPMM suggests we create a "Team Charter", which is described in the Learning Log on page 10. Take 1 minute to look at that and let me know if we need to add anything to our list.

Any questions about the purpose of a Team Charter or creating it? ... Do you think the PM should create the Team Charter to get things moving, or do you think the PM has or should take the time to make this a group effort?



The Seven Keys framework is a very effective tool for assessing and communicating project health. This is a tool that can be used with executives or other stakeholders.

Review each of the keys and explain their meanings. **Refer the students to the learning log pages 13-17.**

Review the meanings of the colors in the traffic light.

Seven's not really a magic number – I can modify the framework and just focus on 5 or 6 keys if I want to.

Real-life project experience shows us that all seven keys are important to the success of any project. Not assertively assessing and staying on top of any of the 7 keys can seriously weaken a project. Taking that thought a step further, as each key goes yellow or red it weakens your project and the probability of serious failure increases. As each additional yellow or red appears it becomes more and more difficult to handle the next problem, until you reach a point that any additional problems or worsening of problems simply overwhelms your project and it collapses. Top performing PMs strive to ensure the best health they can across all the keys. There will almost certainly be a yellow or red from time to time on any project, the issue is not whether it is yellow or red, but whether or not it is identified quickly and resolved. Underperforming PMs invariably have a key or two that they don't pursue well, and they go yellow or red early in their projects on those keys, and they never take sufficient corrective action. And those weaknesses drag the other keys down with them. Does that make sense?

The Seven Keys are cumbersome to use – besides, my project is small

Feedback indicates that both large and small projects can benefit from using the Seven Keys – if the project is important enough to do, don't you want it to be successful?

Any questions or comments on the Seven Keys before we move on?

Creating an Organized Team

Purpose: Form and organize a new team and create a Team Charter

Process:
Use Case Study and Team Charter handouts, assign project roles, an observer and a PM, and create Team Charter for case study.

Participation: Identified PM leads effort, others assume roles and support PM, team's choice on who will present products

Products: 1) One flip chart with your Team Charter for the case study
2) Comment on how your team organized itself, what you learned about forming and organizing teams, and how you think you could do better in the future

Set-up Activity

The Case Study Book contains the following documents:
•Case Study 2-1 Suggested Team Members for the World Gymnastics Games Project
•Case study 2-2 Summary of the Statement of Work and the Project Charter
•Team Charter Template
•Project Manager Assessment Form

The teams will appoint case study roles. One of the team members will be assigned as an observer. At the end of the exercise this person will share what they saw with their team during the feedback session.

Prepare a team charter that is agreeable to all team members based on the project charter handout. Team members will confirm their agreement by signing the document.

Give teams 30 minutes to appoint roles and create the team charter. Emphasize that this is a firm time. Give each team 5 minutes total to present their team charter.

Tell students to select a person to present the charter.

Points to Be Aware of in Documents
Note that the organization chart does not show deliverables. It shows only the names of organizations and functional units.

Note that the SOW is incomplete. The SOW mentions two forms of output, scoreboard and printed reports. Be aware that in a later module, two more outputs will be added to the requirements.

Monitor Activity
Watch teams as they go through the normal stages of forming a team. Expect teams to experience typical group growing pains.

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Products: 1) One flip chart with your Team Charter for the case study
2) Comment on how your team organized itself, what you learned about forming and organizing teams, and how you think you could do better in the future

Debrief Activity

Have one team do a presentation of their charter. Ask the teams that do not present to explain what is similar or different in their charter.

During the presentation and discussion, watch and listen for the following:

- Have teams defined their "rules of engagement": how team members are going to work cooperatively, especially when they disagree.
- Have they set time limits on discussions?
- Have they defined a conflict management process?
- Have teams agreed that the project manager is the final authority in disagreements?
- Can team members bring up issues that have been settled previously?
- Have teams set rules of behavior and rules for resolution conflicts?
- Have teams listed points of contact?
- Have teams established administrative guidelines, such as who maintains the Project Control Book, what hours the teams will work during the case study, and when they will work overtime

Explore what the participants learned

- What worked well?
- What are the "Even Better Ifs"?
- What could have contributed to that? (cause and effect)
- What key things did you learn from this exercise?
- What advice would you give someone about to start this exercise?

Explore how the participants can apply the learning

- How does this relate to the real world?
- How might your learning today impact what you do Monday morning?
- How might this change the way you ….?
- What would make dealing with this situation more difficult/easier?
- How might you respond/apply these learnings when/if …?

Team Charter Topics

Some suggested topics:

- Time limit for discussions
- Decision-making process
- How to handle conflict
- How long team works, for example, into lunch, after 5:30
- How team deals with internal issues; for example, dominant or quiet team members
- Assign PM and backup for each module
- Assign roles and responsibilities
- A "Trigger" word to be used to gracefully disengage
- Develop a team name

Reveal this slide once teams have presented, just highlight what might have been missed by those who presented.

The team charter should contain the items listed in the Team Charter Case Study Requirements, which include

- Time limit for discussions
- Decision-making process
- How to handle conflict
- How long team works into lunch and after 5:30
- How will team deal with internal issues such as dominant team members or quiet team members
- Assign PM and backup for each module
- Assign roles and responsibilities
- Develop a team name

Team is High Performing

Healthy Signs

- Morale is good
- The team is diverse
- High energy and enthusiasm for the project

Unhealthy Signs

- The tension can be felt
- Turnover is high
- Working conditions are poor

1. Breadth, depth and caliber of PM and team skills are appropriate for all phases.
2. Morale, motivation, energy, and collaboration across teams are high.
3. Environment and facilities support productive and effective teamwork.
4. Roles and responsibilities are clear.

When we are a part of a high performing team, or see one in action, what can we observe that suggests they are high performing? Record responses on a flip chart. These could include:

- Mission oriented, clear and intense focus on the tasks at hand
- Energy and enthusiasm for being on the team and doing the team's work
- Acknowledgement and appreciation by others of the team's efforts and accomplishments
- Minimal panic or confusion, even when seriously challenged there is a "can do" attitude
- Team members collaboratively support each other beyond just doing their jobs
- Work setting is highly conducive to productivity
- Political or organizational connections or influence
- Deep experience and insights in functions, industries and other topics

Critical to "Team is High Performing" is that it must address not only the overall project staffing and resources, but also those who are responsible for the project management systems, financial management, risk management, management reporting, methods and tools selection and deployment, etc.

This key requires that the project management and governance team be assessed as well as the solution design and delivery team, so the project manager and whomever they report to must also be high performing.

If any of the teams are not high performing, then corrective action is to be considered. If the plans in place and the resources being applied against those plans are sufficient that the teams will be successful, then the Team key is green, stay the course. But if the plans or resources need corrective action, then the Team key is red if the corrective action must be immediate, or amber/yellow if the corrective action need only be in the near term.

It is also important to recognize that PMs should do a regular, at least monthly, assessment of the Team is High Performing key. For many reasons performance may drift favorable or unfavorable, and early detection of unfavorable developments is critical to staying on top of your project. Consider assigning one of your Team Members as the Team Charter owner, and ask them to report in each month regarding any changes that may be needed or any concerns that the team should address. Delegating the upkeep will free up a little of your time and give them a growth opportunity.

Any questions about organizing teams, Project Charters or the Team is High Performing before we leave this module?

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for the Team is High Performing key.

Time allowed 5 Minutes

Seven Keys Assessment Worksheet

Red - Urgent - Corrective action required immediately.
Yellow - Warning - corrective action required in the near term.
Green - Stay the Course - no corrective action required.

Project Name: Interviewee: Date: Interviewer:

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed		Red Yellow Green	
Business Benefits are Being Realized		Red Yellow Green	
Work and Schedule are Predictable		Red Yellow Green	
Scope is Realistic and Managed		Red Yellow Green	
Team is High Performing		Red Yellow Green	
Risks are Being Mitigated		Red Yellow Green	
Delivery Organization Benefits are Being Realized		Red Yellow Green	

Get the teams to think about the following for the Team is High Performing Key::

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay particular attention to the Team key since this is the key addressed in this module.

PM Feedback

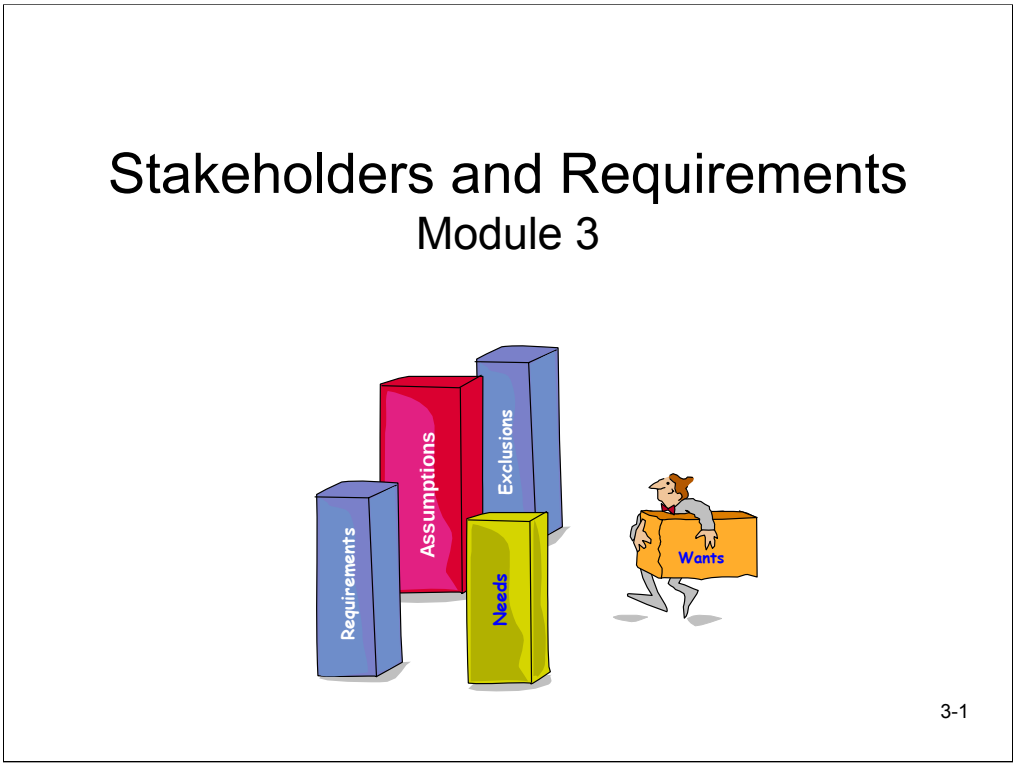
After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback. Document your lessons learned on page 18 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity.

Explain the rules for giving feedback.



Instructor's Notes

This module refers to pages 19-27 in the Learning Log.

Module 3 Timing

This module lasts for 2 hours and 25 minutes, 14:45 - 17:10 on day 1. The agenda is:

Start	End	Length	Subject
14:45	15:15	30	Discussion
15:15	15:35	20	Stakeholders plenary
15:35	16:05	30	Stakeholders activity
16:05	16:20	15	Break
16:20	16:50	30	Requirements activity
16:50	17:10	20	Debrief and PM Feedback

Documents to be used

Module 3 Case Study Handouts

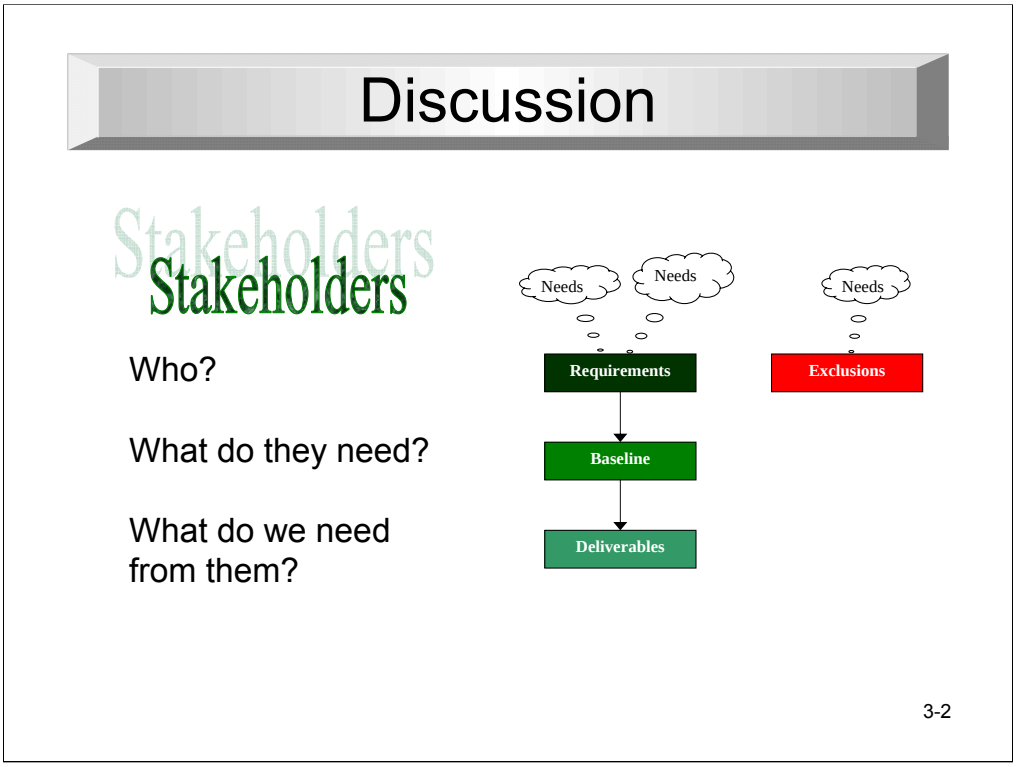
Handout 3-1 Bio of Stakeholders Volunteer Handouts

Handout 3-2 Bio of Stakeholders Trainer Handouts

Project Manager Feedback Form

Before the module starts, create a stakeholder mapping grid on the flipchart.

Find 2 volunteers to play the stakeholders in the stakeholder management exercise. Allocate each a character (Accountant & Wanda) & give them the respective hand out. Explain they must not share the information with the rest of the group until the exercise.



We are going to focus the first part of the module on how to gather the needs of the project by talking to the stakeholders.

Why are we going to spend time looking at how we manage stakeholders?

Answer: Because Stakeholders need to be managed effectively for a project to succeed and we are going to learn how to do that in a safe environment. We also need to be able to extract and articulate Business Benefits that are meaningful to the client in order to meet their expectations when delivering projects.

Ask the participants if any of them has any experience in Stakeholder Management. This will give the instructor and class an idea as to the level of experience in the room the trainer can adjust the pace of the plenary part of this session accordingly.

Ask the people who have responded positively what sort of experience they have. The trainer can then bring these people in to share their experiences as the session progresses.

Facilitate a discussion covering topics such as:

- Answer questions that participants have about the pre-class work
- Why does a PM care about what stakeholders think the needs are
- What happens if a PM does not manage their stakeholders
- Personal experiences
- What happens when the PM talks to the client about needs
- What happens when the PM does not talk to the client about their needs
- How is the project affected when the PM baselines the requirements
- What happens when the PM does not baseline the requirements

Who are stakeholders?

Any group or individual who is impacted by or who could impact the project, such as…

- IBM management
- Your team members
- Other IBM teams at the client site (e.g., other business lines)
- Client sponsor
- Client project manager
- Client team members
- Trade unions
- Employee associations
- Software vendors
- Regulatory bodies
- Media
- Industry influencers
- The client's customers

3-3

Instructor note: This slide builds up by first showing the title which asks a question, so get the participants to provide some suggestions and / or definitions.

Who can be a Stakeholder on a project?

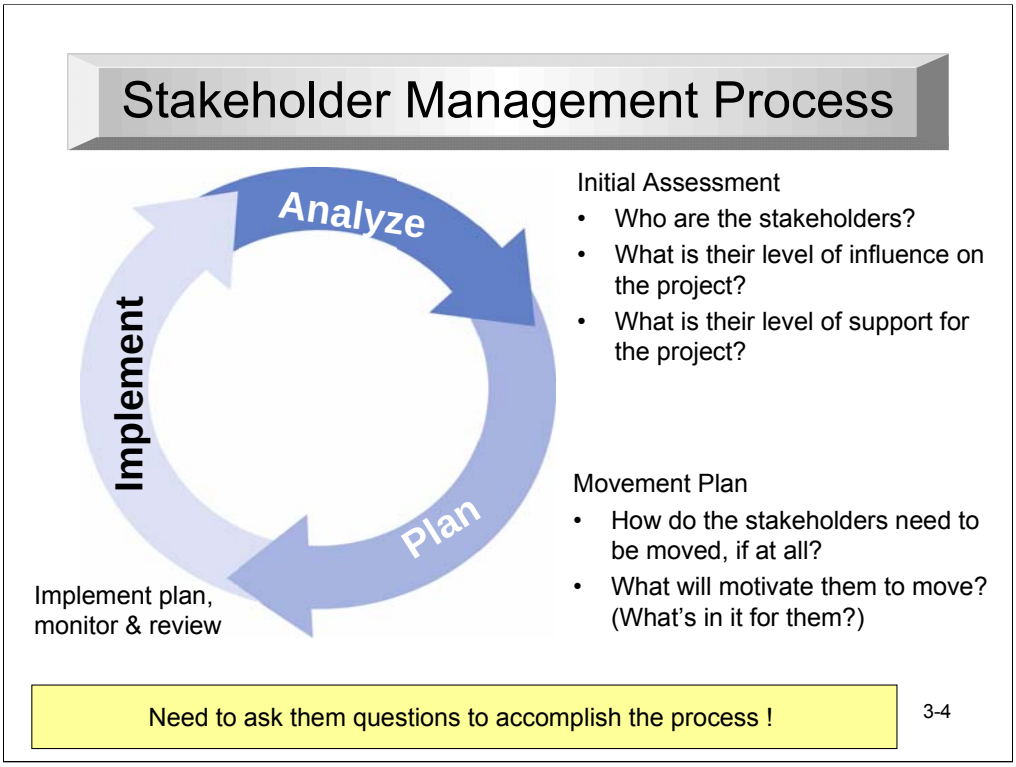
Once they have given a few suggestions, reveal the rest of the slide reinforcing the definition given on the slide.

Ask who should manage the stakeholders. Illustrate with anecdotes:

•PM

•Sponsor

•Team members



There are 3 main steps in the Stakeholder Management Process

Analyze - conduct initial assessment as indicated on the slide

Plan – Assess who needs to be moved, how to move them

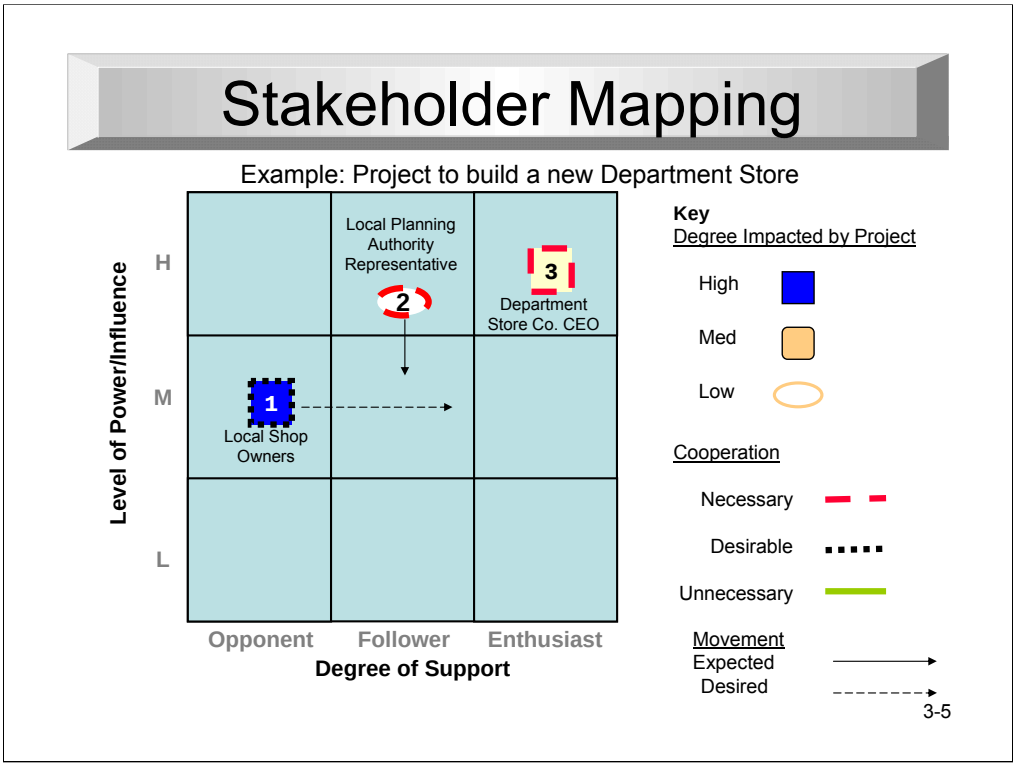
Implement & monitor the impact of the movement plan

Repeat the process as necessary

Stress that this process is iterative & needs reviewing on a regular basis.

We cannot do this in isolation. We need to engage the stakeholders to understand their needs, their views on the project, their position / influence on the project, their personality, their motivations. This is often best achieved in face to face interaction.

We therefore need to be good at asking questions



Stakeholder mapping is a tool we can use to analyze stakeholders.

Stakeholder mapping can cover a number of dimensions.

- Level of power / influence
- Degree of support for the project
- Degree impacted by the project
- Level of co-operation needed

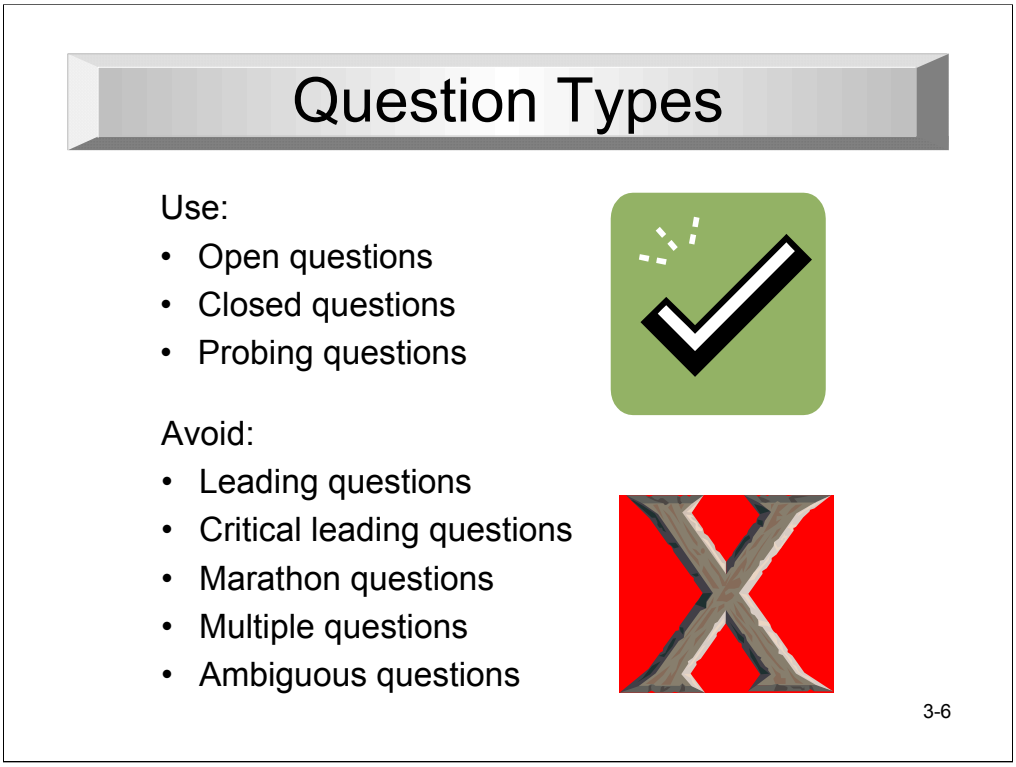
All 4 dimensions can be represented as illustrated in the example.

- Local Shop owners are opponents. We would like to have their cooperation and they will have high impact from the project. By inviting one of them to sit on the steering committee we hope to increase their degree of support and cooperation.
- The Local Planning Authority has high influence, and their cooperation is necessary. We plan to assign Kim an engineer to build a strong business relationship with them and ensure full proactive compliance with policies and procedures to influence their level of power.
- Department CEO has high level of power, and is necessary for the project to be successful and is enthusiastic. No corrective action is required.

You can also use arrows to indicate movement. In the example, we see that the level of power / influence of the local planner is likely to diminish from high to medium (once the plans have been approved).

You can also use dotted arrows to indicate where you would like people to be (visual indication of your movement plan).

Has anyone seen this type of mapping before? Were your experiences good?



It's important to be clear about the purpose of a question – are you gathering facts, clarifying what's already been said, trying to get a better understanding as to what's been said….. **Get the class to give examples when running through the different types of questions.**

Possible Answers:

Open questions – which cannot be answered with a simple yes/no response. They are useful for opening up other areas of discussion e.g. Tell me about…

Closed questions – require a specific answer, useful bringing the client back on track if you feel the interview is losing direction or for obtaining numerical or definitive information e.g. How many…

Probing questions – which 'dig' or 'drill' down several levels to check on the quality of the facts e.g. what makes you say that?, How did that come about?

Leading questions – Don't you agree that…' The client may agree even if you're wrong

Critical Leading questions – 'You surely can't mean that..' Implies the client is wrong / stupid

Marathon questions – keep questions precise & short

Multiple questions – the client is likely to only answer the last one

Ambiguous questions – e.g. 'What about the exchange rates? Can elicit the response 'well, what about them?'

Transition: Let's put our Stakeholder management knowledge & our questioning skills into practice

Stakeholder Mapping Exercise

Purpose:

- Practice creating a stakeholder map & movement plans
- Practice applying stakeholder management techniques to move stakeholders according to the movement plan
- Practice gathering customer needs through the practical application of interviewing tools and techniques

Process:

1. Meet a stakeholder (Analyze), ask questions to place on the grid
2. Once placed, decide if they need to be moved on the grid
3. Find out about their requirements & motivations. Begin to develop your Requirements Baseline & Movement (Plan).
4. Based on your interactions with each, work out how they can be motivated to be moved or maintain any favorable grid positions (Plan)
5. Finalize and Implement your Movement Plan
6. Repeat – you will meet between 2-3 different stakeholders

Participation: 2 volunteers to play the stakeholder characters
Rest of class act as one group.

Product: Stakeholder map, movement plan
Stakeholders' key requirements & exclusions

3-7

Set-up Activity :

1. Before class, create a 3x3 stakeholder map on the flip chart. Make each square as big as possible.
2. Ask for 2 volunteers. Brief them on the roles of their stakeholder character (Accountant and Wanda). Give them the bio handouts.
3. In class, brief the whole group on how the exercise will work in general. We are going to meet between 2 and 3 stakeholders from the case study who we need to map. Meeting one at a time, we will find out:
   - Who they are & what they think about the project.
   - We will then freeze the interview to decide where to place them on the grid and whether or not they need to be moved on the grid.
4. To help us better understand each stakeholder and work out how we can help meet their expectations of the project, we'll then ask them about their requirements for the project but also "what's in it for you" type of questions (personal motivations). We will then freeze the interview again to discuss how we can move them.
5. We will then continue the interview and implement the strategy to see if it works.

Instructor Notes:

- Strong facilitation skills needed to keep this exercise moving
- Leave the slide up for reference during the exercise
- Flexibility Option – if the participants are getting a lot out of the exercise and you want to increase the time on this exercise, then it is possible to reduce the time for the documentation reading exercise since the Director character has most of the other key requirements to offer up to the consultants.

Stakeholder Mapping Exercise

Purpose:

- Practice creating a stakeholder map & movement plans;
- Practice applying stakeholder management techniques to move stakeholders according to the movement plan
- Practice gathering customer needs through the practical application of interviewing tools and techniques

Process:

1. Meet a stakeholder (Analyze), ask questions to place on the grid
2. Once placed, decide if they need to be moved on the grid
3. Find out about their requirements & motivations. Begin to develop your Requirements Baseline & Movement (Plan).
4. Based on your interactions with each, work out how they can be motivated to be moved or maintain any favorable grid positions (Plan)
5. Finalize and Implement your Movement Plan
6. Repeat – you will meet between 2-3 different stakeholders

Participation: 2 volunteers to play the stakeholder characters
Rest of class act as one group.

Product: Stakeholder map, movement plan
Stakeholders' key requirements & exclusions

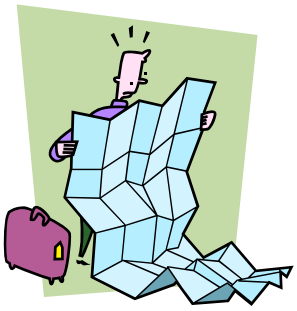
3-8

Monitor Activity

1. Ensure you have the trainer copy of the stakeholder handouts to help in the facilitation of the exercise.
2. Invite the first stakeholder to make themselves known.
3. Have the class talk to the stakeholder until they can decide where the stakeholder belongs on the grid. Freeze the interview. Get general agreement on baseline placement and get the stakeholder to stand in the appropriate grid square as agreed by the group.
4. Get the group to determine if the stakeholder needs to move. If they need to move, get agreement on what direction. They should get the Chief Accountant out of the opponent category, and maybe lower the influence of Wanda. They should get try and keep the WGGP Director to remain an enthusiast.
5. Continue the interview. The group need to work out how to move the stakeholder or how to keep them in a favourable grid location. They can do this once they understand the needs of the client (project requirements & personal motivations = Business Benefits).
6. Check**:** What's the plan to get them to move? Have the class found out what motivates the stakeholders? Do they understand their requirements and success criteria? Have they worked out which requirements to exclude and how to explain that to the stakeholder without alienating them? Freeze the interview to discuss a movement plan.
7. Continue the interviews to Implement the plan and see if they can get the stakeholders to move.
8. Repeat for Stakeholder 2 (Wanda) and if time, Stakeholder 3 (Director)

Stakeholder Considerations

- Not all stakeholders need to be moved
- They can move back as well as forwards
- They are subjective – the more data, the more accurate the assessment
- It's never too early to start
- Stakeholder documents are living things
- Stakeholder documents are sensitive – treat with care!
- Communication planning is done based on stakeholder assessments and plans



LL 19-24

3-9

Reinforce the points on the slide & base them on any observations made during the stakeholder exercise.

Highlight that internal stakeholders (e.g., IBM) need to be managed just like client stakeholders and other externals.

Stakeholders comprise a lot of people. We need a way to prioritize which ones deserve attention. Stakeholder mapping is one technique to help you prioritize.

When does stakeholder management begin?

Answer: The moment you start working on an opportunity. The stakeholders with whom you deal may change over the lifecycle of a project (e.g., decision maker to implementer) and as the status of the project changes, the stakeholder management process has to evolve as well.

How often do we need to update stakeholder assessments and plans?

Answer: It depends, but they are not static, you can't just do them once.

Communication Planning is done based upon the Stakeholder assessments and plans

The Stakeholders are Committed key is often the root cause of troubled projects.

On a project what events occur that indicate this key is unhealthy?

Answers: Stakeholders do not attend meetings
The stakeholder's staff assigned to the project are not available
Stakeholders do not return your calls or e-mail
Stakeholders do not make decisions in a timely manner

So what can you do to keep stakeholders committed? The primary answer is communicate with them. You need to show that you understand their requirements and needs, and provide them with the information they need about the project.

If there are stakeholders that you want to move, this requires effort through face-to-face meetings, calls, and presentations. You will not move a stakeholders just using e-mail.

Create the Requirements Baseline

Purpose:

- Practice creating a Requirements baseline using data gathered through stakeholder interaction and reading Project Documentation
- Practice categorizing the needs into requirements & exclusions.

Process: See the diagram.

Participation: Table Teams
Remember to assign a Project Manager

Product: Use a flip chart to generate a:
List of Requirements,list of exclusions, list of assumptions

3-11

Set-up Activity

We are going to focus the second part of the module on how to gather the needs of the project by reviewing project documents, and how to categorize them into requirements and exclusions.

Following the stakeholder interactions, you will have already established some key project requirements & exclusions (hopefully). In order to complete the requirements baseline, they must also read the project documentation that's available.

Facilitate a discussion to focus the class on the requirements baseline.

•Why is it important to document the requirements baseline?

•Have any of you not had a requirements baseline?? What happened??

•What happens if they don't have a requirements baseline??

Objective of this Activity

Using the documents provided, have each team develop a requirements document that establishes baselines for the project and helps the team organize its work. Each team will also use the document as a source of risks for the project. This will give students the opportunity to identify requirements and exclusions.

Summary of Documents

The Case Study Book contains five documents:

Case Study 3-1 Memo from WGGP director - Dates for Gymnastic Competitions

Case Study 3-2 Memo from WGGP director - Broadcast Media Requirements for Results

Case Study 3-3 Jack Walsh - World Gymnastics Games System Solution Outline

Case Study 3-4 Director of Gymnastics Competition memo — General Requirements for Gymnastics Results

Case Study 3-5 Response memo from Perry Fields

Documents from Previous Modules That Teams Should Use

Teams should refer to two documents in Module 2, the Project Charter, and the SOW which contain some requirements and the organization chart.

Create the Requirements Baseline

Purpose:

- Practice creating a Requirements baseline using data gathered through stakeholder interaction and reading Project Documentation
- Practice categorizing the needs into requirements & exclusions.

Process: See the diagram.

Participation: Table Teams
Remember to assign a Project Manager

Product: Use a flip chart to generate a:
List of Requirements,list of exclusions, list of assumptions

3-12

Monitor Activity

- Reinforce that all of the students need to assume their case study roles as they go through this phase.
- Refer teams to the documentation in Module 2.
- In their groups, have students identify the requirements and exclusions.
- Each group should then identify a list of project products that will help them to identify major areas of work.
- Groups should identify both high-level and detailed requirements and exclusions.
- Project managers for this session should be prepared to present their findings to the class.
- Use the same method of presentations for two or three presentations; then ask the other groups for differences.
- Make sure students review their organizational ground rules for rules of engagement.
- Reinforce that all of the students need to assume their case study roles as they go through identifying and validating.
- Give students 30 minutes to complete the case study.

Create the Requirements Baseline

Purpose:

- Practice creating a Requirements baseline using data gathered through stakeholder interaction and reading Project Documentation
- Practice categorizing the needs into requirements & exclusions.

Process: See the diagram.

Participation: Table Teams
Remember to assign a Project Manager

Product: Use a flip chart to generate a:
List of Requirements,list of exclusions,
list of assumptions

3-13

Activity Presentations

Choose a different team to present first. Use the same method of presentations for two or three presentations; then ask the other groups for differences.

Make sure teams have identified real requirements, including the following:

- Results to be in the hands of broadcasters three minutes after the finish of an event
- Each group should then identify a list of project products that will help them to identify major areas of work

-At a high level, the following software deliverables for the RMS:

- Solution Outline, Macro-Design and Micro-Design for each application
- An event control module for each of events
- An event management module for each of events
- Four types of output modules—Commentator Information System (CIS), scoreboard, TV, and printed reports—for each of the events

The business benefits for the WGGP should include satisfying broadcaster's requirements for accurate and timely compilation and dissemination of results.

Ask participants if they have identified any additional stakeholders. These include WA Mathewson, Felipe Knodrake, and the WGGP Director of Games Competition.

After the team's presentation, ask the other teams if they have identified other requirements. Note whether teams have identified events instead of requirements. For example, a requirement would be that the team has to attend an event; the event itself is not the requirement.

Make sure that teams have identified non-technical requirements, such as training.

Tell students that the Requirements Document they have prepared is a project document that they will use throughout the sources of the case study.

Business Benefits are Being Realized

Healthy Signs

- A compelling reason to implement
- The solution doesn't have to be fancy
- Before and after difference can be measured

Unhealthy Signs

- "Why are we doing this?"
- Time is not important
- Cost is too important

1. The business case is clearly and convincingly articulated.

2. The solution will appropriately support the desired outcomes and costs.

3. The quality of work products is appropriate.

4. Benefits tracking is ongoing and meaningful.

3-14

Closely related to the stakeholders key is the Business Benefits are Being Realized key. Generally, if you can demonstrate the business benefits of the project to a stakeholder, they will be committed to the project.

What happens if the stakeholders are not focused on the business benefits? They will focus on the costs of your project, and question why are we doing this project. This is especially on problem with long-term projects, where business benefits will not be realized until the project is well underway.

Another warning sign is that stakeholders way something like "Time is not important" or "Cost is not important". If these are not important, you should be concerned the project is not important. So why are we doing the project? Make sure there is a good business case for the project which justifies the project's existence.

A good tactic to use is delver some benefits, even if they are small, early in the project. Make sure you advertise, or communicate the delivered benefit to the stakeholders.

Also try to identify benefits that can be delivered incrementally, so the stakeholders are seeing a constant stream of benefits being delivered by the project. This will help you keep the stakeholders committed.

Tips on Business Benefits

- "Benefits" depend on the perspective of the individual/group undertaking the analysis, so...
- What may appear to be a benefit for one business area may be a drawback for another
- Make sure benefits are agreed up front by the relevant stakeholders
- Do not commit to benefits that are beyond our control (e.g., those that may take a long time to be fully realized, that depend on many external factors)

3-15

Keep SMART in mind

Business Benefits should be:

- **S**pecific
- **M**easurable
- **A**greed
- **R**ealistic
- **T**ime Bound

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for Stakeholders, Business Benefits, and Team

Time allowed 5 Minutes

3-16

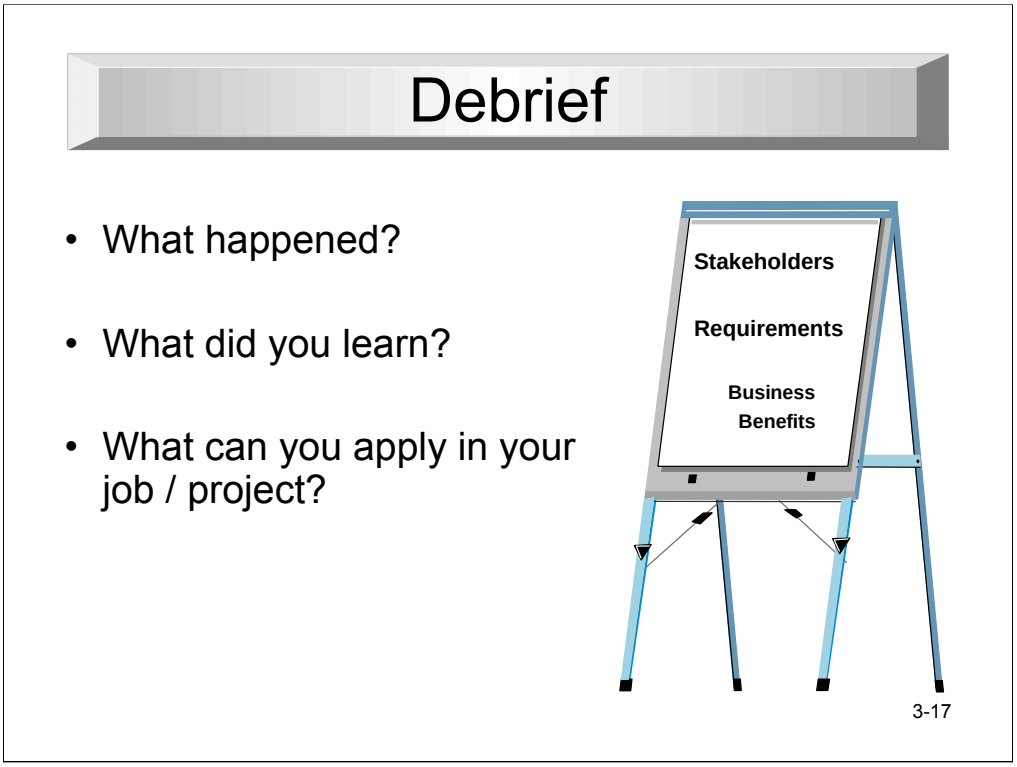
There should already be a flip chart for each team capturing the health of the project from the previous module. Get the teams to update the flip for Module 2 based on their current knowledge of the Case Study project.

Get the teams to think about:

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay particular attention to the Stakeholders, Business Benefits and Team keys since these are the main ones being addressed in this module.



Debrief both the Stakeholder and Requirements Exercises.

Explore what happened
- What happened when you started …..?
- What were you thinking that prompted you to do this?

Explore what the participants learned
- What worked well?
- What are the “Even Better Ifs”?
- What could have contributed to that? (cause and effect)
- What key things did you learn from this exercise?
- What advice would you give someone about to start this exercise?

Explore how the participants can apply the learning
- How does this relate to the real world?
- How might your learning today impact what you do Monday morning?
- How might this change the way you ….?
- What would make dealing with this situation more difficult/easier?
- How might you respond/apply these learnings when/if …?

Feedback Reminder

Receiving Feedback

- Breathe
- Listen and do not interrupt
- Ask for clarification
- Paraphrase, summarize
- Acknowledge valid points
- Sort out what you heard

Giving Feedback

- Give both the positive and "even better if"
- Catch people doing something right
- Be descriptive, use examples
- Speak for yourself, not others
- Stay with known things, not hearsay
- Be sensitive - understand your audience

3-18

PM Feedback

After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback. Document your lessons learned on page 26 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.

3-19

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity.

Reflections on Day 1

Purpose: Identify how you will use what you have learned on your projects

Process:

1. Reflect on the topics covered today and the notes that you made
2. Think about which project management processes will improve your projects and how to get your team involved in using them.

Participation: Individually

Product: At least one thing you will start doing and one thing you will stop doing on your project. Use page 28 in the Learning Log.

End of Day 1 Reflections

At the end of the first day, give the class five minutes to individually reflect on the topics covered today and identify what they will stop doing and what they will start doing as a project manager.

Ask the participants to think about which project management processes will improve their projects and how to they will get their team involved in using them.

The participants can write down their thoughts on page 28 of the Learning Log.

Start of Day 2

Ask participants to recall the topics that where covered on day one of the class.

Did you know….

Adults forget up to 70% of learning if it is not recalled within a 24 hour period!

Show this slide at the start of day 2.

Explain the FROLL. People tend to better remember something if it has one or more of these characteristics:

First – we remember the thing we see first

Repeated – we remember something if it is repeated using different media

Outstanding – we remember something that is unusual and out of the ordinary

Linked – we remember something that is linked to the mental models we already have

Last – we remember the thing we see last.

Start of Day 2 Recap

Purpose: To better remember topics covered yesterday

Process:

1. Review the topics covered yesterday.
2. On a flip chart, create the home page of a web site that covers yesterdays topics.

Participation: Teams

Product: One flip chart that looks like a project management web site home page

Ask the teams to create a home page of a web site by listing the topics that were covered yesterday.

After the teams create their flip charts, invite the participants to present their flip charts.

This exercise should take 15 minutes and then allow another 15 minutes for discussion.

PMF Agenda

Day 1

AM

Module 1 Getting Started and Defining the Project

PM

Module 2 Organizing the Team and Planning for Communication

Module 3 Stakeholders and Requirements

Day 2

AM

Module 4 Creating Hierarchical Decomposition Structures

Module 5 Risk Management

PM

Module 6 Estimating

Module 7 Creating a Project Schedule

Remind participants of the course agenda .

PMF Agenda

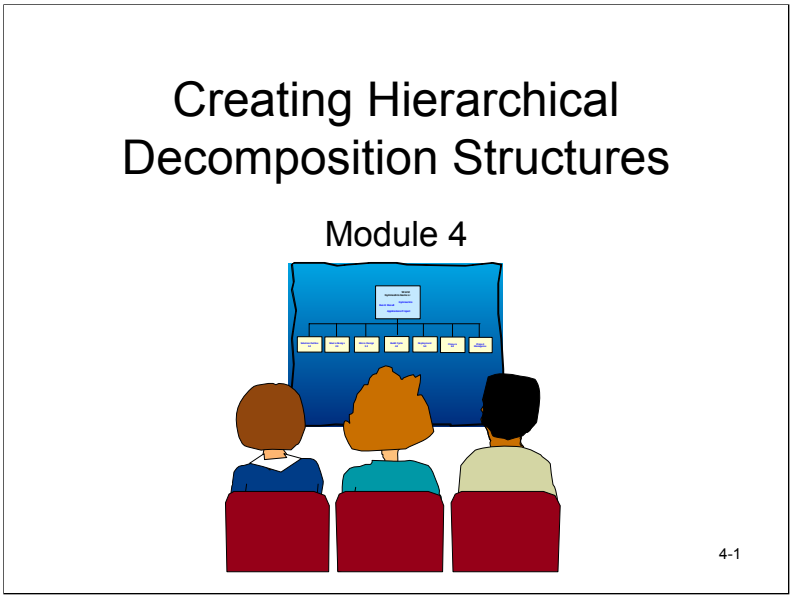
Day 3

AM

Module 8 Understanding Change Management
Module 9 Executing and Controlling a Project

PM

Module 9 Seven Keys Simulation
Module 10 Project Reviews and The 7 Keys
Module 11 Closing the Project
Module 12 Course Wrap-up and Exam



Instructor notes

This module refers to pages 29-33 in the Learning Log.

Objective of This Workshop

Using the documents provided in this module and previous modules, teams gain practical experience building a WBS.

Module 4 Timing

This module lasts for 1 hour 20 minutes, 09:00 - 10:20, on day 2.

The agenda is:

Start	End	Length	Subject
Day 2			
09:00	09:15	15	PBS/WBS/OBS Discussion
09:15	10:00	45	Start of PBS/WBS Exercise
10:00	10:20	20	Exercise Debrief
10:20	10:35	15	Break

Summary of Documents

The Case Study Book contains the following documents:

•Case Study 4-1 Perry Fields-Deliverables for Gymnastics Results. The memo adds requirements for hardware configuration, training, testing, and project closeout.

•Project Manager Feedback Form

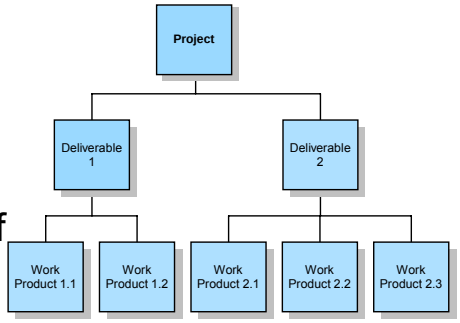
Handout 4-1 Possible Solution

Documents from Previous Modules That Teams Should Use

Teams should review the Project Charter and the SOW in Module 2 and all documents in Module 3.

Discussion

- What does decomposition mean?
- Why do we do it?
- What is the function of the PBS, WBS, and OBS?



LL 29-33

4-2

Facilitate a discussion covering topics such as:

•Answer questions that participants have about the pre-class work
•Why does a PM do decomposition
•Personal experiences
•What happens when you do this as a PM
•What happens when you do not do this as a PM
•What is the difference between a PBS and a WBS?
•Why do we need a PBS. WBS and an OBS?

Creating Hierarchical Decomposition Structures

Purpose: Gain practical experience building a WBS

Process:
1. Read the Case Study 4-1 and review any previous documents
2. Identify all major product deliverables for your project.
3. Create a combined PBS / WBS for your project deliverables.
4. Review the PBS / WBS as a team to ensure its completeness.

Participation: Teams led by the Project Manager

Product: Completed PBS/WBS
Be prepared to present your PBS/WBS to the class.

4-3

Set-up Activity

Explain the activity. There are more suggestions on the next slide.

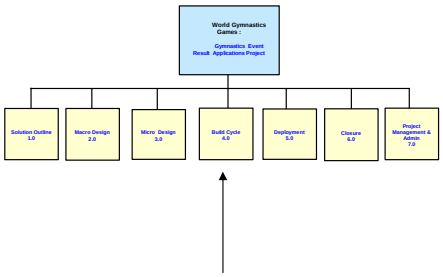
Activity Suggestions

Start with two blank easel pages taped together

Use table as working area so everyone can participate

Conventions:

- WBS Name in every box
- WBS Number in every box
- Use "noun" and "verb" test to help with proper context
- Draw lines
- PM presents team process and high-level structure



Post on wall

4-4

Further Instructions to Teams

•Tell teams that this workshop requires them to do a lot of work in one hour, so they must work efficiently, make quick decisions, and not spend a lot of time debating issues.

•Remind teams to review their organizational ground rules to help with the process, and avoid getting themselves bogged down in discussions.

•Caution teams about making their WBS too detailed. It should be complete but manageable. As one instructor said, "The WBS is your friend. Don't make it unwieldy."

•Tell students to assume their roles, approaching the WBS from the perspective of their roles.

•Remind students that there is a new project manager for this module.

•Teams will build their WBS using Post-it notes. Teams should write the WBS number and the name of the work element on the Post-it notes.

•Tell teams to leave spaces in the four corners of the notes for information that they will add later.

•Tell teams not to estimate either the duration or the cost of any activity.

•Give students 1 hour to complete the case study.

Points to Be Aware of in Documents

The Perry Fields note contains two dates:

•The fixed date of the test event for national gymnastics event in Sao Paulo, Brazil: October 22-25

•The date for the completion of the system integration test: October 8

During Team Presentations

•Ask the teams to present their solutions.

•For the briefing, have students give a high-level response and ask them for specifics. Use the solution as a reference.

•If a team includes too much detail on its PBS/WBS, for example, an activity such as "Design Commentator Information System Code (CIS)," ask, What makes this control module different from the others? What are its unique requirements?

•Make sure teams include project management activities, the test events, the Gymnastics events, and the closeout activities.

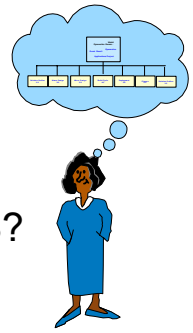
•Ask the teams if they have identified any additional stakeholders.

After the Presentation

Distribute the *Handout 4-1 Tasks* included with this guide to the teams. Be sure they understand that the solution is only one possible solution, and we will use that solution moving forward.

Debrief

- On your projects, do you find a WBS helpful?
- Who usually creates the WBS?
- What happens when you do not spend enough time creating a complete WBS?
- Should you update your WBS when a change is accepted on the project?



4-5

Debrief the Activity

Explore what happened

•What happened when you started …..?

•What were you thinking that prompted you to do this?

Explore what the participants learned

•What worked well?

•What are the "Even Better Ifs"?

•What could have contributed to that? (cause and effect)

•What key things did you learn from this exercise?

•What advice would you give someone about to start this exercise?

Explore how the participants can apply the learning

•How does this relate to the real world?

•How might your learning today impact what you do Monday morning?

•How might this change the way you ….?

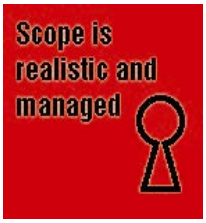
•What would make dealing with this situation more difficult/easier?

•How might you respond/apply this when/if …?

Pass out Handout 4-1 Possible solution

. This shows tasks that should be included in their WBS's.

Scope is realistic and managed



Healthy Signs

- Evidence of healthy negotiation
- Lengthy issues log
- Written agreements
- Scope documents are compiled and readily available

Unhealthy Signs

- "Issue" is a bad word
- Not clear what documents define scope
- Confusion over scope document versions and updates

1. Scope management plan is implemented.

2. Organizational, system, and geographic boundaries are appropriately defined.

3. Scope exclusions/assumptions are clear.

4. Proposed/agreed changes to terms are appropriately reflected in costs, schedules, and responsibilities.

4-6

During project planning, it is important to identify what is in scope of the project. And then make sure the client and other stakeholders understand what is in scope and what is out of scope.

We can use the PBS and WBS to communicate scope to our client and the project team.

All team members need to be aware of – and need to use – the scope management process established for the project. This helps ensures that they identify and document all change requests. It also helps team members manage the expectations of the stakeholders they deal with directly.

Once change requests are identified and documented, they must be assessed in light of the project's objectives, budget, and timeframe. They must also be assessed on their impact to other aspects of the project. This involves constant review of the client contract, any third party contracts, and IBM's financial expectations as well as review of the project plan.

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for Scope, Stakeholders, Business Benefits, and Team

Time allowed 5 Minutes


Seven Keys Assessment Worksheet
Red - Urgent - Corrective action required immediately.
Yellow - Warning - corrective action required in the near term.
Green - Stay the Course - no corrective action required.

Project Name: Interviewee: Date: Interviewer:

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed		Red Yellow Green	
Business Benefits are Being Realized		Red Yellow Green	
Work and Schedule are Predictable		Red Yellow Green	
Scope is Realistic and Managed		Red Yellow Green	
Team is High Performing		Red Yellow Green	
Risks are Being Mitigated		Red Yellow Green	
Delivery Organization Benefits are Being Realized		Red Yellow Green	

4-7

There should already be a flip chart for each team capturing the health of the project from the previous module. Get the teams to update the flip for Module 3 based on their current knowledge of the Case Study project.

Get the teams to think about:

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay particular attention to the Scope, Stakeholders, Business Benefits and Team keys since these are the main ones being addressed in this module.

PM Feedback

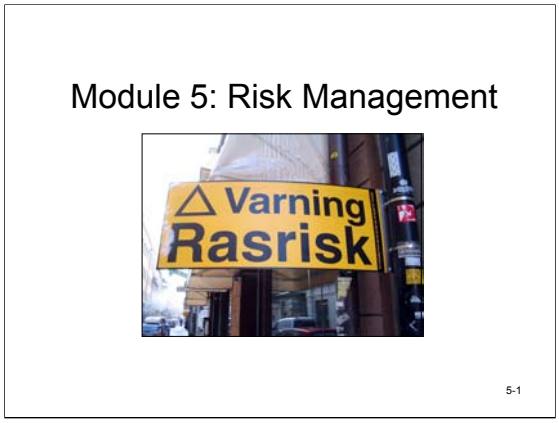
After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback. Document your lessons learned on page 34 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.

4-8

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity.



Instructor Notes

This module refers to pages 35-37 in the Learning Log.

Learning Objectives:

•Understand risk concepts and definitions

•Be able to identify and analyze risks, and create a risk response plan

Module 5 Timing

This module lasts for 1 hours and 35 minutes, 10:35 – 13:10, on day 2. The agenda is:

Start	End	Length	Subject
10:35	11:00	25	Discussion
11:00	11:50	50	Risk Activity
11:50	12:50	60	Lunch
12:50	13:10	20	Debrief and PM Feedback

Summary of Documents

•Case Study 5-1 The Lessons Learned in Barcelona.

•Case Study 5-2 Perry Fields memo, IBM White Paper..

•Case Study 5-3 Change of Location.

•Case Study 5-4 Offshore Contractors.

•Case Study 5-5 Perry Fields memo, Reorg. Meeting.

•Case Study 5-6 The SWATCH letter.

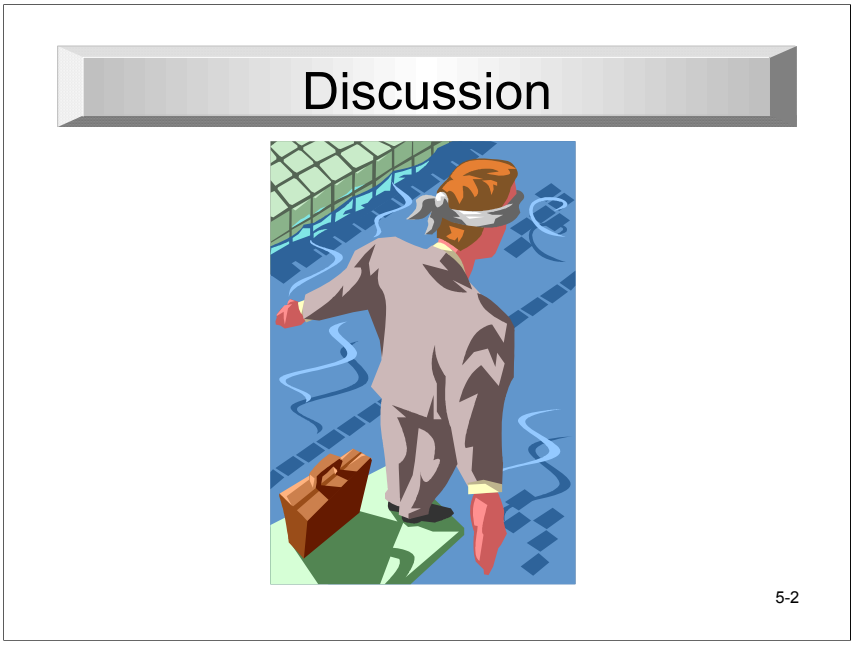
•Case Study 5-7

•The Risk Management Plan Template. This is a template for the students to use.

•Project Manager Feedback Form

Documents from Previous Modules That Teams Should Use

Documents in Modules 2, 3, and 4 contain more risks. Teams should review these.



The Module in the pre-class study covered:

- Defining risk management
- Discussing the reasons for risk management in project management
- Describing the risk management process, including the following steps:
    - Identification
    - Analysis
    - Response planning
    - Tracking & Control
    - Reaction

Ask the participants to define:

- Risk
- Issue
- Problem

Ask the participants to explain the different strategies for responding to risk.

Definitions Recap

Definitions:

- **Risk** – A potential event or future situation that may adversely affect the project (proactive).
- **Issue** – An event that has occurred that can not be addressed by members of the project team. (reactive)
- **Problem** – A materialized risk or issue that can be addressed by members of the project team. (reactive).

Risk Responses:

- **Transfer risk.** Using a transfer strategy, you transfer all or a portion of a risk to another party.
- **Insurance.** When you have insurance coverage, you can use it to cover the cost of a risk event.
- **Contingency.** In this strategy, you set aside funds to be used when the risk occurs or when later containment is deemed to be appropriate.
- **Mitigate.** When mitigating risk, you take specific action to minimize or avoid the occurrence and effect of a risk.

5-3

Here are some formal definitions as a reminder and some of the strategies you can employ to manage risk on your projects.

Have any of you seen these responses on your projects? Can you share that with us?

Note to trainer: Ensure that the participants understand clearly WHY risk management is important for them to understand and apply on their projects.

Possible topics to facilitate this discussion could include:

- How did the project manager go about identifying risk and what priority did they place on it?
- What effect does not identifying or planning for risks have on project cost, schedule, and requirements (scope)?
- Ask participants if they have been involved in a project where risks were not planned for, and what they learned (reference back to Day 1 where we looked at Process vs. Behavioral skills).
- As team members on projects have they ever been asked by their PM what could go wrong with the tasks they have been assigned? What did (could) that feel like? How did you respond? Point out that a great tip as a project manager, is to encourage each team member to identify at least three things that could go wrong and, then plan for them to happen.

If the project manager doesn't ask and prepare accordingly, the team members could assume that no risks exist or that they have had enough experience to handle anything that could go wrong with the task they have been assigned. What might be overlooked is that a particular team member might move on, leaving the team with someone less experienced.

One of the most important aspects of the Risk Management process is that it is a continuous process and it happens continuously throughout the entire lifecycle of your project.

One great way to continually think about risks across your project, is to use the Seven Keys as a framework to ensure you have thought about all possible areas that risks could arise – so what are the risks that might arising from my stakeholders? Are their risks associated with business benefits being realized? Are there any risks within my own team that I need to think about and plan for? And so on.

Point out that there is a difference between using the Seven Keys as a framework to assist with identification of risks on your project (as all projects have risks) and assessing the “color” of the Risk Key.

To support you in determining and developing your risk plans IBM has designed the GS Risk tool specifically for internal use - it is the standard risk management tool approved by World Wide QA/ Risk Management.

Some key points on GS Risk

Lessons learned from thousands of services projects were used to create risk assessments and provide best practices mitigation suggestions for individual risk management plans.

The tool is designed to provide thorough risk assessments while minimizing the time it takes to use by eliminating the need to key-in risk statements and containment actions. With a minimal amount of input, a risk assessment can be completed and a risk management plan can be created for your project.

GS Risk allows you to:

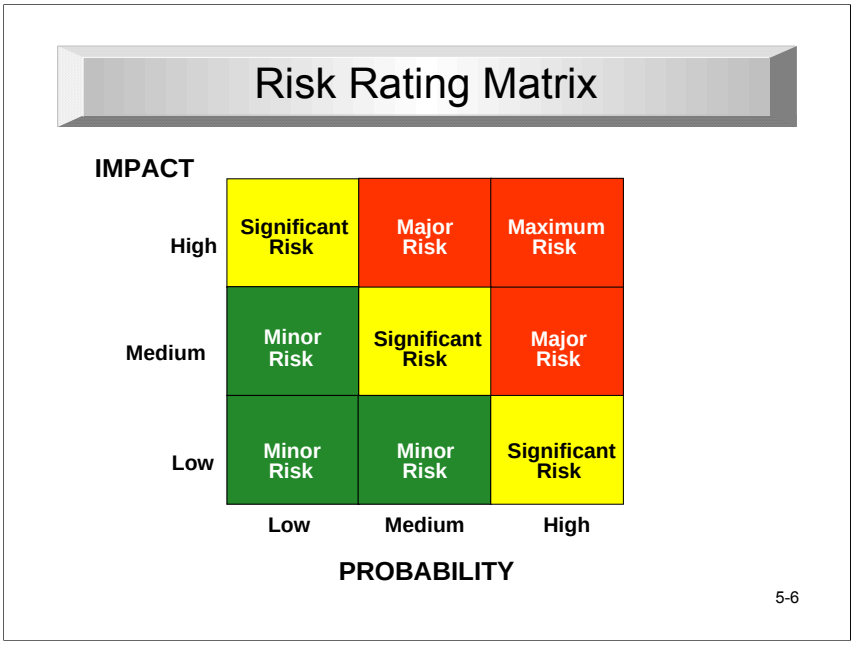
1) identify risks
2) establish a risk rating and
3) develop a Risk Management Plan for any proposal or any internal or external project or engagement

Its functionality includes:

- Risk Assessments to fit the type of proposal or project you are reviewing
- Multiple reviewer comparisons of assessments on the same engagement
- Prioritized list of risks by severity level
- Recommended containment actions to help mitigate the identified risks
- An easy-to-use Risk Management Plan generator
- Customized Reports
- Exports to QA Workbench and Microsoft Project Plans

GS Risk tool also includes the capability to assess project management health. The PMR Health function in GS Risk helps identify areas of project management strengths and/or concerns. In addition, the PMR function provides a project management classification of "A, B, C or D" with detailed explanations of how the classifications are assigned. An "A" project is considered a well-managed project with no significant issues. On the other hand, a "D" project indicates that there are significant issues that need to be addressed. In addition, users can use the PMR functionality to build action plans to address the areas of concern.

The tool is generally considered very intuitive to use as it provides online assistance via an "Instructions" button on the GS Risk tool bar, and a comprehensive User's Guide using the "Help" button when the application is active. A Quick Reference guide is available in the Downloads section above, to help walk you through your first assessment. Additional education is available through Learning@IBM (aka Global Campus). The course name is “Using the GS Risk Tool to Manage Project Risk - JIT“ reference WW Course #PM78G or US Course #PM78D



You should remember this matrix (or something similar) in PM Orientation.

The severity of a risk event, or **risk exposure**, is determined by probability and impact components – so the X and Y axis of the matrix.

We will now use this matrix to assess the severity of some of the risks in the case study project.

Create a Risk Management Plan

Purpose: To continue the risk management process by preparing a risk management plan

Process:

1. Read handouts and identify 4-5 risks.
2. Analyze probability and impact for each risk.
3. Use the risk matrix to identify the top 3 risks
4. Develop a Risk Response Plan for the top 3 risks
5. Add your Risk Actions (tasks) to your WBS using yellow "sticky note"

Participation: Teams led by Project Manager

Product: Completed Risk Template for top 3 risks
Be prepared to present using flipcharts and “sticky notes”

5-7

Set-up Activity

Remind teams:

- That they are using a February date as today’s date in this exercise
- To view risk from the perspective of the role they are each playing
- To focus on the process of developing the risk plan rather than getting into all the detail of the case study

Note to trainers: The next slide shows the risk management plan template – take a few moments to briefly talk through it with the participants and then return to this slide so they have the complete Activity steps available throughout the exercise.

Monitor Activity

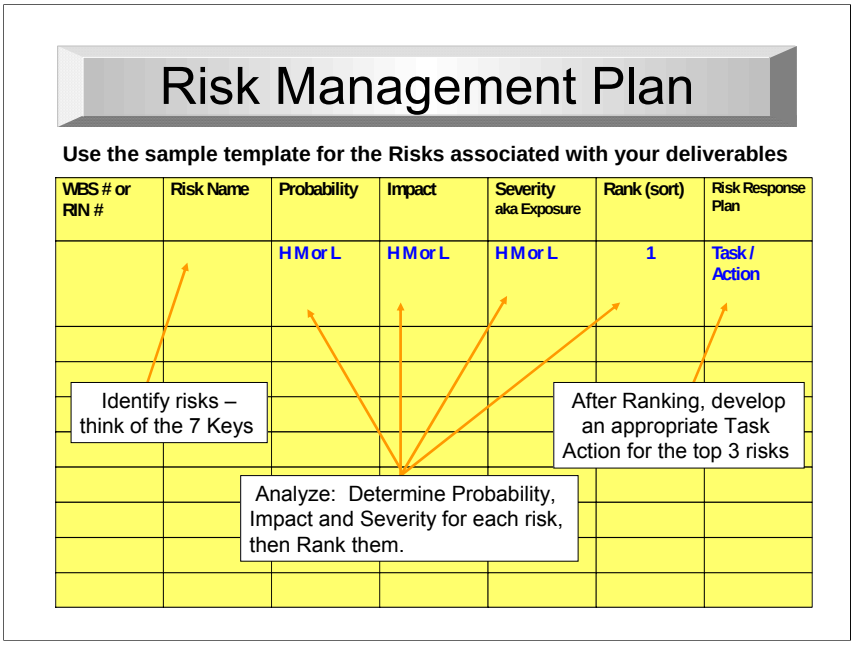
Give them space but monitor each team. If teams are struggling, provide assistance. Don’t let them flounder too long.

Team presentations

Ask one team to present their risks and responses. If during a team’s presentation you notice a long list of risks, ask the team to talk about the top 3 risks. Ask each other table for additional comments or risks/responses that differ significantly.

Point out to teams that they should *not* focus on the outcome or impact of an event, but instead on the risk event itself. For example, a schedule slip is not a risk event; it is the outcome or impact of a risk event. A cost overrun is not a risk event; it is the outcome of a risk event.

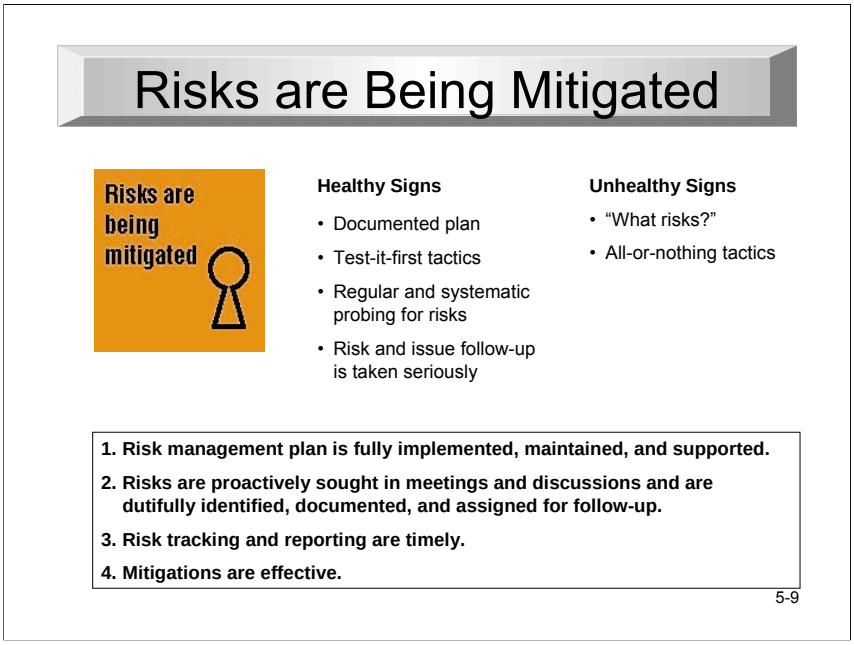
Teams often fail to include response strategies in their plans *and* to add that action to their WBS.



The documents you have been given (and from previous Modules) contain a large number of risk items.

You will need to figure out how to avoid being bogged down by the number and, often, the pettiness of some potential risks – this is often a reality on projects too!

You can do this by prioritizing the risks using a risk impact and probability table something like this one.



The Risk Key is about determining if a risk management plan exists, if the plan has been communicated to team members, and if it is being actively used. You should remember from your pre-class work that some of the criteria for assessing the Risks are Being Mitigated key include:

- The risk management plan is fully implemented, maintained, and supported.
- Risks are appropriately sought in meetings and discussions are dutifully identified.
- Risk tracking and reporting are timely.
- Mitigations are effective.

So the Risk Key is about whether the risk management is working properly. While other keys could be red, this key could still be green because risk management is working as it should be working. Likewise, all other keys could be green and this key could be red if this is the only key needing corrective action.

Seven Keys Assessment

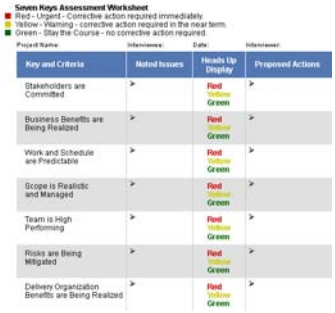
Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for Risk, Scope, Stakeholders, Business Benefits, and Team

Time allowed 5 Minutes


Seven Keys Assessment Worksheet
Red - Urgent - Corrective action required immediately.
Yellow - Warning - corrective action required in the near term.
Green - Stay the Course - no corrective action required.

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed		Red Yellow Green	
Business Benefits are Being Realized		Red Yellow Green	
Work and Schedule are Predictable		Red Yellow Green	
Scope is Realistic and Managed		Red Yellow Green	
Team is High Performing		Red Yellow Green	
Risks are Being Mitigated		Red Yellow Green	
Delivery Organization Benefits are Being Realized		Red Yellow Green	

5-10

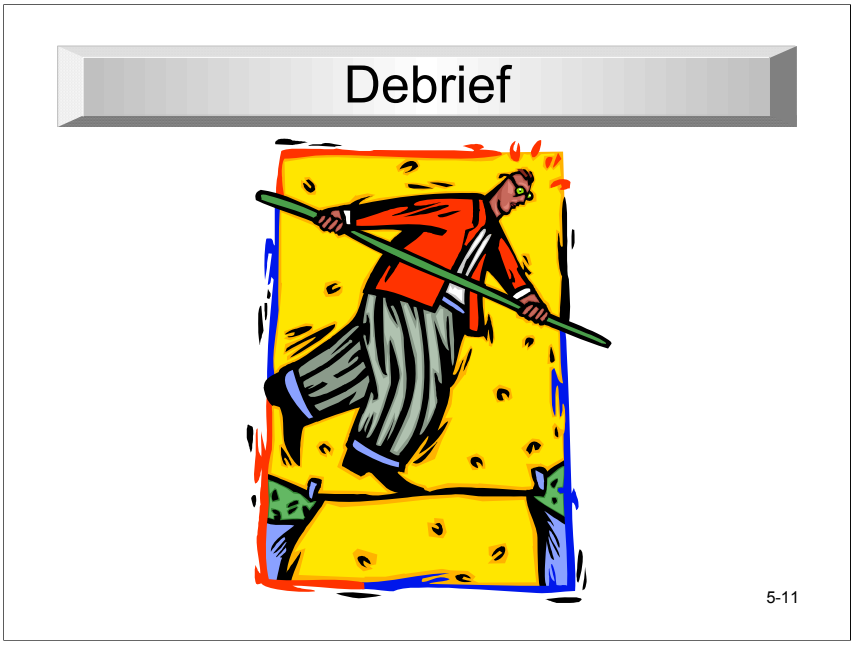
There should already be a flip chart for each team capturing the health of the project from the previous module. Get the teams to update the flip for Module 4 based on their current knowledge of the Case Study project.

Get the teams to think about:

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay particular attention to the Risk, Scope, Stakeholders, Business Benefits and Team keys since these are the main ones being addressed in this module.



Debrief Activity

Once all the teams have shared something on the content, conduct a debrief.

Explore did they do

- What method, such as brainstorming, nominal group technique, or previous projects, did you use to identify risk?

Explore what the participants learned

- What worked well?
- What are the “Even Better Ifs”?
- What could have contributed to that? (cause and effect)
- What key things did you learn from this exercise?
- What advice would you give someone about to start this exercise?

Explore how the participants can apply the learning

Now that you have completed a risk plans consider the following:

- How often should you update your risk management plan?
- Who should be involved?
- How should you communicate the plan to your project team?
- What will you do differently when you go back to your project?

Remind teams that this is the first, not the final, version of their risk plans.

PM Feedback

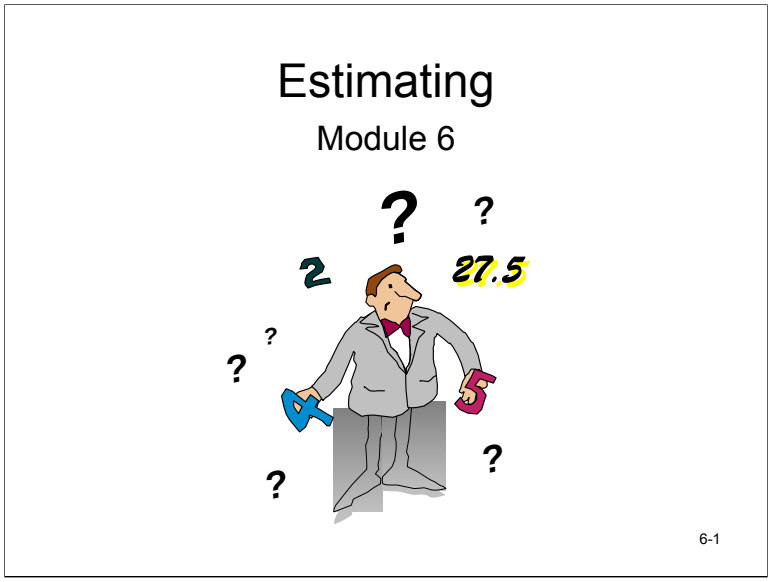
After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback. Document your lesso
  38 of the Learning Log.
  - This should include any changes that you plan to ma
    work as a result of this exercise.

5-12

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity.



Instructor Notes

This module refers to pages 39-43 in the Learning Log.

Objectives of This Module

Using the documents provided, teams develop a bottom-up project budget for the work elements they identified. Teams also determine the cost of every deliverable and estimate the duration of every task for their team's assigned subproject.

Module 6 Timing

This module lasts for 2 hour and 15 minutes, 13:10-15:25, on day 2. The agenda is:

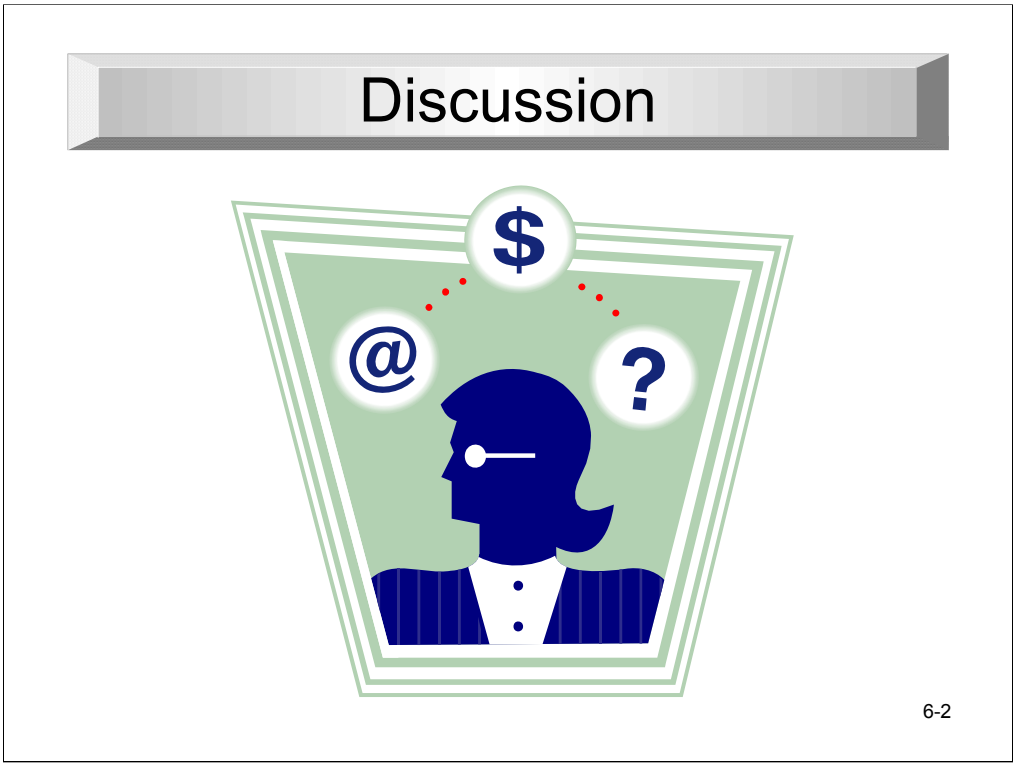
Start	End	Length	Subject
13:10	13:40	30	Discussion
13:40	14:30	50	Estimating Activity
14:30	14:50	20	Debrief and PM Feedback
14:50	15:10	20	Break
15:10	15:25	15	Energizer

Summary of Documents

- Case Study 6-1 Perry Fields memo on the Budget.
- Case Study 6-2 Resource Rates for the Project.
- Case Study 6-3 Hardware and Software Requirements.
- Case Study 6-4 Equipment Costs.
- Case Study 6-5 Gymnastics Floor Plan.
- Case Study 6-6 Historical data for Planning.
- Case Study 6-7 A proposal from a contractor bidding on the event applications for the World Gymnastics Games project.
- Case Study 6-8 Cost Estimate Template
- Handout 6-1 Cost Estimate Solution
- Project Manager Feedback Form

Documents in Previous Modules That Teams Should Use

Teams should review documents from earlier modules so they know which events have fixed duration.



Ask participants what kind of experience they have with estimating and adjust the discussion as appropriate.

Remind participants about the learning objectives from Project Management Orientation:

- Defining an estimate
- Determining what to estimate
- Generating an estimate
- Recognizing the difference between effort and duration
- Describing specific types, methods of estimating
- Discussing the estimating process
- Validating an estimate

Ask participants to think about:

What is the purpose of estimating?

When do you do estimating?

Who should be involved with making estimates?

What happens when you do create good estimates as a PM?

What happens when you do not create good estimates as a PM?

Answer questions the participants have about the PM Orientation work

Top-down Estimating

- Top-down estimating results in high-level estimates of projects or their summary tasks based on parametric, analogy or comparison, or expert judgment.
- Based on collecting judgments, past experiences, and on evaluating past data concerning similar activities.

6-3

Parametric Estimating

Uses specific measures to estimate the effort required to complete a task or to produce a work product, such as hours per lines of code and dollars per function point.

Advantages

- Can be more accurate and detailed than analogous
- Can be quicker than bottom-up

Disadvantages

- Accuracy varies widely
- Can be more costly to produce
- Historical information may not be available
- Parameters may not be quantifiable or scalable

6-4

Analogous Estimating

Use the actual cost of a previous, similar task, activity, or project as the basis for estimating the cost of the current task, activity, or project.

Advantages

- Little time and effort
- Less costly
- Details don't need to be known

Disadvantages

- Less accurate
- Historical information or expert opinion may not be available

6-5

Bottom-up Estimating

Cost and duration of individual work items in hours and summarized to a project total.

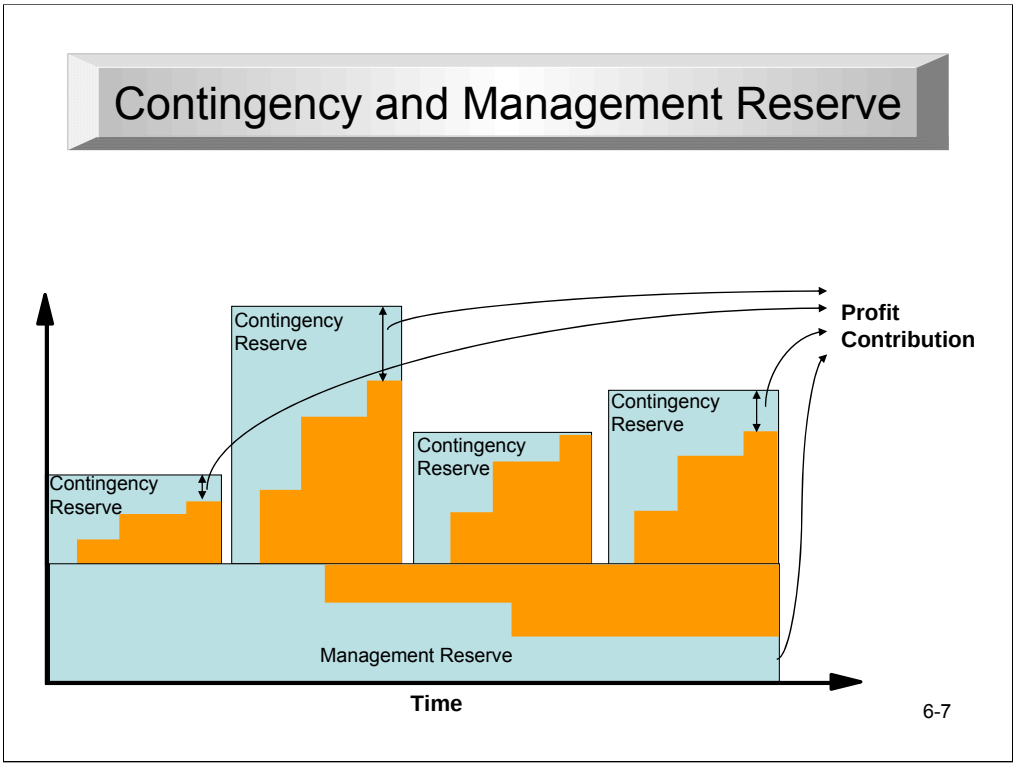
Advantages

- Improved accuracy
- Appropriate detail to monitor and control project
- Provide team buy-in to estimates

Disadvantages

- Longer time
- Higher cost
- Only as accurate as the WBS
- Team members may pad estimates

6-6



Contingency Reserve is established at the project level to deal with known risks. This can include both time (buffer in the schedule) and money. The Project Manager owns the contingency reserve.

If the risk consequences can be quantified, one way to calculate reserve is to quantify the impact of risk in terms of money and/or time. Multiply the impact by the probability to get the risk exposure in terms of money and/or time. The sum of the risk exposures could be used to determine the contingency reserve needed.

Another less precise, but often used, way to calculate reserve is to apply a “rule of thumb” percentage such as 15% of the total project cost.

Usually, a contingency reserve is established during the planning process of a project. The project manager needs to periodically review the contingency reserve to ensure it will meet the changing risk profile of the project.

Management reserve is owned by ‘Senior Management’ and is held outside the project. Management reserve is shared across projects and intended as cross-project business insurance to meet overall business risk.

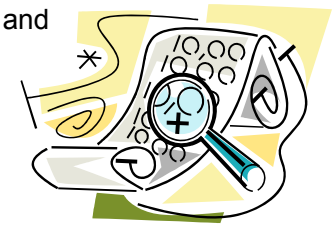
If the project uses all of its contingency reserve, the PM would have to negotiate with Senior Management to access the Management Reserve.

Create Case Study Estimates

Purpose: Practice creating cost estimates based upon your WBS and resources

Process:

1. Estimate the quantity and cost of equipment and other materials
2. Estimate human resource hours
3. Apply costs to the hours
4. Calculate the total cost



Participation: Teams led by Project Manager

Product: Completed cost estimate template
Be prepared to present your cost estimate

6-8

Ask each team if they believe they can finish each of these three deliverables on time although they have not yet calculated the schedule based on the precedence diagramming method (PDM). The students' "guesstimates" are usually not accurate at this point, and it underscores the need for the process when they actually calculate the schedule in the PDM exercise.

Set-up Activity

Give the participants 50 minutes to complete the case study. They should use the Case Study 6-8 Estimate template to simplify this exercise. They need to calculate the cost of materials, estimate the number of labor hours and then apply costs to those hours.

Remind teams to:

•Change project managers and observers

•Use the Estimate Template to simplify this exercise

•Divide the work among different team members – ie. Two people to do the hardware estimate while others do the labor estimates based upon their roles on the team.

•Document their assumptions

•Prepare a bottom-up estimate

Points to Be Aware of in Documents

•Remind students that they are the experts for their role and they should focus on their work packages.

•Remind students that they have only the resources on their team.

Debrief

- What are the difficult aspects of estimating?
- How do you overcome the difficulties?
- How do you validate your estimates?

6-9

Debrief Activity

Once all the teams have shared something on the content, conduct a learning debrief, and pass out Handout 6-1 Estimating Possible Solution

Explore what happened

•How teams came up with their estimates?

Explore what the participants learned

•What worked well?
•What are the "Even Better Ifs"?
•What could have contributed to that? (cause and effect)
•What key things did you learn from this exercise?
•What advice would you give someone about to start this exercise?

Explore how the participants can apply the learning

•How does this relate to the real world?
•How might your learning today impact what you do Monday morning?
•How might this change the way you ….?
•What would make dealing with this situation more difficult/easier?
•How might you respond/apply these learnings when/if …?
•How does estimating link back to the Seven Keys?

Not taking the time to make good estimates can affect several of the keys. First, work and schedule will not be predictable, as deadlines will be missed. The delivery organization benefits key will likely go red as spending increases and the project goes over budget. How do the sponsor and key stakeholders react when the project is late and over budget? Now your stakeholders lose their commitment. And at the end, the project will not be successful and deliver the business benefits that were expected.

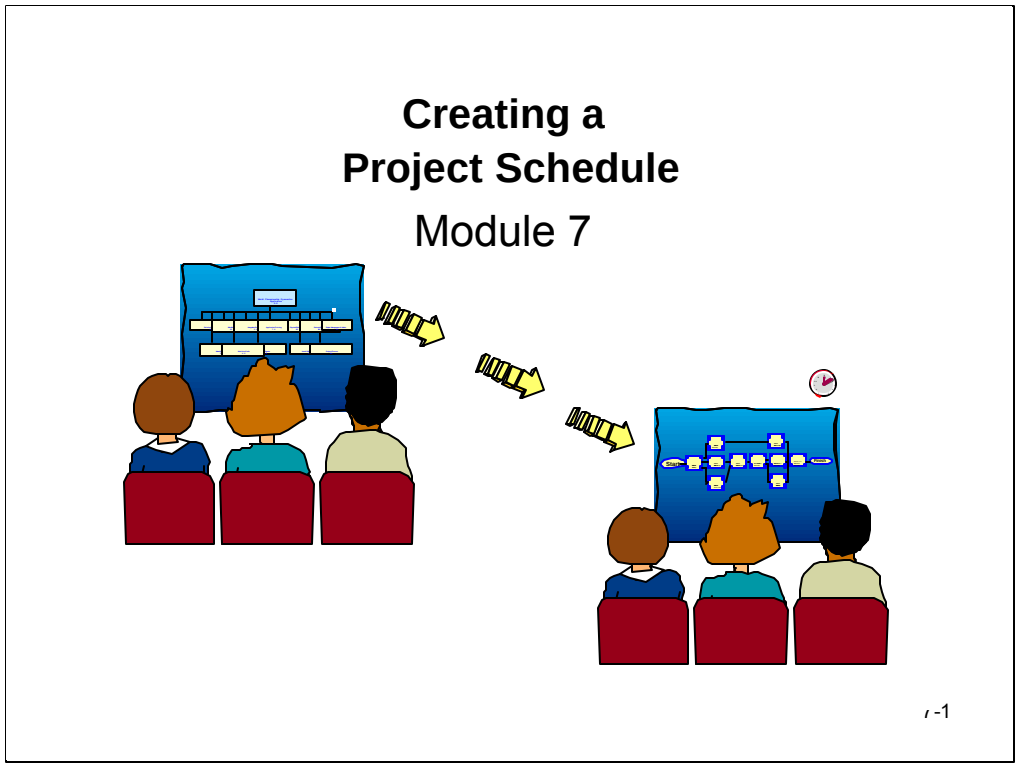
PM Feedback

After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM
- After providing the PM feedback. Document your on page 44 of the Learning Log.
  - This should include any changes that you plan daily work as a result of this exercise.

6-10

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity, and to document their own thoughts.



Instructor Notes

This module refers to pages 45-49 in the Learning Log.

Objectives of This Activity

Using the documents provided, teams develop network diagrams for their projects. They also identify the float and critical path, using forward and backward passes

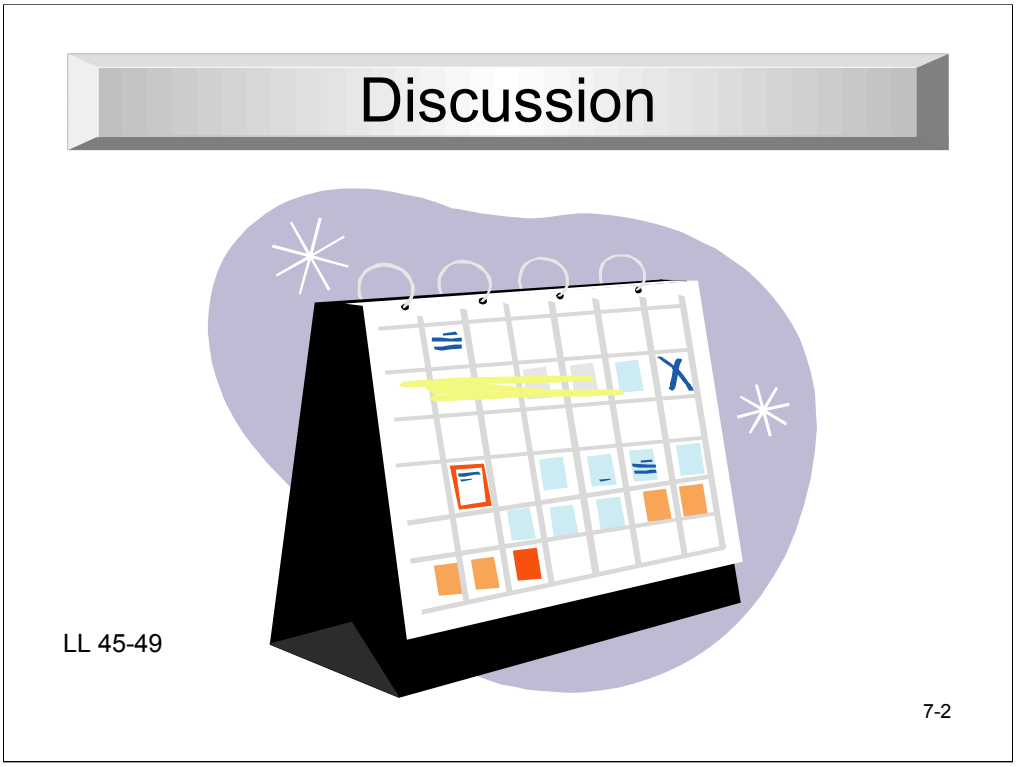
Module 7 Timing

This module lasts for 1 hours and 45 minutes, 15:25 - 17:10, on day 2 and from 8:30 – 8:50 on day 3.

Start	End	Length	Subject
15:25	15:45	20	Discussion
15:45	16:00	15	Critical Path Activity
16:00	16:10	10	Debrief
16:10	17:10	60	Scheduling Activity
17:10	17:30	20	Reflections on Day 2
Day 3			
08:30	08:50	20	Debrief and PM Feedback
08:50	09:10	20	Reflections on Day 2

On Day 3 Start the day with the Module 7 Debrief then do the Review of Day 2.

The documents for this module are in Case Study Book Module 7
•Critical Path exercise
•Case Study 7-1 Perry Fields memo on Scheduling Work
•Case Study 7-2 Pat Petersen memo on Resources Available for Logistics Support
There is one handout
•Handout 7-1 Critical Path exercise solution



The objectives of this module are:

- Create precedence diagrams
- Define and document the relationships in the precedence diagram
- Calculate the forward and backward pass
- Define the critical path
- Create schedules from the precedence diagrams
- Describe the criteria and signs for the Work and Schedule are Predictable key

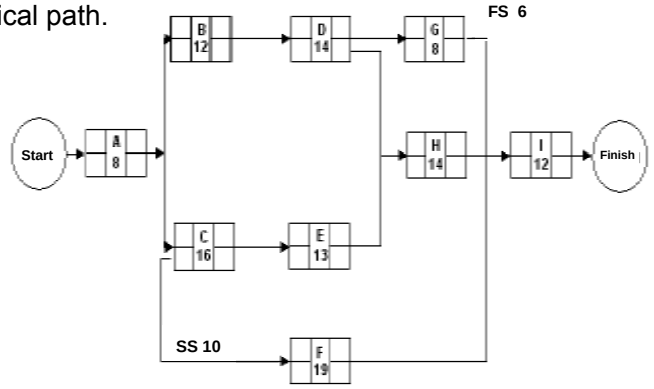
Facilitate a discussion covering topics such as:

- Learning objectives for the module
- Why do we create precedence diagrams?
- Share personal experiences on:
    - What happens when you create precedence diagrams?
    - What happens when you do not create precedence diagrams?
- What are the different dependencies between activities?
- What is the critical path?
- How do you know if an activity is on the critical path?
- Answer questions the participants have about PM Orientation

Critical Path Exercise

Work individually to complete this exercise:

1. Calculate the forward and backward passes.
2. Calculate the float for each path.
3. Define the critical path.



Objectives of This Exercise

Complete a precedence diagram

Summary of Documents

The Case Study Book contains one page:

Critical Path Exercise

Handout to pass out after the presentations:

Handout 7-1 Critical Path Exercise Solution

Further Instructions to Teams

Students should work independently until they need assistance.

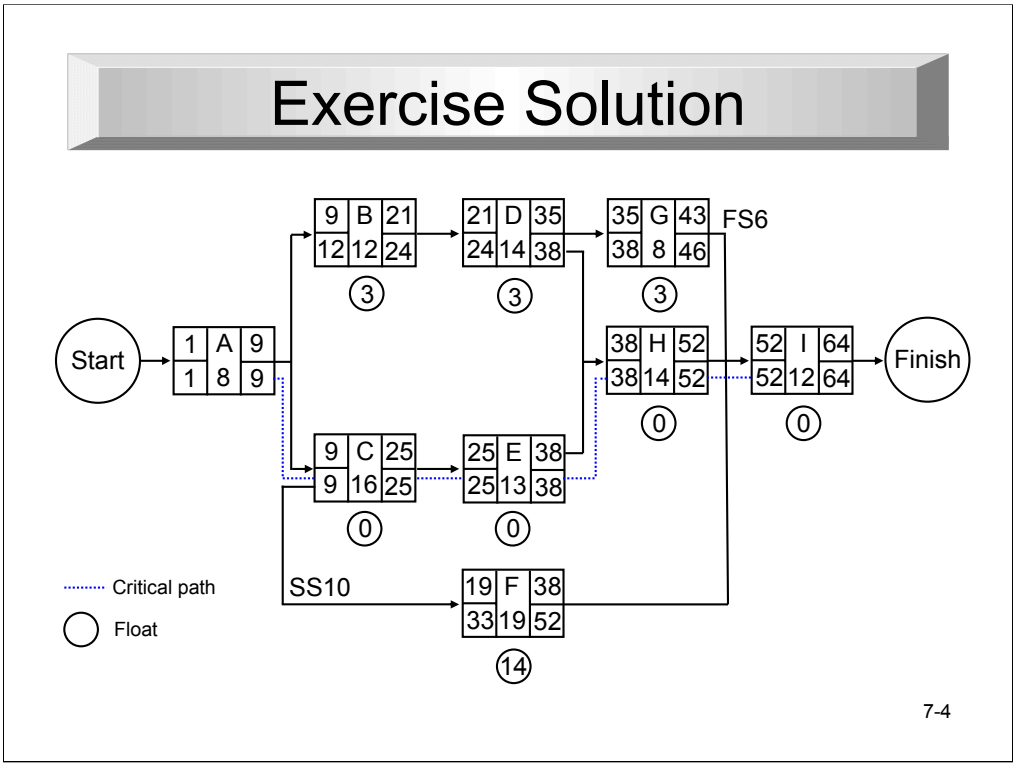
Students on the same team can assist each other, or the instructor can assist

Calculate the forward and backward passes

Calculate the float for each path

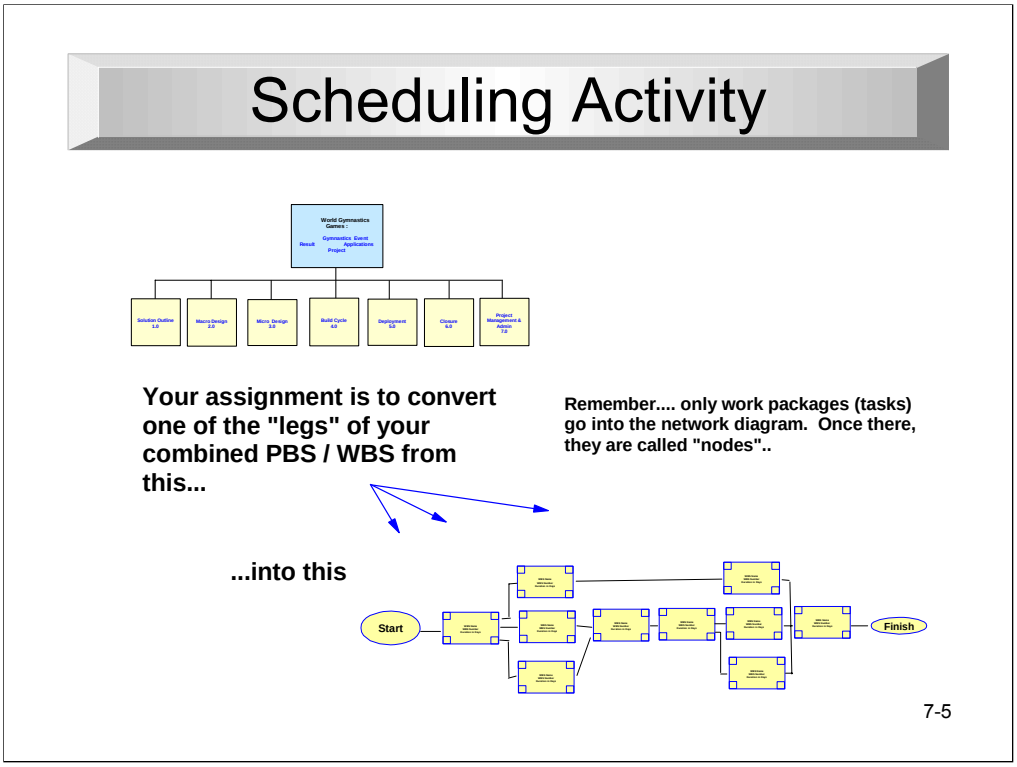
Identify the critical path

No more than 15 minutes allowed, including questions.



Walk through the forward pass, backward pass and float calculations. Identify the critical path.

Pass out Handout 7-1 will the solution.



Objectives of This Activity

Using the documents provided, teams develop network diagrams on **one leg of their WBS**. They also identify the critical path, using forward and backward passes; identify float; perform some network analysis; and identify near-critical paths.

Each team should select a different leg of the project ie. Solution Outline, Macro Design, Micro Design, Build Cycle, Deployment, Closure or Project Management

Summary of Documents

There are two documents in the Case Study Book:

•Case Study 7-1 Perry Fields memo on Scheduling Work

•Case Study 7-2 Pat Petersen memo on Resources Available for Logistics Support

Documents from Previous Modules That Teams Should Use

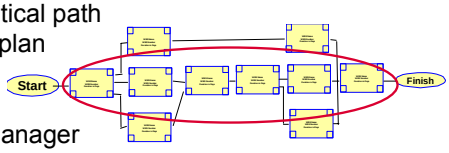
Documents in earlier modules contain information about logical relationships, test event dates, Games dates, and system integration test dates. The System Solution Outline document in Module 3 contains information relative to the timing for performing some software design and development tasks.

Scheduling Activity

Purpose: Practice developing a precedence diagram and identifying the critical path.

Process:

1. Using the work breakdown structure you defined earlier, develop a precedence diagram for the tasks in one “leg” of your WBS
2. Calculate the forward pass
3. Calculate the backward pass
4. identify float, critical path, and near-critical path
5. Identify new risks and update the risk plan



Participation: Team led by the Project Manager

Product: Completed precedence diagram
Be prepared to present your answer to the class.

7-6

Further Instructions to Teams

To change PMs and Observers

To document all assumptions about scheduling.

Teams should review and adjust their risk management plans based on the new scheduling information.

To adjust their WBS, if needed. Teams should use the WBS they created in the WBS case study exercise.

That they have as staff resources only the six people on the team, and no other staff resources are available.

That the fixed start dates must be met; events must start on time. To develop a schedule assuming today is May 13th and there are 7 months until the Games begin.

That every activity, except for the first and last activities, must have a predecessor and a successor.

That they have 1 hour to complete the case study**.**

Points to Be Aware of in Documents

The Scheduling Work and Other Items memo mentions that the only integration system test that has been scheduled is for the women's gymnastic event code,. No similar test has been scheduled for the men's gymnastics event code, or any available external interfaces.

During Team Presentations

Ask the teams to present their solutions. When the first team finishes, ask the other teams to compare their diagrams with the one that was presented.

Make sure the presenting team has identified the critical path, the near-critical path and any new risks.

The resources for setting up and tearing down the equipment are finite resources.

Ask the following questions:

•Will the team have any problem meeting the fixed dates for the test event and for the Olympic Games gymnastics competitions?

•Are there any near-critical paths?

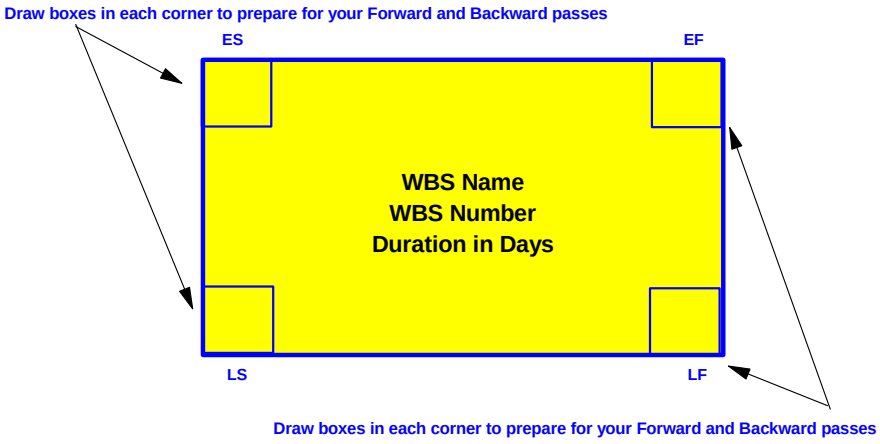
•Are there any danglers in the network?

•Has the team adjusted the schedule based on the resources?

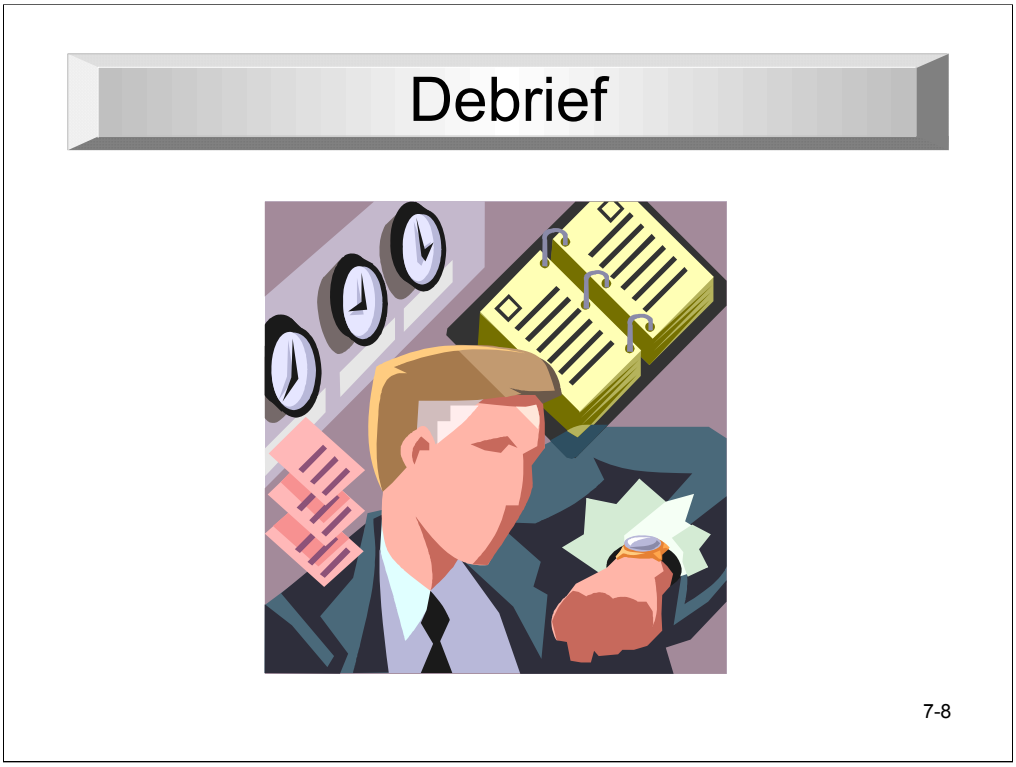
•Has the team added new risks and, as a result of the schedule, updated the risk plan?

Conventions

Each Yellow Post-it (node) should contain:



7-7



Debrief Activity

Explore what happened

•What issues did you have?

Explore what the participants learned

•What key things did you learn from this exercise?

•What advice would you give someone about to start this exercise?

Explore how the participants can apply the learning

•How often should you revisit your precedence diagram? (After approved changes)

•Who should be involved? (People who are close to the work (SMEs) should create the estimates and schedule)

•How should you communicate the schedule to the client and to your project team?

Work and Schedule are Predictable

Healthy Signs

- Everyone gives the same definition of finished
- Good evidence of control
- Slippage, when it happens, is predicted

Unhealthy Signs

- Can't describe what finished means
- Uncontrolled — poor plans, controls, tracking mechanisms
- Slippage comes as a surprise

1. **Project plan is accepted and maintained.**
2. **Interim and final milestone and deliverable acceptance criteria and roles are accepted.**
3. **Approach is appropriate, adequate, followed; resources have been scheduled.**
4. **There is confidence in progress report accuracy and estimates to complete.**

7-9

It is important to have the client formally approve the schedule. But it does not remain a static document. It may have to be updated when there are approved change requests.

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for Work & Schedule, Risk, Scope, Stakeholders, Business Benefits, and Team

Seven Keys Assessment Worksheet

Red - Urgent - Corrective action required immediately.
Yellow - Warning - corrective action required in the near term.
Green - Stay the Course - no corrective action required.

Project Name: Interviewee: Date: Interviewer:

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed		Red Yellow Green	
Business Benefits are Being Realized		Red Yellow Green	
Work and Schedule are Predictable		Red Yellow Green	
Scope is Realistic and Managed		Red Yellow Green	
Team is High Performing		Red Yellow Green	
Risks are Being Mitigated		Red Yellow Green	
Delivery Organization Benefits are Being Realized		Red Yellow Green	

Time allowed 5 Minutes

7-10

There should already be a flip chart for each team capturing the health of the project from the previous module. Get the teams to update the flip for Module 5 based on their current knowledge of the Case Study project.

Get the teams to think about:

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay particular attention to the Work and Schedule, Risk, Scope, Stakeholders, Business Benefits and Team keys since these are the main ones being addressed in this module.

PM Feedback

After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

- After providing the PM feedback. Document your lessons learned on page 50 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.

7-11

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity.

End of Day 2 - Reflections

Purpose: Identify how you will use what you have learned on your projects

Process:

1. Reflect on the topics covered today.
2. Think about which project management processes will improve your projects and how to get your team involved in using them.

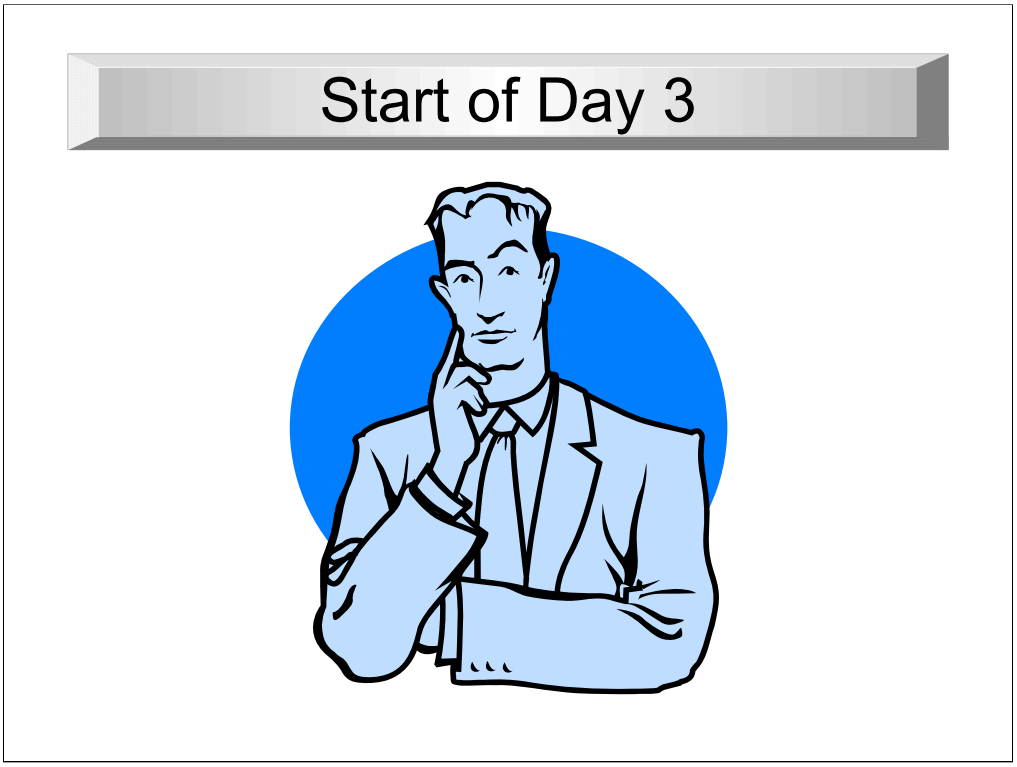
Participation: Individually

Product: At least one thing you will start doing and one thing you will stop doing on your project. Write down your ideas on page 66 of the Learning Log.

End of Day 2 Reflections

At the end of the first day, give the class five minutes to individually reflect on the topics covered today and identify what they will stop doing and what they will start doing as a project manager.

Ask the participants to think about which project management processes will improve their projects and how to they will get their team involved in using them.



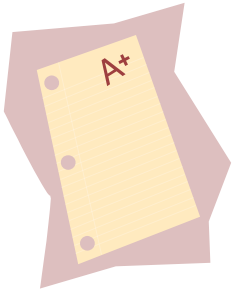
Ask participants to recall some of the topics covered on Day 2.

PM Strongest Link

Purpose: To better remember the learning from the previous two days.

Process:

- Create 5 questions you will ask another team – 15 minutes
- Conduct quiz show
- Award points for correct answers
- Deduct points for unreasonable questions



Participation: Teams

Product: List of 5 questions

Team Re-cap Quiz **30 minutes**

Purpose - Build team spirit at same time as consolidating learning.

Materials - Flip chart and colored pens.

Task - Create and/or answer questions about the course content

Description

•Tell teams that are going to hold a quiz on the learning from the last session/day/whole course etc.

•Ask everyone to close their Learning Logs and Case Study Books and put them on the floor (along with any other materials)

•Indicate that there is a small problem with this quiz .... namely we don't have any questions

•Ask teams to come up with 5 questions per team on things about the learning from the session/day/course which they think the other teams have not picked up on. Allow teams about 10 minutes to create their questions.

•Get each table to ask one of their questions to another table e.g. Table 1 to Table 2, Table 2 to Table 3 etc.

Notes

•Care required that questions are content focused and not irrelevant for the sake of trying to make them difficult.

•Subtract points for arguing with the judges, for unreasonable questions (and other reasons you can think of).

PMF Agenda

Day 3

AM

Module 8	Understanding Change Management
Module 9	Executing and Controlling a Project

PM

Module 9	Seven Keys Simulation
Module 10	Project Reviews and The 7 Keys
Module 11	Closing the Project
Module 12	Course Wrap-up and Exam

Remind participants of the agenda for Day 3.

Change Management

Module 8

8-1

Instructor Notes

This module refers to pages 51-54 in the Learning Log.

Objective of This Activity

Using the new change request, ask the teams to document the process they would use to analyze this change as well as any others. The first step would be to log this change in the change log. This exercise should not take more than 15 minutes.

If the class is behind schedule, this activity could be accomplished through a facilitated discussion. A good question for each team is to ask them if they have a change control process.

Module 8 Timing

This module lasts for 50 minutes, 9:10-10:00, on day 3. The agenda is:

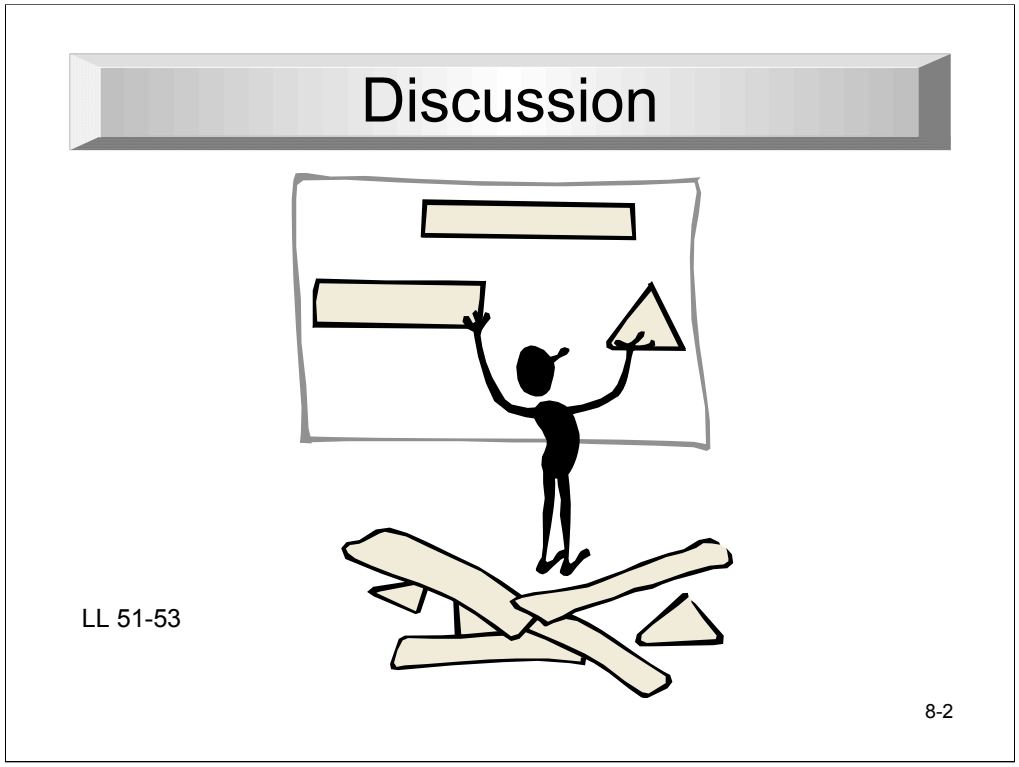
Start	End	Length	Subject
9:10	9:30	20	Discussion
9:30	9:45	15	Change Management Activity
9:45	10:00	15	Debrief and PM Feedback

Summary of Documents

Case Study 8-1: The memo from Perry Fields, Subject: Change Request #97.

Documents in Previous Modules That Teams Should Use

WBS, Estimate, Schedule



The objectives from Project Management Orientation were:
•Listing the required baselines for managing a project
•Describing change management
•Discussing why change management is important in project management
•Describing what should be included in the change management process
•Identifying types of changes
•Describing the typical follow-up actions to change requests
•Listing the elements of a change request form
•Discussing the project manager's role in change management

Facilitate a discussion covering topics such as:
•Learning objectives for the module
•Answer questions the participants have about PM Orientation
•Why does a PM do this?
•Personal experiences
•What happens when you implement change control?
•What happens when you do not implement change control?
•What baselines are required to manage a project?
•What is the PM's role in change management?
•What will you do differently when you go back to work?
•Analyzing the impact of a change request on all Seven Keys

Think of all the bad things that can happen to a project if changes are not managed. And then think of how the Seven Keys will be negatively impacted. Scope will be unknown. Work will not be completed on time and on budget. Team members will not know what they are supposed to be doing. New risks will arise and existing risks will become more severe. And finally, stakeholders will be surprised when the deliverables do not match their expectations.

When analyzing each change request, determine how the change will impact each of the Seven Keys.

Change Request Activity

Purpose: Practice handling a change request

Process:

1. Read Change Request #97 from Perry Fields. The customer is requesting a change.
2. Identify the steps you would take to handle the change request

   Hint: The first step is logging the change in the change log.

Participation: Teams led by Project Manager

Product: Steps (flow chart) of how you handle the change request.

8-3

Objective of This Activity

Using the new change request, ask the teams to document the process they would use to analyze this change as well as any others. The first step would be to log this change in the change log. This exercise should not take more than 15 minutes. If the class is behind schedule, this activity could be accomplished through a facilitated discussion. A good question for each team is to ask them if they have a change control process.

Set-up Activity

You have just received Change Request #97, a memo from Perry Fields. The customer is requesting a change. How are you going to handle it? Document each of the steps you would take. *Hint:* The first step is logging the change in the change log.

Give the students 15 minutes to complete the case study.

Summary of Documents

Case Study 8-1: The memo from Perry Fields, Subject: Change Request #97.

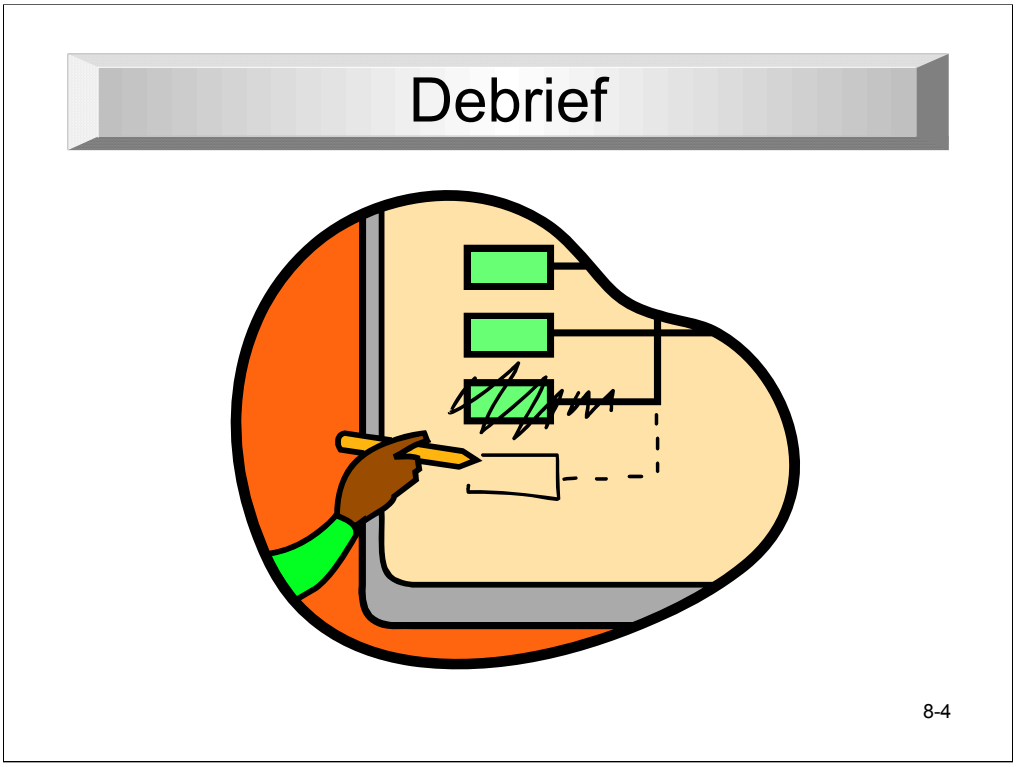
Documents in Previous Modules That Teams Should Use

WBS, Estimate, Schedule

During Team Presentations

Ask the teams to present their solutions. Each team's list should include items such as:

1. Log the change in the change log
2. Investigate the impact of the change on the WBS, the risk plan, the estimate, and the schedule
3. Document the impact of the change on the schedule, the cost, and the risk of the project
4. Submit the results of the investigation to the approvers according to the change request process
5. If approved, update the documentation
6. Begin implementing the change



Debrief the activity by facilitating a discussion covering topics such as:

- What happened during the activity?
- Did you use a change management process?
- What made the activity difficult or easy to do?
- What do you need to have before implementing a change control process?
- Would you be able to do this on your projects?
- Who does this on your project today (PM, team leaders, staff, sponsor, …)?
- Would doing this be useful on your projects?
- Could you apply this process on your own projects?

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for Work & Schedule, Risk, Scope, Stakeholders, Business Benefits, and Team

Time allowed 5 Minutes


Seven Keys Assessment Worksheet
Red - Urgent - Corrective action required immediately.
Yellow - Warning - corrective action required in the near term.
Green - Stay the Course - no corrective action required.

Project Name: Interviewee: Date: Interviewer:

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed		Red Yellow Green	
Business Benefits are Being Realized		Red Yellow Green	
Work and Schedule are Predictable		Red Yellow Green	
Scope is Realistic and Managed		Red Yellow Green	
Team is High Performing		Red Yellow Green	
Risks are Being Mitigated		Red Yellow Green	
Delivery Organization Benefits are Being Realized		Red Yellow Green	

8-5

There should already be a flip chart for each team capturing the health of the project from the previous module. Get the teams to update the flip for Module 7 based on their current knowledge of the Case Study project.

Get the teams to think about:

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay particular attention to the Work and Schedule, Risk, Scope, Stakeholders, Business Benefits and Team keys since these are the main ones being addressed in this module.

PM Feedback

After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

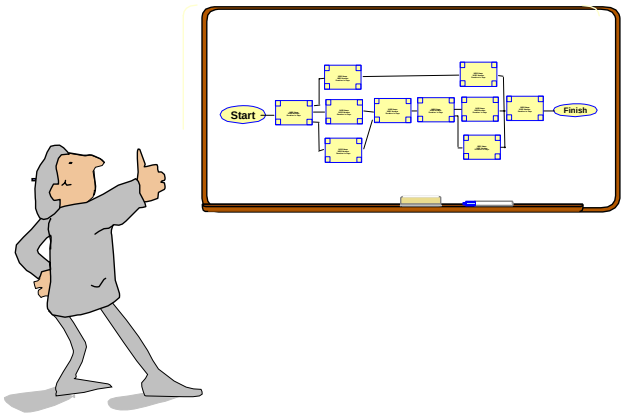
- After providing the PM feedback. Document your lessons learned on page 54 of the Learning Log.
  - This should include any changes that you plan to make in your daily work as a result of this exercise.

8-6

After teams have presented their results, give them a few minutes to provide feedback to the participant who acted as the PM for the activity.

Executing and Controlling

Module 9



9-1

Instructor Notes

This module refers to pages 55-58 (Earned Value) and pages 9-14 (Seven Keys) in the Learning Log.

Objectives of this Module

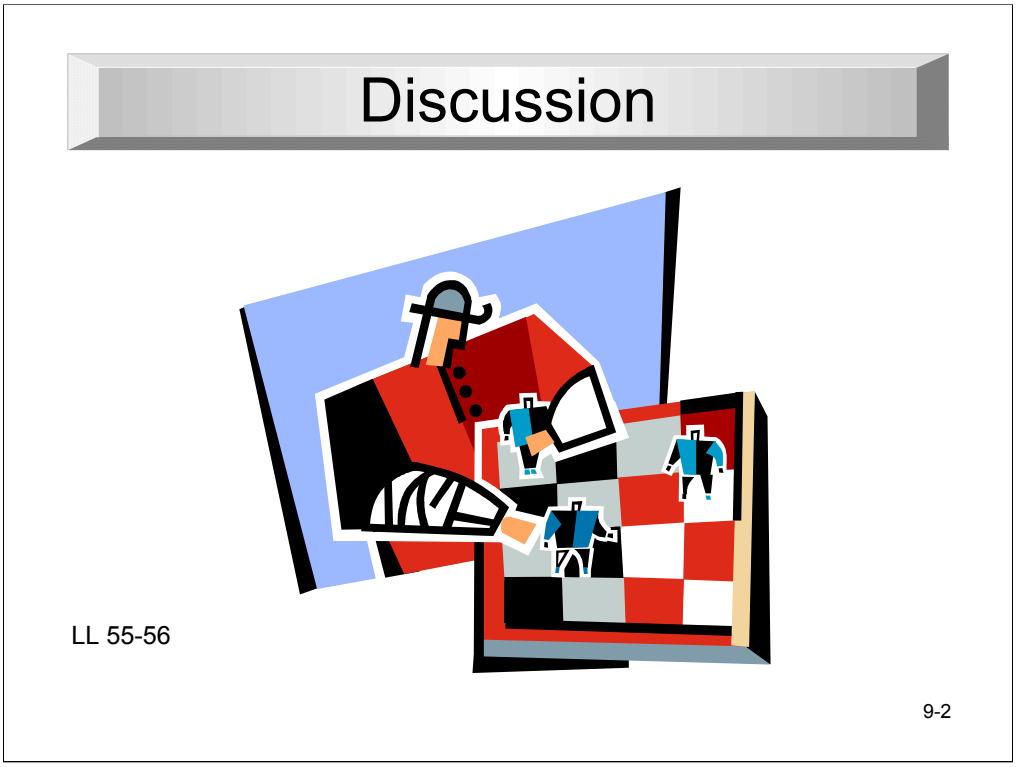
- Be able to calculate earned value
- Experience using the 7 keys on a simulated project

Module 9 Timing

This module lasts for 3 hours and 30 minutes, 10:15 - 1:45, on day 3. The agenda is:

Start	End	Length	Subject
10:15	10:40	25	Discussion
10:40	11:00	20	Earned Value Activity
11:00	11:15	15	Seven Keys Assessment
11:15	12:15	60	Lunch
12:15	1:45	90	Seven Keys Simulation

It is very important to do the Seven Keys Simulation immediately after lunch to energize the class on the last day.

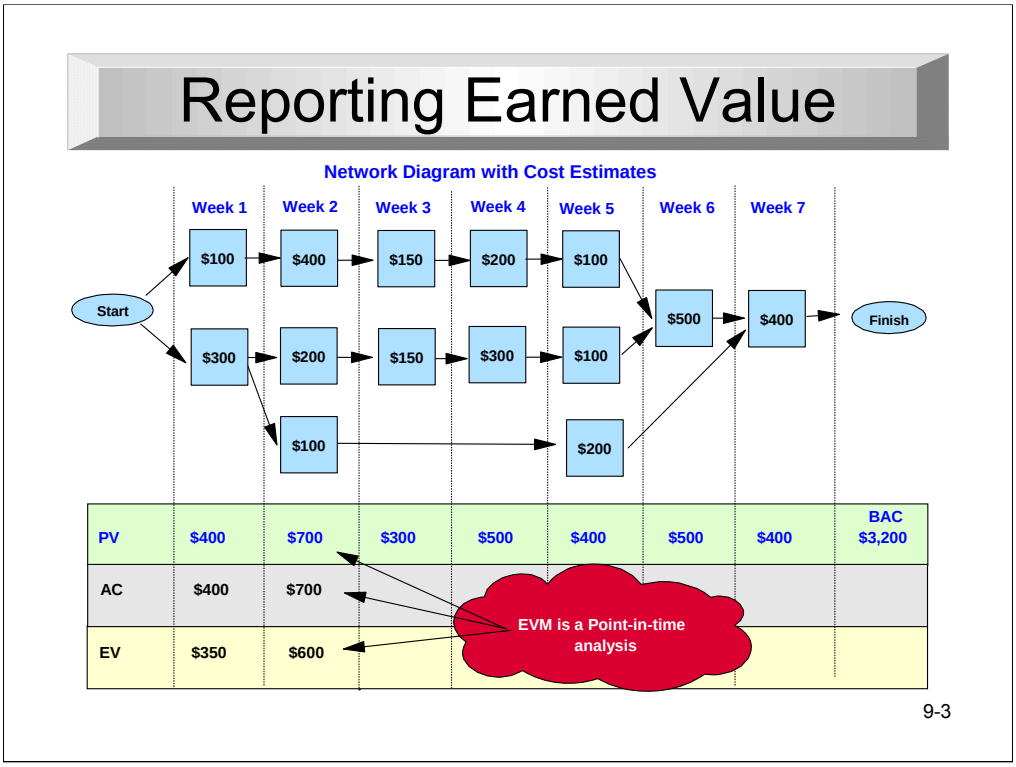


Learning objectives for the module

•Answer questions the participants have about PM Orientation
•Why does a PM collect metrics
•Personal experiences
•What happens when you measure the project performance
•What happens when you do not measure the project performance

Facilitate a discussion around the following topics:

•What does “control” mean?
•What are examples of metrics used to evaluate project performance?
•Do these metrics cover all of the Seven Keys?
•What sources of information provide data for the metrics?
•How often are metrics reported?
•How does Earned Value help control a project?
•Where would you find the data to use Earned Value Analysis on your project?
•What is the role of the PM in executing and controlling?
•Who else is involved?



Earned Value is a measure of scope, time, and cost.

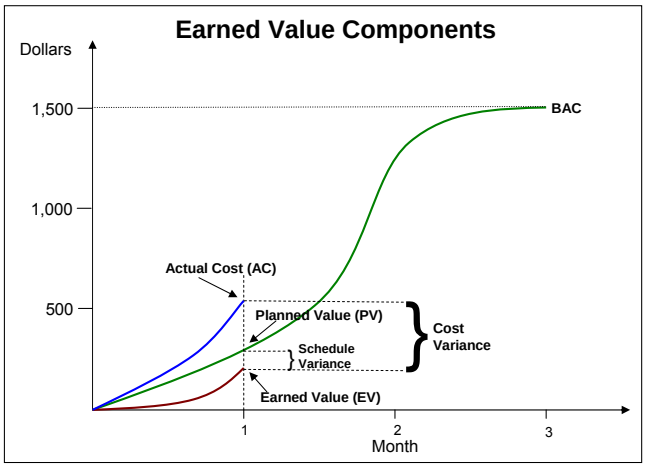
As a result of budgeting and scheduling, each task has been assigned a cost value and a timeframe. This represents the Planned Value for the time period.

The Actual Cost is just what is says, the actual amount spent on each task.

The Earned Value represents how much work was actually accomplished. If a task is 100 percent complete, the Earned Value equals Planned Value. If a task is only partially complete, then its Earned Value will be less than Planned Value.

The fourth component is the Budget At Completion (BAC), which is the total budget for the project. Here it is $3,200.

Earned Value Graphic

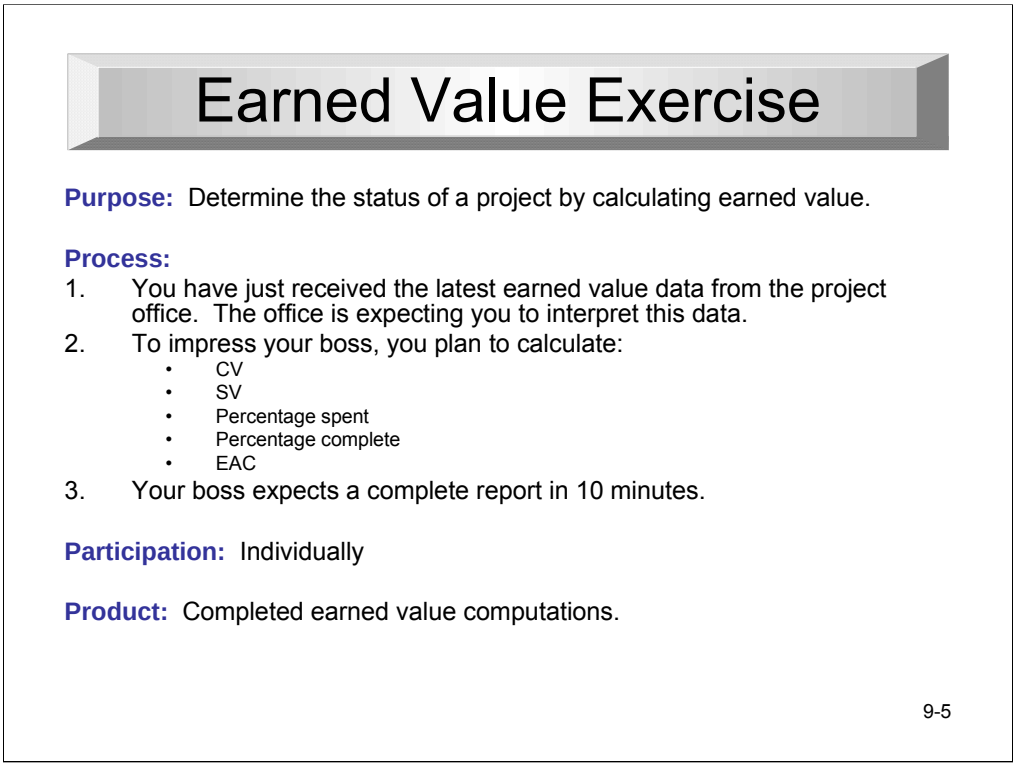


9-4

Explaining the graphic. **Note:** Slide builds as you click.

1. BAC is the Budget at Completion. The green line represents the budget for the project
2. Suppose we are doing Earned Value analysis at the end of month 1. PV is the planned value and represents how much we were supposed to spend by the end of month one.
3. AC is the actual cost. Where would you get this information?
4. EV is the earned value. It represents the value of the work that was actually accomplished during month 1.
5. SV is the schedule variance and is equal to EV-PV. If it is negative, that means the project is behind schedule.
6. CV is the cost variance and is equal to EV-AC. If it is positive, that means the project is under budget.

Looking at this graphic, is this project over or under budget? Is it ahead of or behind schedule?



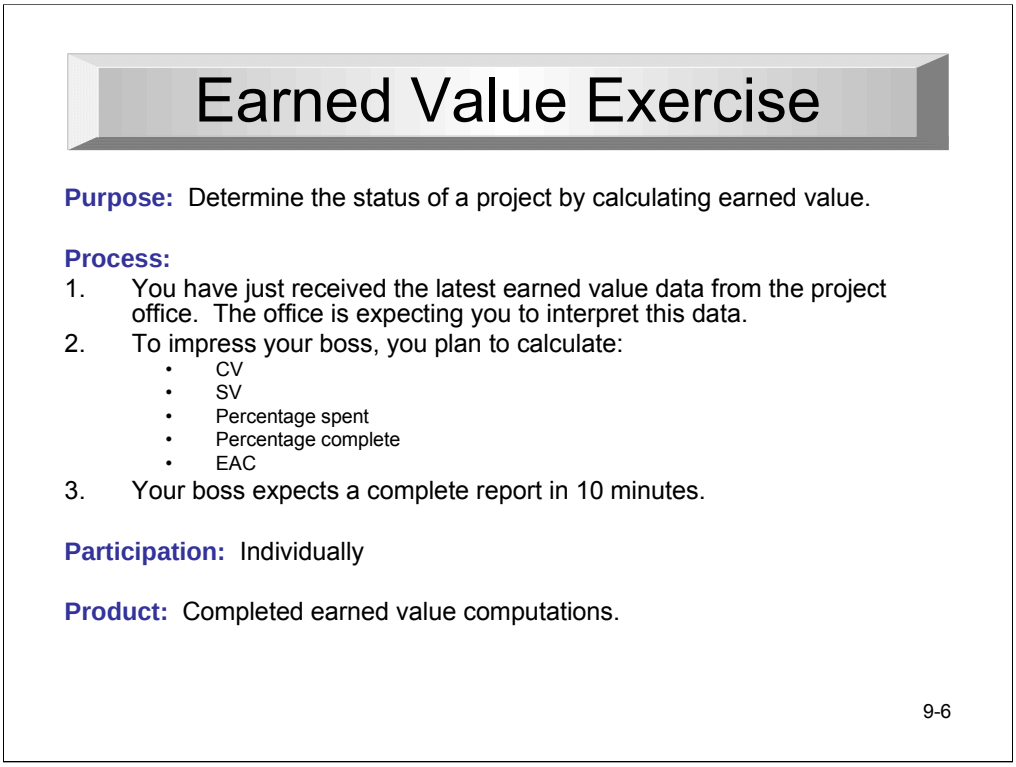
Set-up Activity

The student notebook contains the following documents:

- Case Study 9-1 Earned Value Exercise
- Case Study 9-2 Stakeholder Management Memo – this will be required for the next module

Monitor Activity

Give the students a chance to do the calculations on their own, then go through it as a class and discuss the calculations. This exercise should take about 20 minutes with questions.



Debrief Activity

There is one handout to pass out after the exercise:

•Case Study Exercise 9.1, Reporting Earned Value Solution

Work through the calculations. Ask the participants how they arrived at their results.

What made the activity difficult or easy to do?

What do you need to have before doing this on your project?

Would you be able to do this on your projects?

Who does this on the project (PM, team leaders, staff, sponsor, …)?

Would doing this be useful on your projects?

Delivery organization benefits are being realized

Healthy Signs

- People feel they are learning
- Willingness to invest in the project
- Good press is being created

Unhealthy Signs

- Good staff are not available
- Negative remarks about project

1. The project will help the delivery organization's reputation.

2. The project will help financially; billing and collections are current.

3. Project will help team members' careers.

4. Project will contribute to the organization's knowledge and lessons learned.

9-7

What is IBM upper management getting from the project?

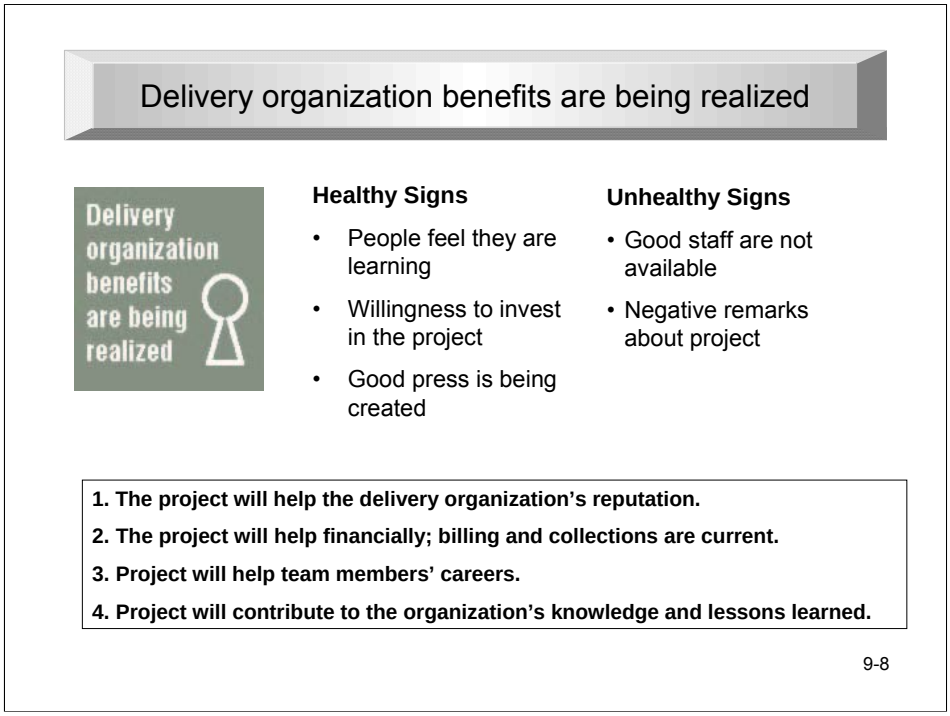
Money, plus better staff, good citations, and increasing IBM's reputation in the market place.

What benefits do client staff working on the project attain?

Increased skills and knowledge. A better reputation within their organizations.

What about knowledge harvesting? Has anyone contributed to IBM Assets?

How would you implement these elements on your project?



Besides cost, what are the other elements of the Delivery Organization Benefits are Being Realized key?

•Delivery organization stakeholders are known

•Knowledge is harvested

•Staff are developed

•Favorable project citations are established

Who is part of the delivery organization?

It includes the project team, other groups within IBM involved in the project, client staff working on the project, and subcontractors. So there are both internal and external members of the delivery organization. All these people are trying to derive benefits from the project.

What are the project staff looking for from the project?

Increased skills and knowledge. Higher visibility in the organization. A good performance appraisal.

Who is responsible for developing the staff?

It is part of the PM's job to develop staff by challenging them with new problems, helping them to increase their skills and knowledge, and coaching them.

Seven Keys Assessment

Purpose: Practice reviewing the health of the project using the Seven Keys

Process: See the diagram.
- Record status
- Think about issues & actions

Participation: Teams led by Project Manager

Product: Status, issues, and actions for all Seven Keys

Seven Keys Assessment Worksheet

Red - Urgent - Corrective action required immediately.
Yellow - Warning - corrective action required in the near term.
Green - Stay the Course - no corrective action required.

Project Name: Interviewee: Date: Interviewer:

Key and Criteria	Noted Issues	Heads Up Display	Proposed Actions
Stakeholders are Committed		Red Yellow Green	
Business Benefits are Being Realized		Red Yellow Green	
Work and Schedule are Predictable		Red Yellow Green	
Scope is Realistic and Managed		Red Yellow Green	
Team is High Performing		Red Yellow Green	
Risks are Being Mitigated		Red Yellow Green	
Delivery Organization Benefits are Being Realized		Red Yellow Green	

Time allowed 5 Minutes

9-9

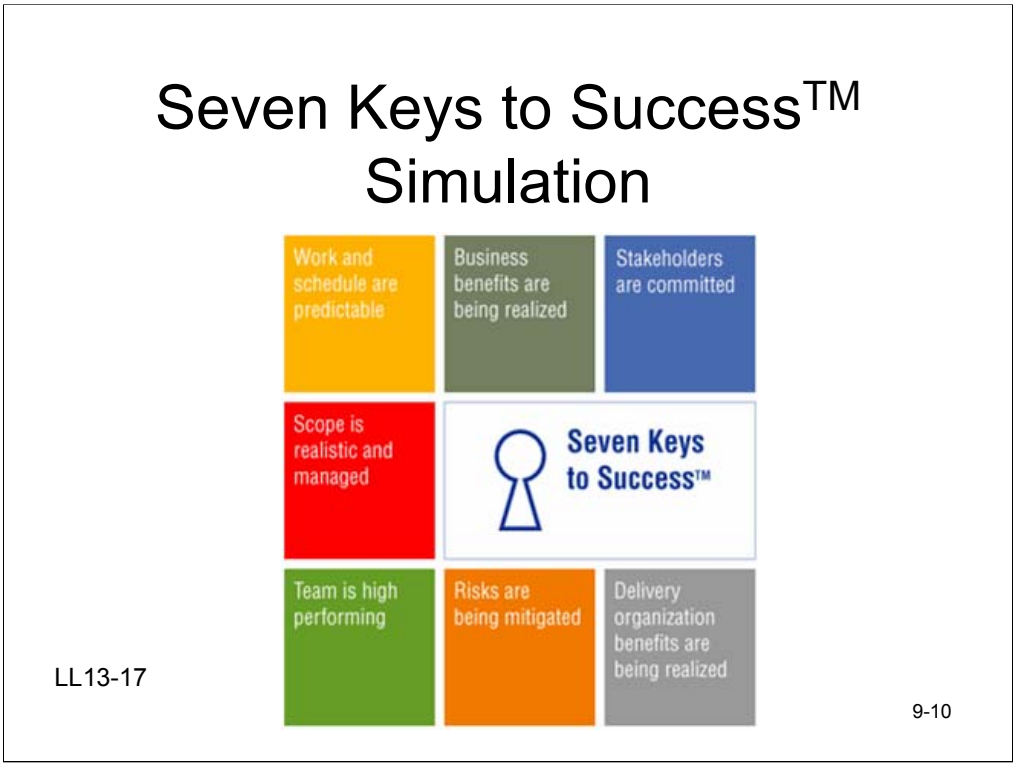
There should already be a flip chart for each team capturing the health of the project from the previous module. Get the teams to update the flip for Module 8 based on their current knowledge of the Case Study project.

Get the teams to think about:

- The status (Green, Amber, Red)
- The issues behind any Yellow or Red keys
- What actions they could propose to resolve the issues

Ask one team to present back and then invite other groups to contribute if they have any major differences. Make a note of which team has presented back since another team should present back in the next module.

Pay attention to all the Keys.



1) Check the Materials & Scene Setting during lunch

Check that you have all the materials needed for the simulation. You will need the following materials for each table group:

Seven Keys Workmat

Bag of blue tokens (or gray coins) to indicate status of each key

Bag of brown tokens (or silver washers) representing project management resources

Stack of 32 Signs & Symptoms and Concerns & Impact cards divided into:
Cards 1-3 Demo round Signs & Symptoms
Cards 4-6 Demo round Concerns & Impact
Cards 7-12 Round One Signs & Symptoms
Cards 13-18 Round One Concerns & Impact
Cards 19-25 Round Two Signs & Symptoms
Cards 26-32 Round Two Concerns & Impact

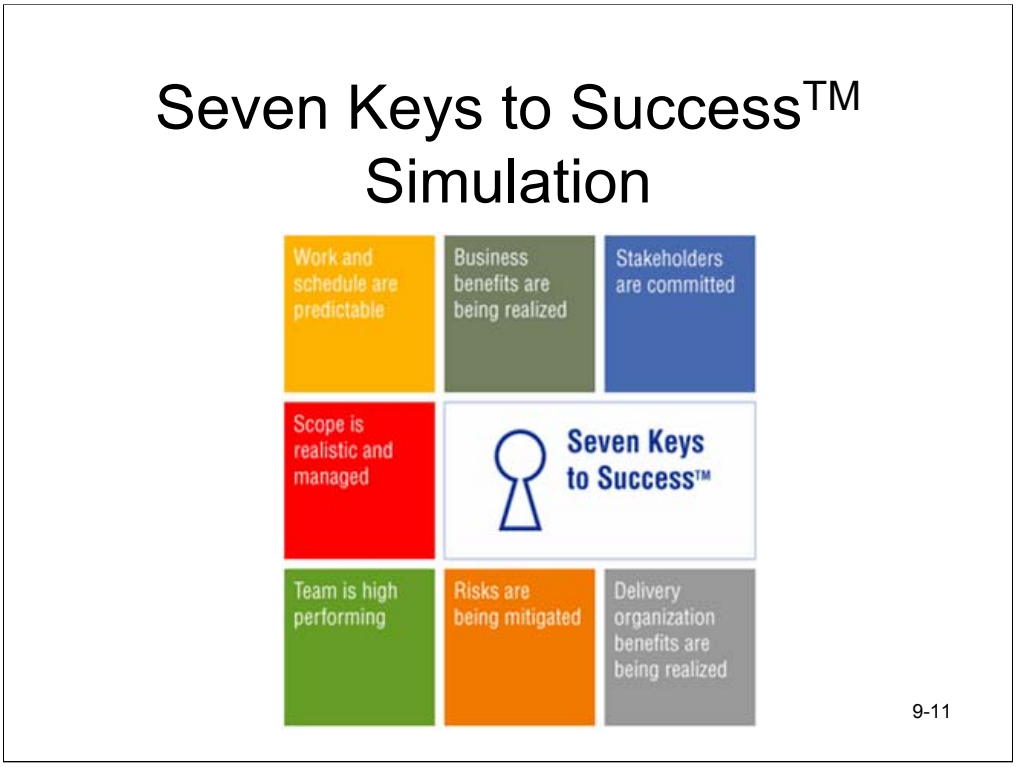
(Optional) 8 plastic carriers for holding the tokens

Also have a stack of 32 cards for yourself so you can walk the participants through the demo round and answer any of their questions.

Teams – The simulation can work when the participants are in groups of between 5 & 6. More than 6 results in the teams taking too long to make a decision & some team members not being involved in the discussions at the appropriate level. A number less than 5 results in the discussions being too brief & a more dominant member being too influential.

You can take a break before starting the simulation in order to set up the materials, or you can pass out the materials to each group and talk the participants through the set up.

Tip - Even better if you can orchestrate the timetable so this is done after lunch time since the exercise invokes lively discussions & generates energy which helps the learners get over the usual post lunch time dip in energy.



Timing for the Seven Keys Simulation

Start	End		Length	Subject
12:15	12:30	15		Introduction to the board & set up
12:30	12:55	25		Demo Round
12:55	13:45	50		2 Rounds with Debrief after each

Objectives for this Activity:

- Experience using the Seven Keys to assess prioritise and manage risks
- Understand the need to act promptly on signs and symptoms of risks
- Recognize the need to discuss and agree risk assessments and actions with the project team

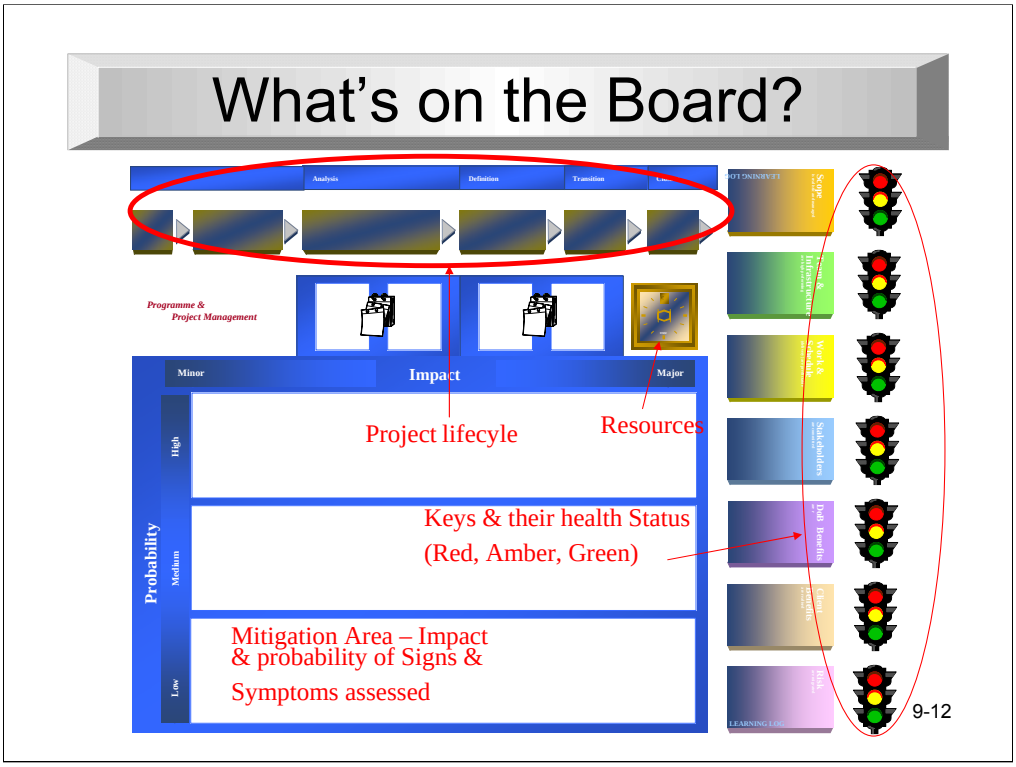
Opening bang – wake them up!!! Project managers spend 90% of their time on communications in one form or other whilst managing projects – Ask the participants 'Based on this, what sort of tool do you think the Seven Keys to Success is?' Answer = Communication tool enabling the PM to communicate the health of the project to key stakeholders in a concise, consistent & comprehensive way (3 C's).

The Seven Keys to Success are trademarked and copyrighted and are being positioned as an important competitive advantage that we have over our competition.

They were developed in the 90's with the help of the Gartner Group in a piece of research looking at what were the common causes of project failure. The research was also trying to find a simple but consistent approach to communicating the health of a project to the key stakeholders.

Ask if any of the group has previous experience of the Seven Keys? Ask those who respond positively to briefly explain their experience.

Check the learners know the difference between the Business Benefits Key & the Delivery Org Benefits key
Check the learners know the what the Risk Key is monitoring (i.e. Risk Mgt processes in place & working).



2) Explain the simulation.

Explain the purpose of the simulation is to practice using the seven keys to assess the health of a project and determine how to spend project management resources to correct problem areas.

Project life cycle

At the top of the board, you can find the project life cycle.

As was mentioned, you will enter the project half-way through; in the design stage; **phases 13-18**.

Seven Keys

To the right on the board, you can find the Seven Keys and the current situation; varying between green and yellow/amber on the traffic lights.

The performance is shown by using blue coins representing one index point each. 0–3 points equals red, 4–6 equals yellow/amber and 7+ equals green.

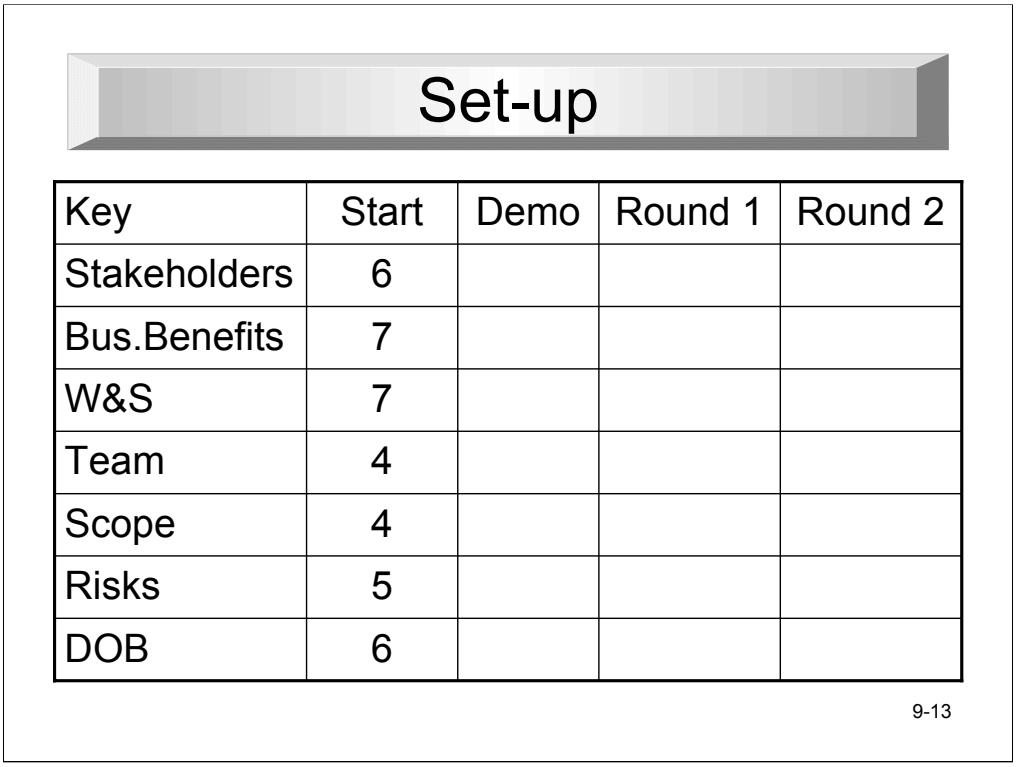
The coins in the box outside the board are a resource for later on when you are going to indicate changes in the performance on the seven keys.

Mitigation area

In the middle of the board, in the mitigation area, the signs and symptoms are placed, in terms of their probability & impact. The signs & symptoms cards will help you with probability but you have to work out the impact.

Resources for mitigation

The coins used for mitigation are the brownish ones and they represent one time unit each. Included in a time unit is limited management time, extra hours put in by project team members and other firm resources (for example, legal support to review the contract, or consultation with an audit partner).



Tell each team to create a flipchart with the Head Up Display like the overhead. Give each team red, yellow/orange and green pens to record their scores.

Tell each team to put the number of blue tokens in the Start column of the slide on the work mat next to the appropriate key.

Tell each team to take out 5 brown tokens that represent their available project management resources.

Resources you will need to set the simulation up: For each team:

Seven Keys simulation workmat

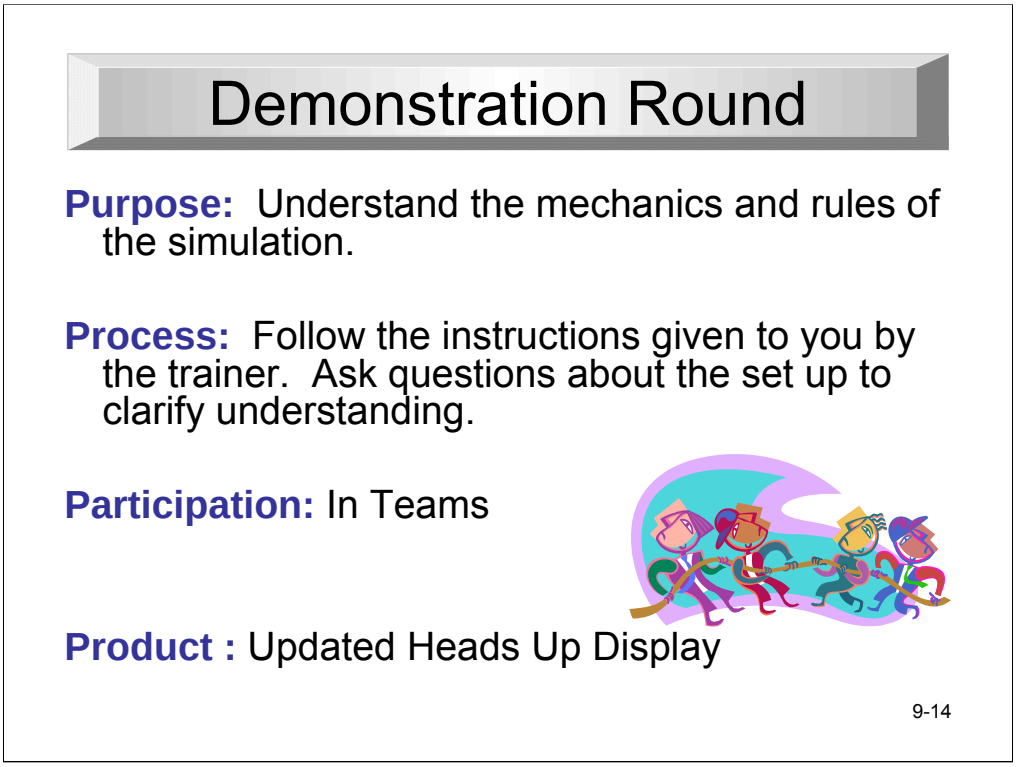
Box containing

- Small plastic pots
- Blue tokens
- Brown tokens

Set of 32 cards sorted into stacks:

- 1-3 Signs and Symptoms for Demo Period
- 4-6 Impacts for Demo Period
- 7-12 Signs and Symptoms for Period 1
- 13-18 Impacts for Period 1
- 19-25 Signs and Symptoms for Period 2
- 26-32 Impacts for Period 2

Explain that there will be 3 Periods to the simulated project – a Demo Period which the tutor will talk participants through, and 2 periods which participants will manage themselves



3. Set Up – Demo Period

Talk participants through Sign and Symptom cards 1-3. Get participants to place the cards on the work mat risk matrix, according to their estimate of the probability and impact of the risk suggested by the sign or symptom. **Explain** to the learners that for the Demo round, we will not be focusing on the impact of each card since we are focusing on the mechanics of the simulation. There will be time to look at impacts of Signs & Symptoms in the next 2 rounds.

Tell participants to mitigate risk for the IC Collection Mechanism. Point out that this will use all 5 of their project management resources, leaving the other risks unmitigated.

Talk participants through Impact cards 4-6, explaining the impact of either mitigating or not & the associated adjustment to the keys:

•the negative effect on the team and Work and Schedule Keys of leaving the Project Plan risk unmitigated - get teams to update the traffic light colours accordingly

•the positive effect on the Team and DOB Keys of mitigating the IC Collection Mechanism risk – update traffic light colours

•sometimes, signs and symptoms do not lead to problems, and that project management resources spent on mitigating the Request for More Challenging Work risk would have been wasted

Also note the card numbers represent where you are in the project – look at the top of the board for the Project Lifecycle information.

Have each team update their flipchart HUD & clear away the Demo round cards

Round 1

Purpose: Use the Seven keys to manage a project based on a simulated IBM project environment,

Process:

1. Take out 9 resource tokens
2. Review the cards for Round 1
3. Discuss the impact and probability of each
4. Allocate the Project Management resources to the most important cards
5. Update Seven Keys status for each key based on your decision

Participation: In Teams

Product : Allocation of project management resources and updated status recorded on the Heads Up Display

9-15

4. Set Up – Round 1

Other rules to remind the teams of before they start:

1. Key Health can not be less than Zero or greater than 10 blue / grey tokens
2. Brown resource tokens can't be carried forward to the next round – use 'em or lose 'em
3. You must totally mitigate a sign & symptom, you can't partially mitigate it (so if it costs 5 tokens & you only have 4 left, you can't mitigate it.

Check participants' understanding of the process, then initiate Period 1 by

- Clearing away the Demo period cards
- Filling the project management resources pot with 9 brown tokens – representing 4.5 days of effort
- Give a set of Sign and Symptom cards 7-12 to each team

Monitor Activity

Answer questions. Do not make suggestions to teams, but use questions to challenge any team whose approach is superficial.

When participants have prioritised the Signs & Symptoms and allocated their project management resources, hand out the Impact cards 13-18 to each team.

Make sure each team updates the blue tokens for each key based on the Impact cards.

When teams have updated the traffic light colours for each Key on the workmat, ask them to update their flipchart Head Up Display (HUD)

Debrief

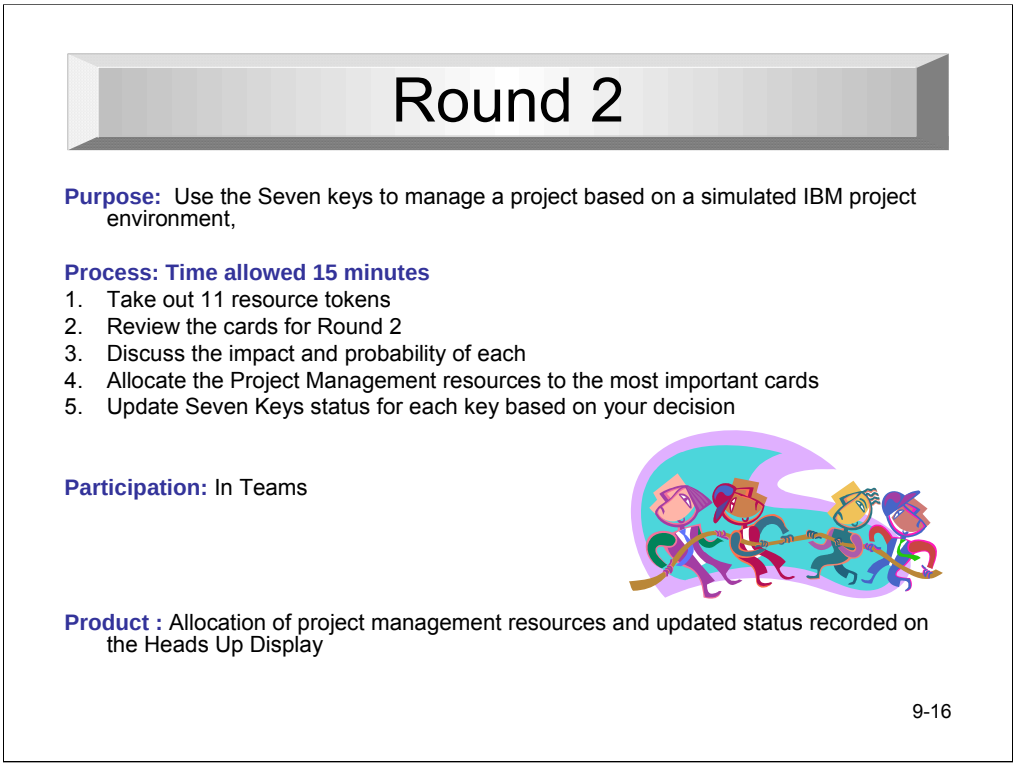
Compare teams' decisions and results. :

Signs and symptoms affect >1 Key and can interact

Signs and symptoms can be vague and confusing

Project management resources are not sufficient to act on all signs and symptoms

Effect of 'Delivery Beyond Expectations'



5. Set Up – Round 2

Clear away the Round 1 cards

Tell the teams to fill the project management resources pot with 11 brown tokens – representing 5.5 days of effort

Give each team a set of Sign and Symptom cards 19-25

Monitor

Answer questions as appropriate. Do not make suggestions to teams, but use questions to challenge any team whose approach is superficial.

When participants have prioritised the risks and allocated their project management resources, hand out the Impact cards 26-32 to each team

Make sure each team updates the blue tokens for each key based on the Impact cards.

When teams have updated the traffic light colours for each Key on the workmat, ask them to update their flipchart Head Up Display (HUD)

Debrief

Compare teams' decisions and results.

Did the Signs and Symptoms remind you of experiences you have had on projects?

Which Signs and Symptoms did you mitigate?

What was the outcome?

Which of the Seven Keys did you do best on? Worst?

Can you envision using the Seven Keys on your projects? With your clients?

Seven Keys Uses

- As a common language for communication and reporting with the project team, sponsors, and stakeholders
- To set Steering Group agendas for effective project governance
- A structure for Quality / Risk Reviews
- To identify underlying causes of project health
- To identify and prioritize actions required
- As a checklist for decision making; for example, changes in scope

Effective at all stages, from Opportunity, through Design and Delivery, to Close

LL 13-17

9-17

6. Review the uses of the Seven Keys.

Checklist of project failure root causes that strike a cord with your client so you can work with them to stay out of trouble

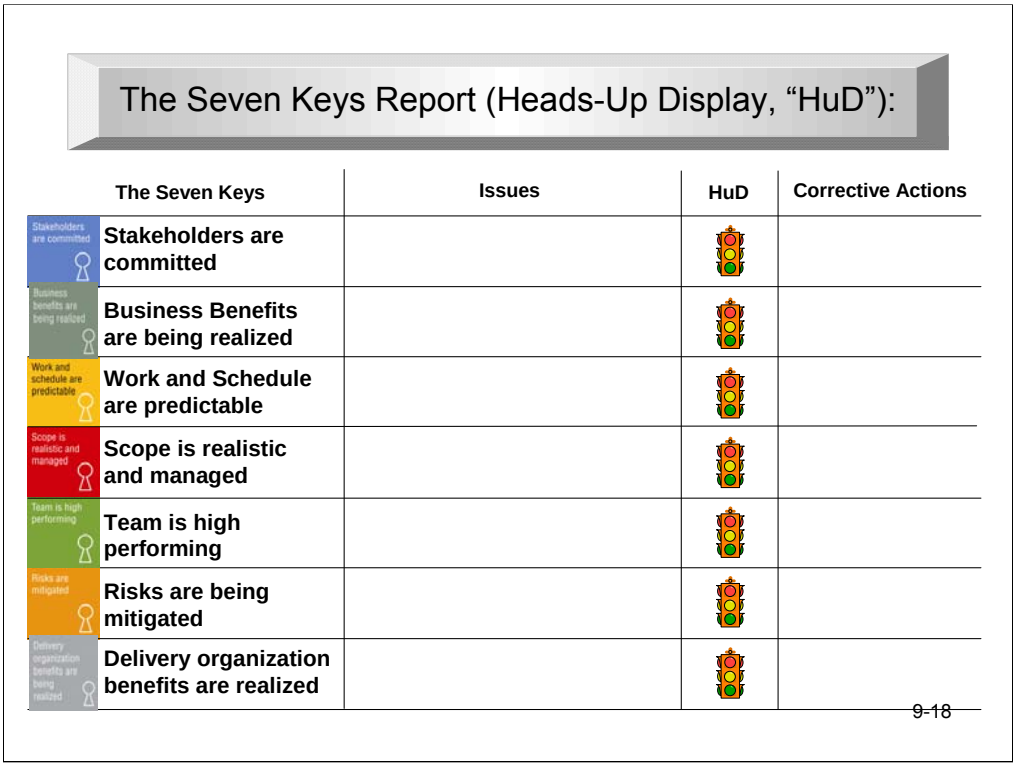
A list of project success factors that make sense to your client so you can work together to do better than just stay out of trouble

A recurring consistent agenda that provides a familiar and easy framework for presenting the most important issues to the stakeholder group

Prioritized key issues and recommended fixes, steering committees are more focused and are more efficient in their discussions and decisions

Other Key Learning points that should be highlighted – relate back to Short SIM:

1. Not only do you take into consideration the priority of the signs & symptoms based on probability & impact, but you also have to take into consideration the health of all seven keys & focus on the ones in poorer health.
2. We need to be pro-active in managing our projects rather than reactive, so looking forward at potential signs & symptoms & acting on the ones that we think will affect the project most may save extra intervention effort later. Optional – Use an analogy where you're driving a car fast on the Freeway / motorway / autobahn & you see a problem up ahead. The sooner you see it, the sooner you can make a correction in your steering to avoid the problem & usually, the sooner you see a problem, the smaller the correction needed to avoid the problem. The way we deal with signs & symptoms on our projects can be similar to this.
3. We must look forwards as well as backwards. Looking backwards helps us understand historical performance & lessons learned. We then apply those to the signs & symptoms that were finding as we look forwards. (There's a reason why our car windscreens are bigger than our rear view mirror!!).
4. The Seven Keys can help you manage your projects throughout the lifecycle of your project and it worthwhile paying attention to where you are in the lifecycle as well as looking at the status of the keys e.g. you may to have to more work to get your stakeholders on board early on in the project since they will have more influence the project early on in the project.

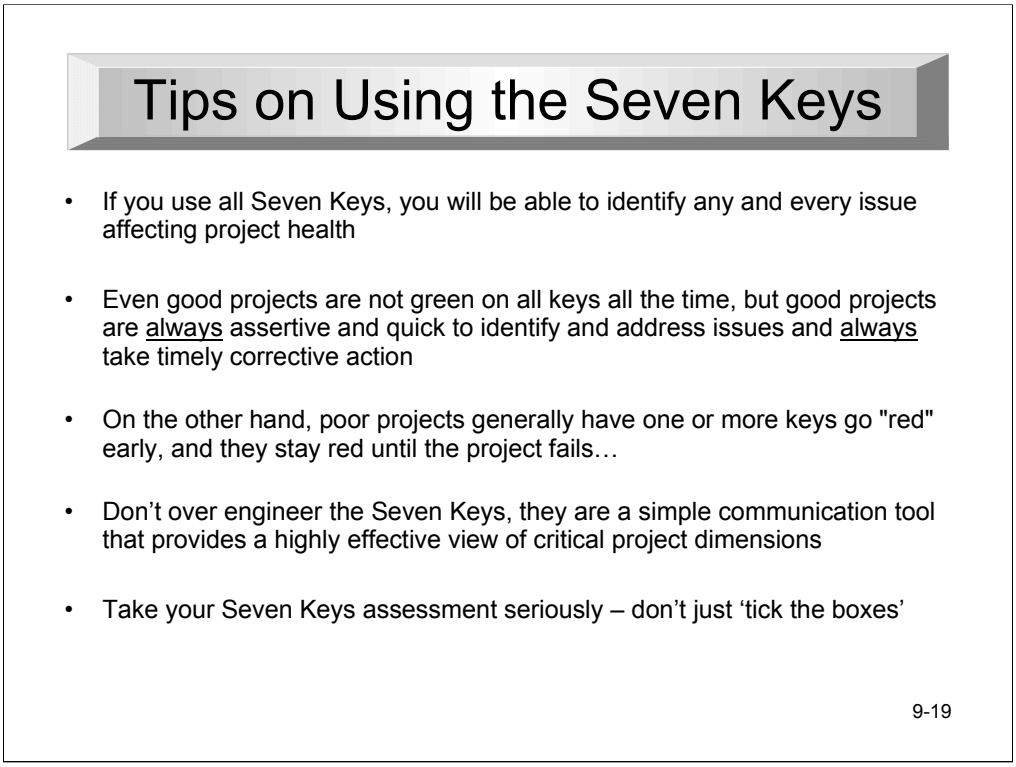


It is important to have a better understanding of what the Seven keys assessment and report looks like and why it is so valuable to the team and client.

For each key, **issues are highlighted that threaten the project**, the **corresponding action required** is represented by green, yellow or red as we’ve discussed, and what the recommended or **sanctioned corrective actions are that will return proper health to any keys that are in trouble**.

The most effective presentation to executives should contain what you want them to know, and what you want them to do or decide. This is perfect, the Seven Keys report provides exactly that.

Tip for the trainer – it will be useful to also draw this as a flip & leave visible once this has been covered since it will provide the teams with a useful template when they do the next module = Quality Assurance. They can use the template for the exercise in that module & consider their project using the Seven Keys.



Points to make

- Stress to not over engineer

- Don't forget to probe green areas, there may be sleepers in there.

- Keep everyone attuned that 7 Keys is not a backward looking status report, it is a forward looking corrective action agenda.

- Red is not "Bad", it just means that the PM and client are being forthright in recognizing and dealing with inevitable issues and problems that will come up.

- 7 Keys is not a methodology, it is a very powerful viewing, thinking and coordinating tool.

Project Review

Module 10

10-1

Instructor Notes

This module refers to pages 59-60 in the Learning Log.

Objectives of this Module

- Understand the purpose of a project review
- Understand what reviewers are looking for
- Be able to prepare for a project review
- Experience a project review using the case study

Module 10 Timing

This module lasts for 1 hour and 15 minutes, 14:00-15:15, on day 3. The agenda is:

Start	End	Length	Subject
14:00	14:15	15	Discussion
14:15	15:00	45	Project Review Activity
15:00	15:15	15	Debrief and PM Feedback

Summary of Documents

The Case Study Book contains the following:

Project Review Document

Seven Keys Assessment

Facilitate a discussion covering topics such as:

Learning objectives for the module

Answer questions the participants have about the pre-class work

Why should a PM have project reviews?

What experiences has anyone had with project reviews?

What happens on your project when you do perform project reviews?

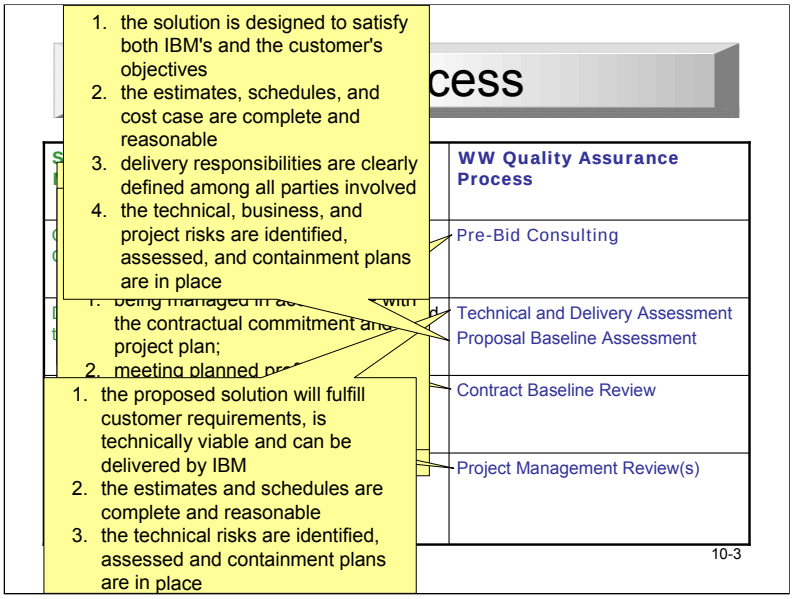
What happens on your project when you do not perform project reviews?

What triggers a project review?

What are the different types of project reviews?

What happens during a project review?

How does the project team prepare for a review?



Note: This slide builds with each click, adding detail about each of the 5 QA reviews.

Stress the importance of involving Quality Assurance early and often in the project lifecycle.

Pre-bid Consulting Answers the Key Questions: How can we win and is it worth winning?
Business Benefit: A strengthened win strategy

Technical and Delivery Assessment

Answers the Key Question: Can we deliver the proposed solution?
Business Benefit: Mitigation of two primary root causes of a troubled project: inaccurate estimates and infeasible solutions

Proposal Baseline Assessment Answers the Key Question: Should we propose the solution?
Business Benefit: Scalability allows for speed-to-market

Contract Baseline Review Answers the Key Question: How well can we deliver the solution?
Business Benefit: Provides additional information to management and the delivery team about risk and the recommended actions to assist the project team during delivery

Project Management Review

The initial review is to be performed within 12 weeks from contract start or start of delivery activities. Subsequent reviews will be defined by Quality Assurance based upon the health of the project, business transaction type, and Geography business rules. Maximum time between reviews is 12 months.

Answers the Key Question: How well are we doing against the contract, plans, and customer expectations?
Business Benefit: Assist the project team in delivering a successful solution and increasing customer loyalty

Why do Project Management Reviews?

- **Problem Prevention:**
  - **Improve** the quality of projects
    - Detect problems early
    - Help Project Managers develop corrective actions
- **Proactive Troubled Project Remediation:**
  - **Decrease** the number of Troubled Projects
    - Provide sound recommendations and assistance to the PE's / PM's in developing viable recovery plans
    - Follow-up on agreed recovery actions
  - **Assess** and report impact to services business
  - **Identify** root causes and help develop corrective actions
  - **Improve** customer satisfaction
- **Continuous Process Improvement**
  - The PMR goals go beyond identifying & resolving the issues that are impacting a single engagement. The results of each PMR contribute to the improvement of our entire services business portfolio.

10-4

Talk through the slide

What do QA Reviewers Look For?

- Customer relationship: expectations, satisfaction, communications, commitments
- Project management: roles and responsibilities, resources and skills, project management processes, project plans, subcontractor management, problem management and resolution, schedule management
- Change and scope management including Request for Services (RFS) process
- Financial management and status
- Procedures for communication and reporting (internal and external) and their effectiveness

10-5

What do QA Reviewers Look For?

- Risk management and current risk assessment
- Delivery execution: transition and transformation management, issue management and escalation, deliverable management
- Technical solution: solution baseline, functional requirements, scope creep
- Level of IBM management support and commitment

10-6

How to Prepare for your PMR

- **Be Proactive!**
  - Scheduling the review well beforehand and include the PMR activities in your project schedule
  - Do not try to reschedule it unless you have a ***very*** good reason, it indicates your project may be out of control
  - Consider it an opportunity to escalate senior management if you need to
- **Do a self assessment using GSRisk and PMR Health prior to the review:**
  - Identify the unique risks and containment strategies
  - Share the results with the QA Reviewer
  - Note that only 1 High Risk finding can down-grade the rating
  - Customer and Financial issues can force a C or D rating

10-7

How to Prepare for your PMR

- **Schedule all personnel required for the interviews**
  - Selected IBM personnel (PM, PjTL, Test Mgr etc.)
  - Key subcontractors,
  - Key customer project members
  - Customer PM and Executive sponsor & other stakeholders (do these last)
- **Schedule an hour for interviews and ensure a reasonable break between each interview e.g. 30mins**
- **Make all the arrangements for room bookings etc.**
  - Have a dedicated room with phone & network connection for the duration of the review
  - Make sure rooms are secure and allow confidential discussions.

10-8

How to Prepare for your PMR

- **Ensure documentation is up to date and filed in your PCB**
  - Ensure that all required documentation as requested, including the Project Plan, is current and ready for review
  - Send the requested documentation to the reviewer as early as possible
- **Action Prior QA recommendations & actions**
  - Demonstrate that you are implementing the required changes (if any)

10-9

How to Prepare for your PMR

- **Prepare a kick off presentation:**
  - Overview of scope & solution
  - Contract summary : unique T&C's, responsibilities etc.
  - Team composition : IBM, Subcontractors & Customer
  - Governance structure
  - CR/RFS Status
  - Customer Satisfaction/Issues Status
  - Key Issues & Risks and their containment actions
  - Action plan status from previous PMR and unresolved items (if any)
  - Project Status:
    - Financial Position : Earned Value, budget, expenses, profit
    - Schedule : SoW v Work Plan (non-OIS), Transition/BAU (OIS)
    - SLA performance

10-10

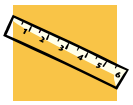
What Happens after the PMR?

- **Review the findings with the QA Reviewer & correct errors of fact**
- **Develop an action plan with the QA Reviewer**
- **Incorporate your Actions into your overall project plan**
- **Action QA recommendations:**
  - Issues/Findings raised during PMR's need to have appropriate Action plan created and should be tracked and managed to completion.
  - High Impact findings need to resolved before future Program/Project reviews are conducted.
- **Focus on good project management discipline:**
  - Scope, Planning/schedule, Budget/cost
  - Underpinned by Risk, Change, Communications, Quality & Resource Mgt
  - Focus also on what is urgent/important/essential

10-11

Case Study Review

Purpose: Practice conducting a project health review



Process:

1. Read the Project Review Document and the Seven Keys Assessment
2. Reviewers – add any additional questions that should be asked
3. Reviewees – collect your project documentation
4. The reviewers interview the PM and project staff to assess the health of each key
5. Create Summary Assessment with Status, Issues and Proposed Actions

Participation: Designated teams act as reviewers, led by Project Manager
Other teams are being reviewed, led by Project Manager

Product: Completed Project Review Document
Flip chart with Status, Issues and Proposed Actions.

10-12

Set-up Activity

The case study book contains the following:

Case Study 10-1: Project Review Document

Case Study 10-2: Seven Keys Assessment

Give the teams 15 minutes to read documents, decide which one they would like to use, think of additional questions and collect project documentation

Monitor Activity

Give teams 15 minutes to conduct interviews

Give reviewer teams 15 minutes to create their assessment, including the status for each key, issues and proposed actions.

Pay special attention to the information from modules 8 and 9.

Have one of the reviewing teams present their assessment. Ask the other reviewing team if they noted anything different.

Debrief

10-13

Debrief the activity by facilitating a discussion covering topics such as:

What happened during the activity?

What made the activity difficult or easy to do?

What do you need to have before doing this PM process?

Would you be able to do this on your projects?

Would doing this be useful on your projects?

Would creating a Seven Keys assessment help you prepare for a project review?

What should you do with the results of the review?

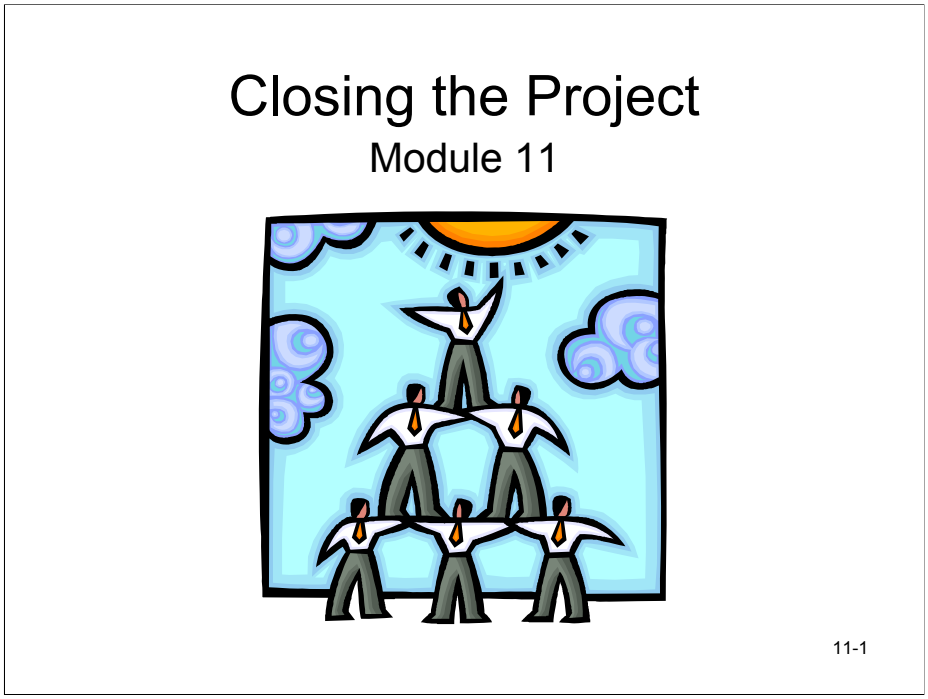
PM Feedback

After the case study exercise:

- The PM describes what went well
- The team describes what went well
- The PM describes what could have been better
- The team describes what could have been better
- Hand the feedback forms to the PM

10-14

After teams have presented their results, give them a few minutes to provide feedback to the participant playing the PM for the activity.



Instructor Notes

This module refers to pages 63-64 in the Learning Log.

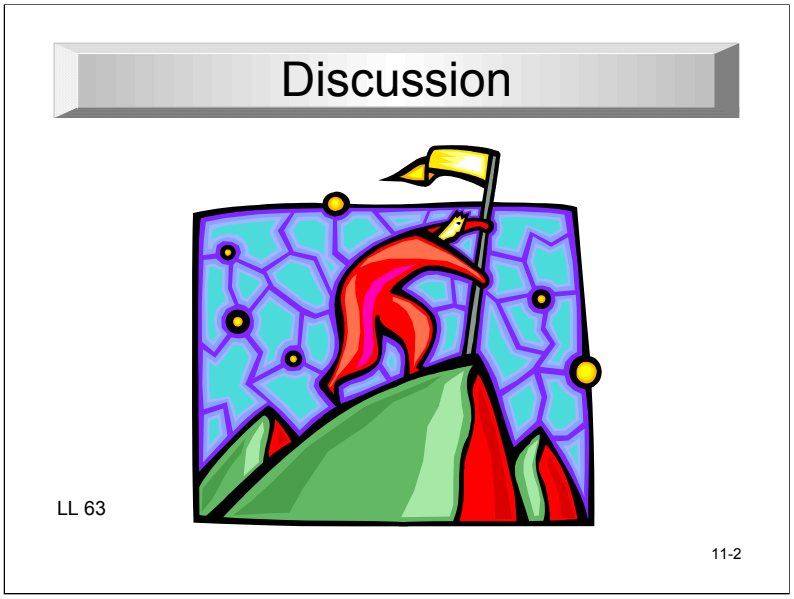
Module 11 Timing

This module lasts for 15 minutes, 15:15 - 15:30, on day 3. The agenda is:

Start	End	Length	Subject
15:15	15:30	15	Discussion

The objectives of this module in Project Management Orientation were:

- Describing the purpose of closing the project
- Identifying closing activities
- Preparing a project evaluation report
- Developing and applying lessons learned on future projects
- Accessing the PM Knowledge Network



Facilitate a discussion covering topics such as:

What are the activities that should take place when closing a project?

- Reviewing the agreement and the project documentation to confirm that all project deliverables have been met.
- Formally closing the project with both the sponsor and the suppliers
- Preparing a project evaluation report
- Releasing staff and technical environments
- Releasing suppliers

Why is closing the project important?

What gets in the way of closing the project?

When should closing start?

Who should be involved in closing the project?

Answer questions the participants have about PM Orientation

Additional questions that should be asked when closing the project:

Have all required products and services been provided to the sponsor?

Have all actions related to contract changes or revisions been concluded?

Have all contractual issues been settled?

Have all ongoing maintenance requirements been addressed and agreed to?

Is documentation in place that adequately shows the receipt and formal acceptance of all contract deliverables?

Has any property or information provided by the sponsor been returned?

Has the final invoice been submitted and paid?

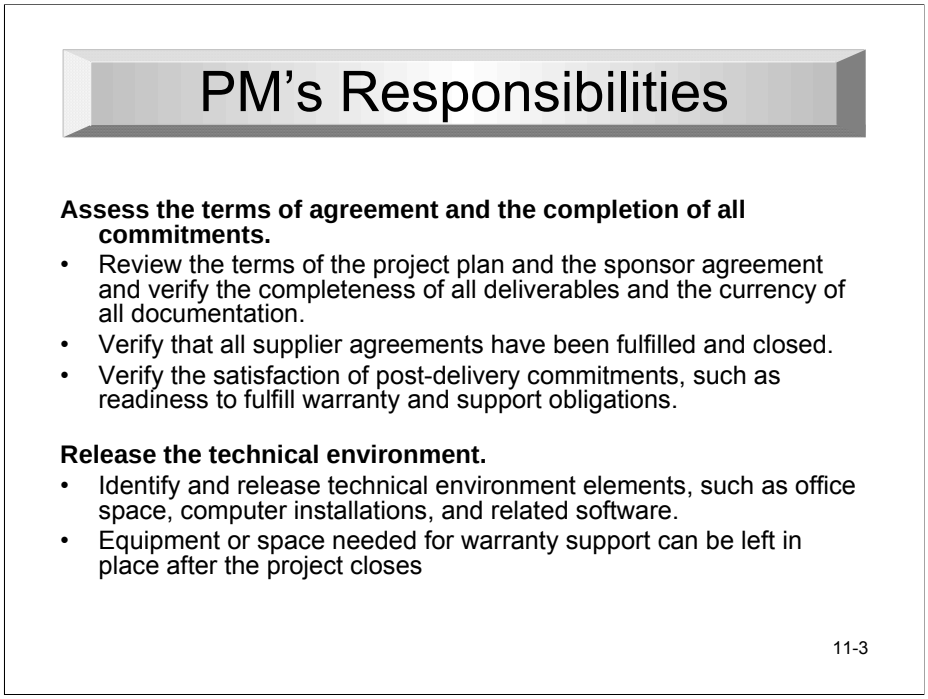
Has the project file been updated and is it completely up-to-date?

Have you gathered lessons learned from the sponsor, suppliers, and your teams?

Has the project team determined whether any project material should be nominated for inclusion in IBM's Intellectual Capital Management (ICM) database?

Has a sponsor satisfaction survey been conducted?

Have the technical environment elements been released?



Remind participants of the PM's responsibilities if they were not covered in the discussion.

PM's Responsibilities

Obtain sponsor feedback.

Obtain information about the sponsor's areas of satisfaction and dissatisfaction, then document this information and use it as input to the lessons learned.

Assess the lessons learned.

Determine the key lessons learned on the project, document them, and suggest improvements for future projects in the project evaluation report.

Close out the sponsor agreement.

Perform the administrative closure of the sponsor agreement. This includes generating, gathering, and disseminating information to formalize project completion and closure.

Submit the intellectual capital.

Submit all intellectual capital generated on the project, including lessons learned, the WBS, project definition reports, and any other related documentation to the ICM AssetWeb. Current and future projects will benefit from your experienc

11-4

PM's Responsibilities

Final Project Meetings and Reviews

Project review. Conduct a project review with the sponsor shortly before the project ends to ensure that:

- All contractual obligations have been met by the supplier to IBM and by IBM to the project sponsor
- The project sponsor formally accepts the project as being complete
- All assets on loan to the supplier or the sponsor have been returned
- Everything is ready and in place to close the project

Lessons learned meetings. To identify key lessons on the project, conduct lessons learned meetings with the internal team, the sponsor, and your suppliers. How to conduct lessons learned meetings is discussed in "12.3 Lessons Learned."

Final internal review. After the project is closed, conduct a final internal review of the project to identify and submit any intellectual capital developed on the project

11-5

Instructor Notes

This module refers to page 65 in the Learning Log

Module 12 Timing

This module lasts for 1 hour 15 minutes, 15:30-16:45, on day 3. The agenda is:

Start	End	Length	Subject
15:30	16:00	30	Course Debrief
16:00	16:45	45	Setup and Conduct Exam

Summary of Documents:

The Case Study Book contains the following:

Case Study 12-1 Personal Action Plan

Learning Objectives

Now that you have completed the PMF course, you should be able to manage a project by:

- Using project management skills across IBM
- Applying the Seven Keys to Success™
- Building your project team
- Preparing a useful team charter
- Identifying and validating your project requirements
- Using change management to control requirements
- Preparing a PBS, WBS, and OBS
- Preparing a Risk Management Plan
- Establishing a project estimate
- Creating a project schedule
- Developing and managing project baselines
- Using project management tools to control project execution
- Preparing and executing a project closing

12-2

Review the course learning objectives

Point out the websites listed on page 69 of the learning log.

Discussion and Debrief Talking Points
Project Management Fundamentals

During the discussion and debrief in each module, be sure to bring up the following points which will appear on the final exam.

Module 2 – Team and Communication

The Team Development Life Cycle consists of four phases:
Form, Storm, Norm, Perform

Why does the project manager develop the project team?
Performance improvements

All of the following are true about the Seven Keys to Success ™ except
Effective at all stages of the project
Many of the keys are interrelated, such as Stakeholders and Business Benefits
Identify and prioritize corrective actions
Replaces the need for WWPMM

Module 3 – Requirements and Stakeholders

The project charter is used to formally authorize a project. It also provides the following except
Gives the project existence
Defines the Project Definition Document
Contains the product description
Describes the Project Manager's authority

The project manager is interviewing stakeholders to determine needs, requirements and exclusions. Which of the following is true?
Documented requirements must be clear and concise, because they form the basis of project plans

Module 4 – Creating a WBS

Which of the following best shows who is working on what part of the project?
Responsibility Assignment Matrix

Module 5 – Risk

The project manager and team have completed analyzing the severity of the project's risks. What is the best risk response to use for low impact and low probability risks?
Acceptance

Which of the following is not true about risk management?

- Prioritizing means determining which risks are important to mitigate
- Risks are assessed continuously
- The Project Management Knowledge Network (PMKN) is a source for identifying risks
- **Project manager always controls the contingency and management reserves**

Risk Analysis involves which of the following?

- **Risk Rating Matrix**

All of the following are used to identify risks except

- Brainstorming
- Root cause identification
- Risk situational factors
- **Insurance**

The team is putting together the risk plan, once approved then the plan should

- Be reviewed only by the project sponsor
- **Contain response strategies for each risk**
- Be done only once and then frozen (during the Plan phase)
- Always add time to work packages

Module 6 – Estimating

The project manager and the team are trying to produce an accurate cost estimate. What estimating method should they use?

- **Bottom-up estimating**

A project manager does not control the budget for her project. In which type of organizational structure is she likely working?

- **Functional**

During estimating, the project manager is trying to determine the amount of labor hours that will be needed to complete each task. The project manager is estimating

- **Effort**

All of the following are advantages of a top-down estimate except

- It is quick and easy to produce
- It is less costly to produce
- **It is very accurate**
- Project details do not need to be known

Discussion and Debrief Talking Points
Project Management Fundamentals

Module 7 – Scheduling

Which of the following is an excellent tool for communicating with the sponsor or upper management?

Milestone chart

The project manager should establish cost, schedule, and scope baselines

When the scope, cost and schedule are approved by the stakeholders

You have just created a schedule baseline. Which of the following is true about activities on the critical path?

Float is zero

Module 8 – Change Management

Which of the following is the ultimate result of a change control system?

Approved/rejected changes

A key stakeholder has requested a change to the scope of the project. The project manager should

Analyze the impact of the request on the project

Module 9 – Executing and Controlling

SV is the schedule variance and is equal to EV-PV. If it is negative, that means the project is behind schedule.

CV is the cost variance and is equal to EV-AC. If it is positive, that means the project is under budget.

Which of the following is not a main cause of troubled projects?

Failure to reach an understanding of the requirements
Ineffective project startup
Failure to follow IBM internal processes and guidelines
Inability to solve technical problems

Which tool is used to report the health of a project?

Seven Keys Status Report

The project manager needs to collect metrics to

Enable the project manager to have a tool for measuring the progress of a project and communicate its status quantitatively

Discussion and Debrief Talking Points
Project Management Fundamentals

Module 11 - Closing

Project closeout should begin

On the first day of the project

Personal Action Plan

Spend a few minutes thinking about what you have learned.

Complete the Project Management Personal Action Plan

- Identify your PM strengths
- Identify your PM weaknesses needing improvement
- Describe the steps you will to take to improve
- Describe how your supervisor / manager can help you improve

12-3

Document to use for this activity:

Case Study 12-1 Personal Action Plan

Give the participants 10 minutes to complete the personal action plan.

Reminders

Please watch for the IBM e-mail that will contain:

1. The Course and Instructor evaluations
2. The Course Completion Certificate Request

These are important to you and IBM.
Please give us your feedback.

12-4

Any Final Questions?

12-5

Test Protocol

- Use pencil - completely circle your choice for the correct answer
- Please remain seated until it is your turn at the grading desk ... one person at a time please ...
- Once you receive your results, please leave the room
- Clear everything off the desktops and remove all charts from the walls
- You may begin as soon as you receive your test and answer sheet.

12-6