In your book, please refer to:

Project Communication and Documentation

Chapter 12
Learning Objectives

• Suggestions for enhancing personal communications
• Effective listening
• Various types of project meetings
• Formal project presentations
• Project reports
• Project documentation
• Collaborative communication tools

Real World Example

• Vignette: Major Projects in Brazil
  – Communication complications arise between team members from Brazil and Spain who are working on a project together.
  – To accommodate the different approaches to communication for each team member and build a sense of trust weekly conference calls were scheduled.
  – Similarly, cultural differences arise from two groups of Brazilians from North and South parts of Brazil.
  – A well-defined, disciplined communications plan that required team members to assemble weekly performance and progress reports was developed.
Real World Example

Vignette: Silence can be Deadly

• The Concours Group and VitalSmarts LC recently conducted a major study entitled “Silence Fails: The Five Crucial Conversations for Flawless Execution.”
• Five crucial conversations identified by the study which are the most prevalent, and most costly, barriers to project success:
  – Fact-Free Planning
  – AWOL Sponsors
  – Skirting
  – Project Chicken
  – Team Failures

Real World Example (Cont.)

• The study also demonstrated that when project team members discuss core problems effectively, projects tend to stay on course.
• the best predictor of project success is a constant and open line of communication.
Personal Communication

- Can occur through words or nonverbal behavior.
- Can be face to face or use some other medium.
- Can be oral or written.

Oral Communication

- Provides a forum for discussion.
- Body language and tone are important.
- Body language can be used by the listener to give feedback to the speaker.
- Body language can be positive or negative.
Oral Communication (Cont.)

- Awareness of other cultures’ customs is important.
- One must not to use offensive remarks.
- Oral communication should be straightforward.
- The timing of oral communication is important.

Written Communication

- Carried out through internal memos and external letters.
- Normally transmitted through fax, e-mail or can be sent hardcopy.
- May be appropriate as a follow-up to a face-to-face conversation or a phone call.
- Should be used mostly to inform, confirm, and request.
- Should be clear and concise.
Effective Listening

• The heart of communication is not words, but understanding.
• Not only to be understood, but also to understand.
• Half of making communication effective is listening.

Common Barriers to Effective Listening

- Pretending to listen
- Distractions
- Bias and closed-mindedness
- Impatience
- Jumping to conclusions
Improving Listening Skills

- Focus on the person talking.
- Engage in active listening.
- Ask questions.
- Don’t interrupt.

Project Meeting

- The primary purpose of the meeting is to provide a forum for direct communication and timely and efficient information exchange.
- This allows the parties involved to take appropriate action and make the decisions necessary to maintain the scheduled flow of work.
- The meeting is a tool that is to be used to assist in constructing a project.
Types and frequency of meeting

- Project manager will be involved with various types of meeting, each with its purpose, attendees, format and notes arrangement according to the subject of that particular meeting.
- The project manager’s roles also varies with regards to the subject of the meeting.
- Some of the types of meeting that occurs on a typical project are:- (…..)

## Types of meeting

<table>
<thead>
<tr>
<th>TITLE</th>
<th>OCCURRENCE</th>
<th>CHAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner/Architect Meeting</td>
<td>Weekly</td>
<td>Project Manager or General Foreman</td>
</tr>
<tr>
<td>Safety</td>
<td>Weekly</td>
<td>Project Manager or Superintendent</td>
</tr>
<tr>
<td>Scheduling</td>
<td>As Needed</td>
<td></td>
</tr>
<tr>
<td>Preconstruction meetings:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• with Owner and Architect</td>
<td>Once</td>
<td>Owner or Architect</td>
</tr>
<tr>
<td>• with Subcontractors</td>
<td>Once per Subcontractor</td>
<td>Project Manager</td>
</tr>
<tr>
<td>• with Unions (jurisdictions)</td>
<td>Once</td>
<td>General Superintendent</td>
</tr>
<tr>
<td>• with City (permits, utilities)</td>
<td>As Needed</td>
<td>Project Manager or Superintendent</td>
</tr>
<tr>
<td>• coordination meetings</td>
<td>Weekly</td>
<td>Project Manager or Architect</td>
</tr>
<tr>
<td>• design coordination</td>
<td>As Needed</td>
<td>Architect</td>
</tr>
<tr>
<td>Labor Relations</td>
<td>Weekly</td>
<td>General Superintendent</td>
</tr>
<tr>
<td>Foremen's meetings</td>
<td>Weekly</td>
<td>Superintendent or Assistant Superintendent</td>
</tr>
<tr>
<td>Change order status review</td>
<td>Monthly</td>
<td>Project Manager or Architect</td>
</tr>
<tr>
<td>Pay request review</td>
<td>Weekly</td>
<td>Project Manager or Architect</td>
</tr>
<tr>
<td>Punch list meeting (end of job)</td>
<td>Weekly</td>
<td>Project Manager or Superintendent</td>
</tr>
<tr>
<td>Subcontractor coordination</td>
<td>Weekly</td>
<td>Project Manager or Project Engineer</td>
</tr>
<tr>
<td>Field question/submittal coordination</td>
<td>Weekly</td>
<td></td>
</tr>
</tbody>
</table>
Meeting Agenda

• If particular meeting is **not a continuation from a previous** meeting, a meeting agenda is required.
• The agenda is the sequential **listing of the topics to be addressed** at the meeting.
• This document forces the meeting to **proceed in a formal** manner, which allows the project manager the opportunity to **accomplish** his or her **goals** and **limits digression**.
• The project manager first established himself or herself as the meeting leader or chair by **sending out the agenda** and **meeting notice**.

Meeting notes

• The multifaceted nature of meeting notes allows them to:-
  
  I. Provide a written record of meeting discussion and decision.
  II. Provide a formal list of meeting attendees.
  III. Remind attendees of action required prior to the next meeting.
  IV. Create responsibility through action items with due dates.
  V. Provide an agenda for next meeting.
  VI. Solicit corrections to the project manager’s understanding of meeting results.
  VII. Announce the next meeting.
Meeting notes served as a formal and sometimes legal records!

They are important records that should be regarded

At a minimum the notes should contain the following:

1. Heading: project name, construction’s firm latterhead, date & time, meeting number, location of meeting.

2. Typed attendance list and the firm each attendance represents.

3. Paragraph notifying attendees that they are expected to be qualified to make decisions that accurately represent their firms.
At a minimum the notes should contain the following:

4. **Paragraph notifying participants** and note recipients that they have up to 7 days to notify the note taker of any **errors or omissions**. After that time, the notes will be considered statements of facts and entered into the project’s records.

5. **Item numbered**: each new business note item shall be numbered with that meeting number as its prefix. This will eliminate duplicate numbers and allows the next week notes to be tied in. Additionally, open, unresolved items can be carried forwards as old business; the meeting prefix indicates the age of open issues.

At a minimum the notes should contain the following:

6. Discussion, action items and decision
7. Company or individual responsible for taking action.
8. Date the action to be due and the individual responsible to make it happen.
10. Use **bold**, or **italic** or **underline** are beneficial to bring attention to topics.
11. Handout’s, regardless of sources and reference to them. This way the project manager can avoid any party indicating it did not received a copy of an item distributed during the meeting.
At a minimum the notes should contain the following:

12. Note taker name
13. Distribution to all attendees, absentees and others whom the notes effect.
14. Logs distributed and discussed such as: field question log, submittal log, sketch log, and change order proposal log.
15. Numbered pages, eg. Page 2 of 5
16. Every document on a construction job should be filed and given a file code numbers that includes the job number.
17. End of meeting added underneath the last discussion held in the meeting.
Types of Project Meetings

- Status review meetings
- Problem-solving meetings
- Technical design review meetings

Status Review Meetings

- Usually led or called by the project manager.
- The primary purposes are to inform, to identify problems, and to identify action items.
- Should be held on a regularly scheduled basis.
Status Review Meetings
Subjects for Discussion

- Accomplishments since last meeting
- Cost, schedule, and work:
  - Scope
  - Status
  - Trends
  - Forecasts
  - Variances

Status Review Meetings
Subjects for Discussion (Cont.)

- Risk assessment update
- Corrective actions
- Opportunities for improvement
- Action item assignment
Problem-Solving Meetings: The Process

1. Develop a problem statement.
2. Identify potential causes of the problem.
3. Gather data and verify the most likely causes.
4. Identify possible solutions.
5. Evaluate the alternative solutions.
6. Determine the best solution.
7. Revise the project plan.
8. Implement the solution.
9. Determine if the problem has been solved.

Technical Design Review Meetings

- A preliminary design review meeting
- A final design review meeting
Effective Meetings
Before the Meeting

1. Determine:
   – whether a meeting is really necessary.
   – the purpose of the meeting.
   – who needs to participate in the meeting.
2. Distribute an agenda.
3. Prepare visual aids or handouts.

Effective Meetings
During the Meeting

1. Start the meeting on time.
2. Designate a note-taker.
3. Review the purpose and the agenda.
4. Facilitate—don’t dominate.
5. Summarize the results at the end.
6. Do not overrun the scheduled meeting time.
7. Evaluate the meeting process.
Effective Meetings
After the Meeting

1. Publish the meeting results within 24 hours after the meeting.
2. The summary document should be concise.
3. It should confirm decisions that were made and list the action items.

Preparing for a Presentation

1. Determine the purpose of the presentation.
2. Know the audience.
3. Make an outline.
4. Use simple language.
5. Prepare notes or a final outline to use during the presentation.
Preparing for a Presentation (Cont.)

1. Practice, practice, practice.
2. Prepare visual aids and test them.
3. Make copies of handout materials.
4. Request the audiovisual equipment well in advance.
5. Go into the meeting room when it’s empty and get a feel for the surroundings.

Delivering a Presentation

1. Expect a bit of nervousness.
2. Know the first two or three sentences of your presentation.
3. Talk to the audience, not at it.
4. Speak clearly and confidently.
5. Use appropriate animation.
6. Do not stand in front of your visual aids.
Delivering a Presentation (Cont.)

1. Build interest in your presentation.
2. Keep to the key points in your outline.
3. Know your closing lines.
4. Allow time for interaction with the audience.
5. When responding to questions, be sincere, candid, and confident.

Information Needs and the Reporting Process

- The monitoring system ought to be constructed so that it addresses every level of management
- Reports do not need to be of the same depth or at the same frequency for each level
- The relationship of project reports to the project action plan or WBS is the key to the determination of both report content and frequency
Information Needs and the Reporting Process

• Reports must contain data relevant to the control of specific tasks that are being carried out according to a specific schedule
• The frequency of reporting should be great enough to allow control to be exerted during or before the period in which the task is scheduled for completion
• The timing of reports should generally correspond to the timing of project milestones

Information Needs and the Reporting Process

• The nature of the monitoring system should be consistent with the logic of the planning, budgeting, and scheduling systems
• The primary objective is to ensure achievement of the project plan through control
• The scheduling and resource usage columns of the project action plan will serve as the key to the design of project reports
Information Needs and the Reporting Process

• Benefits of detailed, timely reports delivered to the proper people:
  – Mutual understanding of the goals of the project
  – Awareness of the progress of parallel activities
  – More realistic planning for the needs of all groups
  – Understanding the relationships of individual tasks to one another and the overall project
  – Early warning signals of potential problems and delays
  – Faster management action in response to unacceptable or inappropriate work
  – Higher visibility to top management

Report Types

• For the purposes of project management, we can consider three distinct types of reports:
  – Routine
  – Exception
  – Special analysis

• Routine reports are those issued on a regular basis
Report Types

- Exception reports are useful in two cases:
  - First, they are directly oriented to project management decision making and should be distributed to the team members who will have a prime responsibility for decisions
  - Second, they may be used when a decision is made on an exception basis and it is desirable to inform other managers as well as to document the decision

- Special analysis reports are used to disseminate the results of special studies conducted as a part of the project
  - These reports may also be used in response to special problems that arise during the project
  - Usually they cover matters that may be of interest to other project managers, or make use of analytic methods that might be helpful on other projects
Milestone Reporting

- Milestone reports serve to keep all parties up to date on what has been accomplished.
- If accomplishments are inadequate or late, these reports serve as starting points for remedial planning.

Types of Construction Project Reports

- Progress reports
- Final report
Progress Reports

- May include:
  - Accomplishments since prior report.
  - Current status of project performance.
  - Progress toward resolution of problems.
  - Problems or potential problems.
  - Planned corrective actions.
  - Milestones expected to be reached during next reporting period.

Final Report

- May include:
  - Customer’s original need.
  - Original project objective.
  - Degree to which the original project objective was met.
  - Brief description of the project.
  - Future considerations.
  - A list of all deliverables provided to the customer.
Preparing Useful Reports

- Make your reports concise.
- Write as you would speak.
- Put the most important points first.
- Use graphics where possible.
- Pay as much attention to the format of the report as to the content.

Project Documentation and Controlling Changes

- Many documents may be created.
- Revisions can result from changes initiated by the customer or by the project team.
- Some changes are trivial; others are major.
- Various project documents will be revised to incorporate changes.
- Note when the revision was made and by whom on all documents.
- It is important to distribute updated documents in a timely manner.
Collaborative Communication Tools

• Face-to-face meetings are not always feasible or timely.
• Constraints such as:
  – Travel
  – Distance
  – Telecommuting.
• Collaborative communication tools allow all or some of the members of the project team to communicate with each other.

Types of Collaborative Communication Tools

• Teleconferencing
• Groupware
• Content management systems
• Extranets
• Collaborative project workspaces on the web
Computerized PMIS

- New microcomputer-based project management information systems (PMISs) are considerably more sophisticated than earlier systems
- Uses the microcomputer’s graphics, color, and other features more extensively
- Many systems can handle almost any size project, being limited only by the memory available in the computer

Computerized PMIS

- The PMIS trend of the 1990s has been to integrate the project management software with spreadsheets, databases, word processors, communication, graphics, and the other capabilities of Windows-based software packages
- The current trend is to facilitate the global sharing of project information, including complete status reporting, through local networks as well as the Internet
Current Software

• The explosive growth of project management software during the early 1990s saw the creation of more than 500 packages
• Systems can be easily misused or inappropriately applied - as can any tools
• The most common error is managing the PMIS rather than the project itself

Current Software

• In addition to managing the PMIS instead of the project, other problems include:
  – Computer paralysis
  – PMIS verification
  – Information overload
  – Project isolation
  – Computer dependence
  – PMIS misdirection
Choosing Software

- Characteristics of generally desirable attributes in project management software:
  - Friendliness
  - Schedules
  - Calendars
  - Budgets
  - Reports
  - Graphics
  - Charts
  - Migration

Typical Software Output

- Software evaluation action plan

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Due Date</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Task 4    |          |          |
| Task 5    |          |          |
| Task 6    |          |          |

| Task 7    |          |          |
| Task 8    |          |          |
| Task 9    |          |          |

| Task 10   |          |          |
| Task 11   |          |          |
| Task 12   |          |          |

| Task 13   |          |          |
| Task 14   |          |          |
| Task 15   |          |          |

| Task 16   |          |          |
| Task 17   |          |          |
| Task 18   |          |          |

| Task 19   |          |          |
| Task 20   |          |          |
Typical Software Output

- Early and late start and finish dates and slack

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Start</th>
<th>Finish</th>
<th>Early</th>
<th>Late</th>
<th>Total</th>
<th>Slack</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Software license begins</td>
<td>1/25/99</td>
<td>1/25/99</td>
<td>1/25/99</td>
<td>1/25/99</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>2. Vendor selection</td>
<td>1/26/99</td>
<td>1/26/99</td>
<td>1/26/99</td>
<td>1/26/99</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>3. Literature search</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>4. Literature review</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>5. Purchase t-shirts</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>0 days</td>
<td></td>
</tr>
<tr>
<td>6. Project management</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>2/2/99</td>
<td>0 days</td>
<td></td>
</tr>
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</table>

Typical Software Output

- Gantt Chart

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
<th>Percent Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project approval</td>
<td>0 days</td>
<td>3/2/99</td>
<td>3/2/99</td>
<td>100%</td>
</tr>
<tr>
<td>2. Script writing</td>
<td>14 days</td>
<td>3/2/99</td>
<td>3/16/99</td>
<td>100%</td>
</tr>
<tr>
<td>3. Schedule meetings</td>
<td>17 days</td>
<td>3/2/99</td>
<td>3/16/99</td>
<td>100%</td>
</tr>
<tr>
<td>4. Big kid scheduling</td>
<td>0 days</td>
<td>3/2/99</td>
<td>3/2/99</td>
<td>100%</td>
</tr>
<tr>
<td>5. Pupils' feedback</td>
<td>0 days</td>
<td>3/2/99</td>
<td>3/2/99</td>
<td>100%</td>
</tr>
<tr>
<td>6. Languages</td>
<td>0 days</td>
<td>3/2/99</td>
<td>3/2/99</td>
<td>100%</td>
</tr>
<tr>
<td>7. Schedule students</td>
<td>0 days</td>
<td>3/17/99</td>
<td>3/23/99</td>
<td>100%</td>
</tr>
<tr>
<td>8. Schedule complete</td>
<td>0 days</td>
<td>3/23/99</td>
<td>3/23/99</td>
<td>100%</td>
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<tr>
<td>9. Script approval</td>
<td>0 days</td>
<td>3/23/99</td>
<td>3/23/99</td>
<td>100%</td>
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<tr>
<td>10. Final draft</td>
<td>0 days</td>
<td>3/23/99</td>
<td>3/23/99</td>
<td>100%</td>
</tr>
<tr>
<td>11. Subtotal</td>
<td>0 days</td>
<td>3/23/99</td>
<td>3/23/99</td>
<td>100%</td>
</tr>
<tr>
<td>12. Final approval</td>
<td>0 days</td>
<td>3/23/99</td>
<td>3/23/99</td>
<td>100%</td>
</tr>
</tbody>
</table>

Project: Producing a video tape
Project Manager: J. Lampers
5/20/99

Gantt Chart

- Critical path
- Milestones
- Summary

Critical path: 0 days
Milestones: 0 days
Summary: 0 days

30
Typical Software Output

- AON Network

![Gantt Chart Tracking progress](image)