

Project Quality Management

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Project Quality

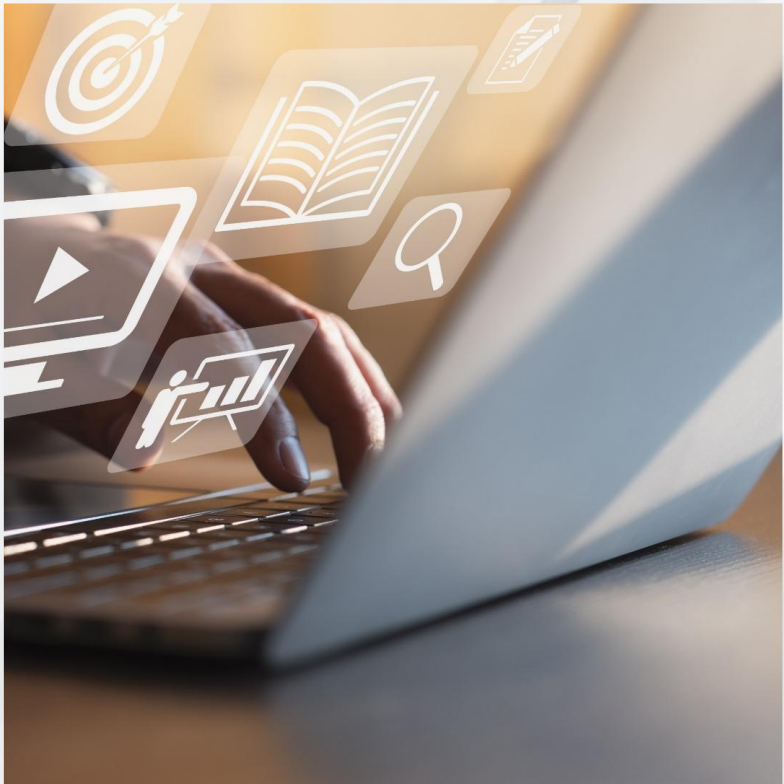
Lecture 10

PMG354
Project closure

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Objectives

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At the end of this lecture, we expect to acquire a knowledge about the project closure phase and all related activities that have been carried out to be able to finalize all tasks.

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- 5 types of project closure
- The importance of project closure
- Project closure phases: technical, learning, and people
- 8 key steps to successfully close your project
- Applying AI in Project QM - Construction

Introduction

Project closure is the final stage in the project management life cycle. The main aim is to close the project by wrapping-up loose ends, completing admin tasks, and handing over deliverables.

Introduction

Project closure often gets overshadowed by the execution phase, and to be fair, there can be some confusion and overlap between the two. But this is *exactly* why the project closure phase exists: to make sure that there's a clear finish line, that projects are fully signed, sealed, and delivered as agreed on.

- Project closure in project management brings peace of mind. It prevents perpetual finishing touches, and scope creep. It means everyone involved can get, well—closure.
- So, let's look at how to seamlessly close your project, creating a positive experience for your clients and team.

Introduction

To initiate the closure stage of the project life cycle, check project deliverables against the original project plan.

- When you are confident project goals have been met:
- Focus on getting stakeholders to formally agree to the closure stage
- Let your internal team and external vendors know that the project's reaching completion or is complete
- Remember critical tasks like sending your project report, ending contracts, and paying invoices

5 types of project closure

1. Normal

- Normal means everything went to plan. You've completed the project on time and on budget with only a few hiccups along the way. It's the ultimate project management win and (thankfully) the most common type of project closure.
- Normal project closure example: You worked on a developmental project, and the end goal was to help a client launch a new app. You and the project team successfully launched your client's new app.

5 types of project closure

2. Premature

- Premature project closure occurs when a stakeholder cancels all or parts of a project early. Sadly, sudden closure happens. But in most cases, it's not because of anything your or your team did. It could happen because of a shift in business priorities or a budget cut.

5 types of project closure

3. Perpetual

- The perpetual project—a project management scenario of nightmares. A perpetual project is one that just never ends. There's no precise finish date or idea of successful closure. With no end in sight, stakeholders request constant add-ons, testing, fixes, and extensions outside the project scope.
- These nightmare scenarios happen when clear outcomes and closure objectives aren't formally agreed to or set. Dr. Al Zeitoun said, "You have to have a joint view of what project success looks like." The Senior Director of Strategy at Siemens recommends defining the project goals and creating a shared vision of success "early."

5 types of project closure

Pro tip: Avoid perpetual project add-ons by embedding closure objectives within the project initiation and planning stages of the project life cycle. You'll also want to define the project scope. Then, if something's outside of the agreed scope, you can suggest a new project.

5 types of project closure

4. Change in priorities

- As with perpetual closure, a change in priorities sometimes can't be helped. It's not a result of anything anyone has done, and it's not personal—the project's not a high priority anymore. Not all's lost, though. The project could resume later, or the stakeholder may ask you to manage a new project.
- Change in priorities project closure example: The broader financial landscape is turbulent, or your stakeholder's industry is volatile. Perilous economic times often force businesses to shift resources to cost-saving efforts.

5 types of project closure

5. Failed

- Failed project closure means the project didn't achieve its aim. In this case, a client will typically close out the project immediately. But here's the thing, sometimes, project failure is outside your control (or your team's control). Most projects come with many moving parts, people, goals, and sometimes limited resources.
- To protect your well-being, try to stay positive but pragmatic. This is a learning experience, so dust yourself off and apply your new knowledge to the next project. To protect your team's well-being, clearly communicate the reasons for project closure without playing the blame game.
- Pro tip: Effective workload planning can help protect your team's well-being throughout a project and ensure success.

The importance of project closure

- We can't understate the importance of project closure in project management. Get this stage right, and you'll protect your project from perpetual or failed closure.
- Let's examine three more added benefits of project closure.

The importance of project closure

1. Wrapping up the project

- Perhaps the most crucial upside of the project management closing phase is tying up loose ends. For a start, it's the ideal opportunity to let stakeholders know the work is over.
- Plus, you can ask all parties to formally agree that you met objectives and ensure everyone's happy with the outcomes. You can also hand over deliverables and wrap up with a project management closure report.
- Pro tip: Don't forget the finer details—test the project closure deliverables, review your project strategy, and communicate results to your client and team.

The importance of project closure

2. Understanding the next steps

- The closure stage of a project helps you set a precise end date, avoiding disaster scenarios like a perpetual project. It also empowers you to review what's happened and what needs to happen to agree on your next steps. The next steps could be reviewing any tasks you or your team need to finish to close the project successfully. You'll then need to allocate resources and track task completion.
- Another next step could be handing the project over to another department (internal or external) for the next stage. A handover might happen when the final deliverables need specific support and resources outside the existing scope.

The importance of project closure

3. Sharing team learning

- A project evaluation meeting isn't mandatory, but we highly recommend running one with your team. The purpose of a project evaluation is to share project closure best practices. It's an opportunity to review deliverables against project goals, learn from mistakes, and repeat any successes on future projects.
- Sharing learning as a collective means you can avoid repeating mistakes and instead focus on repeating project wins. It's also a valuable opportunity to review the project budget against what you actually spent. (You might be able to replicate some cost-saving activities.)

The importance of project closure

- It is recommended to use a resource management tool to report on resource utilization. That way, you can recap where your team spent their time throughout the project. You can then identify bottlenecks caused by resource allocation. That could include a team member being overworked while someone with a similar specialism was underutilized.
- Pro tip: Share your evaluation meeting findings with stakeholders. It's a fantastic way to add value and follow up with clients once the project's finished. It could even put you and your team top of mind for the next big project.

Project closure phases: technical, learning, and people

The three key project closure phases are technical, learning, and people.

1. **The technical phase** helps you tie up loose ends and complete administrative tasks. It provides a definite sense of completion to your project.
2. **In the learning phase**, you and your team examine what worked well and what didn't. (Whether your project ran without a hitch or you jumped more hurdles than Lolo Jones, there's always learning to share.)
3. **The people phase** is a chance to celebrate your team's achievements and provide emotional closure. Tell your team about their impact on the project, reiterate their work was meaningful, and thank them for their efforts. Doing so cultivates a positive, supportive environment that improves team performance.

8 key steps to successfully close your project

When it comes to project closure, the devil's in the detail. Plus, all your actions should feed into the goal of closing the project with minimal friction and within scope. Here are eight key project closure steps to help you successfully finish your project—for good.

1. Review the project plan to tie up loose ends

- Step one in your closing project phase is gathering crucial information and forming a clear action plan. You don't want to scramble at the last minute because you forgot a task or key information. That looks unprofessional to stakeholders and is a fast track to team burnout. It also adds a bucketload of avoidable stress to your project management plate.
- Here's a list of project closure example tasks to help you tie up loose ends and gain peace of mind:
- Revisit your project plan to double-check that you and your team have successfully met project goals
- Map out a wrap-up plan, including scheduling meetings, setting aside time to tackle admin, and updating stakeholders

1. Review the project plan to tie up loose ends

- Review outstanding tasks that you or your team must complete before the project can officially close. Your outstanding tasks could include agreeing on project completion with stakeholders or paying contractors for their work. A team member's outstanding task could be running tests or making minor fixes to ensure the end product's running smoothly.
- Check if outstanding tasks are inside or outside the agreed project scope

1. Review the project plan to tie up loose ends

- If tasks are inside the project scope, use a resource scheduler to assign the tasks to the right team member
- If tasks are outside the project scope, make a note. Consider pitching as a new project if appropriate, or include these tasks in the handover notes of your final report.
- Let your team know if you need them to attend any final meetings with yourself, the wider team, or stakeholders

2. Wrap-up admin tasks

- Remembering to finish your admin tasks is one of the key project closure steps in project management. Missing any details here could mean crucial gaps in paperwork or documentation, leading to disgruntled stakeholders.
- Here's a list of project closure example tasks to wrap up admin tasks:

2. Wrap-up admin tasks

- Review and update project documentation, contracts, and assets
- Check that you have all the documentation needed to close out the project and that it's all complete
- Ensure contracts are signed by relevant parties and update project-specific assets like your budget, processes, or schedule
- Review and update project deliverables as needed

2. Wrap-up admin tasks

- We recommend saving all the project documentation and assets in a logical order.
- Double-check that project assets are available and the relevant people (internally and externally) can access them.
- Let stakeholders know where you've saved the relevant documentation
- Provide any access permissions to stakeholders as needed

2. Wrap-up admin tasks

- Close out external contracts and pay outstanding invoices.
- Consider subcontractors, vendors, or suppliers.
- Finalize project finances to ensure you've received your final payments from stakeholders.
- Provide your finance team with the final budget
- Collate information for your final project report.
- Make sure any information relevant to your final report is readily available
- Remember to include budget estimates, actual spending, and any key achievements

2. Wrap-up admin tasks

- Transfer over deliverables to your stakeholders so they can review and formally sign off on the end product.
- Refer back to the project plan to double-check that you have all the agreed deliverables

3. Close the loop with stakeholders

it's time to close the loop with stakeholders. Bottom line: if you don't make project closure official, you leave yourself open to endless client revisions.
Here's how to avoid the Never-Ending Story

3. Close the loop with stakeholders

- Book a meeting with your stakeholders.
- Whether you pitch it as a formal wrap-up or a prequel to one, you need to get stakeholders in one place. Try a meeting room booking system to avoid double bookings and make the process as smooth as possible.
- Get all stakeholders to agree on project completion.
- Ask clients to sign off on project deliverables formally and agree you met the project goals. Remember to get written documentation so it's clear in black and white that closing the project is okay.

3. Close the loop with stakeholders

- Other agenda items to consider
- How you plan to finish incomplete items inside the project scope, or recommended follow-ups for items outside the scope
- After the meeting, you'll need to send over your final report.
- Consider sending a survey alongside your final report to gather client feedback. You can apply the feedback to future projects or use it within your broader marketing efforts.
- Pro tip: Consider getting written confirmation after the meeting formalizing the agreed project closure. You could ask for this confirmation when you send your final report via email.

4. Provide the next steps to your team

- Once you've formally agreed on project closure with stakeholders, it's time to update your team. If you haven't already, you can share the wrap-up plan and let them know of any final tasks.
- You can also discuss if and when you're holding a project evaluation meeting. Plus, you can send out any preset questions beforehand so they can prepare for the meeting. Examples of questions to send your team beforehand:
 - What went well?
 - Were there any key challenges?
 - What would you change in future projects?
 - Do you think the client was happy with the results?

4. Provide the next steps to your team

- At this stage, you can also officially release project resources, including team members, external contractors, or other partners. Remember to confirm the project's closing and release final payments.
- Pro tip: Use a resource management tool to archive resources you no longer need. The archive function allows you to reactivate resources for future projects rather than recreating individual resources from scratch.

5. Hold a project evaluation meeting

- A project evaluation meeting is a fantastic way to share learning, discuss improvements and create emotional closure. Also, recognizing everyone's efforts will boost workplace happiness by showing the team that their "work is meaningful."
- To encourage open discussion, let everyone know there are no wrong answers or stupid questions. You value their on-the-ground perspectives and want to understand what worked and what didn't.
- Pro tip: You could share any important learnings discovered in the project evaluation meeting with your stakeholders so they can learn from the project too.

6. Map out improvements for the future

- Once you've analyzed the project and gleaned internal and external feedback, solidify all of this learning into an improvement roadmap. This will help you improve your future systems, processes, and deliverables.

When crafting your improvement roadmap, ask yourself these questions:

- Did you deliver the project on time?
- Did you deliver the project on budget?
- Did the project meet the client's needs?
- What can you do better next time?
- Pro tip: Share a draft version with your team, and ask for their feedback.

7. Index documentation

- Once you've completed steps one through six, the project's as good as closed. But there's one final technical task to complete—archiving documentation to refer to later.
- Examples of documentation to archive include:
 - Contracts
 - Project plan
 - Scope
 - Costs
 - Schedule
 - The final report
 - Roadmap for future improvements

8. Celebrate a job well done

- Officially closing a project is a fantastic way to provide emotional closure for yourself and the team. But perhaps more importantly, it's a beautiful chance to revel in a well-done job. And this brings us to the final (and maybe the best) project closure process in project management—the celebration stage.

Project closure report

One of the most critical project closure deliverables is your final report. A final report updates your stakeholders on project success and signals the end of the work. Your final report might include:

- An overview of the project, including key achievements or learnings
- Any resource utilization insights of note
- Whether you met the main project goals
- Project results compared with project forecasting reports
- A list of final tasks to complete alongside the current project
- Handover instructions if a task's outside the agreed scope
- A questionnaire or survey requesting client feedback

Applying AI in Project QM - Construction

Artificial Intelligence (AI) is Transforming quality management into a **fully proactive, predictive, and automated ecosystem**, specifying modern technologies: **Large Language Models (LLMs), Advanced Computer Vision, Edge Computing**, with emphasis on **real-time, precise decision-making.**:

1. Intelligent Monitoring & Inspection

- **Computer Vision with Drones & Cameras**

- **Application:** High-resolution cameras and drones equipped with advanced computer vision models such as **YOLOv8** continuously capture live video streams from the project site.

- **AI Function:** AI models analyze this **live video feed in real-time** to detect anomalies with superhuman accuracy. **Quality Outcomes:**

- **Automatic Defect Detection**
- **real-time PPE compliance monitoring** with instant alerts to supervisors
- **4D BIM integration (building information modeling)** for automated progress tracking against the project schedule.

Applying AI in Project QM - Construction

- **Laser Scanning & Point Cloud Analysis**

- **Application:** Laser scanners (LiDAR) create highly accurate 3D point clouds of the constructed asset.
- **AI Function:** AI algorithms compare the scanned data against the original Building Information Model (BIM) and, using advanced generative AI, **automatically propose corrective engineering solutions** to reconcile as-built conditions with the as-designed model. .
- **Quality Outcome:** Flags deviations with millimeter-level precision and **reduces decision-making time from days to hours** by suggesting actionable fixes, ensuring the project is built exactly as designed with minimal delays.

Applying AI in Project QM - Construction

2. The Digital Twin: A Proactive Quality Hub

- **What it is:** A dynamic, virtual replica of the physical project that is continuously updated with real-time data from sensors, drones, and other sources.
- **AI Applications in Quality:**
 - Predictive Simulation
 - Automated Clash Detection
 - Performance Monitoring

Applying AI in Project QM - Construction

3. Predictive Analytics for Risk Mitigation

- **Application:** AI and Machine Learning analyze vast amounts of historical project data (material specs, weather conditions, supplier performance, worker productivity).
- **Quality Outcomes:**
 - Predicts Material & Structural Issues
 - Forecasts Delays
 - Predicts Equipment Failure

Applying AI in Project QM - Construction

4. Automation and Robotics

- **Construction Robots:**

- **Application:** Robots perform repetitive or dangerous tasks like bricklaying, welding, or painting.
- **Quality Outcome:** They perform these tasks with superhuman precision and consistency, significantly reducing human error and variability in workmanship.

- **Autonomous Vehicles**

- **Application:** Self-driving vehicles transport materials around the site.
- **Quality Outcome:** Reduces damage to materials caused by improper handling, ensuring they are in perfect condition when used.

Applying AI in Project QM - Construction

5. Automated Document Analysis

- **Application:** Natural Language Processing (NLP), a subset of AI, is used to read and analyze project documents (specifications, contracts, drawings, change orders).
- **Quality Outcomes:**
 - Identifies Discrepancies
 - Highlights Critical Items
 - Analyzes Change Orders



Thank You

