21 WAYS TO EXCEL AT PROJECT MANAGEMENT

"If we keep doing what we're doing, we're going to keep getting what we're getting." Stephen R. Covey

Duncan Haughey

ABOUT THIS BOOK

"We are all engaged on a journey to achieve excellence in our industries, whether it is automotive, consumer goods, petrochemical or construction. Effective Project and Programme Management is a key enabler of this change process.

We need projects that deliver the agreed business benefits on-time and within budget, time after time. This is best achieved by keeping a clear focus on the business objectives of the project and through applying commonly accepted tools, techniques and methods.

The aim must be to provide our Project Managers with simple processes that can be rigorously and consistently applied to produce predictable results. This book has been designed with that aim in mind and sets out an approach that can be adopted for managing all kinds of projects."

Duncan Haughey

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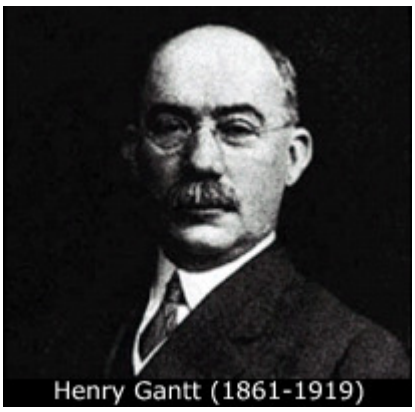
INTRODUCTION

"Project Management is the dynamic process that utilises the appropriate resources of the organisation in a controlled and structured manner, to achieve some clearly defined objectives identified as strategic needs. It is always conducted within a defined set of constraints." [1]

Learn more with this book, written in a question and answer style, containing 21 pieces of valuable advice for making your projects a success.

Project management in the modern sense began in the 1950s, although it has its roots much further back in the latter years of the 19th century. The need for project management was driven by businesses that realised the benefits of organising work around projects, and the critical need to communicate and coordinate work across departments and professions.


Henry Gantt (1861-1919)

One of the forefathers of project management is still a familiar name today, Henry Gantt (1861-1919) creator of the Gantt chart. Still in use, one hundred-years from their birth, Gantt charts are one of the project managers' most valuable tools. In the mid-20th century PERT charts emerged, complex network diagrams that show the critical path of a project. These tools and techniques spread quickly as businesses looked for new ways to manage large and complex activities, evolving into project management as we know it today.

It is now sixty years since the birth of project management and much of the early work has been collected and put together into formal methodologies. Although many different methodologies exist, they all work with the same basic principles and good

practice. So now you may expect we are expert when it comes to running projects, but sixty years on and project failures are still with us, and according to some observers rising in number.

Siemens made headlines in the UK when Government systems for new passports were hit by terrible delays. ICL also failed with its system to automate benefit payments; the project was axed with £460m of taxpayers' money wasted. In 1992, the London Ambulance Service launched a new computer system that slowed its response times to emergency calls. More recently the £21bn Eurofighter project has experienced problems caused by 'delays in bringing the detailed design to full maturity in some areas', which prevented flight-tests from starting on time.

"Projects go wrong for the same reasons all the time. There are no new sins. We can look at a project in its first two months and know if it will be a success or not. Many organisations are failing to heed painful lessons learned from past projects." [2] The biggest sin in project management is not learning the lessons of past projects. When we learn to do this then we will reduce the number of project failures.

What follows is a practical guide to managing projects, which will help steer you to a successful result.

1. *Trevor L. Young, How to be a Better Project Manager (London: Kogan Page Limited, 1998), 16*
2. *Nick Dean, Managing Director of Professional Values.*

THE STAGES OF A PROJECT

Good Practice: Typically, the first few weeks of a project will consist of a small team of people working on a Project Definition document. During the 'Definition', 'Initiation' and 'Planning' stages, questions 1 to 10 should be answered.

Projects are divided into six stages:

- Definition.
- Initiation.
- Planning.
- Execution.
- Monitoring & Control.
- Closure.

Each project stage is characterised by a distinct set of activities that take the project from its first idea to its conclusion. Each stage is of equal importance and contributes to the overall success of the project.

1. DEFINITION

Before a project starts the project manager must make sure the project goals, objectives, scope, risks, issues, budget, timescale and approach have been defined. This must be communicated to all the stakeholders to get their agreement. Any differences of opinion need to be resolved before work starts.

2. INITIATION

This is perhaps the most important stage of any project as it sets the terms of reference within which the project will be run. If this is not done well, the project will have a high likelihood of failure. The initiation stage is where the business case is declared, scope of the project decided and stakeholder expectations set. Time spent on planning, refining the business case and communicating the

expected benefits will help increase the likelihood of success. It is tempting to start working quickly, but a poor initiation stage often leads to problems and even failure.

3. PLANNING

The key to a successful project is in the planning. Creating a project plan is the first task you should do when undertaking any project. Often project planning is ignored in favour of getting on with the work. However, many people fail to realise the value of a project plan in saving time, money and many other problems.

4. EXECUTION

Doing the work to deliver the product, service or wanted result. Most of the work related to the project is realised at this stage and needs complete attention from the project manager.

5. MONITORING & CONTROL

Once the project is running it is important the project manager keeps control. This is achieved by regular reporting of issues, risks, progress and the constant checking of the business case to ensure that expected benefits will be delivered and are still valid. A project that is not controlled is out of control.

6. CLOSURE

Often neglected, it is important to ensure a project is closed properly. Many projects never end because there is no formal sign-off. It is important to get the customers agreement that a project has ended and no more work will be carried out. Once closed, the project manager should review the project and record the good and bad points, so successes can be repeated and failures avoided. A project that is not closed will continue to consume resources.

SPONSORSHIP & LEADERSHIP

QUESTION 1: DO YOU HAVE SUFFICIENT BUSINESS SPONSORSHIP AND LEADERSHIP?

Good Practice: A senior business sponsor should be identified at the highest possible level in the organisation, and named in the Project Definition document.

A Steering Committee must be set up and become operational from the beginning of the project. The Steering Committee is responsible for taking all key decisions about the project and should be comprised of senior managers from the business.

The chair of the Steering Committee has ultimate responsibility for the project. The Project Manager leads the project on a daily basis and is fully accountable for delivering the project described in the Project Definition document.

In his article *"Six Ways to Give Proper Project Leadership"* Dr. Keith Mathis offers this advice:

- Create an atmosphere of trust.
- Build the right team.
- Spell everything out for your team up-front.
- Monitor and give feedback.
- Keep communication open.
- Keep the end goal clearly in mind.

"The project sponsor is perhaps the second most influential person on the project, after the project manager and in some cases may even wield more influence on project results." - *Dave Nielsen*

COMMON MISTAKES

- Wasting time and money on projects that do not have sufficient sponsorship, commitment or leadership to succeed.
- Hoping that people who do not commit early on will find time later.
- Not involving the sponsor enough with setting direction and keeping the project on track.

NOTES

Before you start your project, find a committed project sponsor who has enough clout in your organisation. Your project sponsor will prove invaluable in helping you overcome organisational roadblocks as they arise.

Put simply, a project without a senior business sponsor will fail.

DEFINING THE BUSINESS OBJECTIVES & BENEFITS

QUESTION 2: HAVE YOU DEFINED AND UNDERSTOOD THE BUSINESS OBJECTIVES AND BENEFITS?

Good Practice: A Project Definition document should be prepared and formally signed off by the Steering Committee. This document defines the goals, objectives, benefits, deliverables, exclusions, assumptions, business sponsors, responsibilities, estimated costs, timescale and serves the following purposes:

1. Clearly defines the objectives and scope of the project.
2. Provides management and team members with a common view and clear understanding.
3. Provides a good starting point for the subsequent definition of more detailed documents, for example the Project Plan, Project Budget and Functional Requirements Specification.

"The single best payoff in terms of project success comes from having good project definition early." - *RAND Corporation*.

COMMON MISTAKES

- Start focusing on solutions, how to achieve something, before gaining a clear understanding of the business objectives that you want to achieve and identifying the business sponsors needed to help achieve these objectives.
- Not returning to the Benefits Statement during the project to make sure they are still valid and achievable.

NOTES

- "The number of projects that set out confidently with little or no idea of what they are supposed to achieve is truly astounding."

- "Some projects start out with a clear idea, but lose track of it by the time they're 20% into the project."
- "Many proud, objective-orientated managers have a list of goals that are, on closer inspection, technology driven, and not business driven. They are headed for a 'successful' project whose results will never be used."
- "Keep in mind that the aim of a project is 'results delivery' not, as is often the case, 'construction activity'. This means thinking about the products the project is in business to deliver."

PLANNING THE PROJECT

QUESTION 3: HAVE YOU DEVELOPED A DETAILED PROJECT PLAN?

Good Practice: A detailed project plan should be developed and signed off by the Steering Committee. It provides the following benefits:

1. Translates the high-level business objectives into a detailed 'road-map' of concrete deliverables.
2. Provides a detailed list of resource requirements.
3. Provides a realistic assessment of project timescales.
4. Allows estimated project costs to be further validated.
5. Allows for issues to be identified early on, for example tasks taking longer than expected, slippage in target dates and team members not being productive.

Base the plan on known metrics, how long did a previous similar project take?

Involve all team members, not just senior management. Develop the plan in iterations over several weeks, by consulting team members and drawing on their experience.

COMMON MISTAKES

- Having no project plan.
- Having a wrong project plan. Do not be swayed by a sexy looking project plan that has been produced to give the Steering Committee a warm, comfortable feeling, but which is not based on reality. A wrong project plan is worse than having no project plan at all.
- As with all methodologies, a healthy dose of common sense and pragmatism is required. Do not be too religious, for example a 5-day project does not need a detailed project plan.

- Do not lose sight of what the project is trying to achieve. Traditional project management techniques can encourage over planning and an excessive focus on micro level tasks at the expense of the overall objective.
- Disbelieving evidence from past projects and insisting the current project can be done faster with fewer people.
- Committing to or baselining project plans too early.

Notes: Trying to manage a large and complex project without a project plan is like trying to cross an unknown continent without a map, you are running blind. The key thing to get right is the balance between planning and action. Take the example of driving from London to Paris: too much planning and other cars will be halfway there before you leave; too little and you will turn up at the Eurotunnel terminal without passports.

"A good plan, violently executed now, is better than a perfect plan next week." - *General George S. Patton, JR.*

Warning Sign! When successive project milestones are missed this is a sure sign of a project that is failing.

ENSURING THE PROJECT IS A MANAGEABLE SIZE

QUESTION 4: IS YOUR PROJECT A MANAGEABLE SIZE?

Good Practice: A large project should be cut up into more manageable subprojects, which only depend on completed subprojects. The project planning methodology provides a good tool to subdivide a major project into more manageable subprojects with short-term deliverables.

Each project plan should itself be subdivided into a number of key milestones. This helps to provide continual delivery and to ensure that actual progress is measured regularly. For example, a recent large project involved two separate project plans for different stages of the project, development and implementation. Each plan consisted of around 300+ separate tasks and around 30 key milestones.

In his article "*7 Steps to Project Success*", Peter Draper suggests it is necessary to break up projects into smaller, independent subprojects that are more easily manageable.

These subprojects must be:

- Small, that is, less than $1m.
- Fast, that is, takes less than 6 months.
- Compact, that is, fewer than 6 people on the team.
- Focused on key benefits and not just deliverables.

COMMON MISTAKES

- Going for a 'big bang' implementation.
- Not being prepared to take the extra cost of splitting a project up into separate stages.

- Underestimating the overall complexity and the interactions between all the separate components.

DEFINING THE BUDGET

QUESTION 5: HAVE YOU DEFINED A DETAILED PROJECT BUDGET?

Good Practice: Define all costs in the form of a project budget. This should be signed off by the Steering Committee or other authority to ensure enough funds are made available. Your budget should include all external costs such as licences, third parties, consultants, consumables etc.

A few basic rules will help ensure that an accurate and realistic budget is produced:

- Assume that resources will only be productive for 80% of their time.
- Resources working on multiple projects take longer to complete tasks because of time lost switching between them.
- People are generally optimistic and often underestimate how long tasks will take.
- Make use of other people's experiences and your own when creating your budget.
- Get an expert view.
- Include management time in any estimate.
- Always build in contingency for problem solving, meetings and other unexpected events.
- Cost each task in a Work Breakdown Structure to arrive at a total, rather than trying to cost the project as a whole.
- Agree a tolerance with your customer for extra work that is not yet defined.
- Communicate any assumptions, exclusions or constraints you have to your customer.
- Provide regular budget statements to your customer, copying your team, so they are always aware of the current position.

COMMON MISTAKES

- Lack of budget ownership.
- Providing funds on an ad-hoc basis.
- Major costs not clearly identified early on; this can result in the project being cancelled later because of lack of funds.
- No control or monitoring of actual spend against planned spend.

MANAGING THE RISKS

QUESTION 6: ARE YOU MANAGING THE PROJECT RISKS?

Good Practice: The task of the project manager is to identify the most severe risks and plan to minimise them. Throughout the project you should continue to focus on the major risks facing the project, which will change over time. This helps to keep a focus on the areas that need to be addressed. You should consider using a risk mapping approach:

- Identify the project objectives.
- Prioritise the objectives.
- Identify the key risks to missing those objectives.
- Take preventive action.
- Track and update risks regularly once a week or month using a risk log.

There are four risk management techniques your may employ to manage the risks to your project:

Avoidance: Use an alternate approach that does not have the risk. This is not always possible. There are programmes that deliberately involve high risks in the expectation of high gains. However, this is the most effective risk management technique if it can be applied.

Control: Controlling risks involves developing a risk reduction plan and then tracking to the plan. The key aspect is the planning by experienced people. The plan itself may involve parallel development programmes.

Assumption: Simply accepting the risk and continuing. However, there can be a tendency within organisations gradually to let the assumption of a risk take on the aura of a controlled risk.

Risk Transfer: Means causing another party to accept the risk, typically by contract or by hedging. Liability among construction or other contractors is often transferred this way.

"Never expect initial risk management plans to be perfect. Practice, experience, and actual loss results will dictate changes in the plan to allow different decisions to be made in dealing with the risks being faced. In order for companies to succeed in the twenty-first century, they need to excel in all aspects of their business, which includes risk management, so they can fulfill their own and their customer's goals." [1]

COMMON MISTAKES

- Reluctance to focus on risks.
- The Steering Committee not wanting to be presented with 'threatening statements about project failure' and only wanting to hear good news.
- Waiting too long and taking a reactive approach to risks.

NOTES

"To run away from risks is to miss the whole point. To ensure project success, you need to take the right risks and you need to be aware that, that is what you are doing."

[1] *Paul Bower*, Risk Management Options *(20th March 2008)*

GETTING THE RIGHT PROJECT MANAGER

QUESTION 7: HAVE YOU APPOINTED AN EXPERIENCED PROJECT MANAGER?

Good Practice: An experienced project manager should lead the project on a daily basis. For large projects, this should be a dedicated and full-time role. Full-time and dedicated resource will ensure that a continuous focus is kept on moving the project forward.

In theory all business projects should be led by the business. In practice, many business functions do not have the required project management skills, experience or disciplined approach. A good working compromise is to appoint two people to work together in a partnership, a Project Manager and a User Representative. The comprehensive nature of these two roles should not be underestimated.

In her article *"The Top Five Project Management Traits to Master 'the How'"*, Joli Mosier lists the top five traits you need to master the **'how'** of project management as:

1. A collaborative management style.
2. Adaptability.
3. Figure-it-out resourcefulness.
4. Highly developed communication skills.
5. Flexibility.

In his popular article *"Top 10 Qualities of a Project Manager"*, Timothy R. Barry identifies the qualities most important for a project manager:

1. Inspires a shared vision.
2. Good communicator.
3. Integrity.
4. Enthusiasm.
5. Empathy.
6. Competence.
7. Ability to delegate tasks.
8. Cool under pressure.
9. Team building skills.
10. Problem solving skills.

COMMON MISTAKES

- No project manager appointed.
- Project manager appointed with no prior experience.
- Mistaking enthusiasm or seniority for experience.
- User project manager appointed to lead a large project as well as his or her existing responsibilities.
- More than one project manager appointed.
- The project manager not being fully responsible and accountable for the project.

GETTING CUSTOMER REPRESENTATION

QUESTION 8: DO YOU HAVE EXPERIENCED AND EFFECTIVE USER REPRESENTATION?

Good Practice: An experienced user representative should be appointed to work in partnership with the project manager. The user representative will lead the user group and be responsible for all business input to the project.

It is important to keep the whole process user driven, and ultimate ownership of the project must rest with the business. You must ensure you have enough user resource to drive the project forward. If this is not available, you should stop the project. Follow a 'no surprise' approach with the user group. This requires regular communication and 'telling it like it is'.

COMMON MISTAKES

- Insufficient resources made available.
- User representative made available part-time.
- Underestimating the amount of user input needed during ALL stages of the project.
- Business input does not end with a User Requirements Specification.

NOTES

As the project moves into the design, development and user pilot stages, considerable and continuing business input is needed to define requirements at a much lower level of detail and to answer the many questions that arise.

Warning Sign! When users are not a willing part of the project team.

DEFINING ROLES & RESPONSIBILITIES

QUESTION 9: HAVE YOU CLEARLY DEFINED THE PROJECT ROLES AND RESPONSIBILITIES?

Good Practice: The project manager must ensure that roles and responsibilities are clearly defined. The organisational structure should be kept as simple as possible.

The following structure works well on large projects:

Business Sponsor

- Overall sponsor of project; receives regular updates.

Steering Committee

- Senior managers from business.
- Responsible for all key project decisions.
- Meets every 4-6 weeks.

Project Team

- Led by the Project Manager, who reports to the Steering Committee.
- Must include a User Representative.
- Must include technical expertise.

User Group

- Led by the User Representative.

The roles and responsibilities for managing the project must be fully documented and adapted to suit the size and complexity of the project and the skills of the organisation.

COMMON MISTAKES

- No clear ownership for the project.
- Lack of leadership and commitment from the Steering Committee.
- Roles and responsibilities not clearly defined.
- Disconnection between the Project Team and Steering Committee, for example discussions not open and honest.

NOTES

Comment from a project team member "...I was never quite sure what I was supposed to be doing..."

One of the many roles of the Project Manager is to actively 'drive' the Steering Committee ensuring that regular meetings take place, providing clear agendas, ensuring that key decisions are made and actions are followed up.

Warning Sign! The sponsor fails to attend scheduled project review meetings.

GETTING THE RIGHT RESOURCES

QUESTION 10: DO YOU HAVE ENOUGH EXPERIENCED RESOURCES?

Good Practice: A major factor in the success of projects is to make available customer and supplier managers, with high levels of experience in the business and in project delivery and to have these people available early on. Big projects need substantive and appropriate resources.

Dedicated resource provides time to think it through. Two or more people equal different experiences, networks and a healthy debate.

Getting good people appointed as dedicated resources for projects early on is a tough challenge and some compromise is often necessary. For example, a recent global project agreed, at a high-level, to provide people in each area affected on six-month full-time secondments. In reality only a small minority of areas provided dedicated resources; most people were made available part-time; this resulted in overall timescales being exceeded by six months. Often culture and working practice is heavily orientated to 'business functions' and this is not always conducive to project based work and team working.

"The challenge for the project manager consists of attracting the right resources, forming a cohesive team, keeping the team motivated, meeting individual aspirations and getting the work done - all within scope, cost, time, and customer satisfaction!" [1]

COMMON MISTAKES

- Not enough experienced committed resource from the business.

- Appointed resource overcommitted and unable to devote enough time to the project.

Warning Sign! Resource requirements exceed resource availability.

Once the Definition, Initiation and Planning stages are complete the project moves to the Monitoring & Control Stage. Questions 11, 12 and 13 should be answered.

[1] *Dhanu Kothari*, Getting Work Done: The Human Side of Project Management *(15th July 2008)*.

MONITORING & REPORTING PROGRESS

QUESTION 11: ARE YOU MONITORING PROGRESS REGULARLY?

Good Practice: The project plan should be monitored and updated every week. This is important since tasks are usually underestimated and many new tasks will be identified as the project moves forward.

"...many people use what is called Rolling Wave Planning. This is when you plan down to the level of detail currently known and go back to plan deeper once more information is acquired. Usually rolling wave planning needs to stay at least 2 to 3 months ahead of the actual work being done, but of course this varies slightly by industry." [1]

If you create plans at the beginning of a project, put them in a draw and forget them, why bother creating them in the first place?

"In poorly run projects, problems can go undetected until the project fails. It's like the drip...drip...drip of a leaky underground pipe. Money is being lost, but you don't see it until there is an explosion." - *Joy Gumz*

COMMON MISTAKES

- Project plans never updated beyond the first draft.
- Using non-binary milestones.
- Low-level tasks are not complete until they are complete; they should be measured as either 0% or 100% complete.
- Ignoring warning signs and pressing on in the hope everything will turn out alright in the end.

WARNING SIGNS!

- The number of open issues continues to rise.
- Contingency plans are used faster than the rate of progress on the project.

[1] *Micah Mathis, PMP,* Work Breakdown Structure: Purpose, Process and Pitfalls *(6th October 2007).*

COMMUNICATING PROGRESS

QUESTION 12: ARE YOU DISTRIBUTING REGULAR PROGRESS REPORTS?

Good Practice: Progress reporting is a key aspect of project management. Regular reports, anything from weekly to monthly, should be issued to the Project Sponsor, Budget Holder, Project Team, Steering Committee and circulated to all other interested parties. The report should be as brief as possible and summarise key points.

The following format is recommended on a maximum of 2 pages:

1. Report Date
2. Project Status
3. Project Summary
4. Key Issues
5. Identified Risks
6. Tasks and Next Steps
7. Decisions Needed
8. Key Future Dates and Milestones
9. Budgeted Cost
10. Spend to Date

This ensures that people are kept informed, involved and committed. Regular communication is essential to the well-being of any project.

Regular progress reporting creates a valuable written record of the projects life. This can be used later to look back and decide how to improve the running of future projects.

Metrics can also be developed to measure project progress in other ways, such as earned value, or activity float statistics.

COMMON MISTAKES

- Poor communication channels.
- Lack of honest communication.
- Not asking for help when it's needed.

Warning Sign! Unwillingness to communicate bad news.

CONSULTATION & LEADERSHIP

QUESTION 13: ARE YOU ACHIEVING THE RIGHT BALANCE OF CONSULTATION AND LEADERSHIP?

Good Practice: During all stages of the project, there should be widespread consultation with many parties. However, the project should ultimately be controlled by a small, dedicated 'core' project team, which is focused on achieving a concrete result. This will ensure that when difficult decisions have to be made, they are made clearly, forcefully and quickly.

Engage in lots of consultation, but do not have too much democracy. If you want to achieve a real business result in a realistic time frame, a small team operating on Stalinist principles is more likely to succeed than large committees acting as talking shops. This is important for regional, cross regional and global projects.

COMMON MISTAKES

- Making a decision and then starting a debate.
- Not getting a real agreement, and then having to revisit the issue.
- Failing to remain goal focussed.

NOTES

"The Romans did not build an empire by having meetings. They did it by killing all those who opposed them."

Questions 14 to 17 should be answered during the Design and Development stages of the project.

GETTING REALISTIC USER REQUIREMENTS

QUESTION 14: ARE THE USER REQUIREMENTS REALISTIC?

Good Practice: For many projects the total set of user requirements can be ambitious, making it difficult or even impossible to deliver a solution, which meets all the requirements in a manner that is robust, cost-effective and maintainable that can be rolled out quickly to a large user base.

It is important to match the user requirements specification against the available technology and solutions that can be implemented in a timely, robust and practical manner. This may result in an agreement that some of the requirements, say 20% will not be delivered. Such a compromise will ensure the remaining 80% can be delivered quickly. This is commonly known as the 80/20 rule or Pareto Principle. This compromise is important for global projects with a large user base. On such projects the speed and ease of implementation is an important consideration in the overall solution.

To be successful at requirements gathering and to give your project an increased likelihood of success, follow these rules:

1. Don't assume you know what the customer wants, ask.
2. Involve the users from the start.
3. Define and agree the scope of the project.
4. Ensure requirements are specific, realistic and measurable.
5. Get clarity if there is any doubt.
6. Create a clear, concise and thorough requirements document and share it with the customer.
7. Confirm your understanding of the requirements with the customer by playing them back.

8. Avoid talking technology or solutions until the requirements are fully understood.
9. Get the requirements agreed with the stakeholders before the project starts.
10. Create a prototype if necessary to confirm or refine the customers' requirements.
11. Use a recognised notation, such as UML, for modeling the software.
12. Cross-check the software design against the requirements and review regularly.

COMMON MISTAKES

- Basing a solution on complex or new technology and then discovering that it cannot easily be rolled out to the 'real world'.
- Not prioritising the User Requirements, for example 'must have', 'should have', 'could have' and 'would have', known as the MoSCoW principle.
- Not enough consultation with real users and practitioners.
- Solving the 'problem' before you know what it is.
- Lacking a clear understanding and making assumptions rather than asking.

DEFINING YOUR APPROACH

QUESTION 15: HAVE YOU BASED YOUR DEVELOPMENT ON A PROTOTYPING ITERATIVE APPROACH?

Good Practice: Developing a prototype will breathe some life into the requirements gathering process. People can find it difficult to engage in dry documents; where a screen-based prototype can bring the debate to life.

"Prototyping involves feedback from customers to developers on a trial based product. Each time a new prototype is released, it is usually an enhancement of a previous one. The evolutionary prototype often becomes the final product. Prototyping was first recognised as a software development approach when developers found that they couldn't figure out all the requirements, until work had started on the project." [1]

Basing the development on a series of prototypes will create a perception of early delivery to the users and a feeling of involvement in and commitment to the development process.

You should involve a large population of users in prototype reviews as early as possible. This ensures that a large percentage of users will already have seen the system through demonstrations and training sessions before the 'go-live' date. This provides a high-level of confidence the system meets user needs and it highlights early on, any problem areas needing more attention.

Skipping this step and going straight to build may result in costly rework.

COMMON MISTAKES

- Basing user requirements on large documents only.
- Not using an iterative prototyping approach.
- Not involving enough 'real' users.

[1] *ContekSoft, Prototype Development Approach, Glossary.*

CONDUCTING STRUCTURED TESTING

QUESTION 16: HAVE YOU CONDUCTED STRUCTURED TESTING?

Good Practice: You should test deliverables early on. One of the fundamental lessons drawn from delivering IT projects is the later you leave the testing in the development cycle, the more it costs to fix.

A structured test plan should be developed and then performed by people independent of the development team. Besides testing the deliverables, you should also test the overall infrastructure over which the deliverables will run. The major components in the architecture should be tested before building the final deliverables.

The test development lifecycle contains the following elements:

1. Test plan.
2. Test specification.
3. Code tests.
4. Validate test.
5. Run tests.

Test documentation is a needed tool for managing and maintaining the testing process. Documents produced by testers should answer the following questions:

- What to test?
- How to test?
- What are the results?

"When end users get involved in the final stages of testing, light bulbs go on, and they often have an 'aha' moment. Unfortunately, that is often too late." - *Frank R. Parth*

COMMON MISTAKES

- No test plans and therefore no testing.
- Testing conducted in an ad-hoc manner by the development team.
- Waiting until the deliverable is deployed before testing.
- Using test time as contingency.

Warning Sign! Documentation or testing stages are cut to make up time.

CREATING AN IMPLEMENTATION PLAN

QUESTION 17: DO YOU HAVE A COMPREHENSIVE IMPLEMENTATION PLAN?

Good Practice: For a large project with a wide user base, the implementation stage can often be more complex and time-consuming than the development stage. The implementation stage can often benefit from being treated as a separate project. The following ideas are worth considering, especially for large projects introducing new business processes across multiple sites:

1. The implementation should be carried out by the people who will live and work with the new system; they will have a strong vested interest in getting it right.
2. Conduct a 'company survey' for each site, to meet the senior management, gain their support, and fully understand the local working practices. This will help to ensure the new process is fitted in seamlessly with the existing processes and that any nasty surprises are discovered early on.
3. An implementation 'event' for each site should include a presentation by the Chairmen to the rest of the company to show strong support from the top of the organisation.
4. Comprehensive training for all users with different sessions if the process involves different types of user, for example gatekeepers, project leaders and team members. You can never have enough training. It is better to split training into several short sessions, for example basic training, with two follow-up sessions at monthly intervals.
5. For a multiple site implementation, use the idea of a 'showcase' company where the conditions, for example user buy-in, expertise and motivation are good. A successful implementation in the showcase company will then prove the system and process and act as a centre of expertise for the remaining sites.

6. For a multiple company implementation, consider running several workshops for the implementation staff, to allow them to learn from one another. A little competition between different companies also helps to spur on the implementation. This approach helps ensure that real problems are resolved fast and that other team members quickly remove 'false' problems. Consider special awards for implementation success. For example, an 'Accreditation Certificate' when a company has successfully implemented the system and met some key (but simple) criteria in the business process. The certificates should be signed by the President or Chairman and presented to the local implementation team.
7. Consider special measures to track implementation progress, for example Gold, Grey and Blacklists. People don't like to be singled out as poor performers. For this approach to work you must select a few simple key measures that cannot be challenged; be scrupulously fair, objective and reject all bribes.

COMMON MISTAKES

- Failure to involve end users.
- Inadequate training.

Questions 18 to 21 should be answered at the end of the project.

CONDUCTING A POST IMPLEMENTATION REVIEW

QUESTION 18: HAVE YOU CONDUCTED A POST IMPLEMENTATION REVIEW?

Good Practice: It is best practice to go back and review the progress made in delivering each of the project deliverables and overall business benefits. The post implementation review should be timed to allow final improvements to be made to get optimum benefits from the project.

Organisations are beginning to recognise the growing importance of knowledge management as a key to competitive advantage. We must therefore become much better at capturing our learning and making this information available to the rest of the organisation. This will increasingly become the duty of every manager.

As project manager, you are in a unique position to help your customer gain the benefits, detailed in the business case. It can be an additional phase once you have closed the project or run as part of the project itself. It may not follow on directly from the project end, and start after a short period of time, but before the post implementation review, which typically takes place 3 to 6 months after the project has been completed.

Opinion seems divided as to whether active benefits realisation is the domain of the project manager, but one thing is certain, many projects declared a success never deliver the desired benefit or result.

At the conclusion of your projects hold formal debrief sessions including a post implementation 'Lessons Learned' review with the team.

COMMON MISTAKES

- Forgetting what has been done and discarding any useful experience that has been gained on a difficult project.
- Being so relieved to finish that we simply move on without reviewing the project's result.
- Disbanding the team too fast before the learning has been captured.

REALISING THE BENEFITS

QUESTION 19: WILL THE DELIVERABLES AND BENEFITS OF YOUR PROJECT SURVIVE?

Good Practice: On most projects, the team is disbanded soon after delivery. This can result in the solution withering away and dying over time, especially if it has fallen on stony ground. This can be true for a project that involves a change in working practices, or revised business processes.

On a recent large project, after the usual development and implementation stages, the project team was retained for a third stage called 'benefits realisation'. This was to ensure the roots of the new business process and supporting IT system would grow deep and deliver real business value. A project should only be considered completed when the benefits have been delivered to the business and not when the project has just been delivered. This will ensure that implementation problems are resolved.

To gain benefits you must have change. In their book "The Information Paradox," John Thorp and DMR's Centre for Strategic Leadership say that, "It is a central tenet of the Benefits Realisation Approach that benefits come only with change and, equally, change must be sustained by benefits." "People must change how they think, manage and act in order to implement the Benefits Realisation Approach."

Changing the way people think, work and manage is no easy task, but without it your project is in danger of joining a long list of successful project deliveries that never realised their envisaged benefit or result.

COMMON MISTAKES

- Believing that a project is over once the delivery and implementation is complete.
- Expecting benefits automatically to drop out of a project without any effort.
- Expecting benefits without change.

LEARNING THE LESSONS

QUESTION 20: HAVE YOU LOOKED AT THE LESSONS LEARNED FROM YOUR PROJECT?

Good Practice: Every project has the potential to help you run future projects more effectively. Assess the project whether it was a great success, total failure or anywhere between. Concentrate on the big, important lessons from the project, the ones that will have a big impact on your future projects.

In his article, *"Lessons Learned: Why Don't we Learn From Them?"* Derry Simmel, board member of PMI's PMO SIG, identifies two common problems preventing us learning valuable lessons from past projects:

- We think the lessons don't apply to us.
- We want to get things done.

"The sad truth is that these lessons learned are useful. That time spent in doing the work better is time well-spent. That getting it right the first time is cheaper and easier than doing it now and fixing it later," Derry says.

History has a strange way of repeating itself. If we don't take time to learn the lessons of the past, and also act on them, we will continue to commit the same mistakes again and again. And don't think it won't happen to you, it will!

COMMON MISTAKES

- Being too busy to evaluate projects when they have been completed.
- Moving on to your next project before reviewing the last.
- Failing to learn lessons from past projects.

- Not making lessons learned available to other people in the organisation.

Warning Sign! Making the same mistakes time and again.

CELEBRATING SUCCESS

QUESTION 21: HAVE YOU CELEBRATED THE SUCCESS OF YOUR PROJECT?

Good Practice: Before moving on to your next project it is worth spending some time to celebrate your success. It provides a way to say 'thank you' to your team and helps with motivation. Always publicise your successes both internally and externally. This will help raise you and your teams profile and credentials for future projects.

"Completion of a project and the steps along the way can be intrinsically rewarding for project team members. Outwardly celebrating successes also can be a source of motivation for the team. When project milestones are reached, they should be communicated to project team members and stakeholders. Small rewards for team members who go above and beyond their duties also should be considered to communicate a job well done. These rewards can come in various forms, from certificates of appreciation to recognition in the organisations staff newsletter or on its website." [1]

In the words of American psychologist Frederick Herzberg, "True motivation comes from achievement, personal development, job satisfaction and recognition."

[1] *Alison B. Flynn & Timothy J. Mangione, Five Steps to a Winning Project Team (5th February 2008)*

CHECKLIST

Every project is different and therefore presents a new set of challenges. The skills needed to manage projects are becoming a common part of life in most organisations today.

Use this checklist to drive your project success:

1. Do you have sufficient business sponsorship and leadership?
2. Have you defined and understood the business objectives and benefits?
3. Have you developed a detailed project plan?
4. Is your project a manageable size?
5. Have you defined a detailed project budget?
6. Are you managing the project risks?
7. Have you appointed an experienced project manager?
8. Do you have experienced and effective user representation?
9. Have you clearly defined the project roles and responsibilities?
10. Do you have enough experienced resources?
11. Are you monitoring progress regularly?
12. Are you distributing regular progress reports?
13. Are you achieving the right balance of consultation and leadership?
14. Are the user requirements realistic?
15. Have you based your development on a prototyping iterative approach?
16. Have you conducted structured testing?
17. Do you have a comprehensive implementation plan?
18. Have you conducted a post implementation review?
19. Will the deliverables and benefits of your project survive?
20. Have you looked at the lessons learned from your project?
21. Have you celebrated the success of your project?

By following these twenty-one steps and continuing to develop and refine your skills, you will be well equipped to excel in a modern business environment.

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