

# Preface

We are all engaged on a journey to achieve excellence in our industries, whether it is automotive, consumer goods, petrochemical or construction. Effective **Project Management is a** key enabler of this process. The aim must be to provide our project managers with simple processes that can be rigorously and consistently applied to produce predictable results.

# **Project Management**

**Definition:** "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." <sup>1</sup>

Learn 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 further back in the latter years of the 19th century. The need for project management was driven by companies that realised the benefits of organising work around projects, and the critical need to communicate and coordinate work across departments and professions.

One of the forefathers of project management is still a familiar name today, Henry Gantt (1861-1919) the creator of the Gantt chart. Still in use, one hundred-years from their creation, 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 projects. Soon after this the United States Department of Defense created the Work Breakdown Structure, a tool used to break projects down into manageable pieces. These tools and techniques spread quickly as companies 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. 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." <sup>2</sup> The biggest sin in project management is not learning the lessons of past projects. When we learn to do this, we will cut the number of project failures.

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

Good luck!

# Duncan Haughey.

<sup>1</sup> Trevor L. Young, How to be a Better Project Manager (London: Kogan Page Limited, 1998), 16.

<sup>2</sup> Nick Dean, Managing Director of Professional Values.

# The Stages of a Project

Good Practice: Typically, the first few weeks of the 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.

# The Stages of a Project

# Projects are divided into six stages:

- 1. Definition.
- 2. Initiation.
- 3. Planning.
- 4. Execution.
- 5. Monitoring & Control.
- 6. Closure.

Each project stage is characterised by a distinct set of activities that take the project from the 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 must 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 probability 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 improve the probability of success. It is tempting to start work 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 for avoiding many other problems.

### 4. Execution

This is where the work to deliver the product, service or wanted result is carried out. 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 make sure that the expected benefits will be delivered and are still valid.

# 6. Closure

Often neglected, it is important to make sure the project is closed properly. Many projects do not have a clear end-point because there is no formal sign-off. It is important to get the customers' agreement that the 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 that in the future, 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 adequate business sponsorship and leadership?

# Sponsorship & Leadership

Question 1: Do You Have Adequate 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 composed of senior managers from the business.

The chair of the Steering Committee has ultimate responsibility for the project. The Project Manager leads the project 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 upfront.
- 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 enough sponsorship, commitment or leadership to succeed.
- Hoping that people who do not commit early, will find time later.
- Not involving the sponsor with setting direction and keeping the project on track.

# Note

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 is at serious risk of failure.

# Defining the Business Objectives & Benefits



Question 2: Have you defined and understood the business objectives and benefits?

# 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 early in the project 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, such as, the Project Plan, Project Budget and Functional Requirements Specification.

In a nutshell, "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.

# Quotes

- "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-oriented 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?

# 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 'roadmap' 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, such as, tasks taking longer than expected, slippage in target dates and team members not being productive.

Base the plan on known metrics, how long did an earlier similar project take?

Involve all team members, not just senior management.

Develop a 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 cost of the overall objective.
- Disbelieving evidence from past projects and insisting the current project be done faster with fewer people.
- Committing to, or baselining project plans too early.

# Note

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 in Folkestone without passports.

In a nutshell, "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?

# **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 sub-projects. The project planning methodology provides a good tool to subdivide major projects into more manageable sub-projects with shortterm deliverables.

Each project plan should itself be subdivided into a number of key milestones. This helps to provide continual delivery and makes sure 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 sub-projects that are more easily manageable. These sub-projects 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 the project 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?

# **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 make sure enough funds are made available. Your budget should include all external costs such as licences, third party services, consultants, consumables, etc.

A few basic rules will help make sure an accurate and realistic budget is produced:

- Assume that people will only be productive for 80% of their time.
- People working on multiple projects take longer to complete tasks because of time lost switching between them.
- People are 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 whole project.
- Agree on 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?

# **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 the 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 monthly using a risk log.

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

# 1. 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. This is the most effective risk management technique if it can be applied.

## 2. Control

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

# 3. Assumption

Simply accepting the risk and continuing. There can be a tendency within organisations to gradually let the assumption of risk take on the aura of controlled risk.

# 4. Risk Transfer

This 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." <sup>1</sup>

# **Common Mistakes**

- Reluctance to focus on risk.
- 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.

### Note

"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."

<sup>&</sup>lt;sup>1</sup> Paul Bower, Risk Management Options, 2008.

# Getting the Right Project Manager



Question 7: Have you appointed an experienced project manager?

# **Getting the Right Project Manager**

Question 7: Have You Appointed An Experienced

**Project Manager?** 

# **Good Practice**

An experienced project manager should lead the project. For large projects, this should be a dedicated and full-time role. Full-time and dedicated resource will make sure 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 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 previous 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 is not fully responsible and accountable for the project.

# Getting Customer Representation



Question 8: Do you have experienced and effective user representation?

# **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 information to the project.

It is important to keep the process user driven, and ultimate ownership of the project must rest with the business. You must make sure 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 user resources made available.
- · User Representative made available part-time.
- Underestimating the amount of user information needed during ALL stages of the project.
- Business information ending with a User Requirements Specification.

# Note

As the project moves into the design, development and user pilot stages, considerable and continuing business information is needed to define requirements at a 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?

# Defining Roles and Responsibilities

**Question 9:** Have You Clearly Defined The Project Roles And Responsibilities?

# **Good Practice**

The project manager must make sure that roles and responsibilities are clearly defined for the project. The organisational structure should be kept as-simple-as-possible.

The following structure works well on large projects:

# **Executive Sponsor**

- · Highest ranking manager on the project.
- Vocal champion for the project at executive level.
- · Secures budget for the project.
- The final decision-maker for the project.

# **Business Sponsor**

- · Champion of the project who receives regular updates.
- Approves the project's goals and objectives.
- Attends regular project review meetings.
- An important decision-maker for the project.
- Usually chairs the Steering Committee.

# Steering Committee (also known as the Project Board)

- Composed of senior managers from the business.
- Responsible for oversight, control and key project decisions.
- · Meets every 4 to 6 weeks.
- Helps resolve issues, approve scope changes and offers guidance and direction.

# **Project Team**

- Responsible for planning and executing the project.
- Led by the Project Manager, who reports to the Steering Committee.
- Must include a User Representative.
- Must include Vendor Representatives.
- Must include technical expertise.

# **User Group**

- · Led by the User Representative.
- Must include subject matter experts (SMEs) from the business.

 Responsible for user acceptance testing the product or service.

### **Vendors**

Contracted to supply products and services to the project.

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 are not clearly defined.
- Disconnection between the Project Team and Steering Committee, such as, discussions not open and honest.

# Note

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, making sure that regular

meetings take place, providing clear agendas, making sure that key decisions are made, and actions are followed up.

# Warning Sign!

The Business Sponsor fails to attend scheduled project review meetings.

# Getting the Right Resources

Question 10: Do you have enough experienced resources?

### **Getting the Right Resources**

Question 10: Do You Have Enough Experienced

Resources?

#### **Good Practice**

A major contributor to the success of projects is the availability of customer and supplier managers, with high levels of experience both in the business and with project delivery and to have them available early. Big projects need substantive and appropriate resources. Dedicated resource provides time to think it through. Two or more people equal different experiences, professional networks and healthy debate.

Getting good people appointed as dedicated resource for projects early is a tough challenge and some compromise is often necessary. 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 the business culture and working practice is heavily oriented to 'business functions' and 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!" <sup>1</sup>

#### **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.

<sup>&</sup>lt;sup>1</sup> Dhanu Kothari, Getting Work Done: The Human Side of Project Management, 2008.

# Monitoring & Reporting Progress



Question 11: Are you monitoring progress regularly?

## 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 often 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." <sup>1</sup>

If you create plans at the beginning of a project, put them in a drawer 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.

- Reporting tasks as partially complete. 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 right 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.

<sup>&</sup>lt;sup>1</sup> Micah Mathis, PMP, Work Breakdown Structure: Purpose, Process and Pitfalls, 2007.

# Communicating Progress



Question 12: Are you distributing regular progress reports?

## Communicating Progress

**Question 12:** Are You Distributing Regular Progress Reports?

#### **Good Practice**

Progress reporting is an important part of project management. Regular reports, anything from weekly to monthly, should be issued to the Executive Sponsor, Business Sponsor, Budget Holder, Steering Committee, Project Team, User Group 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 two 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. Frequent 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 is needed.

#### **Warning Sign!**

· Unwillingness to communicate bad news.

# Consultation & Leadership



## **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 make sure 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 real business results in a realistic timeframe, a small team operating on Stalinist principles is more likely to succeed, than large committees acting as talking shops. This is especially 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 stay goal focussed.

#### Note

"The Romans did not build a great 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 Build stages of the project.

## Getting Realistic User Requirements



Question 14: Are the user requirements realistic?

## **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 that meets all the requirements, in a way, that is robust, cost-effective, maintainable and 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 way. This may result in an agreement that some of the requirements, say 20%, will not be delivered. Such a compromise will make sure the remaining 80% can be delivered quickly. 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 on the scope of the project.

- 4. Ensure requirements are specific, realistic and measurable.
- 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 the Unified Modelling Language (UML), for modelling 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 into '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 instead of asking for clarification.

# Defining Your Approach



Question 15: Have you based your development on a prototyping iterative approach?

## 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." <sup>1</sup>

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.

<sup>&</sup>lt;sup>1</sup> ContekSoft, Prototype Development Approach, Glossary.

# Conducting Structured Testing

Question 16: Have you conducted structured testing?

## **Conducting Structured Testing**

Question 16: Have You Conducted Structured Testing?

#### **Good Practice**

You should test deliverables early. 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 executed 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 life cycle has the following elements:

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

Test documentation is a necessary 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 way 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 lost time.

# Creating an Implementation Plan



Question 17: Do you have a comprehensive implementation plan?

## **Creating an Implementation Plan**

Question 17: Do You Have A Comprehensive

Implementation Plan?

#### **Good Practice**

For a large projects 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.
- Conduct a 'company survey' for each site, meet the senior management, gain their support, and fully understand the local working practices. This will help to make sure the new process is fitted in seamlessly with the existing processes and that any nasty surprises are discovered early.
- An implementation 'event' for each site should include a presentation by the Chairperson 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, such as, gatekeepers, project leaders and team

- members. You can never have enough training. It is better to split training into several short sessions, such as, basic training, with two follow-up sessions at monthly intervals.
- 5. For multiple site implementations, use the idea of a 'showcase' company where the conditions, such as, 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 multiple company implementations, 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 make sure that 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 Chairperson and presented to the local implementation team.

7. Consider special measures to track implementation progress, for example Gold, Grey and Blacklists. People do not 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



Question 18: Have you conducted a post implementation review?

## 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 the project deliverables and overall business benefits. The post implementation review should be timed to allow final improvements to be made to get the best 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 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 the project manager, you are in a unique position to help your customer gain the benefits, detailed in the business case. It can be an extra 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 three to six 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 sure, many projects declared a success never deliver the planned benefit or result.

At the end of your projects hold a formal debrief session, 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 challenging 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?

### **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 make sure 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 make sure 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 expected 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 the project without any effort.
- · Expecting benefits without change.

## Learning the Lessons



Question 20: Have you looked at the lessons learned from your project?

### **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 efficiently. Assess the project whether it was a greatsuccess, total failure or anywhere between. Concentrate on the big, important lessons from the project, the ones that will have a significant 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:

- 1. We think the lessons don't apply to us.
- 2. 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. Don't think it won't happen to you, it will!

#### **Common Mistakes**

- Being too busy to evaluate projects when they have finished.
- 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?

### **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 inside and outside the organisation. 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." <sup>1</sup>

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

<sup>&</sup>lt;sup>1</sup> Alison B. Flynn & Timothy J. Mangione, Five Steps to a Winning Project Team, 2008.

### Checklist



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

### Checklist

Use This Checklist To Drive Your Project Success.

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

Use this checklist to drive your project success:

- Do you have adequate 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 the modern business environment.

#### **About Project Smart**

Project Smart is the project management resource that helps managers at all levels improve their performance. We provide an important knowledge base for those involved in managing projects of all kinds.

More information about project management can be found on our website <a href="https://www.projectsmart.co.uk">www.projectsmart.co.uk</a>

#### **Further Reading**

Project Planning a Step by Step Guide

**Risk Management Options** 

The Top Five Project Management Traits to Master "the How"

Top 10 Qualities of a Project Manager

Getting Work Done: The Human Side of Project Management

Work Breakdown Structure: Purpose, Process and Pitfalls

What is Benefits Realisation?

Lessons Learned: Why Don't we Learn From Them?

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