Managing Projects

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Managing Projects

All throughout your life, whether at work, rest or play, you'll need to organise and manage projects.

Whether it's completing some course work for your studies, a new implementation at work or even if you're organising a holiday! In order to be successful you'll need to be well organised and you need to be able to manage resources, time and costs.

In this textbook you'll will learn skills and the techniques to manage projects more effectively. Just what makes up a successful project? There are many factors and you are going to learn them all within this textbook.

Sean McPheat, the Founder and Managing Director of management development specialists, MTD Training is the author of this publication. Sean has been featured on CNN, BBC, ITV, on numerous radio stations and has contributed to many newspapers. He's been featured in over 250 different publications as a thought leader within the management development and training industry.

MTD has been working with a wide variety of clients (both large and small) in the UK and internationally for several years.

MTD specialise in providing:

- In-house, tailor made management training courses (1-5 days duration)

- Open courses (Delivered throughout the UK at various locations)

- Management & leadership development programmes (From 5 days to 2 years)

- Corporate and executive coaching (With senior or middle managers)

MTD provide a wide range of management training courses and programmes that enable new and experienced managers to maximise their potential by gaining or refining their management and leadership skills.

Our team of highly skilled and experienced trainers and consultants have all had distinguished careers in senior management roles and bring with them a wealth of practical experience to each course. At MTD Training we will design and deliver a solution that suits your specific needs addressing the issues and requirements from your training brief that best fits your culture, learning style and ways of working.

Our programmes are delivered when and where you need them! We believe that training should be fun, highly interactive and provide "real world" practical techniques and methods that you can use back in the office – and that's exactly what we provide.

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1. Introduction

1.1 The Benefits of Project Management

Project management refers to the series of methods and tools that are used to plan and implement a change or project from its inception to its completion. Project management allows you to take highly complex tasks and break them down into manageable processes, but it can also be useful when you have a simple change to make. Whenever there is the possibility of having multiple outcomes or where there are risks of problems arising, project management helps to direct the project's momentum and results. To manage a project successfully you can employ a variety of project management methods and tools, all of which assist in a project's planning, assessing of options, risk management, and organization of resources and actions.

> Whenever there is the possibility of having different outcomes or where there are risks of problems arising, project management helps to direct the project's momentum and results.

While Project Manager is a title of some positions, you do not have to be in that position to take advantage of the benefits that project management offers. From small, straightforward tasks that last a few days to complex, highly technical projects that cover many months or years, you can use the tools you will learn in this ebook to your advantage. In fact, many of these tools can be used outside of work for your personal projects as well.

1.2 What Do We Mean by a Project?

A project can be as small as moving your desk from one floor to another or as complicated as moving your entire company from one location to another. It can involve five people or five hundred people – it all depends on the type of organization you have and what it is that you are trying to accomplish. There are, however, certain characteristics that most projects have in common. They are usually:

- One-time events or pieces of work

- Finite in the length of time they will take

- Required to be completed by a certain deadline

- Operating on a fixed budget

- Requiring coordination of different people, resources, processes, etc.

- Comprised of multiple phases or stages

- Involving some level of risk or consequences should the project fail

Some common projects that benefit from product management tools and methods include:

- Launching a new product or process

- Construction jobs

- Design and implementation of new software

- Changing out existing equipment at a manufacturing plant

- Reorganizing a department, division, or organization

But remember, these are just examples. Whether or not your project is similar to these is not important – it only matters whether or not you want to have the greatest chance of a successful outcome. If so, then project management can help.

1.3 Basic Project Management Systems and Tools

Project management is such a common need that there are professional certifications and degrees for you to learn how to do it well. However, you don't have to have a formal qualification to be a good project manager. Still, it won't hurt you to know some of the 'lingo' as you begin managing your project. In America, Project Management Body of Knowledge (PMBOK) is the generally accepted best practice for project management. It was created by the Project Management Institute (PMI) and is an internationally recognized standard. In the UK, you may hear more about PRINCE or PRINCE2, which stands for PRojects in Controlled Environments. It was developed and is widely used by the UK government.

> In America, Project Management Body of Knowledge (PMBOK) is the recognized standard. In the UK, PRojects in Controlled Environments (PRINCE or the newer version, PRINCE2), may often be used instead.

Though these are the main two systems, there are literally dozens of formal project management systems that use their own procedure for organizing the work that has to be done. Some are specific to a certain type of industry or a certain type of process. Yet most of them have some common basic elements. Figure 1 shows the general order of these steps and they are explained following the diagram.

Figure 1: The General Project Management Process

- A **project definition** which describes the scope of the project as well as its objectives, key evaluation criteria, deliverables, and any identified risks or constraints.

- A **planning** phase that evolves from the project definition and breaks the project down into stages or phases, establishes a timeframe, a project team, the budget and financial reporting process, as well as a contingency plan. A number of project management tools such as Gantt charts and Critical Path Analysis charts are useful.

- A **working** phase where roles and responsibilities are assigned, communication is key, and delegation can be very important to your success.

- A **monitoring** phase where you remain in communication with your project team and respond to and prevent any unforeseen issues.

- A **closing** phase where you complete all the phases of the project and then evaluate the success of the project. You may also be supporting employees through training or other assistance if it is needed.

Note that as you move through the steps, you may cycle back to an earlier step. For example, while monitoring the progress of work, you may encounter something unexpected that requires you to go back to the planning stage and determine whether or not you need to change aspects of what you're doing. You may repeat the cycle multiple times during the life of the project.

2. Project Definition

2.1 Introduction

The first and vital step of project management is to accurately define the project and what it will entail. Why are you undertaking this project in the first place? If you can't clearly define your reasons for starting the project as well as your desired goals and objectives, you will waste a great deal of time and resources unnecessarily. Before committing yourself, your team members, your time, and your resources to a project, you need to create the project definition document.

> The first and vital step of project management is to accurately define the project and what it will entail. You do this by creating a project definition document, sometimes called a project charter.

The project definition, sometimes called a project charter, includes multiple sections of information. It serves more than one purpose for you. First, it clearly shows the need for the project and the benefit that you will receive in return. It sets the parameters of what can be expected – and just as importantly, what is outside of the scope. Second, once it is approved, it also confirms agreement that you will have the stated resources you need to complete the plan. And finally, it serves as a master plan while you are working with your team. As you move through the phases of your project, the definition document is your road map, helping to keep you on track, on schedule, and on budget.

One format for the project definition document can be remembered with the acronym BOSCARDET, which stands for:

- Background

- Objectives

- Scope

- Constraints

- Assumptions

- Reporting

- Dependencies

- Estimates

- Timescales

In this format, there is not a specific section on the budget of the project, but that information can be included within the Constraints section or the Estimates section. You can adapt this format to the needs of your project and to the preferences of the project leader and project team. Let's look at each of these topics individually.

2.2 Background

In this section, you are setting the stage for the need for the project. What has happened in the organization or in your field that has prompted the need for you to take action? Think about the information that your supervisor or management above might need in order to approve the project and give you the green light to move forward. This section might include:

- Description of the current state of affairs

- Legal changes requiring compliance

- Explanation of recent events leading to the need for this change

- Description of a newly identified opportunity that requires change in order to adopt it

- Any other overview information that is necessary to understand the request to implement the project

> What information does management need in order to understand why you are proposing this project?

2.3 Objectives

In order to define objectives, start by asking yourself the questions below regarding your overall goals:

- What are we trying to achieve?

- By when are we aiming to achieve it?

- What, specifically, are the goals, and why are they important to the project?

- What will success look like?

You need to have a specific set of criteria by which you will measure your success in meeting your objectives. How will you determine how well the project was implemented? How will you know if it was not successful? In order to answer those questions, you need to determine exactly what it is that the organization will gain from the project. How will you demonstrate to your management team that it was worth their investment of time and money to complete the project?

> How will you know that the project was or was not successful? How will you demonstrate that the organization gained a benefit or avoided a penalty by completing the project?

For example, let's imagine that you have a regulatory change that requires that all customers are now charged in the same way for your product or service. Your broad project scope is to bring the organization's existing pricing strategy into compliance. Your objectives might include:

- Determine new rate schedules applicable to all customers effective 12/01/11

- Develop information campaign to notify all existing customers of the new rates over the three month period immediately preceding the rate change

- Provide support to sales force and customer service team in explaining the change and effectively retaining customers

2.3.1 Key Success Criteria (KSC)

In any project, there are objectives that must be met in order for a project to be successful. If you don't meet them, the project will be considered a failure even if you meet certain other objectives. These essential objectives are the Key Success Criteria (KSC).

> If you don't meet these objectives (KSCs), the project will be considered a failure even if you meet other objectives.

Identifying your KSCs is important because they serve as the focus for your efforts on the project. Since things can change quickly in an organization, your project could be changed while you're working on it: budgets could get cut, structures could be reorganized, or the market in which you operate could shift in an unforeseen way. If you have your KSCs clearly identified, you know what still needs to get done when circumstances change – or at least what was agreed upon in the beginning as being essential to success. If you have to scale back the project, you know that these are the items you would keep.

2.3.3 Deliverables

In some cases, it may be difficult to distinguish between deliverables and objectives. Sometimes they are tangible items like new products and their item numbers. Sometimes it may not be a tangible item, such as having people understand a new process or procedure. But you need to find ways to measure the outcomes of your project in order to determine success. For example, in the case of our example of new rate schedules above, deliverables would include:

- Updated rate sheets

- Updated billing system

- Updated website and marketing materials

- Advertising campaign created and rolled out

- Informational flyers, bill inserts, posters, and emails developed and sent

- Agreements with all resellers regarding updated rate structure

- Training documents created for customer service and sales staff

- Training delivered to all staff on changes

- Scripts created for customer service and sales representatives to answer questions and help retain customers

> Deliverables may be tangible items or intangible items, but either way you need to find a way to measure your project's outcomes if you want to demonstrate success.

2.4 Scope

In some project definition documents, the scope is defined as part of the objectives. It simply depends on the project you have on your plate and what works best for your project definition. There is no right or wrong way to do it – just the way that works best for your existing communications process, your management team, and your project.

> The scope of the project is a description of the range of activities you will undertake during the project – which also implies those that you won't.

The scope of the project is a description of the range of activities that you will undertake during the project. It is an agreed-upon area of focus that sets a sort of 'boundary' around your project. If you were to decide to do a project that was a review of your HR system, what exactly does that mean? What kind of review? What divisions? All of the functions or just some of them? Does that include a full review of benefits and salary scales as well? Will you be looking at reclassifying positions and reorganizing people – or even possibly eliminating positions?

You define the scope based on your objectives, KSCs and deliverables. So, going back to our rate structure example, we could define it by determining:

- Who interacts with the current rate structure within our organization? Some employees have other functions so we don't need to train them. But we do need to train our entire marketing department, our customer relations department, our PR department, and every employee that has direct interaction with the customers.

- Which systems need updating? The order and delivery system, the billing system, but are there any others? We may need to do some research on our own organization in order to find out.

- How long will we continue our advertising campaign? How many customers will we try to reach and what effort will we go to? Are we going to go just to the lengths required by the new law, or are we going to strive to reach every single customer?

Again, these are just examples, but there is another way to think about scope. Particularly for some projects, you could ask yourself the question, "What do we have the authority, clearance, agreement, or support to accomplish?" The answer to this question will help you to define the scope of your project within the parameters of your company's organizational structure.

What do you have the authority, clearance, agreement, or support to
accomplish?

There are several other questions that you could answer in your scope section, depending on what is
needed or expected from your management. Consider whether or not you need to include some of the
answers to these questions:

- Are we solving a problem or just identifying possible solutions for others to select from? Coming
up with the solution could be one project and implementing it a second, separate project, or they
could be one in the same.

- If we are not implementing a solution to a problem, are we recommending a solution to it or is
that input not needed?

- What are the standards of performance we will apply to this project? In other words, is there a
code of ethics, generally accepted professional standards, or other guidelines that we will adopt in
running the project? What existing company policies guiding our work standards will apply?

- What priority will this project take in relationship to the other work on our plates?

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- Are we (you, your colleagues, your supervisors and above) agreed upon what we are meant to achieve? Without clear agreement and shared understanding, you are leading yourself towards serious problems.

- Do we need to achieve the goals in one manner over another? For example, is this to be a research project, a learning exercise, or a test? How will that change the way we operate during the project?

As you can imagine, answering these questions as part of your discussion around scope will save you a lot of problems down the road.

2.5 Constraints

If scope is one form of boundary on a project, constraints are another. Every project will have some form of constraints, simply because of the fact that our resources are finite and our willingness to expose our project to risk is limited as well. Whereas we might want to spend two years researching our new product idea, testing it, and getting it to the marketplace, our competitors might get theirs there faster and we might suffer in market share as a result. So another way to look at constraints is to consider the realities around your resources and your level of willingness to be exposed to risk. You then may have to make a difficult decision regarding what to sacrifice and what to preserve.

> Constraints are another form of a boundary on a project because our resources are finite and our willingness to expose our project to risk is limited.

2.5.1 Resources

In this sense, the term 'resources' refers to people, equipment, and money. As we know, we have a limited supply of all of our resources. But it's important to understand what these constraints on our resources are because they impact the amount of work that we are able to do, the amount of time we have available, and the cost of completing the project.

> In this sense, resources refers to people, equipment, and money.

For many of us, estimating and understanding the use of external resources (contractors, suppliers, government officials, etc.), is easier than estimating and understanding the requirements and cost of using our own internal people or resources for a project.

To demonstrate this, let's look at the costs involved with the use of people as a resource. Time is money since everyone is probably paid for what they are doing at your organization. You also may not have the needed expertise inside your organization to successfully complete a highly technical or specialized project. So your costs for people could include:

- The cost of a 'fill-in' employee for each person while they work on the project

- The cost of lost productivity on other projects for each person working on your project

- The cost of training involved for them to be able to work on the project

- The cost of hiring a technical expert or support staff

There are also a finite number of hours in the day and a limit to the amount of work that you can accomplish in that time. The amount of work that you can achieve is dependent on the number and complexity of the project's objectives as well as its performance criteria. For example, if you have one objective and you've been approved to just get it done to a minimum satisfactory level, chances are that will be a lot less work than if you were told the objective must be completed to a superior level of quality or if you have multiple objectives that need to be completed.

> Constraints exist on your resources such that you will probably have to make tradeoffs in using them.

There is usually going to be a tradeoff between your resources, the time you have to use them, and the work output that you can produce. You could also say that the amount of work that is required is dependent on the number of resources that are needed and the time that is needed to complete the objectives. This could be a literal calculation, such as:

$$\text{Number of resources x Time worked = Work Output}$$

This equation can actually help you think through your resource needs and constraints in several different ways. You know that if you have more people, either the work output will increase or you can keep the work output the same and decrease the amount of time required to complete the project. If we decrease the work output, we can also decrease either the time or the number of people we need, or both.

Since each resource has an associated cost, your simple cost equation for the project would look like this:

$$\text{Cost of Resources x Work = Total Cost}$$

So to reduce our costs without reducing the work amount (and, we assume, work quality), you would need to reduce the cost of the resources used either by the number of people, the level of people, or the time that they work.

What is the point of this discussion? It's to show that keeping your resources focused on the work at hand, primarily the key criteria, will reduce the time you need people to work and will, in turn, reduce the cost of your project. It also shows how important it is to properly estimate the time it will take to complete your project. If you don't take these resource constraints into account when developing your project definition, you will either end up over budget, over deadline, or you risk failing to complete the project at all.

> It is very important to keep your resources strictly focused on the work products listed in your scope and to properly estimate the time it will take to complete your project. Otherwise, your equation of resources will be out of balance.

When it comes to people, for everyone involved, you may have other constraints to think about that come from their position in the organization and their existing role:

- Availability to work on the project

- Agreement on the goals and objectives as well as agreement from their supervisor(s)

- Reporting relationships and any challenges in multiple directives for their time

- Conflicts of interest or internal politics

- Knowledge levels and capabilities

For equipment resources, you could also face additional constraints such as:

- Cost

- Technical ability to operate it

- Repair and maintenance

- Availability

And, for money, there are certain to be constraints as well since it is definitely a finite resource for most projects! You may have to consider things such as:

> If you have well-qualified people on the team, they may be able to work smarter – and faster – than if you have less-qualified people on board.

- Budget cycles

- Budget request processes

- Contingency plans/funds

- Foreseen and unforeseen costs

This is another reason why your plan definition document is so important; it explains clearly what you believe your resource needs are. If it is approved, then you have the commitment that the requested resources will be provided. It also offers management the opportunity to deny the resources you've requested and ask that you 'scale back' the project. By knowing what your constraints are, you can describe the trade-offs it would require in time or quality of outcome to do so.

> If your project definition plan is approved, you have the commitment that the requested resources will be provided.

2.5.2 Performance Criteria

As described in the last section, performance criteria affect the resources that you need. The higher the criteria that you are expected to meet, the higher the cost will be to complete the project. When you are developing your project definition, you might want to consider proposing different levels of performance outcomes and their associated potential costs.

> The higher the performance criteria that you are expected to meet, the higher the cost will be to complete the project.

Remember, though, that there are indirect costs of reducing performance criteria. If you are rolling out a new product and you decide that you will limit end-to-end testing in order to reduce the cost of the project, you may very well end up with higher costs after the launch because of a system failure or mass customer complaints. So, educating the reader about the possible indirect costs of adjusting your performance criteria is an important responsibility as a project leader.

2.5.3 Time

Looking back at our earlier discussion and formulas, we know that time also affects the cost of our project, and time constraints may also impact the availability of necessary resources. Estimating time is a difficult process for some people, but we will look at some tools that you can use to do so later in the ebook.

There is one point to make about time that we haven't made yet. It is that the quality of the resource, or people, that you have for your project may affect your time needs as well. If you have two well-qualified people on your team, they may be able to do the same work as four un-qualified people. So consider being willing to pay a higher price for support if it will save time in the long run. On the other hand, if you aren't concerned about the amount of time it takes to get the project done, you could hire cheaper, unqualified help. Of course, this poses a risk to the quality outcome as well.

2.5.4 Risk

One final constraint is your willingness to expose the probability of achieving the project's outcomes to risk. A risk is defined as anything that would have a negative impact on your project, particularly its other primary constraints. For example, a risk could be any delay that would make you miss deadlines. A risk could be that you are expecting a certain amount of revenue from the project in order to continue operations, and something could impact your ability to earn that revenue. Or, someone else in the organization could decide they need your technical support person more than you do and attempt to pull them from your project.

> A risk is defined as anything that would have a negative impact on your project, particularly its other primary constraints.

No project is entirely without risk. However, you can greatly minimize your exposure to risk if you address identifiable risk factors as part of your project definition. You can then prioritize which risks you want to dedicate your attention to based on the likeliness that they will happen and the impact on your project if they should happen. To decide which risks to work towards ameliorating, we can use what is called a Risk Impact / Probability Chart. In order to interpret the chart, you need to know the following definitions:

- Probability – The likelihood of a specific damaging event (risk) actually happening expressed as a percentage. You can have a probability range of greater than zero and less than 100 percent probability. It cannot be zero because then you would be talking about something that isn't actually a risk. And it cannot be 100 percent because that would no longer be a risk – it would be a guaranteed, certain event.

- Impact: The magnitude of the affect if the risk does occur. Every risk has a negative impact, but some will have a greater impact than others. An impact can be defined in terms of loss of revenue, increased cost, increased time, decreased quality, or some other critical aspect of the parameters of your project.

These two factors represent the axes on a graph that represents the level of risk an event poses. See Figure 2 for an example of a Risk Impact / Probability Chart.
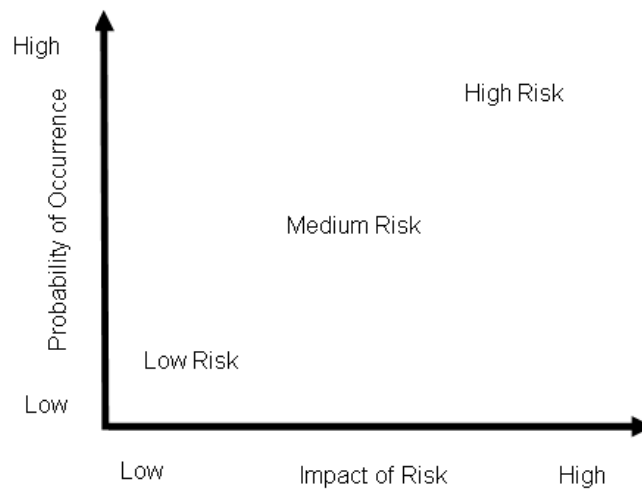
Figure 2: Risk Impact / Probability Chart

Let's examine situations at the four corners of the chart:

- **Low Impact & Low Probability** – In this corner, the risk is unlikely to happen and even if it did happen, there would be a small impact. Risks that fall in this corner can sometimes be ignored – particularly when there are higher impact, higher probability risks that you need to be focusing on.

- **Low Impact & High Probability** – Risks in this corner are of medium concern. They are likely to arise, but you handle them and then move on. You might be able to predict some of them, but probably not all of them. Still, reducing the probability of these risks ahead of time where you can will still save your time and resources.

- **High Impact & Low Probability** – Risks in the bottom right corner of the chart are not likely to happen, but if they do happen they will have a significant impact on your project. Examples include budget cuts, loss of a team member, or sudden urgency in getting the project completed. You will want to spend time predicting what impacts this type of risk would have and creating contingency plans if one of these situations occur.

- **High Impact & High Probability** – In this corner you have the most damaging and the most likely risks. You must make preventing or averting these your top priority if you are to have any chance of moving the project past them if they happen. These are the things that, if they happen and you're not prepared for them, would put your success in serious jeopardy.

Obviously, not every risky event will fall neatly into a corner of the graph above. You will have to determine how risk averse you need to be based on the overall importance of the project and its deliverables. For example, even if there is a low probability of something happening but it would result in loss of life, you will probably want to ensure that you pay attention to that risk anyway.

> Discussing risks in your project definition document or plan gives you the opportunity to make your management aware of the risks as well.

Discussing risks in your project definition document or plan gives you the opportunity to make your management aware of the risks as well, so that if something does happen you know that you did your best to present all the possible risks before moving ahead. You may also get feedback that has you adjust the rest of the plan, say, if management is more risk averse than you expected.

To use the Risk Impact / Probability Chart, determine the following information:

- Make a comprehensive list of possible risks. Consider anything and everything that might have a negative impact on your key constraints and therefore, the future success of your project.

- For each risk that you identify, determine the likelihood that it will occur. Assign a rating that describes the probability, such as a scale of 1 to 10 or 1 to 100, where the lowest number corresponds to the least likely events and the highest numbers are most likely to occur.

- Now do the same for an estimate of the level of impact the event would have if it occurs. Again, make the lower numbers associated with lower impact and the highest number associated with catastrophic impact.

- Plot the event on the Risk Impact / Probability Chart.

- Determine a response to each of the events, from choosing to ignore it to developing a full-scale contingency plan.

You should now have an idea of the time and energy you will need to devote to managing risks as part of your project definition.

2.6 Assumptions

As you write your project definition document or plan, you will also need to identify your assumptions. These are the ideas and concepts that you have taken for granted when you have been developing the plan. You can include this information in its own section, or it may be something that you address in the Background or Objectives sections. For example, if you are describing the background and it includes that you currently produce the Widget 2000 as your main product, your assumptions might include that the organization intends to maintain the product line throughout the life of the project. To determine some of your assumptions, you might need to ask yourself questions such as:

- What have I assumed will change?

- What have I assumed will stay the same?

- What agreement from other parties have I assumed the project will have?

- What suppliers, vendors, consultants, or other outside support have I assumed will be available and affordable?

- What time have I assumed would be available from the staff that I need?

- What exceptions to existing processes, rules, or procedures have I assumed would be made for this project or the process of implementing it?

This is actually another form of risk assessment because if your assumptions were not correct, there could be some negative impact on your project that you need to be able to adjust your plan to defend against.

> Assumptions are another form of risk in the sense that if your assumptions were incorrect, there could be a negative impact on your project.

2.7 Reporting

This is the section where you describe how you will remain in communication with the management staff that the plan is being written (at least in part) for. You might have status meetings, weekly emails, monthly written status reports – whatever works best for your existing channels of communication. This is not necessarily how you will communicate with your project team, which we will discuss more in a later chapter.

2.8 Dependencies

Dependencies are critical points in your project plan. They are the things that must happen in order for further actions to happen. If two things are dependent upon each other, there is a potential risk involved. So you identify these points as another way to manage risks as well. But dependencies also require that you plan your time and work tasks around them. Simply put, you have to do some things in a certain logical order. Some examples might include:

- You won't move forward with Phase II of the project unless Phase I is successful.

- You won't get to start the project unless the organization wins that big contract.

- You can't send the invitations until you have decided the date and location of the event, which you can't do until you've decided how many people to invite.

- You can't apply for funding for the grant you need until the federal government releases the Request for Proposals (RFP).

These are some obvious examples, but your dependencies might be more subtle. You can use some common project management tools to help you determine and keep track of dependencies, which we'll examine in Chapter 4.

2.9 Estimates

You might or might not have an estimates section – it depends on what kind of project you are planning. If you have them in this section you would describe your methodology for any estimates that you have made. Think of this as supporting documentation for the resource requests you have discussed earlier in the project definition document. For example, you might have a time study that shows that the average employee can process 10 widget orders in an hour, and you are estimating that your new order system will cut that estimate down to 9 minutes per hour based on the fact that it eliminates the need to hand-write a part of the order.

2.10 Timescales

This is the final resource that you need to account for when you are planning a project. You will need to make estimates regarding the amount of time that different phases of the project will take depending on the number of people that you will have available to work with you.

When you calculate the time necessary for each phase, remember that you need to take into account holidays, vacation days, sick days, training days, and any other restraints on the time of the people you will have working on the project. You will then need to plan your timeframe forward from the proposed project initiation date to end up with a completion date. Of course, if you have a deadline that you have to meet, then your timeframe section will reinforce the fact that you need a certain number of resources in order to complete the project within the allotted time. We'll talk about more about estimating time in a later chapter.

3. Planning the Project

3.1 Introduction

At this point you are in an excellent position for beginning your project. You've examined the scope, the resources, the cost, the risks, and the goals. Now you need to determine how you will actually complete the work. This is where you do some planning as the project leader to decide on some basic strategies you will use in order to manage the project team and the project itself.

3.2 Milestones and Phases

When you first look at a project, it can be overwhelming. But like any journey, it starts with the first step. You need to analyze the project to determine what the specific milestones and phases of the project will be. You can do this on your own, but if you can involve your project team that would probably be easier because they may bring insight and experience that you don't necessarily have.

> Identify the milestones and phases of the project with your team if possible.

To determine these key milestones or the divisions between phases, you can:

- Break the project into time units and determine what needs to be done in each unit of time in order to be completed within the scheduled timeframe.

- Start with the outcomes and the date by which you hope to achieve them and work backwards to determine what has to happen before that, then before that, and so on.

- Identify any critical dependencies or relationships between items.

- Use a Critical Path Analysis Chart or a Gantt Chart (to be discussed in the next chapter).

You do not need to break the milestones down into assigned tasks yet, as you will preferably do that once you have your team assembled.

3.3 Project Timeframe and Cost

Create a calendar that you will use to track your project activities, meetings, and milestones. Now take your milestones and place them on a calendar – either where they have to go if you have an established deadline, or where you believe it is feasible they can go if a deadline has not explicitly been established. As you go along, you will continue to add due dates and deadlines for individual tasks to your calendar.

Plan the timeframe with caution. It is better to come in early than to run late, and you can be certain that there will be hiccups along the way. This is especially true if for some reason you were not able to clearly define the scope of the project or if unforeseen risks cause problems. You will probably be under pressure to complete the project as quickly as possible, but if you don't allow a realistic enough amount of time to perform the necessary tasks you will certainly fail.

> Plan your timeframe with caution, even if you are under pressure to complete the project as quickly as possible.

Now that you know your timeframe, you can identify your costs. For example, if you have to complete the project in half the time you would like, you might have to hire additional resources to help bring the project in on time. You will want to plan costs realistically, allowing for contingencies that will arise.

Create a budget document or system that will track your expenditures and any revenue (if applicable). The budget should track money that is spent as well as money that is committed to be spent, and provide a means of assigning invoices to a specific expenditure line. Think about both the fixed costs and the costs that are likely to be variable.

> Your budget should include some money set aside for contingencies.

The budget should be reviewed regularly to ensure that your spending is on track. You don't want to realize you're about to run out of money two weeks before the project is completed. Instead, your project budget should be a 'living' document that you can adjust to respond to unexpected events or changes in the project scope.

3.3 Choosing Your Team

Ideally, the first thing that you will do when choosing your project team is to determine what skills and abilities are needed in order to reach the milestones and outcomes that you've identified. You should examine your project definition plan and your sketch of the timeframe and milestones in order to identify critical skill sets. These are the ones that are important to have on the team, no matter what.

> Ideally, you will identify the needed skills sets and competencies to complete the project and then select team members that have those skills.

You would then take your list of skills and competencies and locate resources within the organization that have those skills. If there is no one available with the critical skill set you need, you may have to consider other options such as:

- Postponing the project until an existing resource is available

- Hiring an outside expert

- Training an existing resource

- Altering the project to match the skills available

The fourth alternative is likely to be the least desirable because it may mean that you have to give up part of the benefit that the company would receive from the project plan as you have structured it.

In some cases, you won't have a choice in the team that you work with on a project. It will simply be the other people in your work group, or the people that are assigned by their supervisors to work with you on this project. If this is the case, you will take your list of identified critical skills and determine who on the assigned team has each one. If no one does, you again face the same four options above.

Next, you want to be certain that each team member is committed to the project. They need to understand the estimated time that they will be expected to dedicate to the project for meetings as well as work. They may need to agree to work extra hours or a different work schedule than they currently work. But just as importantly, they need to be 'on board' with the goals and outcomes of the project. Again, this is in an ideal situation, but if you have the choice of who to put on your team, only choose those that you know have the skills you need and are committed to what you are trying to accomplish.

> You need to make sure that your team members are committed to the project and that they are 'on board' with its goals and intended outcomes.

Once you have identified your team, bring them into the project process as soon as possible. This will not just help you in getting some of the initial work done, but it will help them to gain ownership of the project earlier rather than later.

3.4 Planning for Contingencies

You have identified the risks that you need to plan for. Now is the time to make sure those plans are in place. Exactly what will you do if:

- The budget gets cut

- A resource pulls out of their commitment to the team (or is pulled out by their supervisor or gets sick, etc.)

- A supplier fails to deliver

- A bill for services is much greater than what was expected

- A milestone is not met

- An expected result is not received

Have a documented plan in place so that should one of these or another damaging event occur, you are prepared and know what to do. It will save you stress, time, money, and possibly the project. When appropriate, be sure that this information is shared with the project team so that everyone understands what to do if one of these situations arises when you are unavailable.

4. Common Project Management Tools
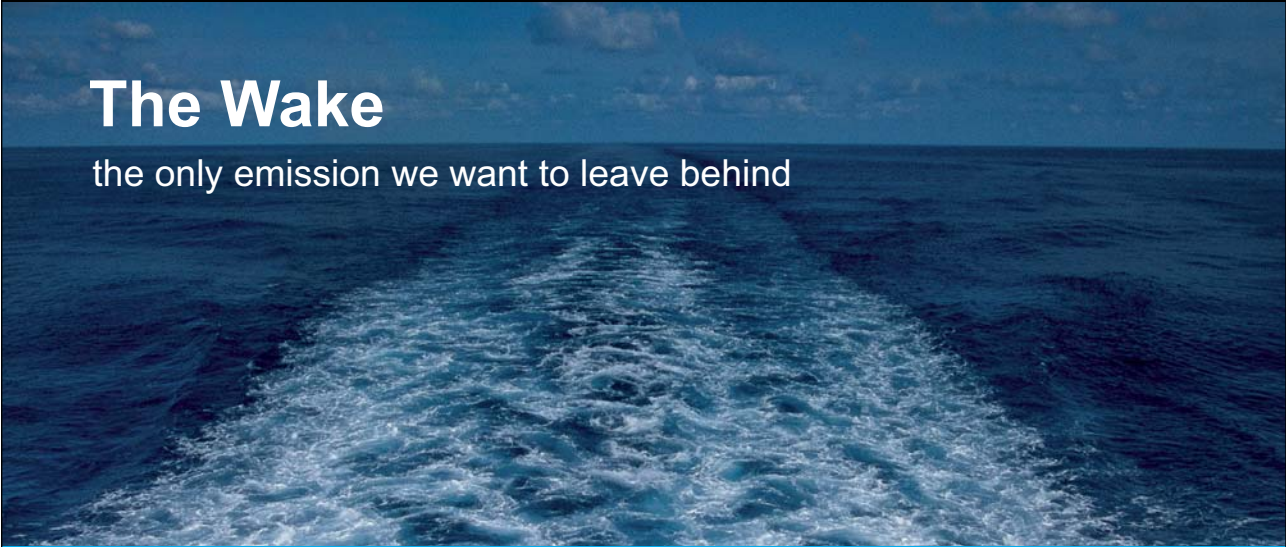
4.1 Introduction

Now that you have defined and planned for your project, it's time to examine some common project management tools. If you have ever worked on a project before, you have likely used at least one of these in some format. In this chapter the four tools we'll be examining are:

- Brainstorming

- Fishbone Diagrams

- Critical Path Analysis Flowcharts

- Gantt Charts

Some of these are better for certain tasks than others. To get an idea of when you might want to use each one, take a look at the chart in Figure 3. If a tool is extremely useful for a task, you will see a √+. If it is moderately useful, a √.

Task	Brainstorming	Fishbone Diagram	Critical Path Analysis Flow Chart	Gantt Chart
Initial project discussions about structure, aims, strategies	√+	√		
Identifying all factors that are involved in a problem, task, or decision	√	√+	√	
Scheduling			√	√+
Identifying dependencies and sequencing them in order	√		√+	√
Creating and maintaining the budget			√	√+
Monitoring and reporting progress			√	√+
Problem solving and troubleshooting	√	√+	√	

Figure 3: When to Use These Project Management Tools

4.2 Brainstorming

Of all the tools that you will use while managing your project, brainstorming is the least complicated and the easiest to use anytime, anywhere. When people are engaged in a brainstorming discussion, the ideas should be flowing out and everyone should be participating. To help your brainstorming sessions be as productive as possible, consider the following guidelines:

- Forbid negative comments or criticism. If someone is afraid that their ideas will be mocked or ignored, they will not want to participate. Consider directing your team to brainstorm individually and then in pairs before coming back to the group if you have a large team or a team that is not acquainted with each other.

- Go for a high quantity of ideas, not necessarily the best ideas. You want to start broadly and then narrow them down after the brainstorming is completed. People think differently and express themselves differently, so allow as many ideas to come out as you can before beginning to narrow down the field.

- Encourage people to think outside the box – way outside of it. Don't censor anyone or judge their ideas. Again, let the creative thinking process work. Even if something sounds crazy, capture it – you never know when that crazy idea might lead you to a realistic solution.

- Look for ways to combine new ideas with existing ideas. Often, the easiest way for people to think creatively is to start with something they are already doing and enhance, expand, or otherwise alter it. Allow people to build off of each other's ideas and help inspire one another.

- Consider appointing a facilitator who can guide the group back to the topic at hand and keep the brainstorming going. However, be sure that the facilitator is also able to participate in the discussion.

> Brainstorming is the least complicated, easiest to use project management tool.

4.3 Fishbone Diagrams

Fishbone diagrams are visual representations of the information that you gather during a brainstorming, problem-solving, or troubleshooting discussion or exercise. It is a way to organize your thoughts into like groups and establish relationships between those thoughts. While fishbone diagrams are excellent for exploring issues or finding the causes of a problem, they are not useful for identifying timelines or costs associated with the issue.

> Fishbone diagrams are excellent for exploring issues and finding the cause of problems, but not for identifying timelines or costs.

The fishbone diagram gets its name from the fact that the way it is drawn often resembles the skeleton of a fish. It was designed by a Japanese industrial quality management professor named Kaoru Ishikawa, so they are sometimes referred to as Ishikawa diagrams as well.

> The fishbone diagram gets its name from the fact that its shape resembles the skeleton of a fish.

A fishbone diagram usually has two 'sections' to the drawing. On the left hand side (and the majority) of the diagram, you list the suspected causes of a situation, problem, or issue. On the right hand side, you have the 'head' of the fish, which is the effect, the situation, or the issue itself. Each 'rib' of the fish leads into the 'spine' of the fish and indicates a factor that you believe is contributing to the overall problem or situation. These diagrams are usually hand-drawn during a brainstorming discussion, but an example of a fishbone diagram is shown in Figure 4 below.
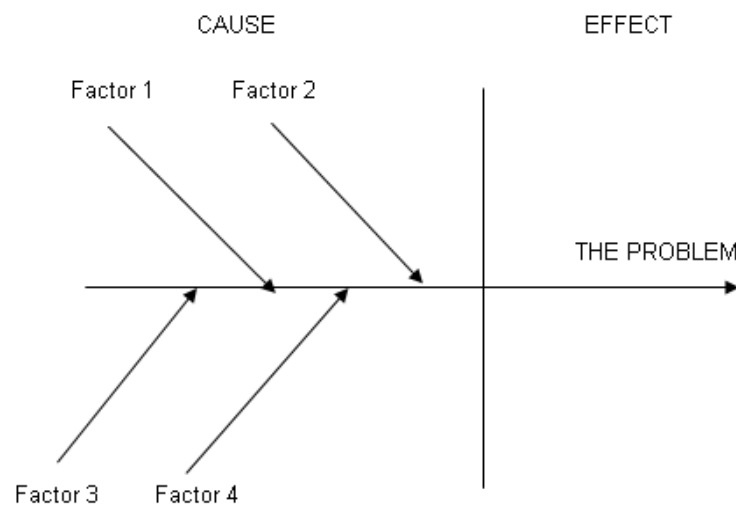
Figure 4: Example of a Fishbone Diagram

Each of the 'ribs' of the fish may have sub-issues, which could also then have sub-issues. You can continue to 'branch' each rib down to several levels of issues if you need to. The end result is that you have a kind of 'map' of the situation, with all of the factors that are causing the problem or situation that you can think of. You can now prioritize each factor depending on how much influence you believe it has on the result. As you investigate and eliminate factors from consideration, you will identify the main source of a problem or issue. You can then use brainstorming or a Critical Path Analysis Chart to generate possible solutions or responses.

Common factors that are placed on a fishbone diagram are:

- People

- Process

- Materials

- Equipment

- Systems

- Environment

- Management

- Training

- Legal
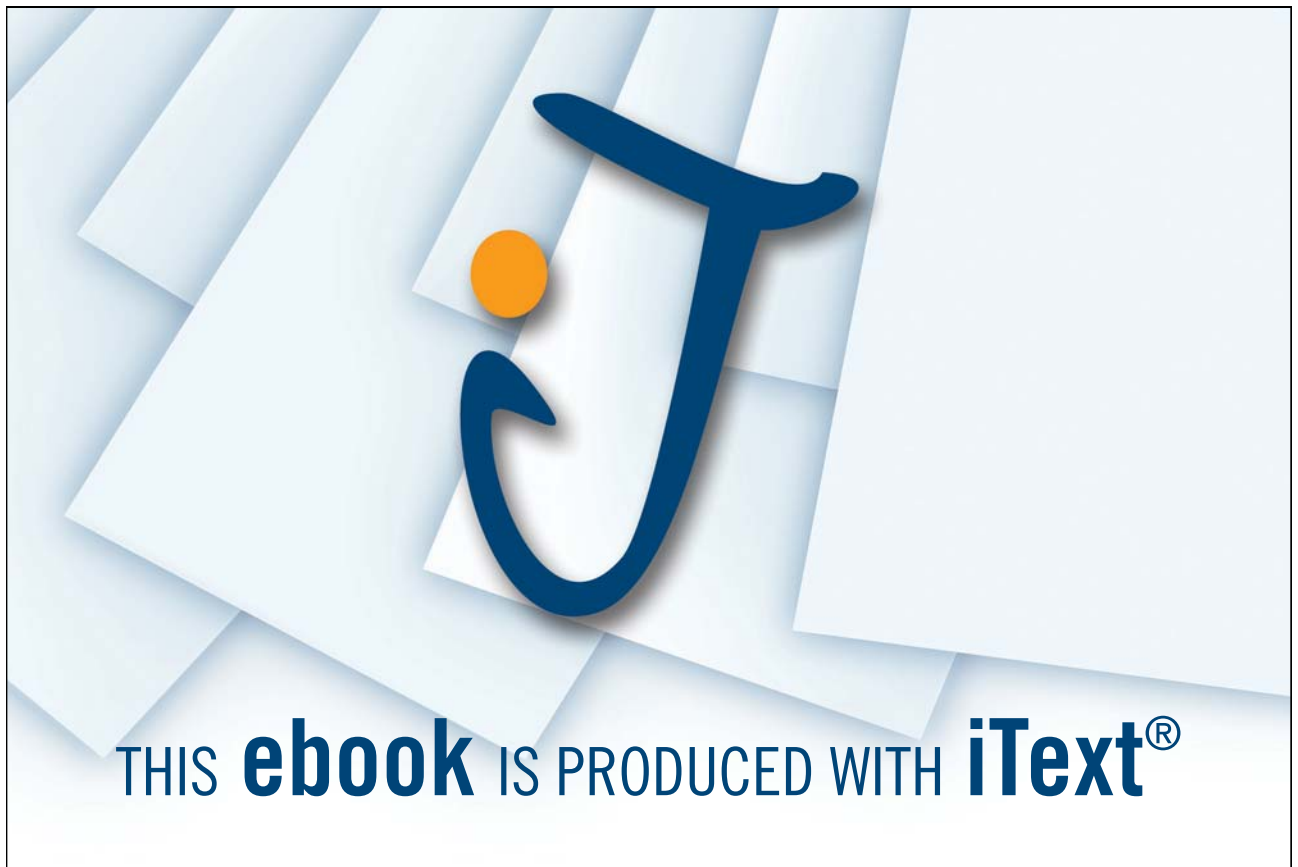
Of course, some of these might actually be sub-factors of each other. For example, under people, you could have management or training. It simply depends on the situation you are examining and the factors that are affecting it.

4.4 Project Critical Path Analysis (CPA) Chart

Although the name of this tool sounds highly technical, it is actually a very logical process to create one. A CPA is a flowchart diagram that is arranged in a line and is useful for organizing the tasks that need to be done in the order required by any dependency between the tasks. This tool is sometimes referred to as the Critical Path Method.

A CPA flowchart diagram is a good precursor to a Gantt chart (explained in the next section) because it helps you identify activities or factors that happen at the same time or that overlap each other in timeframe. The CPA is a good test of whether or not your project plan will work and whether or not there will be issues with time or actions because it helps you lay out your process step by step. It is not as clear as a Gantt chart in describing the time periods that will be used for each phase, but it does help identify the processes that need to occur during a specific time frame.

> A Critical Path Analysis (CPA) is a flowchart diagram that is arranged in a sequential line and is useful for organizing tasks in the order they need to be done.

In order to draw a CPA flow chart, start with a table like the one shown in Figure 5. The first column numbers the tasks and the second column lists the tasks that need to be done in the order that they need to be approached. The third column shows the earliest possible point at which the task can be started, based on the tasks that have come before it and when they are to be done. The fourth column lists the estimated length of time that is needed to complete the task. This information will help you complete the third column for tasks that come further down the list. Where you see a decimal, such as 14.2, that means the second day of week 14. The first day of your project is the starting point, so it is called Week 0 (or Day 0 or Month 0 or whatever unit of time you are using).

	Task	Earliest Possible Start Date	Estimated Length of Time to Complete	Type (Sequential or Parallel)	Dependent upon Completion of Tasks
1	Analysis of training objectives and goals	Week 0	1 Week	Sequential	
2	Selection of Curriculum Developer	Week 1	2 Weeks	Sequential	1
3	Development of Curriculum	Week 3	10 Weeks	Sequential	2
4	Approval of Curriculum	Week 13	1 Week	Sequential	3
5	Conduct Trial Training	Week 14	1 Day	Sequential	4
6	Conduct Train the Trainer Sessions	Week 14.2	1 Week	Sequential	5
7	Schedule Training for All Departments	Week 14.2	1 Week	Parallel	5
8	Conduct Training for All Departments	Week 15.2	4 Weeks	Sequential	6,7
9	Conduct Observations	Week 19.2	4 Weeks	Sequential	8

Figure 5: Data for a Critical Path Analysis

The fifth column tells you whether or not the task is sequential, meaning it can't happen until the previous one is completed, or parallel, meaning it can be started at the same time as the previous task. The final column shows which earlier tasks the current task is dependent upon. You will use this chart to create your CPA flow chart.

Let's go back to our example from Chapter 2 that we have a regulatory requirement to charge all of our customers the same rate for our product or service. In the information in Figure 5, we are determining what we have to do in order to get our customer service employees trained in the new rate structures and how to respond to customers. This CPA data assumes that we already know what the new rates will be; we just have to disseminate the information.

Once you have created your data table, the next step is to plot each of the activities using a tool called a circle and arrow diagram. For sequential activities, you put the first task in a circle on the left with an arrow pointing to the sequential task on the right. You place the number or letter of the task on the left hand side of each circle. Then write the name of the task below the arrow connecting the two circles, and the length of time it will take above the arrow, as shown in Figure 6 below:
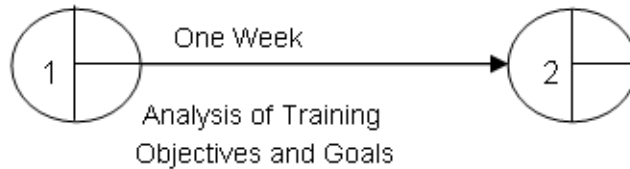
Figure 6: Example of a Simple Circle and Arrow Diagram

If you have more than one event that cannot occur until a previous event has been completed, you would draw a connection from the first event to both of the succeeding events. Using our information from Figure 5, an example of a more complex CPA flowchart is shown in Figure 7 below:
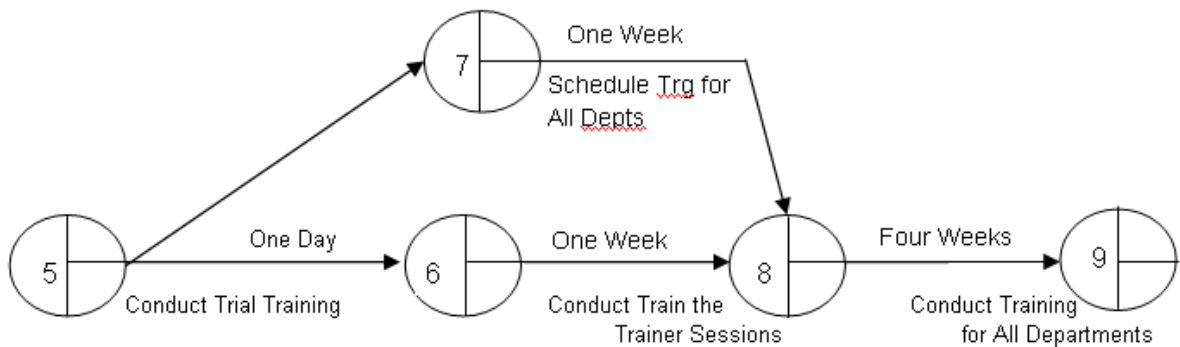
Figure 7: Example of Critical Path Analysis Chart

Keep in mind that the diagram itself is not to scale when it comes to time, which is why many people prefer a Gantt chart for tracking time. As you have probably noticed, there are two quadrants on the right hand side of each circle. You can use that space to indicate the earliest possible time that an event can happen and the latest point at which it can happen in order to keep the project on schedule. You use a number for the week or day that the project could start and then count from there the quantity of time the task will take until you get to the week or day that the task should be completed. See Figure 8 for an example of how to mark the time elements in each circle.

In the circle on the left, the numbers tell us that this that the circle represents the first task on the list, that it starts at the beginning of the project, and that it should be completed by the beginning of Week 2. The circle on the right is the second task which cannot be completed until task one is completed. So we know that it will start at the beginning of Week 2, and take up to three weeks. This means it should be done by the end of Week 4.
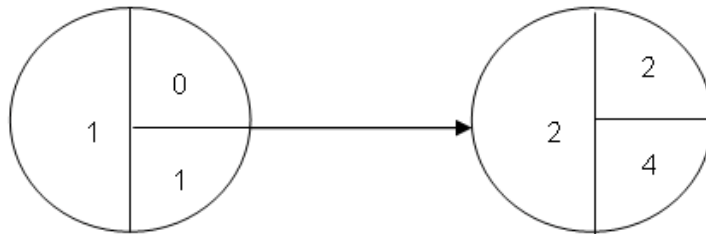
Figure 8: CPA Circles Showing Time Elements

The critical path is the sequence of events where each successive event cannot be started until its predecessor is completed. You may have parallel events happening on your diagram that can take place over a broader period of time; in other words, it doesn't matter if they start in Week 1 or Week 10 – as long as they are completed before the project is over. Those events are not 'critical' in the completion of other events. So they are not part of the project's 'critical path.' The critical path events must be completed on time if the project is going to be finished by your deadline.

The critical path is the sequence of events where each successive event cannot be started until its predecessor is completed.

If you create your CPA and realize that it says your project will take more time than you have allotted to it, then you need to revisit your project definition document. You will have to examine your objectives and resources to determine what you can do to make that deadline. You will either have to increase resources so you can move faster or eliminate part of your plan. Either choice will have an impact on the overall management of the project.

In summary, a CPA flowchart is effective for:

- Listing the tasks and necessary resources for the project

- Determining where you can work on tasks simultaneously

- Understanding the least amount of time required to complete the project

- Determining the resources associated with each task

- Providing the sequence of activities and general timeframe

- Prioritizing tasks

- Identifying opportunities for compressing project length

4.5 Gantt Charts

Gantt charts are one of the most popular tools used in project management. The name comes from Henry Gantt, an American consultant and engineer who developed the tool in the early 20th century. A Gantt chart is an excellent tool for scheduling, budgeting, and managing your project. However, it does not do as good a job as a CPA for mapping out the steps of a project. For complex projects, you will definitely want to use a Gantt chart, as it gives you an overall view of what should be occurring at each point along the project timeline.

Weeks 1-2	Weeks 3-4	Weeks 5-6	Weeks 7-8	Weeks 9-10	Weeks 11-12	Weeks 13-14	Weeks 15-16	Weeks 17-18	Weeks 19-20

Figure 9: Start of a Gantt Chart

In order to create a Gantt chart, you will start with a table of data like we did for our CPA example in Figure 5. We can use that same data to create our Gantt Chart. Take a piece of graph paper (or use a program such as Microsoft Excel, Microsoft Project, or other project management software products) and create columns that divide the sheet into segments of time such as days or weeks. The time segments should cover the entire length of your project. For our training project, the starting chart might look like that shown in Figure 9.

Next, plot the tasks onto your Gantt chart so that sequential activities take place only after the preceding task is completed. Each task should be listed on a different row and in the appropriate time slot. In Figure 10, the chart of our tasks from Figure 5 has been plotted onto the Gantt Chart.

Weeks 1-2	Weeks 3-4	Weeks 5-6	Weeks 7-8	Weeks 9-10	Weeks 11-12	Weeks 13-14	Weeks 15-16	Weeks 17-18	Weeks 19-20
1									
	2								
		3	3	3	3				
						4			
							5		
							6		
							7		
								8	
									9

Figure 10: Gantt Chart with Tasks Plotted

There are some changes in the plotted version of the tasks in comparison to the data chart in Figure 5. Take a moment to see if you can identify what they are – it's good practice for reading and interpreting a Gantt chart.

The changes are:

- Task 5, conduct trial training, was converted to a 1 week time frame

- Tasks 6 and 7, therefore, begin with week 15 rather than the second day of week 14 and the remaining tasks are adjusted accordingly

- Task 9 was changed from a sequential event to a parallel one because observations of the trained employees can start before every employee in the organization is trained

This is a perfect example of how a Gantt chart is different from a CPA; the Gantt chart helps you understand time requirements as you see them mapped out according to actual scale.

Now you would label each bar on your chart with the total time (above the bar) and the name of the task (to the right of the bar). If you would like to, you can color the bars according to different criteria such as the resource that will do the task or the fund that will be paying for the task. This information is not required, but it can certainly help you to show how your resources will be allocated and your funds will be spent. Gantt charts can be customized to show the information you want in the style that you prefer, but just be sure to include a legend that explains what any colors or symbols represent if you decide to use them.

You may find that you use a combination of all of the tools represented in this chapter while you are in the planning stage, but you will probably be using a Gantt chart regularly once you have it developed. You can see at a glance the entire stretch of the project, the time each task will take and possibly even the resources allocated to each task.

> You may use all of the tools in this chapter, particularly during the planning phase of your project. But eventually you will probably rely upon a Gantt chart.

5. Working with Your Team

5.1 Introduction

As you begin forming your team, you will find that there are challenges to combining a group of people and getting them to work well together. People have different ideas about what should be done and how it should be done and different personalities can certainly clash. However, being aware of this natural team-forming process will help you manage the team much easier. This process is represented by the phrase Forming, Storming, Norming, Performing.

You will also need to determine a communication strategy that will keep you all updated, and keep you, as the project manager, informed of any problems or challenges that arise. Finally, you can't do everything on this project on your own or you wouldn't need your team. So you will need to learn how to delegate to others if you are going to keep your project on time and on budget.

5.2 Forming, Storming, Norming, Performing

5.2.1 Introduction

Teams develop in a series of stages as they start to work together. By becoming aware of the stages and what's involved in each one, you will be prepared for the ups and downs of a new team and you will understand that certain difficult aspects of forming a new team are to be expected. Bruce Tuckman first called these stages Forming, Storming, Norming, and Performing in 1965, but they continue to be accurate today. In fact, an additional phase, called Adjourning or Mourning, has since been added, which describes what happens when a team ceases to work together (intentionally) and goes on to other work.

> Bruce Tuckman, a noted psychologist, first came up with the phrase "forming, storming, norming, and performing" in 1965. It describes the stages of development of every team unit. He later added another stage – adjourning, which is how he describes the end of a team's work together and the parting of ways. Others may call this phase 'mourning' instead.

5.2.2 Forming

In the forming stage, everyone tends to be on their best behavior. Everyone is polite and excited, usually spouting positive comments about the new team and the work that will be done together. Others might be anxious, as they haven't quite figured out what the team is about or what their role will be. They are trying to figure you out as a leader as well – what type of leader you will be, how you will interact with them as a team, and whether or not they feel comfortable with you.

At this point in the team formation, your role as project manager is the only one that might be clear and so it is also the dominant one. You will want to make it clear that you have a handle on what the team will be doing. You want to work to build trust, demonstrate integrity, and understand which team members will do the best in which roles.

This stage doesn't tend to last very long. It could be one-meeting or a few weeks while you are still designing roles and forming procedures of how you will operate. Before long the group will move into the second stage, Storming.

5.2.3 Storming

This is when the honeymoon period is over. You may find that some team members seek to challenge your authority or your decision-making. As roles and means of working are clarified, others may express discomfort in their roles, in the amount of work there is to do, or in the way that the work will be done. You might even hear team members questioning the purpose of the project, or expressing feelings that what they are doing is a waste of time. Personal conflicts between team members might rise up as well, as members are still jockeying for position or for your favor.

> Storming Phase: reality sets in. The team may question you, your decisions, or the point of what they are doing. Your leadership skills must come into play here in order to move the team past this phase.

When you go through this phase, your leadership skills are key. If you can't get the team past this phase, it is likely that the team will either fail or will struggle along, limping painfully towards the final product. You will need to address conflicts, redirect behaviors to what is expected of the team, clarify roles, and check that you have given instructions in a clear, straight-forward manner. Be flexible during this stage, and willing to adjust roles or assignments as necessary. Adopt the attitude that you are all in this together, and that you acknowledge that changes in what was originally set-up as the team structure might be needed along the way. Address complaints before they become roadblocks. And be sure to praise and reward achievements and positive behaviors.

5.2.4 Norming

As you move past the storming phase and resolve the situations that came up during that phase, you will move your team into the Norming stage. A hierarchy has been established at this point, meaning that your team members have accepted you as the leading authority of the team and may even have begun to take on leadership roles themselves within the team.

> Norming Phase: In this phase the team has accepted your authority and have begun to get to know each other. They request help and accept constructive criticism. Your leadership role is to reinforce their commitment to the project and to monitor for any slips back into Storming behavior.

By now the team members have begun to get to know each other as well. They may have begun socializing with each other. They feel more comfortable asking one another for help or input and they are more willing to accept constructive criticism. The individual team members have begun to commit to the team's overall goals and objectives, and as the leader, your job is to continue fostering this commitment. You will also need to make minor corrections as the team moves forward, guiding them back onto the path towards goal completion.

Also be aware that there can be some overlap between the storming and norming phases. In particular, the team may revert to some storming type behaviors when new challenges come up or when tasks that they haven't tackled before are required. Over time, and with your vigilance, these slips back into storming behavior will become less frequent and shorter in duration.

5.2.5 Performing

At this point in team formation, the team is functioning at its best. They are working under agreed upon methods with the joint purpose of reaching the team's goals. The team structures, procedures, policies, and processes are set up such that they form a sort of team 'culture.' The team could lose members or add new members and it would still function well because of the established culture.

> Performing Phase: your team is now operating like a well-oiled machine. You can delegate work and know it will be done well. You can focus on individual team-member development, which will help to prepare the team members for leaving the team.

As a project manager you will find this the easiest stage that your team will go through. You will be able to delegate a great deal of the work that there is to do, and to trust that it will be done well. When it's appropriate, you will also be able to begin concentrating on staff development, particularly because you will have learned a great deal about your individual team members at this point. This is important not just for showing your team members that you are invested in their development, but also because it helps to prepare them for the final phase of team development – the team's end.

5.2.6 Adjouring or Mourning

All teams are temporary. People will leave the team due to promotions, retiring, or transferring to another department or another organization. The organization will shift priorities and will shift resources, meaning the team may be disbanded due to changes in its structure or needs. Or, the team will dissolve when your project is completed.

> Adjourning or Mourning Phase: The team recognizes that their time together is coming to an end. Your role revolves around helping each individual move on to their next position or role.

The dissolution of a team can be difficult for team members, particularly those who don't like change or who have become attached to other members of the team. There may even be team members who aren't sure of their job continuing or who may be reassigned to roles that are distinctly different from what they have been doing on your team. You can expect some agitation and anxiety at this stage. But you can help to alleviate it if you have been working on team development in previous phases. You can help to prepare them for the next level of work or another area of work where they are most likely to find a job after your team's project is finished.

5.3 Communicating with Your Team

In order for your project to be successful and your team to operate at maximum efficiency, there needs to be a strong, two-way communication system in place. You will want your team members to feel comfortable bringing things to your attention and you will want to have a way to get information to them clearly and quickly. Your plan for communicating should be more involved than just group round-robin emails. You need an established, agreed upon strategy for communicating so that vital information is not missed by any party. To develop your strategy, examine your Gantt chart and then ask yourself the following questions:

- How often do we need to meet as an entire team?

- How long will we meet each time?

- Does everyone have to be at every meeting, or can you communicate to some members of the team in a more effective way?

- What will the guidelines be for our meetings? Will we have a standard agenda with everyone reporting their status or will we only address issues that might take us off track?

- What documentation will we keep that will track our information in case we have to refer back to it?

- Who will be responsible for keeping up with that documentation? What format will we use to do so?

- What types of information will I want the team to communicate to me immediately instead of waiting for a meeting? How do I want them to do it?

- What expectations do I have as to the team's availability outside of work hours? Is it OK to call, email, or them at home? On weekends?

- What communication needs to be sent to our management staff?

- Who will be allowed to communicate that information to management?

- Who will be allowed to speak to the press (if applicable)?

Not every one of those questions may apply to your situation, but they should demonstrate the types of issues that can arise if you have not clearly defined a communication plan for your project team. Write it down, agree upon it, and put it into use and you will find your team is able to operate more smoothly.

5.4 Delegating to Others

5.4.1 Introduction

Delegation. It's a word that brings up different pictures for different people. But in terms of project management skills, delegation is one of the most important things that you can learn to do well. There are two main reasons for this.

First, you are only one person. You are certain to need assistance in completing the tasks that your team has been assigned – otherwise, why even bother having a team at all? So when you learn to delegate, you are actually learning a powerful time-management skill. You can use it to focus on what is actually important for your team and the project rather than wasting time on items that you could pass on to another of your team members. You will be a better project manager if you are able to focus on what is best for the project, and delegating is the way to make this possible.

Second, true leaders recognize that delegating is actually a powerful tool in helping to develop others. When you delegate, you are offering an opportunity to the person you entrust with the job. They can learn a new skill, further develop existing skills, be responsible for bringing back new information to the team, get practice in leading others in completing the task that you assign, or get exposure to other areas of the organization that will make them better informed for performing their roles in the future. This is a powerful way to view delegating – you're not 'passing the buck.' You're offering opportunities for your team to develop themselves.

Of course, delegating is a skill. You can't just hand off a job to a team member and expect them to automatically succeed. You will need to examine your workload, the skills of your team members, the potential for development, and the level of risk you are able to take when you are planning to delegate. And delegating doesn't mean washing your hands of something either. Delegating requires the ability to remain in communication about the status of a project without seeming to be micromanaging. If you're having to follow every detail along the way, you haven't truly delegated and you're not doing yourself or your team member any good.

5.4.2 Why People Resist Delegating

There are a number of reasons that people decide not to delegate a task on a project. One common reason is that you might think it is easier to do it yourself. That's because it takes some work up-front in order for you to be able to delegate. Sure, in the short-term, it might have been faster for you to do it yourself. But once you have established a delegating relationship with your team member, it will take less time as you continue to do it.

Another reason people don't like to delegate is because they are afraid of losing control over the project that they are ultimately responsible for completing successfully. You have to ask yourself where your skills are best put to use. As the project manager, focusing on individual tasks is not always going to be the best use of your time. You can delegate the individual tasks, keeping your mind on the overall strategy and direction of the 'big picture.' You'll need to learn to balance the desire to keep control over every bit of a project with the understanding that in the long-run, you can be more effective as a leader and as a team if you learn to delegate well.

5.4.3 When Delegating Does and Doesn't Work

Before you know for certain whether a task is something that you can delegate, you'll want to explore several questions about the type of task, the frequency of it, and the risk that delegation might entail.

- Does anyone else on the team have the information that is needed (or can be given the information needed) to complete the task?
- Is the task likely to be needed again in the future?
- Could the task help to develop the skills of one of your team members?
- Do you have the time that it will take in order to delegate effectively? You'll need to have time to transfer knowledge, answer questions, check progress and possibly, for corrections.
- Is this a task that I can afford to delegate? Am I comfortable with the risk that I am taking in delegating?

To look at this from another point of view, there are also reasons that delegating might not work. Reasons that you might choose to do it yourself include:

- There isn't enough time to redo the job if it's not done right the first time
- The consequences for not completing the job on time are severe enough that it's not worth the risk
- The results have to be of the highest quality the first time around
- A failure at this task would do critical damage to the project

In general, the more mission-critical a job is, the less likely it is one that you should delegate. But if you have a tendency to view every single job as mission-critical, you need to re-examine your ideas. There are certain to be tasks in every project that are less critical than others, or that are less bound by time. Start small, and gradually you'll build confidence in your team's abilities and in your own ability to delegate successfully.

5.4.4 To Whom?

To whom should you delegate? That depends entirely on the staff that you have, their skills, and the skills required for the task that you plan to delegate. You want to do the best you can to match the task to the right person. If you're considering more than one person for a task, addressing some of the following factors may help you to make the final decision.

1. The individual's level of experience, knowledge, skills, or ability to acquire new ones

   - What abilities does he or she possess?
   - Is there time to get the person additional needed skills?

2. How does the individual like to work?

   - Is he or she independent enough?
   - Does he or she have enough confidence?
   - Does this task align with his or her interests?
   - Will the new skills acquired align with his or her future work goals?

3. How will I shift his or her existing work load?

   - Does he or she have time for more work?
   - How will this affect the other team members?
   - Will it have any impact on meeting existing deadlines?

Once you have delegated to someone, you might feel that they are taking longer than you expected. Don't let this alone convince you that you have chosen poorly. Often we forget that tasks we are now accustomed to doing regularly once took us longer as well. If you have chosen the right person, their speed will likely increase with time.

5.4.5 How to Delegate Successfully

Now that you've identified what tasks to delegate and to whom to delegate them, you need to still do the actual delegation. You need to be certain that you have shared all necessary information, given them the needed authority, and set boundaries as to where that authority ends. Other items should be covered so that you give your team member the best possible chance of completing the task successfully. The following suggestions will help you to delegate well.

1. Identify clearly for the person what the outcome and results of the task should be. You should be able to describe what a successful result will look like in specific detail. For example, you shouldn't give them the expectation of a report. Instead, be as specific as you can. A 10-12 page report, single spaced, answering questions A, B, & C, which includes the same sort of graphics as were used in the similar report dated January of last year.

2. Now give them the boundaries. How much authority do they have? To whom are they accountable during this process? Be sure to identify for them:

   - What types of decisions they can make on their own
   - What types of decisions they must come to you for
   - What information can be shared and what should be kept private
   - Any budget authority or constraints, if applicable
   - Any milestones at which they should check in with you before moving on
   - Any time expectations for those milestones
   - Whom they can go to for support, information, or assistance
   - Who else on the team will be involved

3. Make sure you are giving them the appropriate responsibility level for the authority level that you have given them. In other words, you cannot hold them accountable for something that you have not given them the authority to do. Remember that ultimate accountability rests with you.

4. Look for the person who is closest to the work that you want done, even if it means delegating to a lower level of the organization than you would have first considered. For example, if you want to write a 'frequently asked questions' document on your product, who better to delegate the task to than the customer service representative who has had the best sales record, customer service satisfaction scores, or other obvious demonstration of expertise in the subject matter?

5. Establish a means and schedule of communicating that ensures that you are available for questions and troubleshooting. Make sure you treat that set aside time as if it is a scheduled appointment you must keep. This lets you monitor progress and identify any corrections that are needed before the person is way off target.

6. Monitor against agreed upon timelines, deadlines and milestones. This has you focus on results rather than the way those results are achieved. In other words, let them do the work their way as long as they are producing satisfactory results in a timely manner.

7. Focus on fostering motivation. Let the person know what additional opportunities might become available if they complete the task successfully.

8. Expect the person to propose solutions to any problems that they bring to you. This prevents them from passing the task back to you and keeps them involved and responsible.

9. Be certain to inform other team members of the authority that you have given to the person you are delegating to, and to share this information with any relevant stakeholders in other divisions or departments of the company or to anyone else affected by the decision to delegate.

As you have more experiences of delegating to your team, you will learn additional items that need to be covered in order to make each particular task easily delegated. As you continue leading the team, you'll figure out what works best with each team member as well.

6. Resources

AIA.org. AIA Best Practices: Project Management Techniques.
http://www.aia.org/aiaucmp/groups/ek_members/documents/pdf/aiap037191.pdf

Business.solveyourproblem.com: Brainstorming.
http://business.solveyourproblem.com/brainstorming/group-brainstorming.shtml

Businessballs.com. Delegation. http://www.businessballs.com/delegation.htm

Businessballs.com. Project Management. http://www.businessballs.com/project.htm

Managementhelp.org: Project Management. http://managementhelp.org/plan_dec/project/project.htm

Mindtools.com: Gantt Charts. http://www.mindtools.com/pages/article/newPPM_03.htm

Mindtools.com: Critical Path Analysis and PERT Charts. http://www.mindtools.com/critpath.html

Mindtools.com. Leadership Skills Articles, various.
http://www.mindtools.com/pages/article/newLDR_04.htm

Mindtools.com: Risk Impact/Probability Chart. http://www.mindtools.com/pages/article/newPPM_78.htm

Prince2.com: What is Prince2? http://www.prince2.com/what-is-prince2.asp

Spottydog.u-net.com: Project Definition.
http://www.spottydog.u-net.com/guides/define/frameset.html

Visitask.com: Project Management Methods and Quality Standards.
http://www.visitask.com/project-management-standards.asp