Perspectives on Project Management Understanding

Ian Stokes, January 2016

To define a project helps to understand it

You will need to understand the definition of a project in order to answer these questions and to manage the project successfully:

- How do you know when you are working on a project?
- How can you be confident that the approach you are using is enough to get the job done?

Temporary and unique

"A project is a temporary endeavor to create a unique product or service." ¹

A project is different to routine activities such as production activities. It has a defined beginning and end point to contribute to the unique set of desirable outcomes.

The uniqueness and newness of a project may be in terms of the science and technology, thus requiring expert skills and experience.

It may be in the commercial challenges, thus requiring close customer contact.

It will almost certainly be in the fact that the working conditions are temporary and the team is not accustomed to working together.

Since every project is different, you need to be able to explain what you are going to do, do what you have said and be able to provide evidence of what you did.

Complexity

Unlike an isolated task, a project is complex enough to necessitate some kind of project management. Essentially, the complexity arises from the interactions of the competencies which must be managed. The more people who provide competencies the more your project management will require relational skills.

¹ PMBOK Project Body of Knowledge definition of a project

The importance of the triple constraint

Quality is the ultimate goal. In order to achieve quality, project teams must share an understanding of the priorities.

Regular conventional projects, such as engineering projects, prioritize a clearly defined and contractual set of specifications for an agreed price. The challenge is to finish on time or at least not too late.

Many contemporary projects, such as product development and events management, prioritize a deadline for a target price. The challenge is to manage scope in order to accomplish what is mission critical within time and cost.

In extreme situations, such as emergencies and under competitive pressures, both the deadline and the requirements are irrefutable. The challenge then is to keep costs within reasonable limits.

Projects are usually important, difficult and under-invested

In general projects exist in order to deliver change, innovation and improvements, either to the organization, the industry or the world.

Projects are also difficult. Doing something for the first time is more of a challenge than doing it for the second, third or nth time.

Traditionally, in many organizations projects have been underinvested. It is after all more difficult to formalize and to automate the uncertain and dynamic world of projects than the more predictable and stable routine activities.



The project manager needs to understand where there are contingency reserves: cost provision, time buffer or discretion over scope.

Without adequate trust in the project manager, margin is either hidden by team members or appropriated by top management. In these situations, with the project manager disempowered and unable to manage the risks effectively, control is lost.

Easy wins in project management

Easy wins can be gained thanks to simple actions such as:

- encouraging team members to share information about their activities
- agreeing and practising simple principles for communication
- learning throughout the project and not just at the end

Everything that is important involves people skills in some way and should be continued throughout the project lifecycle.

Communication is crucial

Communication is a huge part of successful project management. This is more than about one person talking and another listening. Communication needs to be worked upon as a team, because it allows the work to be focused on priorities, to be synchronized and recognized.

Inevitably, there are obstacles before the message has been understood. People hear what they want to hear. Because project participants have different backgrounds perceptions and interpretations, a project should be a jargon-free zone, where acronyms are explained and used sparingly.

Communication must be shaped to appeal to people's ability to comprehend, and the comprehension needs to be validated in words, deeds and by actions. Some people may prefer the message more structured, others interesting, others considerate and still others need the information to be communicated very directly.

Remember that communication only takes place when the receiver has understood what was intended. Above all, this requires empathy on the part of the sender.

Project life cycle

A project life cycle is comprised of phases or stages, decision points, deliverables and roles. The purpose is to do the right things at the right time and in the right way: to work the plan after planning the work, to plan the right solution based upon a suitable definition of the problem. This is an example of s set of stages:

Stage one: Define the challenge by being realistic about the start 'as-is' situation and visionary about the end 'to-be' goals. The gap between these start and end points is your project, to be defined and managed.

Stage two: Analyse and assess options by analysing benefits, risks, functionality, stakeholder interest and influence, before making choices on scope and roles.

Stage three: Plan the project by focusing on the value of deliverables, the cost of activities and the interactions between competencies in order to manage the team.

Stage four: Deliver and validate the results by obtaining feedback from peers, users, customers, experts and decision makers.

Stage five: Close out the project by ensuring that deliverables have been accepted, resources managed, lessons learned and performance recognised.



Project process groups

Processes overlap and interact throughout a project and during the various phases.

In management standards a process consists of inputs, tools and outputs. The conventional 'process' groups of a project ² are Initiation, Planning, Executing, Monitoring and Controlling and Close-Out.

To monitor and control is a key process in project management in order to challenge and to clarify assumptions. It also serves to verify, validate, inspect, test, prototype, demonstrate, measure and check results as the project progresses.

Therefore, it is a good practice to monitor and to control both when beginning and when finishing a cycle, or a step, a stage, a timebox or sprint.

Go into a cycle demonstrating control and leave a cycle with evidence of control.

The team development cycle



The team evolves and matures at a rhythm which is the mirror of the project life cycle. Even though they may not be perfectly synchronized there are events and decisions during the project that help the team to grow.

The team grows through the learning steps of form – storm – norm – perform – transform, whilst the individuals progress through the reactions of denial, resistance, acknowledgement, acceptance and ownership.



² PMBOK process groups - not to be confused with project phases

Project portfolio

Project portfolio management is essential for any organisation with goals to achieve and a strategy to implement.

At project portfolio level, the projects are either interconnected within a larger endeavour known as a programme, or contribute individually to obtaining the most suitable mix of risks within the organisation.

There are two critical success factors for effective portfolio management:

- To ensure that the portfolio is visible and accessible to those who participate and make decisions with strategic impact (mobilising people around the projects)
- To balance the portfolio between various types of risk profile, such as incremental, systematic, radical and opportunistic (choosing the right projects).



Technological Risk

Closing a project

One of the most critical of organisational skills is the ability to stop the wrong projects at the right time, and to continue only the ones that will deliver adequate value. This requires a good understanding of the business case and good governance.

The project team must ensure that lessons are learned what went well, what went less well and what should be done to obtain results and utilize the results.

Perspectives on PM Understanding Questions

- 1) What would happen if colleagues, customers, management were to misunderstand the nature and the definition of a project?
- 2) How would you say what you are going to do, do what you have said and be able to provide evidence of what you have done?
- 3) What kind of skills do you need to manage the interactions of competencies?
- 4) Can you think of other easy wins for project management in your organisation?
- 5) What are some obstacles to communication, or reasons for not communicating?
- 6) Which questions are asked at which stage of a project (Why? Who? What? Where? When? How Much? How?)
- 7) How does the conventional process group cycle initiating planning executing controlling closing compare to the PDCA cycle (Plan Do Check Act)?
- 8) What happens at each of the stages of Form Storm Norm Perform Transform?
- 9) How would you make the project portfolio visible to those who participate and make decisions?
- 10) As well as lessons learned, what are the other activities at the end of a project to close out the project?

Answers to PM Understanding Questions

1) What would happen if colleagues, customers, management were to misunderstand the nature and the definition of a project?

A thinking trap – also known as a cognitive bias – occurs when one's intuition betrays one's rationality. Typically, a cognitive bias is a short cut to a conclusion, which in normal circumstances might be a suitable interpretation and response to a situation, but on this occasion the circumstances are different.

These are just some of the more well-known examples of these:

Ambiguity effect	Avoiding options for which the likelihood seems unknown Relying too beavily on one piece of information
Availability heuristic	Preferring information that is recent or strongly remembered
, Base rate fallacy	Focusing on the specific and ignoring the background context
Clustering illusion	Seeing patterns in random data
Confirmation bias	Interpreting information according to one's preconceptions
Disposition effect	Cashing in gains in a rising market, sticking in a falling market
Dunning Kruger	Experts overestimate and unskilled people underestimate their ability
Einstellung effect	Resolving problems by habit instead of looking afresh
Expectancy effect	Misinterpreting data in order to find the expected result
Framing effect	Drawing conclusions according to how information is presented
Functional fixedness	Using an object only in the way that it was originally intended
Illusory correlation	Inaccurately perceiving a relation between two unrelated events
Outcome bias	Judging a decision by its outcome instead of its quality
Restraint bias	Overestimating one's ability to resist temptation
Sample size lapse	Tendency not to expect variations in small samples
Semmelweis reflex	Rejecting new evidence that contradicts a paradigm
Survivorship bias	Concentrating on what finished and ignoring what stopped
Triviality law	Paying undue attention to a trivial details that is easy to understand

All of these are typical of using our ingrained intuition instinctively and automatically, instead of reasoning afresh and thinking through new and specific situations.

A psychological description of this is called System 1 and System 2.

System 1 is an automatic, fast and often unconscious way of thinking. It is autonomous and efficient, requiring little energy or attention, but prone to error.

System 2 is an effortful, slow and controlled way of thinking. It requires energy and requires attention but, once engaged, has the ability to filter the instincts of System 1

Because projects inevitably include something new and specific they require more frequent use of careful System 2 style thinking giving consideration to the situation.

All of the above are decision making traps that arise when we overestimate what we already know. Below are traps that may occur when we underestimate other people, what they know and their capacity to cooperate effectively.

Actor observer bias Attributing others' behaviour to personality, rather than context Egocentric bias Claiming more credit for oneself than seems justified to others False consensus bias Overestimating the degree to which others agree Halo effect Believing that positive or negative traits imply others Asymmetric insight Perceiving one's knowledge of others as greater than theirs of oneself Illusory superiority Considering oneself to be better than average at a particular skill Giving preferential treatment to others of one's own group In-group bias Naïve cynicism Expecting more egocentric bias in others than in oneself Naïve realism Believing that we see reality without bias and others are misinformed Trait ascription bias Perceiving oneself as variable in behaviour and others predictable

In summary, if project partners and decision makers neglect the unique, temporary and complex aspects of projects, they may:

- Overestimate what they know and underestimate what the group knows
- Believe that the inputs and outputs of a project are reasonably predictable
- Neglect to contribute sufficient time and attention to the project
- Fail to include enough different perspectives

2) How would you be able to say what you are going to do, do what you have said and be able to prove what you have done?

Endeavour to be as realistic as possible with regard to the terms and conditions of the project; the rights and the duties of the project manager.

Be explicit about the effort and resources necessary to meet the challenge. There will be trade-offs, but at least you will be clear about the risks.

The "planning fallacy" is a thinking trap that occurs very frequently; due to the expectation that the project will be an outright top priority when in fact there will soon be other priorities to address.

Ensure that you have researched what drives the priorities of the project and what may cause these priorities to evolve.

3) What kind of skills do you need to manage the interactions of competencies?

- Making decisions without all the information
- Balancing priorities and facilitating different sets of interest
- Anticipating problems and managing change
- Communicating
 - E latest on business priorities
 - ensure and allow informed decisions
 - take account of different communication styles
- Delegating responsibility, managing accountability

4) Can you think of some other easy wins for project management in your organisation?

- Install and equip a place for creative teamwork
- Share information early and often
- Make the most of reusable experience from previous projects
- Ask more questions before meetings than after meetings
- Take care to avoid sleight of mind:
- being distracted by an excessive focus on a limited number of perspectives
- allowing decisions to be forced along certain paths, when there are alternatives
- having the illusion of control and understanding, when in fact it is absent

5) What are some obstacles to communication, or reasons for not communicating?

Failure to appreciate that communication is like an obstacle course: spoken doesn't mean heard, understood, agreed, utilized, or retained.

Ignorance of the mathematics of communication; more people, more risk of misunderstanding (more channels for retransmission and more communication styles gives many ways to misinterpret)

Minimize the effects of poor planning (nobody knows you don't know what you're doing) Reduce questions and objections, speed up decision making and cut down on meetings Make it easier to deny what was said in the first place Preserve the freedom to change one's mind Increase power by withholding information and knowledge Help to preserve mystigue and to hide insecurities Allow decisions to be taken at the last minute Make it possible to espouse contradictory points of view Make it easier to refuse without upsetting people Help to avoid confrontation and stress Avoid the need to share credit for an idea Reduce the risk that someone will steal the best ideas Support deep analytical and creative thinking Help minimize opposition and criticism Put the onus on the other person to seek out the information Avoid the risk of misinterpretation of the message Preserve autonomy and freedom for organizational constraints. Avoid the need to reduce one's own value by sharing skills People will hear what they want to hear and not what you meant to say

So many obstacles mean many challenges...

6) Which questions are asked at which stage of a project (Why? Who? What? Where? When? How Much? How?)

'Why?' defines the purpose and justification for the project. 'Why?' gives the business case and make it clear.

'Who?' starts with for whom the project is to be done and to who will go the results.

'What?' is the question about the definition of scope and what needs to be done for whom in order to achieve the desired results and create a success.

'Who?' continues in order to identify who can do what to get the job done.

'Where?' relates to 'who?', 'what?' and 'why'.

'When?' is determined in negotiation with those able to deliver the work, together with 'How Much?' and 'How?'

7) How does the process group cycle – initiating – planning – executing – controlling – closing compare to the PDCA cycle (Plan – Do – Check – Act)?

The PDCA cycle was defined as a 'quality wheel' for production. In production, you basically have a stable system, which you aim to improve.

In each project we are starting something new and therefore we initiate the project or the next stage before planning the details.

To succeed on a project we need to check from where we are starting and to analyze to where we need to go, in order to plan the way forward.

Hence, the project 'quality wheel' is rotated to give us 'Check – Think – Plan – Do'. Thinking is the 'act' of preparing actions that are then planned and implemented.

This is a cycle that requires participation from all of the members of the team. A hierarchical approach starts with the 'top' defining the challenge and works down to the 'bottom' who implements, whilst a team approach includes the experts at each step of the cycle.

8) What happens at each of the stages of Form – Storm – Norm – Perform – Transform?

The 'Form' stage is about scoping and understanding the challenge ahead. It answers the questions about why the project is necessary and for whom it is being engaged. Most important is to understand the success criteria and how they will be assessed.

The 'Storm' stage contains all of the woes of the world. As people get to grips with the challenge, they discover different perspectives, options, opinions and frustrations. They need to work through these, often with creative inspiration and usually with considerable tenacity in order to craft the project that will produce success.

The 'Norm' stage is when it all starts to come together. The team begins to feel as if they really are a team. They assume their roles and are increasingly able to make effective decisions more fluently. They plan together and synergy starts to develop based on trust and transparency.

The 'Perform' stage, when it is achieved, can result in high levels of performance as the team cooperates naturally. They manage their results and synchronize their efforts. Problems are anticipated and addressed. Ideas are shared and managed. The team reviews its performance and implements continuous improvements.

The 'Transform' stage, is when the team transforms itself into what comes after the project, either a continuation of high performance or else disbanding the team in order to take up other activities. If the team remains together it can transcend previous levels of achievement, or else transform itself in order to maintain energy.

9) How would you make the project portfolio visible to those who participate and make decisions?

Project portfolio management requires the presence of certain elements such as an identification of the project purpose, its participants, resources and timeline. It should also cover a risk assessment and an informed evaluation of the 'return on investment', based upon quantitative and qualitative, financial and other criteria.

The project portfolio can be rendered visible on a corporate dashboard in order to allow all project participants to appreciate where each project is situated in terms of priority and critical success factors. Meanwhile, precious and strategically important information must be handled with sensitivity and due concern for confidentiality.

10) As well as lessons learned, what are the other activities at the end of a project to close out the project?

One of the key success factors of an organization is in its ability to select the right projects. Successful project management at portfolio level is very much about deciding which projects to stop and which to continue.

At the end of a project, the criteria that were used to justify the project must be reviewed and assessed to identify whether changes need to be made in the future.

This is beyond the lessons learned that enabled a project to be managed right and in an appropriate manner. It is about choosing the right project in the first place and being able to stop a project at the right moment.

Sometimes it is best to stop a project as soon as possible and then to celebrate. Thus there will always be a celebration at the end of a project, whether it was brought to fruition, or else simply because the right decision has been made and lessons learned.

From a contractual point of view, all of the deliverables must be checked and accepted, and if not there may either be a conditional acceptance, a waiver or else a negotiated compromise between the parties.

Also at the end of the project, human resources may be rewarded, retained, retrained and re-assigned, material resources are reconciled and accounted, whilst all equipment and facilities are released and returned to their owners.

Finally, all relevant documentation is stored in a location, which affords easy access and reference, whether it is technical and design oriented or necessary for continuing support, maintenance, operations and service of the end product or system.