The Project Management Mentor

Consolidated Series of Best Practices Stories

Full Table of Contents of Licensed Document

(Only a Sample of Stories are Included Here)

0.0 Overview

This document contains dozens of stories about project management best practices. The stories are from a company called Blue Sky Manufacturing. Blue Sky has assigned an individual called a Project Management Mentor to help project managers on their projects. The Mentor recalls various meetings and conversations that he has had with various projects managers. In each story, The Mentor describes the overall situation, the problem being faced by the project manager, and the advice that is given.

This document contains a few stories that provide examples from the full document. The full document contains over fifty stories representing all ten aspects of the TenStep Project Management Process. The full document covers 125 pages. It will help all PMO's and other coaching organizations with understanding how to respond to these types of projects. The stories should also be read by projects managers to illustrate the reasons for using more formal project management processes, and the trouble that can occur when you do not.

The full document is available to licensed TenStep users.

1.0 Define the Work

Do the Right Level of Planning, Based on the Size of the Project

Ross Walker has been with Blue Sky Manufacturing for about three months. The common perception is that he is as sharp as a tack, and obviously would only get better as he became more experienced. One of the good things about Ross is that he has the Company's interest at heart, and always tries to do the right thing, even if he is not sure why he is doing it. So, Ross called me to make sure that he was starting off his project in the right way. We talked briefly on the phone so I could get a sense for how best I could help.

Ross was going to create a real-time Equipment Utilization Report for a Manufacturing Division client. Naturally, he had heard about the Project Definition document and wanted some help developing it for the first time. I asked him some general background questions, including whether there were any potential risks.

The Dilemma

"There shouldn't be any risks on this project", he said. "It is pretty straight forward."

"What type of team will you be putting together for analysis, development, testing, and QA?"

"Right now, I am the only one identified", he said.

"Oh really", I said. "You are going to put the whole application together yourself?"

"Oh yea. There will just be one new online screen to create." Ross said.

I was beginning to get the picture. "Ross. How much effort are you estimating it will take to complete this work?"

"I should be able to complete the work in about 80 hours", Ross said.

I was now able to shift gears and start down a new line of questioning. The rest of our phone call was focused on gathering only the information that made sense, given the size of the project.

Mentor Advice:

All work can be structured into projects. However, the process (or methodology) used to complete the work needs to scale up and down, depending on the amount of work effort. For instance, large projects should have a formal planning stage that results in a Project Definition document and a workplan. Medium efforts require less planning. Small projects require a minimum amount of formal planning and documentation. In the case of Ross Walker and his 80 hour project, a formal Project Definition document is overkill. It doesn't usually make sense to

spend ten hours planning and documenting the work of an eighty-hour project. It makes more sense to lay out a one-page deliverable with information such as the work requested (requirements), estimated effort and end date, business value and priority. You also need a couple places for the clients to sign signifying approval to begin work and a formal acceptance of the completed deliverables. An effective methodology must be tailored to provide value and be practical for all sizes of projects. Otherwise it will be ignored.

Working and Planning at the Same Time

A few weeks ago, I helped Sean put together an estimate for a Wireless Internet Project for our company's R&D Department. He had good news and bad news when I met with him for the second time.

The Dilemma

"The estimate that we worked on a few weeks ago has been accepted!" Sean said excitedly. "However, the timeline for completing the project has been shortened. My manager said there are a couple business units interested in the new technology, and they want this proof-of-concept project completed as soon as possible."

"That's good news." I agreed. "Do you need help with the Project Definition? I think the project is small enough that we can use the abbreviated version."

"I would normally agree the definition document is important." Sean said. "But in our case, I have had to assign people to start the work. We are already past the planning process."

I could foresee potential problems if Sean went forward like this. "Really." I questioned. "What are your deliverables, what is your approach, where is your timeline, what is in-scope and out-of-scope?"

Sean could only give me partial answers. This made me even more nervous.

"That's my concern." I noted. "You have only a vague idea of what you are going to do and what the expectations are. One of the purposes of planning is to ensure that you have an agreement with your sponsor on what is expected. Otherwise you will find out later in the project, or at the end of the project. In either case, it will be too late to hit your deadline.

"But what about that deadline?" Sean insisted. "We've got to start now if we want to get the work done on time."

"Planning is a necessary part of all projects." I countered. "If you have a choice, you would prefer to plan the project first, and then begin executing. However, I agree with you that sometimes you have to start the project immediately. When this happens, you need to plan the work at the same time some of the work is going on."

Mentor Advice:

Sound familiar? It seems like more often than not, Project Managers are under time pressure to start working on the project while the overall project planning is going on. This is not an optimal

situation, but it is reality. Project planning definitely will occur. The question is whether good planning is done or poor planning. Good planning, while you are managing the initial stages of the project, is tough and time consuming. The reward is that there will be a point when the planning will catch up with the work going on, which will allow you to proactively manage the project going forward. The alternative is poor planning, where you run the risk that the entire project will be haphazard and reactive, and ultimately will not meet the needs of your client.

The specific advice for Sean is to proceed with the planning, as well as proceed with the project execution. Sean needs to identify work that he is sure will need to be done, regardless of the outcome of the planning process. For instance, he can have people gathering a basic set of user requirements, or defining what hardware and software will be needed, or determining what content will be pushed out to the wireless devices. Sean should also continue to plan the work and get approval on the project scope and deliverables. When he gets the Project Definition and workplan completed, he can sync up with the work that has already been done and proactively manage the rest of the project. There may be some rework that is required, but it should be minimal at this time. This rework is the cost of accelerating the project schedule this way.

2.0 Build Workplan

Estimating Research and Development Projects

Sean works in the IT Research and Development (R&D) Department at Blue Sky Manufacturing. He has been assigned a project to create a proof-of-concept for sending information from the company Intranet to new handheld devices. Sean was struggling trying to create an estimate that his manager had a level of confidence in.

"I gave my boss a high-level estimate for the project." Sean said. "But he said there were too many guesses in it. He asked me to get more facts and estimate the work to a greater degree of certainty. I agreed that my first attempt was a guess, but how can it be more reliable than that – we have never done a wireless project before."

"There are usually ways to estimate work that are better than guessing." I said. "Let's start at the beginning. Do you have a Project Definition?"

I was actually pleasantly surprised to learn that they did have an Abbreviated Project Definition, as well as a template that describes what needs to be done on a proof-of-concept project.

"You see. We have much of the information we need." Sean said. "But now what should I do. This technology is completely new to us."

"I can think of a couple ways to help." I said confidently. "First, the fact that you have a template should help us put together an initial estimate. Second, although your point about the technology being new to us is valid, handheld devices are not brand new to the industry. We should be able to validate our first estimate by talking to some experts who do have experience in this area."

Mentor Advice:

The main first cause of people struggling with estimating is that they are not really clear about what they are trying to do. This may be especially true in R&D work. However, good estimates are the result of good techniques. In Sean's case, he had the advantage of a Project Definition that defines what he is trying to do, and a previously written template that describes how a proof-of-concept project is to be executed. From there, he should be able to estimate the work separately using two techniques - a simple work breakdown estimate and expert opinion. For the work breakdown technique, Sean needs to start with his workplan template, and estimate each individual activity. Many of the activities have been done before and can be estimated reasonably well. Other work may never have been done before, but since the work breakdown structure defines activities at a more granular level, there is a greater likelihood the estimates will be reasonably close. The lower level estimates are added up to a summary number. Project management time is estimated at 15% of the summary total. Sean should also add a 20% contingency to cover the remaining estimating uncertainty and risk. The second technique is expert opinion. Even though our company has not done this type of work, Sean can talk to a

research analyst, or an industry expert to ensure he has a good understanding of what is involved. These experts will have a perspective of what other companies are doing, and can validate or challenge the previous estimate. If the two techniques do not yield similar results, he can go through the work breakdown estimate with the expert and determine which one might need revising. When Sean is comfortable that the two techniques are yielding similar estimates, he can document everything and present the numbers back to his boss – this time with substantial supporting detail.

3.0 Manage Workplan

All Critical Path Activities are not 'Critical'

Donna had just implemented the new Marketing Information Database that her team had worked on for the last few months, and she invited me to attend their project conclusion meeting. The project completed three weeks behind schedule and was overbudget by 15%. These are not terrible numbers, but an interesting discussion ensured as to the causes and how they could have been avoided.

The Dilemma – Searching for Project Key Learnings

"Knowing what we know today, what might we have done differently on the project to hit our deadline and budget?" Donna asked her team.

Bill, one of the Database Administrators spoke up. "For the first half of the project, we seemed to have everything going according to the schedule. But some of the design decisions we made up front didn't pan out like we hoped, and caused us rework delays later on."

"That's a good point." Donna noted. "The design work is critical on a project that is deploying new technology. For a project like this, that work should have been on the critical path."

"I think we also lost some focus toward the middle of the project." Betty contributed. "As we started to create the physical database, we were heading into the holiday season. I think things started to slip at that point."

"You're right." Donna agreed. "It's imperative to maintain work focus around the holidays. If I had to do it again, I would have added some of those activities to the critical path as well."

"Another thing I noticed," Donna continued, "was that I had problems understanding some aspects of the project management tool we were using. About halfway through the project, I was looking at the project critical path. The tool was cluttering the critical path with lots of activities that were not very important. Other longer and more important activities were not on the path. Next time I run a project, I am going to move the more important activities onto the critical path, so that I can place the proper amount of management focus on them."

I decided at this point to put on my mentor hat. The discussion on key learnings from the project was a good one, but I did not want them to encounter other problems on their next project from having a faulty understanding of critical path.

Mentor Advice

One of the first things to understand about a project critical path is that it does not provide any guidance as to what activities are important. From a technical standpoint, the critical path is the

sequence of activities that must be started and completed on time for the entire project to complete on time. In other words, there is no float, or slack, on any activity that is on the path. Imagine that you have a project that takes 300 days. If the first activity on the critical path is one day late, the project will take 301 days to complete, unless another activity on the critical path can be completed one day earlier. There is a method for calculating critical path that requires a forward pass and a backward pass through the schedule. It easy for a computer to calculate, but can get very tedious for people.

That being said, note that I haven't said anything as to the relative importance of the activities on or off the critical path. In Donna's case above, she is implying that there is some discretion a manager has as to what should go on it. She is confusing those important activities that require extra team focus, with the critical path. These need to be separated. The critical path is what it is. It may contain all the important activities on the project, or it may not. Understanding the critical path is important in terms of understanding what activities are critical to complete on time. But other 'non-critical' activities may also be very important and require extras diligence and focus as well.

4.0 Manage Issues

Not All Issues can be Resolved Cleanly

Lindsay is from the Application Support area and is responsible for enhancing a Sales Division application to change how sales commissions are paid. I thought her project was close to completing, but it looks like she has one more hurdle to overcome.

The Dilemma

"We've really run into a major problem." Lindsay began. "A new software component that is a part of our solution does not work with the version of browser that we have in our company. The component requires the newer browser version. We were told before that our company was going to move to the newer browser, but now the upgrade has been put on hold for at least six months."

"All right." I began "Tell me what your issue management process has been."

Lindsay laid out the process so far. "First of all, our testing people raised this as a problem as soon as they realized the implications. I notified the business client right away. After initially being upset, they became engaged in the resolution process. We started looking for alternatives. First, we tried to get a version of the component that would run with the older browser, but the vendor does not have one. Then we tried to see about upgrading the browser for our clients early, but we were told no, since many other applications have not been tested with the new browser yet. Then we talked to the client about removing the functionality that the component provided, but they said that the new commission plan wouldn't work without it. We've looked at everything we can think of, but we must be overlooking something. What else should we be doing?"

"Have you met with your team and your client to brainstorm other alternatives and impacts?' I asked.

Lindsay was already ahead of me. "That's what we did first." She said. "It was based on that meeting that we identified the alternatives that I already told you about. There are others that we have looked at as well."

I thought for a second. "Lindsay. Let me tell you some bad news." I said. "The issues management process will help facilitate problem resolution, if there is a good alternative to apply. However, it sounds like any options you have remaining are bad ones. At this point you need to work with your client to make the best of a bad situation."

Mentor Advice:

Usually when problems arise on a project there are good alternatives to solve the problem or implement a workaround. Applying good issues management techniques will give you the best chance to find a positive resolution. Unfortunately however, following an issues management process does not always guarantee success.

Let's review Lindsay's situation. First of all, a team member raised the problem as soon as it was discovered. Lindsay realized it was outside of the scope of her team's ability to resolve, so she raised it as a formal project issue. She was able to get her client engaged in the resolution process. The entire team met to look at alternatives and came up with a prioritized list. Unfortunately, none of the possibilities resulted in an acceptable solution. In other words, Lindsay has done everything she could from a process perspective to proactively resolve the crisis. But, the issue was not resolvable. At this point, Lindsay needs to see whether there are any other ideas that could resolve this successfully. If not, she has one more step – identifying the best alternative that causes the least problems going forward. These might include stopping the project and calculating commissions manually or delaying commission payment until an alternative component is found. In any case, the client is not going to be happy with the outcome. But at this point, the best alternative may be the one that inflicts the least pain and damage.

5.0 Manage Scope

Let the Project Sponsor Say 'No' to Scope Change Requests

Juan and I continue to meet weekly to discuss his project to upgrade the phone mail application. The last few weeks have gone smoothly, but this week Juan had a problem he was trying to work through.

"We have the new phone mail upgrade in pilot test now and the test was going smoothly." Juan said. "But yesterday, we received a request to change the call forwarding feature. The pilot team says it is more confusing to use than the old version and they want the old functionality back."

"If I remember your Project Definition, you stated that you were going to implement the new upgrade as is, with no custom modifications." I replied. "If your customers are requesting changes to the software, it sounds like a scope change request to me."

The Dilemma

"You're right." Juan agreed. "It's not only a scope change – it's also a distraction. The vendor's first impression is that the change will end up taking two extra weeks, and cost us around $10,000. Then we will have to retest to make sure nothing else was broken. Plus, we will have a slightly customized version of the software that may cause us more problems down the road. I really wish we didn't have to do it."

I was sympathetic to Juan's concern, but I had an idea where this would all end up. "I don't think your situation is as bad as you think." I suggested. "I think you have enough information about the impact to the project to talk to your sponsor. First make sure she is willing to proceed with the change."

"Good idea." Juan said. "I will try to have a short meeting with him this afternoon."

The next day, Juan called me. He sounded pretty upbeat. "Well, I had a good meeting with the sponsor yesterday." he said.

"And what did she say about making the change that the pilot team recommended?" I asked.

"She emphatically told me to 'FORGET ABOUT IT!'." Juan replied. "She said that the new upgrade might be different, and it may not be perfect, but it is good enough!"

Just as I thought, I said to myself.

Mentor Advice:

On most projects, the best way to control scope change requests is to utilize the sponsor for decision making. Even though it is sometimes hard for the Project Team to say 'no' to the customer, the sponsor usually doesn't have that problem. Since they are paying for the project, they are usually more concerned about making sure that the project completes as promised, within the budget and delivery date promised. It's also normally the case that the end-users work in the sponsor's organization. Juan's sponsor was typical. He didn't have much patience for changes in scope that will result in marginal benefit. Small changes that seem so critical to the end users usually pale when viewed from the Sponsor's perspective. On the other hand, if the change was important enough, the sponsor would have been willing to provide the incremental budget and timeline required to get the extra work done. A side benefit of going to the sponsor is that after you invoke the process once or twice, you will find that you get less scope change requests. Since people know that the sponsor must approve, they are much less likely to request changes unless they have a very good business case.

6.0 Manage Communication

7.0 Manage Risk

8.0 Manage Documents

9.0 Manage Quality

10.0 Manage Metrics

99.0 Misc. Lessons