



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

CEU44E01

4E1 Management for Engineers

REFLECTIVE ESSAY

Submitted By

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Introduction

We had been working on Harvard project management simulation, in these simulations we learn how to prosperously complete a project while managing the cost as well as time while dealing with pragmatic challenges faced as a project manager.

In these simulations, I was assigned a role of senior product manager at Delphi Printers & Peripherals, a small electronics and computer peripheral manufacturer based in Santa Clara, California and was tasked with assembling and managing a product design of a printer and releasing it in the fiercely competitive market. In each case targets such as scope, duration, cost and team morale were set by the management team and we need to perform well according to the give target in order to achieve a good score or to become an efficient product manager. While performing these simulations i.e. while developing the product I dealt with realistic challenges such as mid project staffing crisis, preponing of targets or failure of prototype. As a senior project manager my target was to overcome all these challenges and deliver an effective product in the competitive market while appropriately utilizing the resources and to lead the team with good morale. Since leadership is not just for delivering a product, its for delivering a good product with a balanced team morale.

Scenario B

In this scenario, the management assigned me to deliver a high-speed printer, within 17 weeks, the approximate expenditure with **Target Cost:** \$39,220 and **Morale:** Between 85 - 95%.

In the first instance, to achieve the target in the minimum possible expenditure , I started with a team of 3 which were highly skilled and preferred extensive outsourcing with few prototypes , there were given ample amount of One-on One coaching in the beginning and there were status check after every alternate week, the team perform well and maintained good spirit but however due to staffing crisis in the week 5 , there were a shortage of workforce and the team couldn't complete the required weekly tasks which led to delay in the release of product and also harmed the team morale. On performing few more iterations, I realized that team doesn't perform good with extensive outsourcing and outsourcing should be limited for great efficacy, with limited outsourcing the team morale was also good. In some of the iterations I reduced status review and meeting time to nil for several weeks so that the members don't get bored and have enough time to work upon the product- but due to this the team got excessively stressed. I also noticed that though medium skilled team saves a lot of money, but they are not able to complete required tasks and they get extremely stressed. To minimize the effect of staffing crisis in week 5 , I initially hired more members but that too wasn't a great approach though the team members were working in a good spirit initially but eventually they got bored and that resulted in lack of productivity, moreover more team members meant extravagantly exploiting resources. After meticulously examining all the strategies used and their outcomes and reapplying different strategies the score got better but after several iterations the score didn't increase much and got constant.

So, after these iterations I landed up on my very own strategy that focused on maintaining a constant team size in order to complete tasks and boost team morale, continuous one-on one coaching for making the team skilled, regular status updates, and medium outsourcing. Elaborating my strategy for the best score – I initially set the target as 15 weeks and multifunctional level 4, I started off with a team size of 5 medium-high skilled with several coaching and stand-ups, however in week 5 after the staffing crisis I hired highly skilled team for completion of task well on time after the crisis solved the team got back as the original ones, in the end weeks I encouraged overtime and reduced coaching since they were very well aware of what they need to deliver, this resulted into good results- a highly happy team, delivery of product 3 weeks earlier.

In real life approach there are several cons and pros for my high scoring strategy, Cons – Overbudget, high team stress level, throughout the project. Pros- Completed Level 4 product exceeding management target, delivery of product prior to deadline, team with good morale.

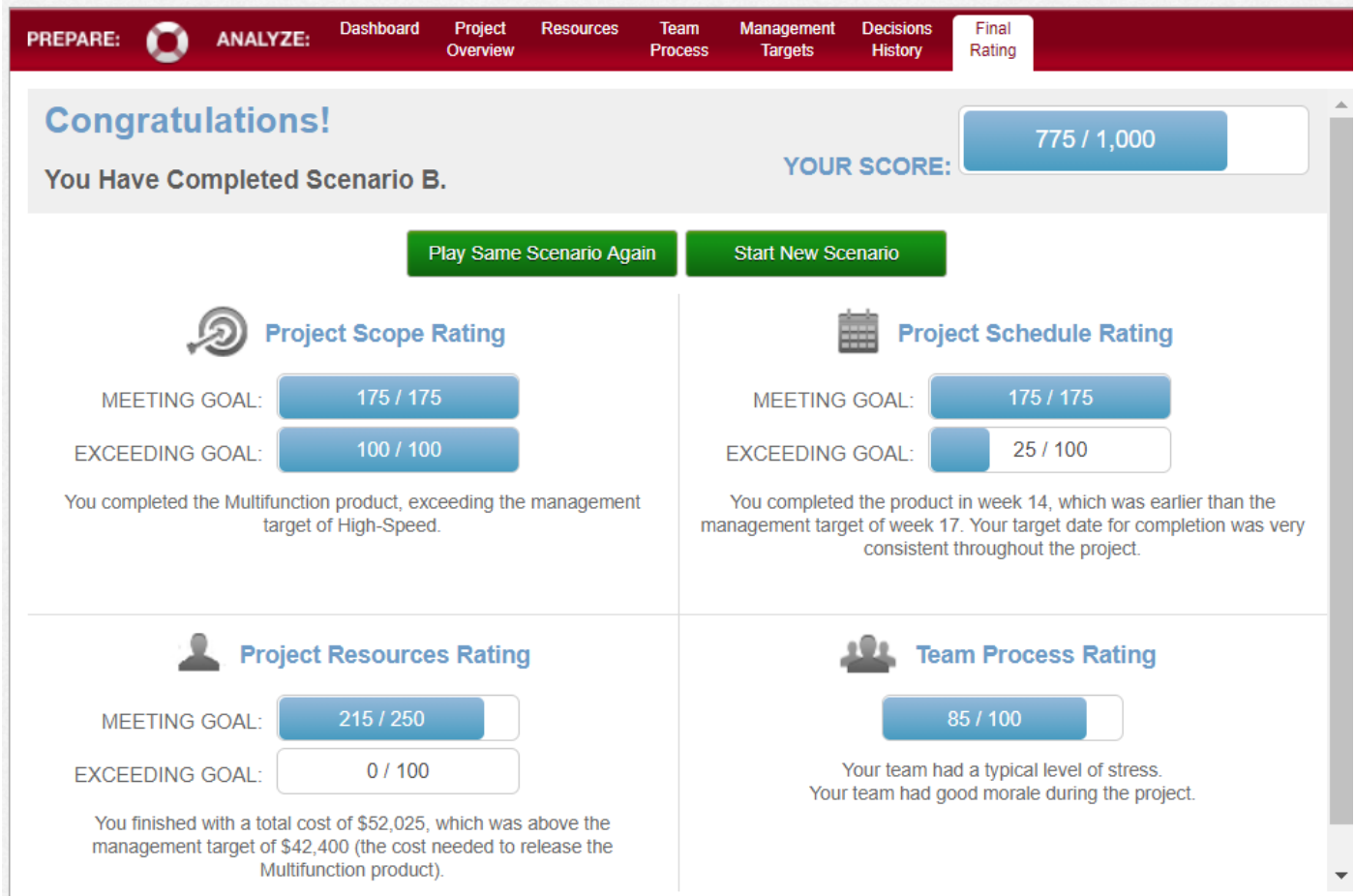


Fig a) Score Achieved in Scenario B

Scenario C

In this scenario, the management assigned me to deliver a high-speed printer, within 17 weeks, the approximate expenditure with **Target Cost:** \$40,700 and **Morale:** Between 85 - 95%.

Learning from mistakes and different strategies from scenario B, initially I planned the project accordingly and decreased the product delivery time to week 13 i.e. 4 weeks prior to actual deadline, I targeted Level 4 Multifunctional product. As done in the final approach of scenario B I started off with a team size of 5 medium high skilled and thought off maintaining the team size constant throughout the project, ample amount of coaching was delivered but however in week 5 the target scope got preponed to week 12 by the management, now this resulted into extreme pressure on the team, and the team morale was very down and they weren't able to complete the task in the required time frame. Learning from this and understanding from all my failures, I reached upon a final strategy of hiring a small team of 3-4 members highly skilled with extensive outsourcing and coaching in just the initial weeks and increasing the team members after week 5 so that the workload is not too much per person, with stand-ups and status check every alternate week, this resulted upon a very good score.

What I learned while performing these simulations is that ample amount of coaching and status review in the beginning phase not only helped the team members to identify their problems and work on them to solve them, but also resulted into more confident team. Though I delivered the product a week late (Completed Level 4 product exceeding management target) but my target date for completion was consistent, the major drawback in my approach is the excessive stress on team, slightly overbudgeted and morale problems experienced by the team

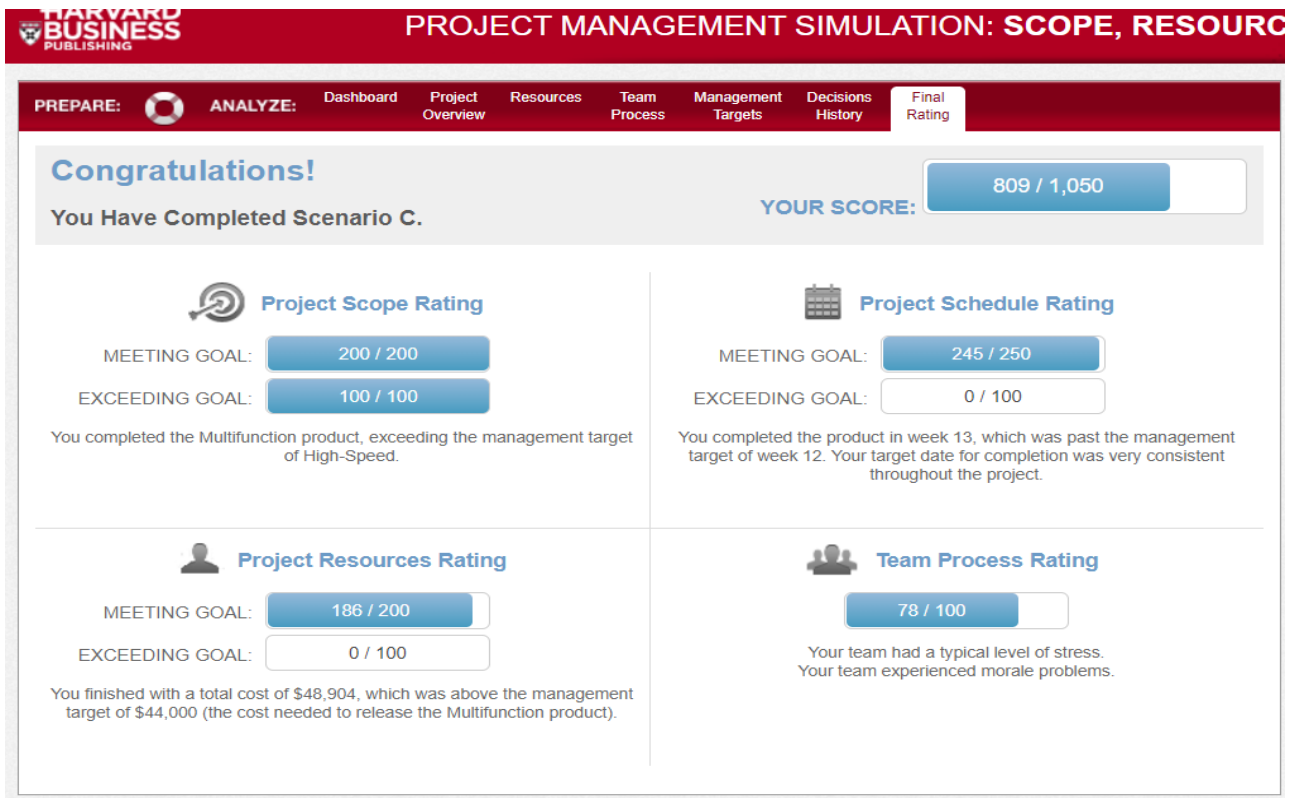


Fig b) Highest Score for Scenario C


Scenario X:

In this scenario the management defined the following objectives - **Target Scope:** Multifunction, **Target Schedule:** Week 15, **Target Cost:** \$50,000, **Morale:** Between 85 - 95%. However in the beginning I thought this would be easier task since the budget was increased from scenario B and scenario C, though the target scope was decreased to week 15 but since I was able to deliver the product in 14 weeks in scenario B and 13 weeks in scenario C, I was pretty confident.

I started the simulation with the same approach that resulted in my highest score in scenario C, but the very first challenge I faced was **failure of prototype**- which resulted into loss of all the achieved tasks, this moulded my approach and I learned to complete the prototype as early as possible because completion of 1st prototype in the early stages gives more room for correction (as the team can figure out the issues in the prototype early) i.e. it gives more time to the team to cope up so that they could fix all the flaws in the next prototype. My approach of hiring a 4-6 member team medium-highly skilled with moderate outsourcing and an early prototype showed good results and the team was able to manage stress levels and had good morale but during week 10 there was an information about the ambitious product of our competitor, in order to survive the fierce competition in the market and to take ample amount of market share we also needed to add some good features in our product, this led to an increase of 30 tasks- the team got bored during the final weeks. After reanalysing my strategies and after numerous iterations the score improved.

Learning from all these aspects and jotting down all the circumstances that could occur while releasing a product, I preponed the target scope to week 8 and hired a large team of 10 medium skilled and focused on extensive outsourcing in order to control the budget and to reduce workload on the team so that they can deliver the required tasks well on time, One-on-One coaching was delivered throughout the process so that the medium skilled team can work efficiently as high skilled team, status check and stand-ups clarified their issues in the early stage itself- this approach had various drawback such as product went overbudgeted, team was highly stressed and were facing morale issues.

PREPARE:



ANALYZE:

Dashboard

Project Overview

Resources

Team Process

Management Targets

Decisions History

Final Rating

Decisions History

WEEK 8

Wk.	Target Scope	Target Cmpltn.	Team Size	Team Skill Level	Outsourcing
8	Multifunction	8	10	Medium	Extensive
7	Multifunction	8	10	Medium	Extensive
6	Multifunction	8	10	Medium	Extensive
5	Multifunction	8	10	Medium	Extensive
4	Multifunction	8	10	Medium	Extensive
3	Multifunction	8	10	Medium	Extensive

Fig c) Decision History throughout Scenario X

CONGRATULATIONS!
You Have Completed Scenario X.

YOUR SCORE: 725 / 1,000

[Play Same Scenario Again](#)

Project Scope Rating

MEETING GOAL: 300 / 300

EXCEEDING GOAL: 0 / 0

You completed the Multifunction product, meeting the target set by management.

Project Schedule Rating

MEETING GOAL: 100 / 100

EXCEEDING GOAL: 93 / 100

You completed the product in week 8, which was earlier than the management target of week 15. Your target date for completion was very consistent throughout the project.

Project Resources Rating

MEETING GOAL: 168 / 200

EXCEEDING GOAL: 0 / 200

You finished with a total cost of \$63,000, which was above the management target of \$50,000.

Team Process Rating

64 / 100

Your team experienced stress during the project.
Your team experienced morale problems.

Fig d) High Score Achieved in Scenario X

Conclusion

After analysing various approaches/strategies being used in all these scenarios and after scrutinizing different outcomes for various scenarios I conclude that in order to achieve good results one should focus upon cost, scope and schedule altogether while maintaining good overall team morale. Well I also observed that a proper budget allows a project manager to plan accordingly, superficial targets harms the morale of the team and one should plan a project while taking in mind several pragmatic challenges such as mid project staffing crisis, preponing of targets or failure of prototype that may occur during the process. The key to a medium skilled team to perform very well is extensive one-on-one coaching during the initial phase so that the team knows what they need to build. Building a prototype in early stages seems very helpful. If there is a high workload on the team a project manager should go for outsourcing, outsourcing just not reduces stress from the team but also is cost effective and saves time that helps in meeting deadlines. Overtime shows has positive effect for the success of the project, and it should be allowed/encouraged. Stand-ups play a major role in team development as these meeting not only would increase the knowledge of team but also provide a better understanding of project same goes with status review- this helps the team to resolve its problem and help them to understand and perform their tasks well , it should be held every alternative week.

My idea behind all the simulations was consistency be it in scope, cost, team-size as this not only helps in achieving the target but also keeps the team morale high. Though in many scenarios the budget was compromised, but the team was able to achieve several other targets. After performing these simulations, I realized the most important skill of a project manager should be situation analysis for supporting the decision making.