

CSM Practicing Certification Renewal Assessment

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Background: I worked on multiple scrum projects at a major airline in the past year. In this document I will describe three of them in various ways, in response to various questions.

Project 1 (P1) – I served as Scrum Master. There were eight people on the team, and it was the organization’s first seriously agile project. As part of P1 I identified potential Scrum Masters for future projects.

Project 2 (P2) – I serve as the Scrum Master’s coach. There are approximately 12 people on the team, and it is ongoing. This team’s core is the same as for P1.

Project 3 (P3) – I serve as the Scrum Master’s coach. There are approximately 8 people on the team *it has grown from 4 people to start), and it is ongoing.

1. *Describe projects on which you have used Scrum over the last twelve months.*
Describe:

- Purpose - what business goal was the project intended to deliver?

P1 – begin to implement new “partner award” functionality on the web. That is, you were going to be able to redeem earned travel miles to get flights on other (partner) airlines. There are ongoing projects to continue this to other partners.

P2 – to rewrite middle-tier code into C# and (generally) to move from .ASP code to .NET. And, of course, there are multiple “as long as we’re here” add-on requirements.

P3 – to provide a central repository for performance (and other) data about operations. These data come from a number of legacy systems that are all being integrated in this project.

- Length - what was the duration of the project?

P1 – 4 months

P2, P3 – ongoing, ending in mid-2005 or so...

- Cost - what were the budgeted and actual costs?

Not relevant, as these projects were just part of ongoing IT operations. However, when P1 finished the CTO said “I never thought they could do it...” indicating that they finished earlier than expected.

- Value - what were the projected benefits and actual (if measured) actual benefits?

P1 is actually delivering value. I, myself, redeemed miles for an flight to Baton Rouge on another airline. There have been almost no bugs reported.

P2, P3 – ongoing, but customers are excited (especially about P3)

- Size - how many people were on the project team(s), how were they organized into teams?

P1, 8 people, internally organized into three teams, Shopping, Booking, and Analysis/Test.

P2 – same basic organization as for P1

P3 – a single cross-functional team

- Teams - were the teams cross-functional and self-organizing? Were the teams collocated in an open space? Were the teams physically separated within one location, or located in more than one physical location?

All teams were cross-functional and self-organizing.

P1,P2 – However, the waterfall attractor is strong within the core team for P1 and P2. Hence, they tend to segregate into their pre-scrum sub-teams. We work on this constantly. They are all in the same location, in individual cubicles. There is a lot of walking around and pairing – it increases every day.

P3 has been an integrated team since day 1. They have a team room where 3 of them actually work full-time. Another office holds most of the rest of the team. Unfortunately, one person is downstairs. It looks like this: analysts in one room (customer team), developers in another room (developer team), and the test guru downstairs. Not perfect, but the best they've got.

- Initiation - how was the project initiated? How was the team trained to use the Scrum process?

The CTO, some Directors, and lead architect wanted to go agile, so they worked with us on a plan to do so. I have trained approximately 100 people in the organization on “Agile Best Practices”, which are very scrum-like, with use cases at the analytic end, and XP thrown in at the bottom.

- Reporting - how did you report progress to management and the customers?

Main mechanism is the “show and tell” at the end of each iteration. Then our Customers spread the work themselves within management. The customers do a good job of protecting the team.

- Change - what difficulties were surfaced by Scrum that had to be resolved? How were these resolved?

P1 was about learning to work and play together. It was a daily struggle to get people to talk. We just wore away at them in the daily scrums...

P2 had some personnel problems that were handled by kicking people off the team. This was a team decision, with 1-2 dissenters, and they got over it pretty quickly

P3 had no real problems – a dream to work with from day one.

- Management - what was the previous role of the ScrumMaster? Who took on the role of Product Owner? To what degree were they successful in fulfilling their roles?

P1 used me as the Scrum Master, with gradual handoff to a project manager playing the role. He did a good job and is now off running his own teams with minimal coaching from me. The Product Owner was played by an e-Commerce analyst that understood the partner awards problem inside and out.

P2's Scrum Master is a business analyst and tester. She actually works on the team, and does a very good job managing the health of the team. The Product Owner for P1 is actually the team itself. It consists of subject matter experts (for the most part), and decides what to do next with some minimal guidance from management. This works because the problem is mostly one of rewriting middleware, and the developers are the owners of the middleware

P3's Scrum Master is a trained Project Manager with an agile streak. She is wonderful. P3 has a number of stakeholders from the business side, but two of them have self-identified as the Product Owners. It works out well, as the BAs on the team work with them for 3 2-hour meetings a week.

- Engineering - what software engineering practices or environment had to be changed?

All projects are moving into the .NET environment, so lots of C# training was needed. They are also trying to work with a framework developed by the architecture team, so they must work with (and be validated by) architects along the way. Their build process needed work, so they have had to jump on that, too. And, provide value as they go. It has been a challenge, but they're moving along...

- Stabilization - for how long did the software have to be stabilized before it could be released? How did you structure this stabilization process?

P1 released its code to QA knowing that they were in for an "integration hell" – and they got it. It took 6 weeks to get the software out the door.

P2 learned its lesson and is doing weekly integrations across the team and the product...

- Success - to what degree was the project successful? To what degree was the Scrum process instrumental in the success of the project?

All three projects have been seen as successful, and agility has been seen as the main reason. They are starting new scrum teams at the rate of one a month. They have about 8 or so going right now. As I like to say, “we’re infecting the organization, one cubicle at a time”

- Scrum Process - to what degree was the Scrum process implemented "out of the box?" To what degree did you have to modify the Scrum process for this project? For each modification, how did you formulate the modification so that the basic inspect/adapt mechanisms continued to function? What parts of Scrum couldn't be implemented, or failed, and why?

We never considered implementing the scrum process “out of the box”. We added the scrum concepts to our toolbox and went for it. We use the retrospection mechanism quite a lot to figure out “how we’re doing” and are always tweaking the process.

2. *How do you cause the accuracy of Product Backlog estimates to improve? To what degree does their accuracy matter?*

We found that the Product Backlog estimates are largely irrelevant. The teams see movement and they’re confident that they are moving fast enough. P2 is now working with more ceremony to capture accurate burn-down charts in order to actually quantify speed, but it seems to me that this is largely because they got a new PM (not the Scrum Master) who thinks that it’s a good thing to do. I told him to go ahead as we may learn something – but don’t have an impact on the team as you do it.

3. *How do you cause the accuracy of what a team commits to for a Sprint to what the team actually delivers?*

We have a Sprint goal listed as a set of bullets – we call them milestones. We usually get some reasonable approximation of them done. However, we allow the PBIs movement to be very fluid.

4. *What metrics do you use to track the development process? Which metrics have been changed, removed, or newly implemented as a result of using Scrum?*

In P3 we’ve taken to organizing the Backlog into a WBS so that we can see how we’re doing in various areas. We’re not doing anything formal – just putting the PBIs on the wall in the appropriate place, and marking them “to do” or “done” so that we can get a visual.

5. *What type of training, resources, or tools would best help you successfully employ Scrum in the future?*

We’re focusing our training around the concepts of Business Value and adaptability. This works for us. We don’t need a tool for these teams, but we see the need for a next generation of ScrumWorks (or something like it) as we bring ability to big, waterfallish,

high-ceremony organizations. They expect some ceremony, so we've got to give it to them.

6. *(Optional) Scrum and Extreme Programming are sometimes used together. What must be considered when this is done?*

I think that the main thing is not to let the Customer Team and Developer Teams act as two different teams. I see Scrum surrounding XP as a natural thing, but that the planning game then must include both Customer and Developer tasks, with more fluid movement between the two. I like to see cross-functional pairing as much as possible. I like to do cross-functional validation as a requirement for almost all tasks.