

CSM Practicing Certification Renewal Assessment

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Scrum depends on the inspect and adapt mechanisms of process control to manage the complexity of projects. For inspection to work, everyone must know what is being made visible. To implement the Scrum process, such regulating mechanisms as defined roles, involvement versus commitment, time-boxes, and regular cycles are used.

1. Describe one project on which you have used Scrum over the last twelve months. Describe:
 - Purpose - what business goal was the project intended to deliver?
The client was the Transportation Security Administration, Office of Credentialing and Vetting. The team developed the Screening Gateway. The Screening Gateway replaces the process that required TSA to accept paper applications and then manually compare the information provided to information contained in a number of disparate data sets, such as FBI criminal records files. The Screening Gateway automates that process by automatically checking the information provided against those same data files, aggregating the results, and then using a sophisticated scoring and modeling engine to determine suitability.
 - Length - what was the duration of the project?
The project has been ongoing for 3 years.
 - Cost - what were the budgeted and actual costs?
The project was worth several million dollars with a cost variance of 10-15%. I cannot disclose actual values.
 - Value - what were the projected benefits and actual (if measured) actual benefits?
The gateway did greatly increase the productivity of adjudicators who previously poured over reams of paper to do the same work. Without the system, the current volume of processed applications could not be accomplished.
 - Size - how many people were on the project team(s), how were they organized into teams?
The project team consisted of 7-10 individuals
 - 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?
Teams' members were in 3 separate locations, working for 4 employers, in a prime-sub-sub relationship. We embraced technology such as instant messaging, telephone conferences and NetMeeting to accomplish scrum meetings and collaboration activities.
 - Initiation - how was the project initiated? How was the team trained to use the Scrum process?
The project was initiated as a standard waterfall approach. I joined the company/project towards the latter half of implementation. The project was being run using MS project and excel to track activities. I introduced SCRUM as an approach and walked everyone through it. I used PPT presentations I created and pointed people to controlchoas.com. IN addition I did one on ones with everyone to make sure they were comfortable with the concepts and the process. This included senior management, the prime contractor and the product owner.
 - Reporting - how did you report progress to management and the customers?
The customer became much more involved in the process with the team. Instead of communication being stovepipe through organizations, the customer began to come to the team for information. Reporting to management was done on several fronts. Company M&A currently looks for utilization and milestones, which is easily facilitated by the scrum backlog. Additionally I created a Gantt chart view of the backlog (in excel) to show overall completion of the sprints, and

of each goal.

- Change - what difficulties were surfaced by Scrum that had to be resolved? How were these resolved?
General team collaboration was greatly improved. Previously team members would simply throw information "over the wall". This forces collaboration at first, then allows it to flow naturally.
- 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?
The ScrumMaster was the development manager. In some cases he served as the product owner for the first few sprints to get the process running, then the end customer was brought in once Scrum was established and running well internally. This was done as a way to get Scrum established prior to customer introduction so that there was a working model in place. The Scrum master began deferring to the customer/product owner in subsequent sprints.
- Engineering - what software engineering practices or environment had to be changed?
The focus on inspection of product and on review of deliverables (code, design, etc) became much more interactive and less paper-based. The team is undergoing assessment for CMMI- level 2 and we kept the process as lightweight as possible. Much of what was done involved the introduction of quick checklists to fulfill QA measures that could not be fulfilled by the backlog. In addition, the design process became much more interactive as some of it was needed in each sprint planning session. Requirement reviews were also blended much more closely with test reviews as collaboration between those roles became much more adaptive.
- Stabilization - for how long did the software have to be stabilized before it could be released? How did you structure this stabilization process?
The team strove to deliver production quality code for each Sprint, thus eliminating the need for formal stabilization sprints. In some cases, a 2 week period in the first half of the follow-on sprint was needed to address issues uncovered and deferred from the previous sprint. This activity was approved by the product owner as many of the issues were minor usability to irritating bugs and did not drastically hinder the system. In many cases the product owner(s) were unclear in what they really wanted so the team did their best to deliver within each sprint what was agreed to during planning.
- Success - to what degree was the project successful? To what degree was the Scrum process instrumental in the success of the project?
The project resulted in the first and only system for credentialing and vetting within TSA. The SCRUM process cut cycle time, improved quality and communication and was able to demonstrate a schedule variance after several months of implementation to less than 1.9%.
- 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?
For the most part Scrum was implemented out of the box. We did have meetings every other day, as daily meets began to be seen as obsessive and the team worked well enough to cut back to every 2 days. To meet CMMI level 2 certification practices Scrum fit very well, and actually enabled the process. We had to go back and tailor some of the CMMi practices to be reflective of Scrum.

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

Much of the project was Time and Materials, with Not to Exceed Clauses so estimates

are very important. As ScrumMaster I typically challenged the team on their estimates for validity and forced them into design sessions to further flush out the problem if differences still existed between team members. We also had several discussions about the inclusion of “desk time” or think time, as well as what does “done” mean.

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

When the team commits to a goal or an implementation it is important to keep the entire team (product owner included) focused on the goals and minimize noise from contract administration, relationship positioning and other influences caused by the many sub contractors involved in the project. I have never had to cancel a sprint, but have changed many goals – but only under total team commitment. We have also had several discussions that have led to better performance around what done means and what production quality is really means.

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?

We have been using earned value calculations to track project performance and looking at cost and schedule variances. In addition we look at the utilization of staff and actual date milestones. All of these were newly implemented on my arrival, but not as a result of Scrum; it just made it easier to report on.

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

This really depends on how people process information. Some found it very useful to read the Scrum books (the 2 by Ken) and some found it very useful to listen and observe. Having attended the training class was very helpful. I think an advanced class would help for ScrumMasters that have been in the field for a few years as a means of sharing knowledge among them and in tackling real-world situations.

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