

Failing in Agile Projects – with or without an Iteration Manager

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Abstract

The object of this paper is to invigorate discussion around the best and worst practices for Iteration Managers (IM) within Agile Software Development Projects. This paper is a “tongue in cheek” discussion of the ways to ensure that your Agile Project fails or worse still, fails slowly rather than being terminated. This paper describes the “smell” that you will get as the project slowly goes bad. By looking at prior mistakes and lessons learnt this paper is designed to guide future IM’s. The author approaches the role of IM from a business (non technical) perspective.

Keywords: Agile, Iteration Management, Analyst, development, smells, mistakes

1 Introduction

This paper reviews a dozen mistakes that the author has made, observed or gathered from prior experience with Agile projects. With each mistake there was a “hint” or “smell” that something was not right [1]. Each of these issues will influence at least one of the three key factors in the success of all projects being User involvement, Executive Management support or clear user requirements [2].

The author’s Agile and IM experiences have been with the implementation of data quality solutions, the development of Front End Java applications and integration of an Access and Identity Management platform to Suncorp applications.

2 No Iteration Manager

Fail - Projects that rely solely on a Project Manager (PM) and have no Iteration Manager (IM) will have “smells”. These “smells” are likely to include missed iteration development targets, delayed technical activities leading to technical debt, the technical team looking lost and the stakeholders feeling “managed”.

Succeed - These “smells” can be cleared with the engagement of an IM. This person is a permanent team member who is also responsible for some other aspect of the project delivery (e.g. analysis, development or testing).

Distinctly, the IM is an internally focused role with responsibility for the iteration workload and workflow.

A primary deliverable of the IM is ensuring that the iterations are consistently delivered by removing the impediments through team communication [3].

On the other hand, it is critical that the PM allocates the roles and responsibilities early in the project. This is a crucial first step as it ensures that from the outset all staff understands their roles and responsibilities. Without this step preliminary meetings can lack direction, purpose and be unproductive.

More importantly, the PM’s role includes external facing functions. The Project Manager is responsible to the stakeholders for delivering the project, funding, resourcing and progress reporting.

3 Staff competing to be IM

Fail – If the PM delays the allocation of roles and multiple staff (e.g. the analyst and technical lead) are both competing to be IM, then this project will begin to have “smells”. Meetings will not be facilitated and will lack focus. The Developers will email the broad project group. They will not fully understand what they are building, why they are building it and what the Product Owner’s definition of success is.

Succeed – The PM selects the person who can complete their delivery role (Developer, Analyst, Tester) along with the IM role. This person also possesses the confidence to be a servant leader. That is; a leader who is actively involved in facilitating the process and removing obstacles for the developers. They must also possess the required organising, facilitation and problem solving skills.

Iteration Managers require the ability to remove development blockers, agree priorities, provide reporting and to facilitate showcases, retrospectives and kickoffs. It is the IM’s role to ensure that the backlog is ranked by priority and to maintain the workflow and workload balanced.

Both technical staff and non technical staff are qualified to complete the role of the Iteration Manager or Scrum Master. The type of project, the balance of the personalities on a project combined with the skills and experience of an individual all contribute to the decision of who should fill the IM role.

4 Missing the Agile Point

Fail – The developers and product owners are not in close proximity and/or just are not talking; the IM is controlling and bossing. Passionate creativity died in the first meeting. These are the “smells” where one or many of the team are missing the Agile point.

Succeed - Two of the key strengths of Agile are staff motivation and feedback. With a tight feedback cycle mistakes can be discovered quickly, reacted upon and improvement prioritized and agreed. The key is keeping the owner of the solution informed and in close proximity to the Developers for prioritisation, business process and user interface decisions.

Stand-ups, which are brief updates on status and impediments, should be motivating, where people discuss their achievements from the previous day, the things they want to accomplish today and the blockers that are stopping them from achieving their goals.

5 Inconsistent estimates

Fail – The Technical Lead assumes that all Developers can work at his pace. A large proportion of story cards have high time estimates. Story cards that sound similar have vastly different time estimates. These are the “smells” of an inconsistent estimation process.

Succeed - It is recommended that you use points rather than time for the estimation of story cards. Wherever possible we need to remove the estimator’s bias for the skill and knowledge compared to the developers who actually do the work [4].

The first step in estimating is to review the business process and to establish what steps are missing from this process. We then found that it helps if we break cards down into general work categories. For example:

- 1 point – field change,
- 2 points – logic and field change,
- 3 points – logic and table change,
- 5 points – multiple logic and table points,
- 8 points – integration points,
- 13 points – multiple integration points.

Any story card with 8 points or more needs to be broken down further.

In order to work out what could be completed in an iteration, randomly select a sample of estimated cards, hide the story point score and agree what the team could complete in one iteration. Repeating with different combinations of cards and an average velocity will be discovered.

Guide the business back to the discussion of tradeoffs, business process and quantification of business benefits to help them select the cards which are “must haves” over “should haves”, “could haves” and “won’t haves”.

6 Over estimation

Fail –It is unlikely that you have Executive Management support or the benefits outweigh the costs, if you are expected to estimate on every component of the future project.

Succeed - Project estimating can be as simple as multiplying the cost of your available resources by the number of weeks until the project is due to go live.

This should be a good indication of the cost to start or stop the project.

If there is sufficient return on investment, begin completing the highest value elements. If the numbers do not stack up, shut it down before development. Once the Product Owner has seen the highest value elements released, the remaining scope is often revised.

7 No tracking

Fail – When the IM is not able to precisely answer the question “where are we up to?” or is unsure of the outstanding story cards required to complete the iteration and has no ‘big visible chart’ close to hand, then you have poor tracking “smells”.

Succeed - Tracking the story cards and the changes to these through the lifecycle of the project is crucial to the success of the project. As such it is important that you keep your story cards in a single place that track changes, show work agreed for the iteration, work remaining and the point’s allocation and hours. Without this; you are flying blind for the iteration. Tools like Mingle and JIRA allow you to draw up burn down charts and keep track of the next priority in the queue.

8 Shortcut on big visual aids.

Fail – The “smells” from an Agile project with no big visual aids are some of the most pungent. The same people are raising the same issues. Stand-ups are not focused on story cards and management cannot get a feeling for the progress of the project. Worse still, as the Iteration Manager you may become immune to some of the project smells and may be blissfully unaware of the impending troubles.

Succeed - Feedback is crucial; story carding and reporting can be as simple as a sentence on a card and a couple of lines on a chart. Replicate the story wall chart on a wall close to where the stand-ups are held so that developers can call out the card numbers and the work completed and remaining.

9 No User Interface Specialist

Fail – When you see Developers experimenting with colour palates and screen with bright colours, controls seemingly placed at random you have UI “smells”. These smells really get bad when the user does not feel like they have it “all at their command”.

Succeed - Applications with user interfaces need to consider how well the design solves the business needs. There are a series of questions that need to be considered to ensure business needs are met [5]. An understanding of the problem will help create a shape for the UI and enough understanding of the user behaviour is also required to refine and usability test the shape. To guide the design a Business needs to be two iterations ahead – one iteration ahead for UI

development and one more iteration ahead for elaboration of cards and test cases.

10 No retrospectives/showcases

Fail – If you feel like the project is destined to make the same mistakes over and over, the users feel left behind and big issues are being avoided, these are the “smells” from skipping the essential review meetings.

Succeed – For Agile to succeed you need to be willing and able to have honest and tough conversations in retrospectives and showcases. First you need to set a social contract that provides “safety” to all that interact. Secondly, you need to get every person to independently complete answers to each question (what we can improve, what went well and what still puzzles me?) Thirdly, these meetings need to be free flowing so that creative ideas on resolving problems can be voiced.

All participants need to trust the process enough to be able to acknowledge improvements that they should make and areas of the project that still puzzles them. Allocate the next actions from these meetings and ensure that these next actions are carded in the tracking system so that these are completed as non-technical tasks in the following iteration.

11 Testing is secondary

Fail – When your Testers are frustrated and feel that they are the last to know about changes, the Testers cannot keep up with the developed story cards, you have some dire Agile “smells”.

Succeed – When your Testers are continually stressed the project is going to struggle. To ensure that business value is generated and risk is mitigated you need to have good proportion of competent Testers. On a typical Agile team you would expect the proportions to be four developers for every two testers for every one analyst. Without the right proportion of Testers cards cannot get through the pipeline to the Product Manager for sign off and then be counted into iteration velocity.

As we are releasing software often there is a need for continual testing. This is completed through a combination of manual and automated testing.

12 Too Many Chickens

Fail – The “smell” starts to offend the core team when daily stand-ups go for more than 15 minutes, where conversations start between non core team members in the standup or specialist conversations go unmetered.

Succeed – To open their Bacon and Eggs Restaurant the chicken just needs to “contribute” but the pig needs to be totally “committed”. The chickens in an Agile project can be senior and knowledgeable employees; however the stand-up is a short meeting held for the core team (the pigs) to gain a gauge on the status of the project. Chickens are welcome but must be observers. Agile works best when specialist conversations are held with the group that attends can either receive value or

give value. People generally like to contribute to meetings, but when there are too many people generally the message is blurred and valuable development time is being wasted.

13 Heavy Iteration Loading

Fail – The “smells” will start early with no iteration zero, no decrease in average velocity for iteration one and the expectation that velocity can be signed off with two large cards on the final day of the iteration.

Succeed - Iteration zero is often skipped or shortened to start a project. It generally needs to be as long as the planned iterations as there is an extensive list of items that should be covered in this set up period.

Until a workflow pipeline and testing handoff process is built up it is over ambitious to try to hit velocity targets in the first iteration. So for the first development iteration (iteration one), do less than half of the planned velocity. The testing and sign off process will take twice as long. Even less than half should be considered if you are attempting to do large cards in this iteration.

14 Conclusions

In the demanding role of Iteration Manager you need to be able to diagnose the odd smell in order to stack the odds in your favour. There will always be a subjective nature to each of these smells and rarely will the smell be the root cause, so the IM will need to think through the long term affect on the project from these issues.

Stay sensitive to these mistakes and smells. If you are able to either preempt these smells, you will step closer toward a successful project. Alternatively, if User involvement, Executive Management support or clear requirements are unavailable, quit the project early and move quickly to a project where these “success” elements are clearly in place.

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