

# Daily Scrum – A Boon or a Curse for the Software Engineers

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**Abstract** – Software Engineering is the major field that deals with software development. Development is not a rough process but they are properly explained using various steps. There are many categories of software development models which are all based on the basic steps like Analysis, Design, Testing, Coding etc. Among them, the most attractive one of today's era is the Scrum methodology, one of agile methodologies. Scrum is famous for its nature of accepting changes at any stages and also its frequent meetings. These meetings are designed for the purpose to achieve good knowledge about the software and about its current state. But the question which should be asked is weather these characteristics of meeting are accepted by the software engineers in the same sense for which it as designed? This paper is focusing on this point and has tried to get to some conclusion.

**Key Words:** scrum, documentation, retrospective meeting, daily scrum, backlog.

## 1. INTRODUCTION

Scrum Methodology is one of the most popular agile methodologies. It has the nature of developing software in small increments and delivering each as a small workable product to the user. To develop an increment, it takes a period of two week to a maximum of one month which is usually termed as a sprint. The basic nature of the scrum is to develop workable product in short life span.

During sprint, it usually follows some steps. They are as follows:

- Sprint planning: the work to be done in a sprint is planned in this.
- Daily scrums: it's a 15-minute meeting in which discussion on what is done yesterday and what will be done today are done.
- The development work
- The Sprint review : this is a meeting which is done at the end of the sprint to verify the increment and to make changes if needed
- The Sprint retrospective: This is a meeting after sprint review and before next sprint. It is decide on

certain improvements that they should follow for the next sprint.

From this it's clear that, among 5 steps four are meetings. Meetings play the major role in a sprint. They are supposed to make communication easy and to make team members up to date regarding the development. They help the team members to understand the requirements well. In short its actually a process that transfers data, clarifies requirements and decides the improvements to be brought in the next sprint.

This paper throws light on the daily scrum of the sprint and the prospective of the people working in scrum towards them. It checks weather the daily scrum achieve the target for which they are really meant for. A study is also made on this and has tried to provide another approach for the daily Scrum.

## 2. A Sprint and its Meetings

A Sprint is the core part of the Scrum Methodology. All the planning, understanding and development of the increment that is to be delivered is decided and done in a sprint. A sprint is actually a small time period within which we have to complete the whole development of a single increment. A scrum is a collection of such small sprints and each of same time periods. The time period varies from two weeks to around one or two months. During this period different meetings are done , various backlogs and priority lists are made and also a small study regarding the steps that is to be followed to get an improvement in the development of the next sprint is also done. Along with these meetings the development of the increment also is done.

The different types of meetings that we conduct during a sprint are:

- Sprint planning
- Daily scrums
- The Sprint review
- The Sprint retrospective

These meetings are conducted at various times during the time period of a sprint.

## 2.1 Sprint planning

The Sprint Planning meeting plans the work that is to be done during that sprint. The duration of this meeting varies from four hours to eight hours depending on the time period of the Sprint. The whole responsibility of this meeting is of the Scrum Master. He has to ensure that the meeting is conducted correctly, whether all the participants have taken part in the meetings and if understand the real purpose of meeting. The main agenda of the meeting is what to be developed and how to develop the increment in the current sprint.

During this meeting they use the product backlog, the information regarding the recently developed sprint, information regarding the capacity and performance of the team as the input. After the meeting they decide about the functionality to be developed during the sprint. The scrum team also develops the Sprint Goal which provides the reason for developing the product increment. A Sprint Backlog is created during this meeting which have some of the functionalities from the Product Backlog and plan regarding its development. By the end of the meeting it can decide about the work to be done in this sprint and also divide the whole work to small tasks with a time period of one day or less. This will help them to track the completion.

## 2.2 Daily Scrum

The Daily Scrum Meeting also known as Daily stand up meeting is the one which is used to improve the knowledge regarding the increment being developed. It throws light to the work that is being done since the last scrum meeting and creates a plan for the day. It is a short meeting of 15 minutes which is conducted at the same place at the same time. The team members would explain his work that he did yesterday and will do today to achieve the sprint goal. He will also explain the obstacles he faced during the achievement of sprint goal. Daily Scrum Meetings helps to improve the communication within the Team, Identify problems faced during the sprint, fast decision-making and to increase the knowledge of the team regarding the sprint.

## 2.3 Sprint Review

A Sprint Review is actually a review of all the work that is done in the last sprint. Its duration varies from 2 hours to 2 hours. Its main goal is to discuss everything regarding the sprint and all the phases that they are gone through, during the development. The main participants should be the scrum team and the stakeholders. With the help of a presentation the product owner explains all the requirements of the product backlog which were selected for the sprint and which all were completed. The meeting discuss on the success achieved, the problem faced and the solution taken

for that. All these matters helps them to make better decisions for the next sprint. Also we get an updated product backlog for the next sprint

## 2.4 Sprint Retrospective

This is the meeting that we conduct in between a sprint review and the next sprint planning which last for an hour to three hours. The core agenda of the meeting is to make the next sprint outcome more effective. For this purpose it makes full study of the last sprint, people, process and tools. Those things which will help to improve the quality of a product are decided. They are then followed for the next sprint.

## 2. DAILY SCRUM AND ITS CHALLENGES

Daily Scrum is the meeting to know the progress of the work till then. It also decides the work for next day. In the meeting they also discuss on the obstacles faced and the measures taken for that. These are all the real objective of a daily scrum. But the real truth, that how much percentage of these objectives is really achieved is a matter to be discussed. The paper throws light on the fact that whether the output of the entire daily scrum is 100% productive.

After interview with various IT Professionals working in Scrum and also after referring many papers of Scrum, we can say that the daily scrum has two sides.

### Merits of Daily Scrum

- Team gets a better idea of the work flow
- Corrections can be made easily in a sprint
- Team members develop a trust between them
- Planning and organization is achieved within the team members.
- Good customer satisfaction

### Demerits of Daily Scrum

- The team members often get deviated from the topic.
- The meetings often results in disputes.
- Usually members are not interested in this daily stand ups due to lack of progress to be presented. A small bug can take the whole day to resolve it so in such cases; there won't be any progress to be presented for the team member.

- Team members may wait up for stand ups for communicating some important information which should be delivered earlier.

### 3. CHANGES THAT SMOOTHEN DAILY SCRUM ISSUES

The main nature of daily scrum does not change. The time duration of the meetings remains 15 Minutes. At this time the members of the meeting inspect the progress towards the Sprint goal and make necessary decisions that could improve the work of the next day. The only two things that changed are the methodology of meeting and the number of daily scrum in a week. Here the daily face to face meeting is changed to the form of documentation. Here each team member is asked to make some documents for each day work based on certain questioners. After each day's work the team member has to mail this document to the Scrum Master. The Scrum master will verify these documents and would make a clear description of what is to be presented in the meeting. By this, the meeting would not deviate from the original data and will be more productive.

The members of the meeting usually gets fed up with the daily meetings. They have spent their time for daily discussion on some issues and in some cases in become the least productive one. Just it turns to be the wastage of time. Hence what we decided is to reduce the number of meetings to once a week so that the members would find some interest to attend it. It's not necessary that all the members be physically present in the meeting, they can also do video conferencing. This would make the availability of the members easier.

This idea was discussed with many persons who are using Scrum Methodology for many years and collected data regarding these changes from them using questioners there response for this change were analyzed and the result is presented below.

Change scrum meetings to documentation and reduce its number from 5 to 1

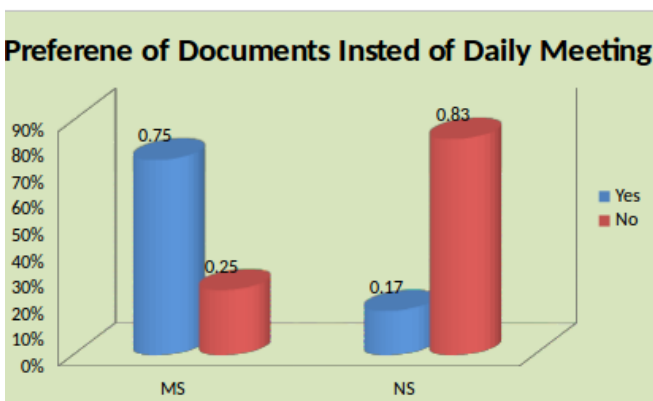


Chart-1: Documented Daily Scrum

From the Above graph it is clear that in Modified Scrum (MS) 75% of the developers agreed that reduce scrum meetings in the form of documentation, only 25% disagreed for such a change. But in Normal Scrum we can see that only 17% agreed for such a change and 83% disagreed for such a change from daily meeting to Documentation.

From the above graph it's clear that the changes were accepted by most of the members when they used the new technique and they feel that this will create a positive change in the mind set of people regarding meeting. They will be more interested and would have some core content to discuss with in the meeting after week of work. Also the meetings will not drive away from the needed agenda.

### 4. CONCLUSIONS

Scrum Methodology has many meetings which are basically for getting good communication between the team members and to improve the future from the lessons learned from the past. Among them the most frequent meeting is the daily scrum, about which the paper has focused much. Both the good and bad sides are given importance and based on that some ideas are introduced. It is tried to find a solution for the weak point of daily scrum and have tried to make it a productive one. Documentation is given a role in the daily scrum and thereby the number of meetings in a week is reduced. By introducing all this, it is tried to reduce the burden of Daily Scrum.

### REFERENCES

- [1] Manju K Mathai, Rakhi Venugopal and Dr. Jhon T Abraham, "Hybrid Model For Software Development," IJRET, eISSN: 2319-1163 | pISSN: 2321-7308, Volume: 05 Issue: 01 | Jan-2016.
- [2] SOUMYADIPTA PAUL and K. JOHN SINGH, "Be Agile: Project Development with Scrum Framework", Journal of Theoretical and Applied Information Technology, 15 June 2012. Vol. 40 No.1, ISSN: 1992-8645, E-ISSN: 1817-3195
- [3] Rakhi Venugopal, Manju K Mathai and Dr. Jhon T Abraham, "Scrum Methodology for Huge Projects," Bharata Mata Journals of Multidisciplinary studies, Volume II, Issue II, Isbn no : 2348-3571, July 2015.
- [4] M. Mahalakshmi, DR. M. Sundararajan, "Traditional SDLC Vs Scrum Methodology - A Comparative Study, Volume 3, Issue 6, June 2013, ISSN 2250-2459, ISO 9001:2008.
- [5] Zahra Askarinejad Amiri, "Challenges and Weaknesses of Agile Method in Enterprise Architecture", IJCSSES Vol.3, No.6, December 2012.
- [6] Malik Hneif, Siew Hock OW, " Review of Agile Methodologies in Software Development, International Journal of Research and Reviews in Applied Sciences ISSN: 2076-734X, EISSN: 2076-7366 Volume 1, Issue 1(October 2009)
- [7] SCRUM Agile framework for completing complex projects[online] Available://http://www.tutorialspoint.com.