D1 - Group Stierna

KPI Estimation Accuracy

One important lesson learned from the Lego-exercise is the benefits of sufficient planning, or rather, the consequences that arise when the planning is rushed. Due to prioritizing the implementation of the user-stories over more elaborate planning-sessions, the estimations of each user-story in relation to the chosen velocity was poor and not representative of the workload. For this reason, it was decided that the group's estimation accuracy shall be one of the KPIs measured throughout the project. To measure this KPI, a burn down-chart or burn up-chart - whichever proves to be best fitting for the group - shall be used. There are two factors that are interesting for this KPI to be significant: firstly, how well the estimations of tasks represent the actual workload, and, secondly, how close the achieved work is to the team's sprint velocity.

Of the three strategies the team decided on using, two are thought to positively affect the estimation accuracy KPI. The first one is to have Daily Scrums. The second is to use the software Trello. Daily Scrums will help the group get a better grasp of the work that is achieved by each group member and will allow everyone to be on the same page in the progress of the sprint. Hopefully, the extra time spent meeting in person will help bring to light any faults in the sprint planning earlier, which will yield a positive effect on following planning sessions. To the greatest extent possible, these meetings shall be held with every group member attending in person, to minimize any miscommunication and maximize the influence of each group member. Trello will be used for the same purposes as Daily Scrum, but will provide the group member the possibility to raise issues and study the state of the progress of the sprint whenever they want. Combining the daily short meetings done in person and the ability to track the progress of the sprint at any given point in time will hopefully yield a positive result in the group's ability to better plan and estimate the workload of sprints.

KPI Happiness

Another lesson that was learned during the Lego-exercise was that team happiness is of paramount importance. One of the things that worked well for the group was that spirits were kept high during the three sprints. Being happy with the products, the workflow, and the rest of the group led to good cooperation and positive results. Prior experiences with group projects say that an unhappy team is an unproductive one, so team happiness shall be a KPI to be measured during the project. This KPI will consist of several smaller KPIs related to overall happiness. These smaller KPIs shall reflect stress-levels, happiness related to the product, happiness related to the team, and happiness related to the workflow. The reason for choosing these four smaller KPIs to make up the entire happiness KPI is that all four contribute to total happiness, but can be in conflict with each other. For example, it would seem reasonable that one is content with a product they spent 80 hours of a week working on, but it would also seem reasonable that this person would be quite stressed. To measure the happiness KPI, a weekly survey will be sent out to the team members to be filled out anonymously at the end of each sprint.

Again, two of the chosen strategies are hoped to be beneficial for the group in regards to this KPI. The first one is, again, Daily Scrum, and the second one is elaborate retrospectives in combination with the happiness-surveys. Daily Scrum will, hopefully, be a forum for group members to raise issues related to their happiness. For the Daily Scrum-meetings, an explicit part of the agenda will be to raise any issues in regards to happiness. Having this explicit part of the agenda is thought to normalize the otherwise stigmatized task of raising issues that can be sensitive. The surveys and the retrospectives will further bring to light any negative trends or faults in the workflow, so that these can be dealt with before they become large issues.

KPI Git

The last lesson learned from the Lego-exercise related to the group's chosen strategies and KPIs is the importance of being organized. This means both that everyone knows what to do, and that everyone knows what the others are doing, all in a controlled manner. For the Lego-exercise, we quickly decided to split the group of 10 people into two teams, to work in parallel on different user-stories. These teams then assigned further tasks to the individual members, so as to make the workflow more efficient. For example, someone would go hunting for the necessary Lego-pieces, while another person would sort through the pieces on the table to find exactly what the people building the structure needed. For software projects, one way of being organized is to utilize Git. There are several KPIs that can be generated from the Git-client, such as number and size of commits, numbers of issues, and more. The combination of these KPIs will be the third KPI that the group will track throughout the project.

The strategy that will be most influential on the Git-KPI will be the usage of Trello. Trello will be used to raise broken-down issues to the group, to then be solved systematically. Hopefully, the systematic approach of raising issues will result in better defined individual tasks, as well as a more systematic approach to solving issues. In previous similar software projects, there were fewer well-defined tasks, and a more loose structure of implementation. This in turn resulted in a less organized project, which will hopefully be prevented by formalizing and structuring the raising of issues and definition of tasks, using Trello.

Summary

To summarize, the chosen KPIs are:

- Estimation Accuracy
- Happiness
- Git

And the chosen strategies, with related KPIs are:

- Daily Scrum
    - Estimation Accuracy, Happiness
- Trello
    - Estimation Accuracy, Git
- Retrospectives and Surveys
    - Happiness