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Acronyms

MBTI – Myers-Briggs Type Indicator

ENFJ – **E**xtravert I**n**tuitive **F**eeling **J**udging

INTJ – **I**ntrovert I**n**tuitive **T**hinking **J**udging

ISTJ – **I**ntrovert **S**ensing **T**hinking **J**udging

ESFJ – **E**xtravert **S**ensing **F**eeling **J**udging

INTP – **I**ntrovert **I**ntuitive **T**hinking **P**erceiving

List of Illustrations

1. Introduction

This report aims to present the development of a five-person team within a university setting having to work on an outcome of a given task. During a short period of time, the members of the team had multiple meetups to discuss the weekly work having different individual tasks based on the branch of the chosen domain, dealt with misunderstandings, scheduled next meetings, and prepared for the final presentation.

The members of the team are a mixture of different personality types of Myers-Briggs Type Indicator test (Myers, 1962), from introverts to extroverts, sensing to intuiting, feeling to thinking and judging to perceiving. Stating the best qualities of each team member, but not all of them.

These combinations made the team development dynamic going through each stage of Tuckman and Jensen's (1977) model for small groups development. The only difference was that the team did not follow a linear order of them.

A quantitative and qualitative data were gathered through different ways: surveys, group chart, group action plan, and results of the MBTI test (Myers, 1962) which were analysed and used to find out overall opinions.

2. Literature Review

In order to gain a higher reflection of the whole process, I use Tuckman's (1965) model of *"Developmental sequence in small groups"* as a helper in analysing my team development at each stage and as a proof of reviewing an academic literature.

"This model was aimed at serving a conceptual function as well as an integrative and organizational one." (Tuckman, 1965, p.396). As a conceptual function we created a team with members that have different personalities; as an integrative function the members of the team already knew each other as being classmates at other units as well; as an organisational function we created a group chat, used the project management application named Trello and agreed on future physical meetups.

Originally, the Tuckman's (1965) group model had only four stages in the team development: forming, storming, norming, and performing. The model was formed after *"50 articles dealing with stages of group development over time"* (Tuckman, 1965, p.384) were analysed. The conclusion of this model was that these four stages make the group *"a functional instrument for dealing with the task"* (Tuckman, 1965, p.396). After twelve years, Tuckman and Jensen (1977) have reviewed twenty-two studies related to the small-group development and they added a fifth stage *"adjourning"* to the hypothesis. Making *"death of the group"* the final stage and an important one for members of the group.

The Tuckman's model presents some restrictions. As he points out in the *"Discussion"* of the hypothesis: *"this literature cannot be considered truly representative of small-group developmental processes"*. Indicating that there was an inequality in representing the group setting: therapy-group being overrepresented and natural-group and laboratory-group being underrepresented. A second limitation is based on the observation of these groups that are made by a subjective party, being orientated on qualitative rather than quantitative observations. Gersick (1988, p.30) states in the *"Toward a new model of group development"* study that teams may not

follow a traditional linear model as presented by Tuckman's (1965) hypothesis. Pointing out that some teams can start performing without a previous conflict or return to a conflict stage after performing stage. Crosta and McConnell's (2010) study challenges the traditional face-to-face group development of Tuckman and Jensen (1977) and affirms that an online group development will have different stages based on multiple factors which will be established by Salmon model of e-moderating (2002). The re-examination of the Tuckman's (1965) model was made a few years later by him together with Jensen (1977) to see if it was experimentally tested. A limitation of the study was found when reviewing the articles, just one article, Runkel et al. (1971) tested this model, but because of the researchers' methodology, the results may not be trustworthy.

Myers-Briggs Type Indicator test (Myers, 1962) is used by the members of the team in order to understand based on what each of us makes decisions and perceives the world. It was created during World War II and first published in 1962. In Pittenger's (1993) research about the MBTI reliability and validity, he states that the test *"forces the complexities of human personality into an artificial and limiting classification"*, reducing the unique qualities that each individual has.

3. Methods

The scope of this study was to analyse how a small team will form and interact with each other within a university project. The purpose of this project was to conduct research related to robotics of the future and to present the findings in front of the class on a specific date. My group was created by five team members: two females and a male studying business information technology, and two males studying information technology management. Few methods that collected both quantitative and qualitative data were used in this process, and they will be briefly summarised.

In the early stage of team life cycle, the members of the team undertook the Myers Briggs Type Indicator test (Myers, 1962), which provided quantitative data regarding their personality. Each of the team members shared their results via Trello page in the designated tab. The qualitative data can be extracted from the WhatsApp chat conversation and from the Trello action plan page.

A third-party feedback was given by the class peers after the team presented the final outcome in front of them and the lecturer. The survey has a mixture of qualitative and quantitative data and it was shared via Microsoft Forms and the results were given to us in an Excel sheet (see Appendix 1). The qualitative data were analysed and classified as congratulations and improvements needed.

In the final stage of our team life cycle, the team created together a survey which gathers both qualitative and quantitative data and it was shared among us using OneDrive Forms (see Appendix 2). Three out of five questions required qualitative data, and the others two a quantitative one. The qualitative data presented a final reflection of the whole team development and it can be split into two: *satisfied* and *could have been better*.

4. Results

4.1. Myers Briggs Type Indicator Test

The above chart is a representation of the results of the Myers Briggs test that all the team members have undertaken at an early stage of the team life cycle.

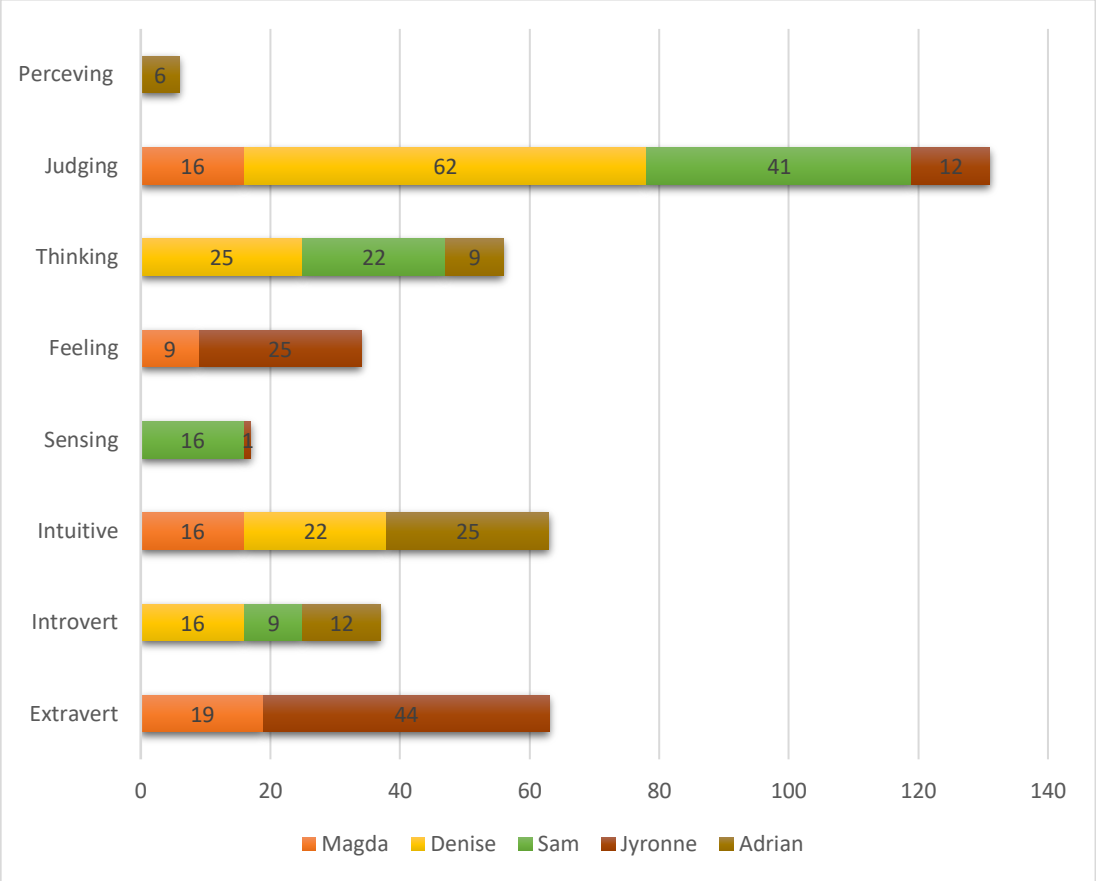


Figure 1: Whole team results of Myers Briggs test

The member who is ENFJ (Magda) is a person who is very engaging, persuasive, talkative and charismatic. Myself who is INTJ is characterised by being curious and naturally talented in seeing *"the big picture"*. The member who is ISTJ (Sam) is someone who has fact-based mind, is honest and calm. The ESFJ one (Jyronne) is someone who is looking after someone's else feelings, being careful with their words and actions, someone warm and sensitive. The last one, INTP (Adrian) is characterised by a person who is reserved, objective and tolerant.

4.2. WhatsApp Data

Analysing the WhatsApp data, at a very early stage of the process we all agree to *"do a bit of our own independent research"* regarding the robotics of the future and to see what it is about.

Moving one week ahead, one of the team members took the initiative and made sure that everyone knows what they need to do and was opened to other suggestions: *"I thought that we can share the topics, e.g.: Denise robotics in medicine, Jy robotics in manufacturing, etc. What do you think?"*.

On the next weeks, some of the members made sure that we are all aware of the meetings that will take place at the university's library, in the group study rooms, for solving possible issues and deciding the future tasks.

Prior to the final presentation date, we all agreed to go to the library in the morning before class and practise the final script that will be used for the PowerPoint presentation.

4.3. Trello Data

Very shortly after the team was formed, a member offered to create a Trello page: *"We need to also create the team on Trello, send me your emails, I can do that"*.

During the whole period of this process, in the WhatsApp chat were lines that address the completed tasks as being posted on Trello: *"My slides are uploaded on Trello already"*, *"The script is on Trello. It's in the priorities tab."*.

The Trello project page is organised properly in different sections (see Appendix 3): *meetings* (which presented the past and next meetings dates), *priorities* (what we need to do first), *to do* (was the weekly tasks), *done* (what we have done on each weekly task) and *Humanmetrics Jung Typology test* tab. We also used the Trello features such as set deadlines, add stickers and labels, and added attachments of the work.

5. Discussion

The dynamic of the team was based on the Tuckman and Jensen (1977) revised group development. The five stages have been seen in our team as follow: forming – we can say that the dependency of friendship formed this team; storming – at some point the high activity of the team dropped and some of the members panicked that the final outcome will not be done on time; norming – in the early stage of the team life cycle, each individual came with suggestions about the given task; performing – each team member accomplished the given tasks mostly on time; adjourning – the team celebrated at Sprinkles the successfully handing in of the presentation.

Although, the Tuckman and Jensen's (1977) model says that each stage needs to be done in order to move to the next one. This was not the case in our team development, we started the performing stage very quickly, but then we went back to the storming stage, because of some small issues related to the weekly tasks. What Gersick (1988, p.30) stated *"the progress was not so much like traditional models […], since it was not so linear"* was very much found in our team development. Furthermore, no one actually was entitled as the leader, but there were members of the team that were more involved in the project than the others.

According to the results of the MBTI test (Myers, 1962), the team was formed with members of highly opposite personalities. Which made the team more dynamic and sparkling, because we had some ups and downs related to the accomplishments of the tasks and the interest given to this project.

Even though we presented the outcome in a unique way, and each of us, in the end, did everything that was necessary to be done. We mostly work on our researched area individually, not as a whole team researching together everything. After each of us had the most interesting facts and questions, we all meet in the library and put everything together in a final script. The script practice was made in the morning of the deadline date, which some of us did not find it very professional as it was not enough time of improving anything that may have not been perfect.

As an overall, the linear model of Tuckman and Jensen's (1977) model was not retrieved stage after stage in our team development process. It was a back and forth between performing and storming which makes it as Crowell (1964) suggested that the group discussion proceeds in iterative cycles, not in linear order.

6. Conclusions

Following this process of the development of the team, the most important key finding is related to the Tuckman and Jensen's (1977) model which were not seen as a waterfall from stage to stage in our group. Proofing that this traditional model is not always applicable as a linear order in small groups. Furthermore, the MBIT test (Myers, 1962) that each of the team members undertook may not be a true reflection of all of the qualities that an individual has.

Another key finding is based on the surveys' answers, which is providing qualitative and quantitative data. It is showing how the members of the team are seeing the inside development and the overall satisfaction of the team development, and how the external individuals are criticising (or not) the final outcome of the whole project.

The process had few limitations, such as the lifetime of the group, which has been integrated as a laboratory-group[1] and the incapability of the members of the team to take part to all of the meetings.

As an overall, even though the team went back and forth from performing to storming, in the end, we performed well and delivered the final outcome in an uncommon style making this team proud and sad about the *"death"* of it.

[1] Laboratory-groups are small groups (under 10 members), having a short life and having or not having leaders. They are brought together to analyse the group development.

7. Reference List

Crosta, L., and McConnell, D., 2010. Challenging the traditional theorisation on group development: An international online perspective. Caledonian Academy, pp.116-124.

Gersick, C.J., 1988. Time and transition in work teams: Toward a new model of group development. Academy of Management journal, 31(1), pp.9-41.

Myers, I.B., 1962. The Myers-Briggs Type Indicator: Manual (1962).

Pittenger, D. J., 1993, Measuring the MBTI…And Coming Up Short. Journal of Career Planning and Placement.

Scheidel, T.M., and Crowell, L. 1964. Idea development in small discussion groups. Quarterly Jorunal of Speech, 50(2), pp.140-145.

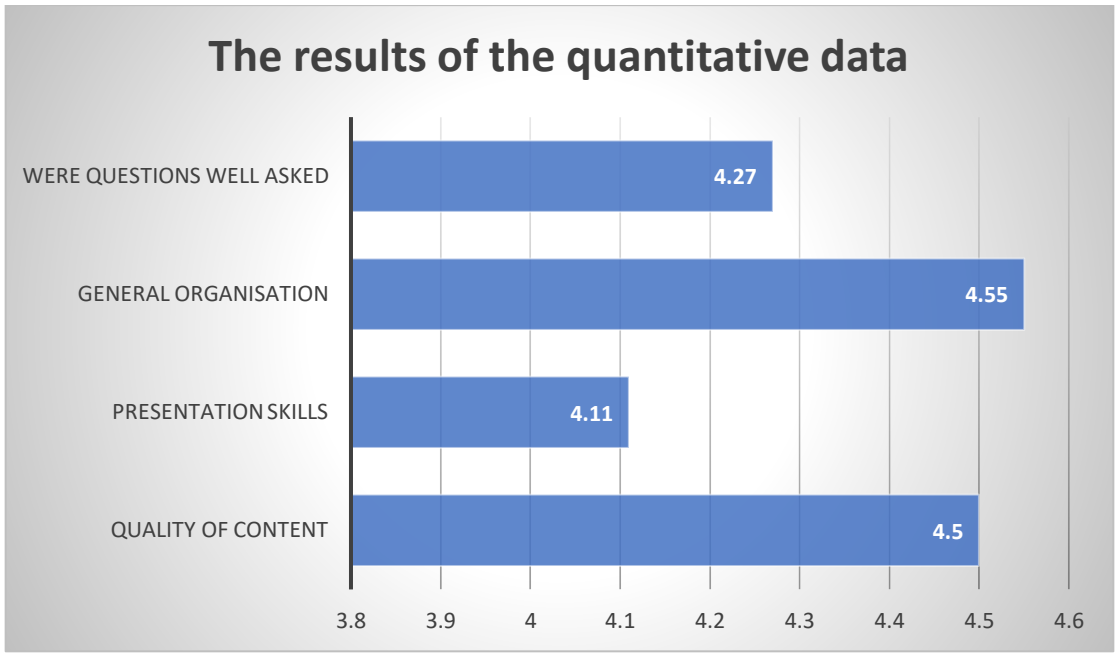
Tuckman, B.W. and Jensen, M.A.C., 1977. Stages of small-group development revisited. Group & Organizational Studies, 2(4), pp.419-427.

Tuckman, B.W., 1965. Developmental sequence in small groups. Psychological bulletin, 63(6), pp.384-399.

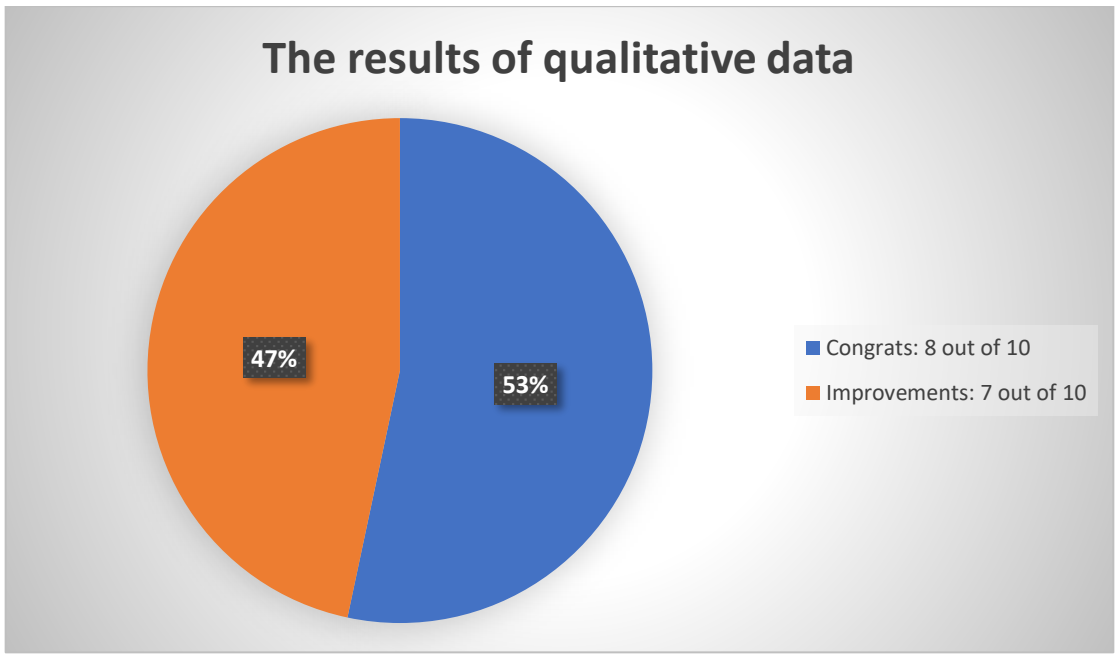
8. Appendices

8.1. Appendix 1: Third-party Survey

Here are presented the results of a survey that our classmates undertook relating our final outcome:

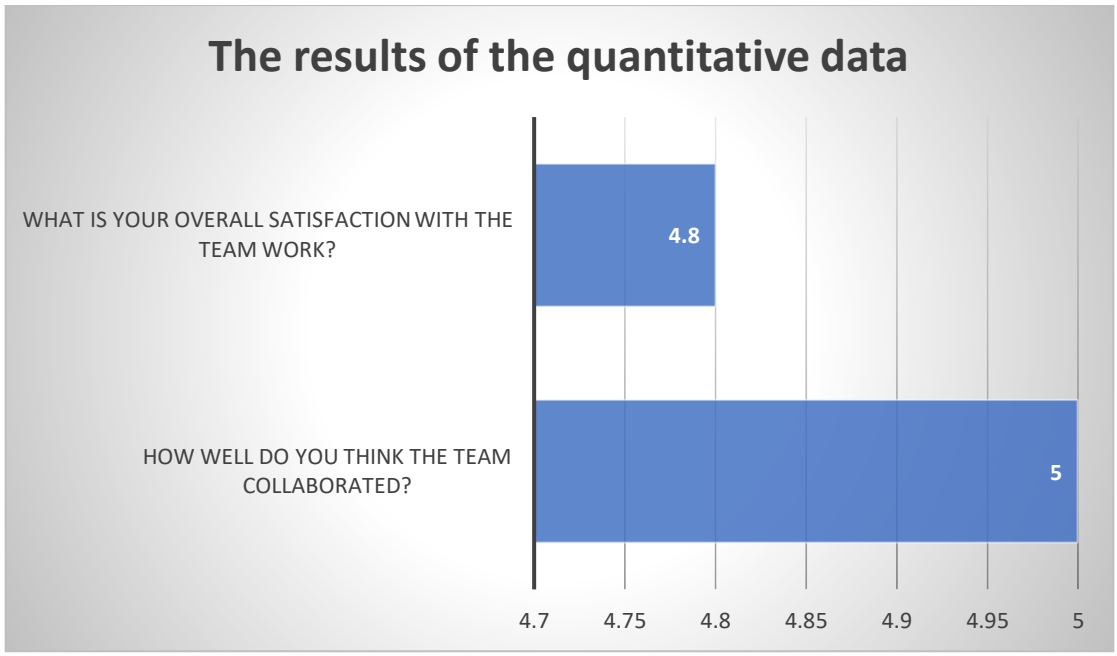


Where there was a qualitative data, it was split into two sections, as showing below:

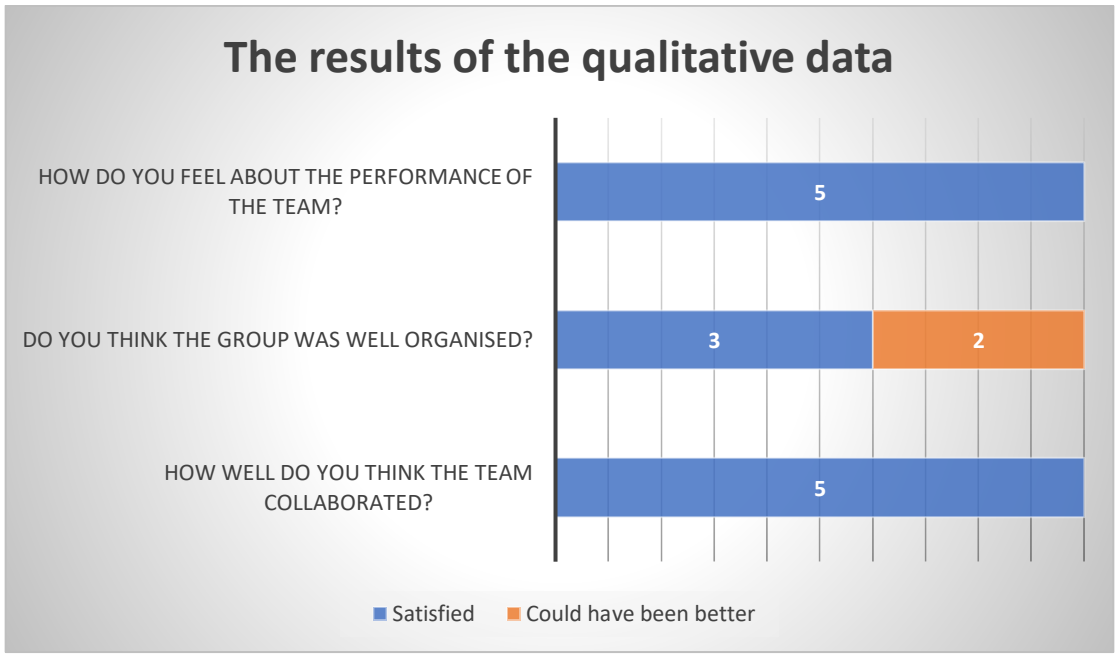


8.2. Appendix 2: Team Survey

The team's survey collected both quantitative and qualitative data. The quantitative data is shown below:



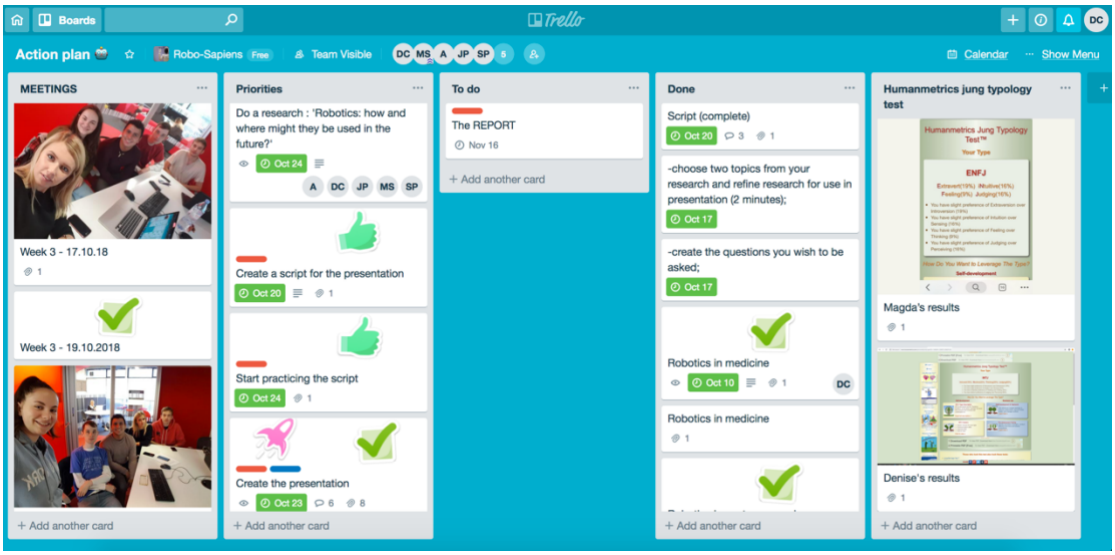
The qualitative data was split into two sections: *satisfied* and *could have been better* based on the text responses that were analysed:



8.3. Appendix 3: Trello Action Plan

The screenshot below is presenting the way of how the team split and named the list cards, in order to make an organised and clear work.

The full action plan of Robo-Sapiens team can be accessed at: https://trello.com/b/sDft7C0E/action-plan-%F0%9F%A4%96



8.4. Appendix 4: Links to Relevant Social Profiles

LinkedIn: https://www.linkedin.com/in/cezara-denise-tineghe/

GitHub: https://github.com/denisect

Twitter: https://twitter.com/DeniseCezara

Behance: https://www.behance.net/denisect

8.5. Appendix 5: My CV

CEZARA DENISE TINEGHE

PERSONAL STATEMENT

I am a second-year student at Solent University studying BSc (Hons) Business Information Technology. I am interested in developing my passion for coding in an IT job. I am motivated to improve my existing skills and I am always willing to learn and develop new ones. I am able to work in team, but I also have the ability to work alone unsupervised. Accuracy, punctuality and paying attention to details characterise my work ethic.

CONTACT

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cezaratineghe@yahoo.co.uk
Southampton, UK
github.com/denisect

EDUCATION

SOLENT UNIVERSITY
BSc (Hons) Business Information Technology
2017-Present

"EMIL RACOVITA" HIGH SCHOOL, BAIA MARE, ROMANIA
Mathematics and Computer Sciences
2013-2017

LANGUAGES

English: Advanced
Romanian: Native

EXPERIENCES

- **Usability Assistant for Student LinkUp Page** 2018
  - My roles were to assist in testing the application and in developing the user interface for a networking platform which will help students share interests and skills.
- **Co-organiser of Southampton.Digital Meetup** 2018
  - It was a monthly social meet-up aimed in bringing together people from different areas of digital scene.
- Autoritatea Electorala Parlamentara (AEP) – **Computer operator** in the electoral office of the polling station of Maramures county 2016
  - Registration of the voters by introducing their personal data into the electronic database and supervising the voting process in the polling station.
- **Volunteer** for Emergency Situations Management 2014-2016

SKILLS

(Computer) Programming Languages: C, HTML & CSS
Adobe: Photoshop & Illustrator
Microsoft Office: Word, Power Point & Excel
Familiar with: MySQL, Python & JavaScript

ACHIVEMENENTS AND COURSES

SOLENT UNIVERSITY
Class Representative 2017-Present

ST JOHN AMBULANCE
Emergency First Aid at Work & Fire Marshal Training 2018-2021

"EMIL RACOVITA" HIGH SCHOOL
Valedictorian (9.76/10) 2013-2017

SAT EXAM 2016
A score of 1140 from a maximum of 1600

CISCO NETWORKING ACADEMY
IT Essentials 5.0 Course (86.24%) 2014-2015