**Final exam:**

Throughout the period of the course “Project Management with Agile methods2”, we were introduced with some of the most important resources. That has certainly assisted us in thriving crucial skills relating to game development. Prototyping, level designing and lean management related skills are some of the accentuating takeaways. These have made the course more efficient and exciting.

During the course commencement, in its initial phase we were tasked to work on 2D game projects. Individuals in the class got the opportunity to switch groups, during both pre and post production phases of the projects. This has made the course more engaging through shared knowledge, among the individuals. In general, the course was designed focusing more on prototyping and ideation in its pre production phase, and then game developing in its post production. The game development also includes the part level designing, which I was a bit new to the thing.

During both pre and post production phases, I was given the chance to work on two amazing 2D game projects, with two different teams. The working experience with two team members have made the journey more incredible throughout the course. It has given me some key-insights regarding physical prototyping, playtesting, lean methodology, remote scrum project management and level design. Some of these takeaways have been narrated down.

**The two key-insights regarding physical prototyping:**

There are many to talk about regarding the physical prototype, but while working on the project in pre-production a few of them I really found to be a bit crucial. In this part of the course we were mainly tasked to develop physical prototypes keeping the game concept as underpinnings. At the beginning of the first project we had taken part in the ideation phase where we mainly came up with different ideas. After a lot of conversation we finally stumbled upon an idea that we all had decided to prototype. Just right after the ideation phase the number of our team members got abridged from 6 to three. After splitting up I got the chance to work on the project Random Arena Rumble. This game concept was a bit exciting and fun in its gameplay, its gameplay has been themed as “Planning randomness”. Before prototyping the chosen concept, we had been through a bit of discussion. In the discussion we mainly focused on “making the game’s gameplay meaningful”. For a meaningful play it’s really important to consider some aspects that I really want to mention about, in this part of the report. A meaningful play mainly emerges from the relationships between the player action and system outcome. So we as a team tried to keep this thing as pivotal as possible and continued researching further to find the most **efficient way to make the relationship ( between the player action and system outcome ) discernible**. This became accessible when we tried to include more meaningful choices in its gameplay, in order to make it a meaningful play. This was the most crucial part of the prototyping process “Random Arena Rumble”. As a team we really worked harder while prototyping the game to make our vision achievable. In our game prototype we mainly tried to give freedom to the players in making choices during the gameplay. The players were able to make their decisions and choose different weapons, but along with the progression in the gameplay the player’s decision created an impact on the game’s gameplay. This has made the game cohesive in its gameplay. So , from this perspective it is clear that in this physical prototyping process, maintaining a discernible relationship between player action and system outcome is one the notable key-insights. Regarding this the physical prototype really assisted a lot in making it easy for us by getting a clear visualisation of the possible systems of the core mechanic. Hence , we were able to make a successive analysis on the systems and make a discernible relation with the outcome. Physical prototyping is the most efficient way to make the vision possible in a concrete manner. As it is relatively cheap and doesn’t need a coder at all to make it happen. That’s why we were able to make so many inclusive choices throughout the prototyping process. Physical prototyping becomes more effective when it comes about visualisation rather than its function. As some of the mechanics are not possible to represent without coding, though in our case we were able to showcase the possible mechanics through the prototype.

Right at this point of this narration, I really want to label the continuous **iterative process** to be the second key-insight from the course or the project. It is really significant to have multiple iterations throughout the physical prototyping process. As it is the most effective way of upgrading and polishing the prototypes. After having the physical prototype of Random Arena Rumble we had been through a lot of iterations. The iterative process executed throughout consecutive play testing sessions. The same pattern of polishing was also found while working on the project Melon wake. So , it’s surely going to be one of the mentionable key-sights. After going through a consecutive testing session we always tried to review the results, this is certainly a crucial step which we all the time tried to follow after each session. Depending on the results we tried to make some changes that we had to do. During the iterations in both the projects “Random Arena Rumble” and “Melon Wake”, we mainly focused on the systemic balance and its relation with the outcome. Keeping those mentioned factors as pivotal we had executed each iteration throughout successive play testing sessions. Regarding the game Random Arena Rumble we mainly focused on the complexity level tieing up with the system “choosing weapon” and “progression”. Focusing on those factors we made changes in our design decision throughout the prototyping session.

Reflecting on the above narration, the two key-insights are the discernible relationship between the players action and system outcome in gameplay, and the continuous iteration process throughout the prototyping session.

**The three key-insights regarding playtesting:**

Throughout the iteration process in each project we had taken part in some effective play testing sessions. This benefited us by making our vision achievable by polishing and upgrading the game at its every stage. Three most significant key-insights have been described below

The first key-insight is certainly going to be the **planning** before any play testing session. While working on both projects we went through a lot of brainstorming sessions. In order to find the exact way for making a play testing session effective. Regarding the plan, we tried to keep everything constructive and concise as possible. As we were given a time bound to run each testing session. Being on time budget, it’s crucial to have a plan layout before running a test, and we had certainly done that in each play testing session in both the projects. Though , I have found it to function more effective while working on the project Random Arena Rumble. During the time of planning a testing session, we should focus on the target audience and the outcome out of it. These things are the most significant steps that we always tried to accomplish while planning for each play testing session.

Planning is not the end before a testing session, it will be a completely foolish thing if we miss its effectiveness due to lack of proper execution. That’s we should know how to run a test in an effective way, so **running a test would** be the second most key-insight. Regarding this, we need a good brainstorming session with the team before the test begins. From my working experience with both the teams we had been through some brainstorming sessions. During the sessions we mainly tried to make our test more effective by focusing on a specific research question, in each test. That helped us a lot in the case of getting constructive and effective data.

In project 1, during the play testing session we mainly went through a bunch of questions that we were looking for upgrading one of the features or the systems of the game. Most of the questions were tied up with a research question that relates to a main feature or system which we were trying to iterate. From my personal perspective, this part was found to be more effective while running the Melon wake tes session. During that period we mainly created an online survey which helped us a lot in case of getting constructive data in an effective way.

After running a test it is crucial to review the results, because that will make it easier for polishing the game or a prototype in an effective way. **Reviewing the results** is gonna be the third key-insight, because it is really important to do this step after running any test. In both the projects this thing assisted us a lot in making an effective iteration.

**The two key-insights of lean methodology:**

Regarding this, the first key-insight would be prioritising the tasks in a proper way avoiding task dependencies. As its application refers to being functioning in a project avoiding any task dependencies, where the team’s goal is to finish the task within a very limited time period. This I certainly experienced while working with the team 4 on “Melon wake”. During the production phase of the game we had implemented the mentioned methodology, and it was pretty effective. Though, it was a bit harder for the inexperienced developers to cope up with the level of pace. So, lean becomes more effective when we have a good prioritised task list avoiding task dependencies.

The second key-insight would be proper communication, here proper contact with the team is really crucial to make the methodology functional at a good pace. While working on Melon wake, we had some issues regarding the thing, cause some of us were beginners as coder that’s why we were lagging behind a bit from that part. So , if we had a very clear connection with everyone then probably that would be good for having a proper task list. This will make the method effective and functional.

**The three key-insights regarding remote scrum methodology:**

The first one would be to have effective online meetings, this means any kind of meeting should be executed effectively with an outcome. As we are working remotely it is important to keep the meetings short and effective with an agenda.

The second key-insight would be, having daily scrum because of working remotely there is a possibility of the individuals to be out of the pace. So, it’s really important to have effective daily scrum.

The third key-insight would be, having a scrum board that could be anything like trello or github. This really helps the individuals to understand the progress and the entire task list for the project, which is constructive and precise. But as a PM it is our concern to update any kind of board every time.

**Bonus key-insight level design:**

Working experience with the team 4 on Melon wake was incredible, because I was able to practice some of my programming and level designing skills through this project. As a level designer it is really important to have a proper balance within the **mechanic and dynamic** in each level. So , it is crucial to have a very good optimization of setting things (assets) up in each level. As I was appreciated for maintaining the thing that’s why it is important to have a proper balance between the mechanic and dynamic of the levels. As this also relates to the systemic balance too.