Time Analysis Group I CITS3200 2016 Biosecurity Game

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Actual Time vs Expected Time

When the project plan was compiled for Deliverable B, it was estimated that 300 hours of work was still required from the group. The estimated time for each task was based on the estimated difficulty of the task and what type of task it was. For example, when analysing programming-based tasks we took the time we thought a task of that difficulty would take and doubled it. However as will be demonstrated, in some instances, the estimates should have been quadrupled to more accurately reflect the actual time they took.
As it stands in Week 11, one week before the project is due, we are at **482.2 hours.**

There is a difference of at least 200 hours in the estimated time compared to the actual time (by the time the project is complete). The reasons for these differences will be explored below by examining time estimates for each deliverable.

Deliverable A and Deliverable B

The Deliverable A and B hours extend from Week 1 to Week 6. During this time, the hours estimated matched the actual hours spent on the project. The estimations were very close to the actual hours due to the predictable nature of the tasks during these weeks. Most of the tasks were simple and manageable; often involving research and completing oTree tutorials. The exact hours for research in total was 36.5 hours (up to Week 6) for the entire group resulting in an average of ~6 hours per person.

All tasks up to week 6 were completed by their required dates and hence no extra time was needed to complete these Deliverables.

Deliverable C
Work on Deliverable C started on Week 7. This is where the actual time started to surpass the estimated time. Not much work was done in Week 7 as most individuals had other projects and assignments to begin or finish. The same could be said for Week 8, except for Joel Dunstan who was able to complete 22 hours that week for a task that should've taken much less time. The task of adding forms to oTree to adjust the session variables so the client could put in variable protection, revenue and upkeep for the game. It was during this task, the issues with oTree started to appear. oTree, being a new platform, is constantly being updated. The latest update was released only eight days ago and added the very feature that had taken 22 hours to implement in Week 8. This is just one example of features that took much longer than anticipated due to oTree being relatively new.

The worst example of this was the Chat Box. The group had made the mistake of not adequately researching oTree's support for chat rooms. This turned out to be a costly mistake. We spent numerous hours searching for options for implementing a chat box, trying out different solutions to no avail. The hours put in by Trae Shaw for the research of the Chat Box was longer than the estimated hours all by itself. The original estimated hours for the Chat Box was 10 hours. However, based on the time spent on the Chat Box this week (week 12), the hours spent on it could be as high as 30 hours. This was not only because of research time but also implementation, which involved building a chat system from scratch.

Problems with oTree's lack of features plagued the group up until the last week when the project started to come together. Other examples of this include Campbell's time spent in the Lottery Game trying to make the Django templates dynamic instead of displaying statically round by round. Martin and Campbell spent 30 hours each in one week developing the Lottery Game alone. Even with so much time spent, the Lottery Game still had not been completed. It was the issues outlined above that quadrupled our estimated hours for a lot of tasks, as each task seemed to require 4-5 hours of research alongside the implementation

Another problem that we encountered as a group was promising a little too much, so when difficulties started to arise we had to put in extra time to finish all the requirements. In the end, we met all the client's requirements and implemented additional features but we did so by heavily exceeding estimates.

The estimated hours for Deliverable C was 186 hours, we are currently at 251 hours and counting.