Process Model: Scrum

We have decided to apply the scrum process model for the development of our project. It is applicable because our team is small and has great cohesion and understanding of the project. Furthermore, the scrum model is ideal due to its dynamic agile approach and the highly modular nature of our project. The implementation of our project will be done in two stages: in the first we will develop the core functional and aesthetic features of the learning tool and in the second we will design the levels and introduce complexity with additional financial instruments.

Each sprint will last one week and we plan to meet twice weekly to discuss progress and future plans. The structure of meeting early and often will be of assistance when faced with the inevitable problems that we will need to solve. It will allow us to frequently focus on working on the biggest issues together, which can help ensure no member of the team stays stuck alone on a component of the work for too long.

Parallel research about the modeling of financial instruments will be needed. The flexibility of scrum would allow for rapid changes in response to our growing understanding of how best to simulate financial markets. Therefore, it will help accommodate for the near-inevitable cost of change.

Since modularity is integral to the project's design, it is good that the scrum model allows for a natural division of labor. The project will initially require the implementation of several classes which compose the core functionality of the tool, such as the timelines and the financial instruments. While there is some degree of interdependence to these components, each can be largely developed independently allowing for easy delegation of tasks, which is ideal for a scrum model. Delegation by class or class features will ensure that no individual is reliant on another for progress.

The second half of the project will mainly consist of level design and implementation. Each new level may introduce additional features or types of financial instruments (child classes of the financial instrument class). This section of the project can be distributed among the developers by level. Regular meetings and testing will ensure parallel progress during this process.