Reflection on Iteration #3

Context Project: Bubble Trouble

Group Number: 4

User Story	Task #	Task	Task Leader	Assignee	Relative Estimated Effort	Actual Effort	Done	Notes
1. Game over implementation	1	Create a new screen which is shown when the game is over	Damian	Damian	1.00	1.00	Yes	required rewriting the tests, because the functionality has changed since last specifications
	2	Create option to fill out high-score, one for each player	Damian	Damian	2.00	2.00	Yes	
	3	Show money and score in the game over screen	Damian	Damian	0.50	0.50	Yes	
	4	Make the game go to the game over screen when the game is over	Damian	Damian	0.50	0.50	Yes	
	5	Write the highscore with the corresponding name to a file	Damian	Damian	2.00	2.00	Yes	
2. Player dies implementation	1	Pause the screen at the moment that the player dies for 1 second and then reset the level or go the game over screen, dependant of whether the player has lives left.	Casper	Casper	1.00	1.00	Yes	
3. Options menu implementation	1	Change the controls screen to include options for changing the controls. (Also add a save button to write to file).	Bram	Bram	1	1	Yes	After "release" we noticed this didn't work correctly with the observers.
	2	Add the possibility to change the severity of the logger (as a developer option).	Bram	Bram	0.5	0.5	Yes	
	3	Add the possibility to change the controls with which player 1 and 2 move and shoot	Bram	Bram	2	2	Yes	
	4	Create option to write settings to a file	Bram	Bram	0.5	0.5	Yes	
	5	Create option to read settings from a file	Bram	Bram	0.5	0.5	Yes	
	6	Change the "controls" button in the main menu to "options" (Change the sprite)	Bram	Bram	0.25	0.25	Yes	
5. Countdown implementation	1	Create overlay to show countdown when a level starts	Casper	Casper	1.00	1.00	Yes	
6. High score implementation	1	Add button in the main menu to enter highscores list	Damian	Damian	0.50	0.50	Yes	
	2	Create a screen which shows the ten highest scores	Casper	Casper	2.00	2.00	Yes	
	3	Create option to read highscores from a file	Casper	Casper	2	2	Yes	
7. Design patterns implementatio	1	Implement Factory pattern	Wouter	Wouter	6	6	Yes	Implemented for Bubbles only due to time constraints.
	2	Implement Observer pattern	Justin	Justin, Wouter	6	6	Yes	
Total					**29.25**	**29.25**		

Main Problems Encountered

Problem 1	Description	Major bugs were not found until right before the deadline.
	Reaction	Deciding to write more elaborate unit tests to expose bugs earlier.

Adjustments for the next iteration

Stricter code review on tests	We will focus on the correctness and completeness of the test suite when new pull requests are made. This is to ensure that tests actually break when bugs are introduced. This way we will be able to reliably say that the code works as intended.
Improving design documentation	When designing new subsystems, we will lay focus on design-by-contract to ensure that the different collaborators have a mutual understanding about the specifications of the classes and methods.