**Prototype Testing**With the main development of prototype two now completed, I can come back to my focus group/stakeholders for them to test this prototype – I will be able to see if my changes to the prototype that weren’t initially stated are given a positive opinion from them. It will also give me an opportunity to note down any further requests from the focus group to add either to this prototype or prototype three.

**Testing – Method & Questionnaire**Similar to the testing process I did in prototype one, the focus group will take part in Black Box Testing – the code behind the prototype build will be unavailable to them and they will only be focusing on the prototype itself. This prototype was focusing on the player, the spawning and navigating through the map – this requires more open worded questions to gather detail on the mechanics. For the questionnaire, I used the following questions:

* Seed Inputted (Leave Blank if Randomly Generated Seed was used)
* Did the player spawn in the generated map?
* Did the player spawn within the walls of the generated map?
* Does the player clip through the walls of the map?
* What do you think of the player’s controls? Any improvements or comments?
* Any other comments? (Performance, Design etc.)

A small set of yes/no questions will be useful to get the simple testing responses quickly and effectively. Discussing something such as player controls and mechanics is very complex and so the final questions being open ended allows for the focus group to put all their thoughts without having difficulty putting their points across.

**Testing – Results & Feedback**Overall the feedback coming from this testing process was positive. The performance wise, the prototype operated optimally – no crashes or performance hiccups such as frame-rate drops or skips. I did however gain a lot of comments on the player controls and mechanics; I expected this since everyone will have different settings that they feel comfortable with. As the focus group are the stakeholders, I will need to take all their viewpoints into account and find a way to suit most of their needs.

Movement Speed  
A common query about the control of the player is the movement speed of the player. A lot of people found it to be slow to navigate across the map and many found it rather negative that there wasn’t a method of sprinting or accelerating. This is a fair and valid query to make and I will take this in for post-testing development.

Mouse Sensitivity  
Another common query is that the mouse sensitivity of the player camera control is too low; the focus stated that while it is perfectly playable with the set mouse sensitivity, they suggesting having a way of changing the sensitivity – whether it was via the menu before the game starts or while in-game. Initially I had set the sensitivity value to a moderate value, equivalent to a medium setting on most first-person games; this was mainly just to test for player control testing, but I felt that as it was a simple ‘cave crawler’ a high sensitivity wasn’t necessary. While this statement may still be true, including a method of changing sensitivity would be simply more user friendly.

Camera Field of View  
Similar to the mouse sensitivity query, some of the focus group participants commented that the camera field of view was either too low, too high or the lens of the camera was ‘off’. In regards to the lens of the player camera, it is unfortunately something I can’t control and is down to the Unity engine, which causes high curvature at high F.O.V’s – this also contributes to the reason why I have kept the F.O.V value at 90 (the value of 90 is also recognised by many people as a standard PC game F.O.V). Once again however, adding a method of changing the field of view will be more user friendly.

Camera Viewing Angle  
There were a few comments about the y-axis viewing angle of the camera. It is currently set at 60° positive and negative. A few found this odd to have and disliked the fact that you couldn’t look fully up or down. Considering that there is only the floor and the sky visible at higher degrees of view, I feel that this is something that does not need to be edited.

Dual Monitor Setup/Mouse Locking  
Much of the development throughout this project has been on a system with dual screen setup, I have never actually taken this into consideration when developing the game and so when moving the mouse, it can leave the main monitor and interact with other programs that are on the second screen. This will cause an issue when trying to click on objects within the prototype as it is easily possible to click out of the game entirely.

**Testing – Addressing Feedback**

Movement Speed – Addition of Sprint  
Considering the comments made about the movement speed of the map, I have incorporated a sprint feature to the player object. By pressing the left-shift key, you are now able to increase your speed by a multiplier of 1.5. I have also slightly increased the general speed of the player from a value of 5 to a value of 7.

Mouse Sensitivity – Adding Sensitivity ModifierDue to the comments made about the mouse sensitivity, I have implemented a method of changing the sensitivity during gameplay. By pressing 1 on the number key, you will slightly decrease the mouse sensitivity and pressing 2 will slightly increase the mouse sensitivity. This will allow different users to make an experience better for them.

**Prototype Evaluation**This prototype, comparing with what I initially designed and wanted the prototype to do, wouldn’t be counted as much of a success. The spawning of the player object is completely different to what I planned for and in the end, had to be reduced to a simple central location. That being mentioned however, the player object is now able to be spawned into the procedurally generated map and the project is now at a user playable state (though there isn’t an objective, nor ‘end goal’ to it). I can now move forward to the next prototype and continue to progress.