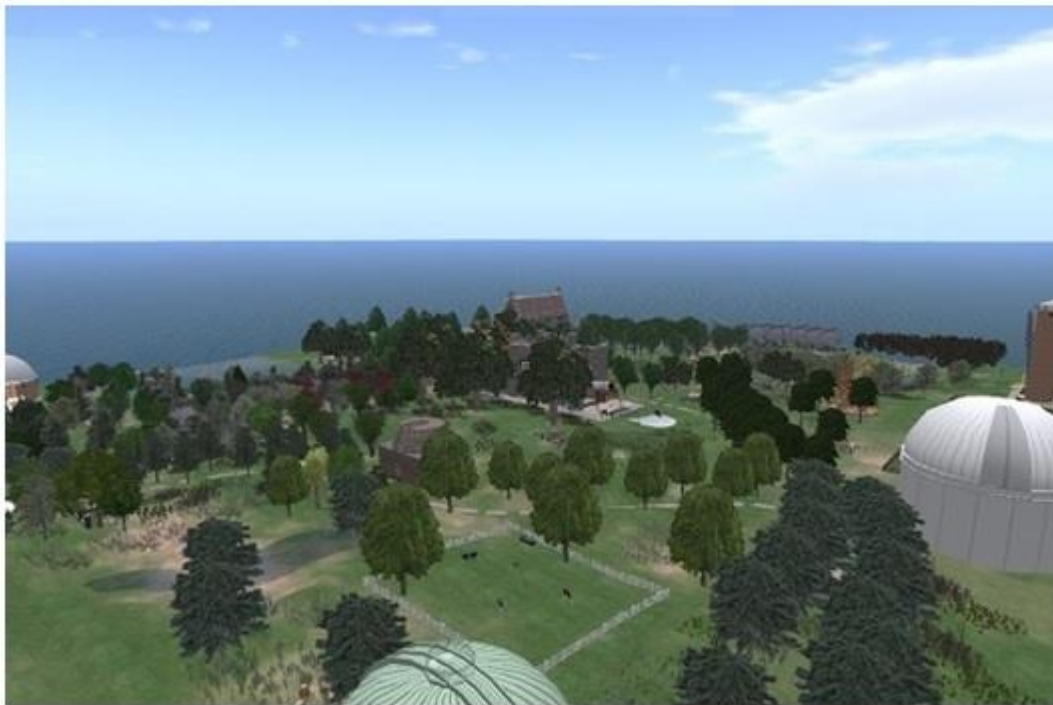




Telescope Modelling Project 2016-17

*Foundation Degree
Yr1/2*



Telescope Modelling Project 2016-17

Foundation Degree Yr1/2

The project required participants to gain the knowledge and understanding necessary for them to model an astronomical telescope in terms of performance and size that would then be implemented using a desktop programming language such as C or Java.

Presented as a series of simulations separated into two distinct forms, starting with an initial stage of seven instructional and assessment assets. These had been located in an operationalized interactive learning space intended to foster engagement by drawing on historical context by placing them inside a virtual replica of Woolsthorpe Manor, home of Sir Isaac Newton. Having completed the exercises, participants move out into the surrounding virtual landscape populated with a number of historical UK telescope where they would be able to apply their understanding through a further set of formative assessments.



On the following pages I have included the results of a Moodle questionnaire completed by the students.

The questions I used here represent a subset of those contained in an original student survey produced by Tanya Joosten, Learning Technology Centre, Department of Communication, University of Wisconsin-Milwaukee.

Results shown by percentage of students

1: I would avoid classes using a virtual world in the future	Percentage of Students
disagree completely	30
disagree partially	20
neither agree or disagree	40
agree partially	0
agree completely	10
2: I found that working in a virtual world was an absorbing experience	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	70
agree partially	10
agree completely	20
3: Working in a virtual world is an enriching experience	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	10
agree partially	60
agree completely	30
4: Working in a virtual world held my attention	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	10
agree partially	30
agree completely	60
5: Using a virtual world opened my imagination	Percentage of Students
disagree completely	10
disagree partially	0
neither agree or disagree	30
agree partially	40
agree completely	20
6: I would take another course that made use of virtual worlds	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	40
agree partially	40
agree completely	20
7: Using a virtual world helped me to think more deeply about the course material	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	40
agree partially	40
agree completely	20
8: The virtual world helped me to better understand concepts	Percentage of Students
disagree completely	0
disagree partially	10
neither agree or disagree	20
agree partially	50
agree completely	20
9: I was engaged in the virtual world learning experience	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	20
agree partially	50
agree completely	30

10. Virtual world activities were not challenging	Percentage of Students
disagree completely	20
disagree partially	40
neither agree or disagree	20
agree partially	20
agree completely	0
11. I understood all components the virtual world activities	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	40
agree partially	50
agree completely	10
12. The objectives for my virtual world exercise were clearly defined	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	20
agree partially	40
agree completely	40
13. The virtual world was beneficial to my learning	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	30
agree partially	30
agree completely	40
14. I received support prior to starting my virtual world activity	Percentage of Students
disagree completely	0
disagree partially	10
neither agree or disagree	0
agree partially	60
agree completely	30
15. I had adequate support in completing my virtual world activity	Percentage of Students
disagree completely	0
disagree partially	0
neither agree or disagree	40
agree partially	30
agree completely	30
16. There was little opportunity for me to communicate with my classmates in the virtual world	Percentage of Students
disagree completely	40
disagree partially	30
neither agree or disagree	0
agree partially	10
agree completely	20
17. My classmates and I cooperated in completing assignment work in the virtual world	Percentage of Students
disagree completely	0
disagree partially	10
neither agree or disagree	0
agree partially	50
agree completely	40
18. The learning activities in the virtual world encouraged contacts between myself and classmates	Percentage of Students
disagree completely	0
disagree partially	20
neither agree or disagree	10
agree partially	40
agree completely	30

19. I did not feel connected to others in the virtual world	Percentage of Students
disagree completely	30
disagree partially	30
neither agree or disagree	10
agree partially	20
agree completely	10
20. I often used the virtual world from home during my project	Percentage of Students
disagree completely	20
disagree partially	20
neither agree or disagree	10
agree partially	20
agree completely	30
21. I had very quick responses to my comments and questions using the virtual world	Percentage of Students
disagree completely	10
disagree partially	0
neither agree or disagree	50
agree partially	20
agree completely	20
22. Technical support for the virtual world was available to me when I needed it	Percentage of Students
disagree completely	20
disagree partially	10
neither agree or disagree	0
agree partially	70
agree completely	0