



TESTING RESULTS

RESULTS FROM TESTING PROCEDURES

USABILITY RESULTS

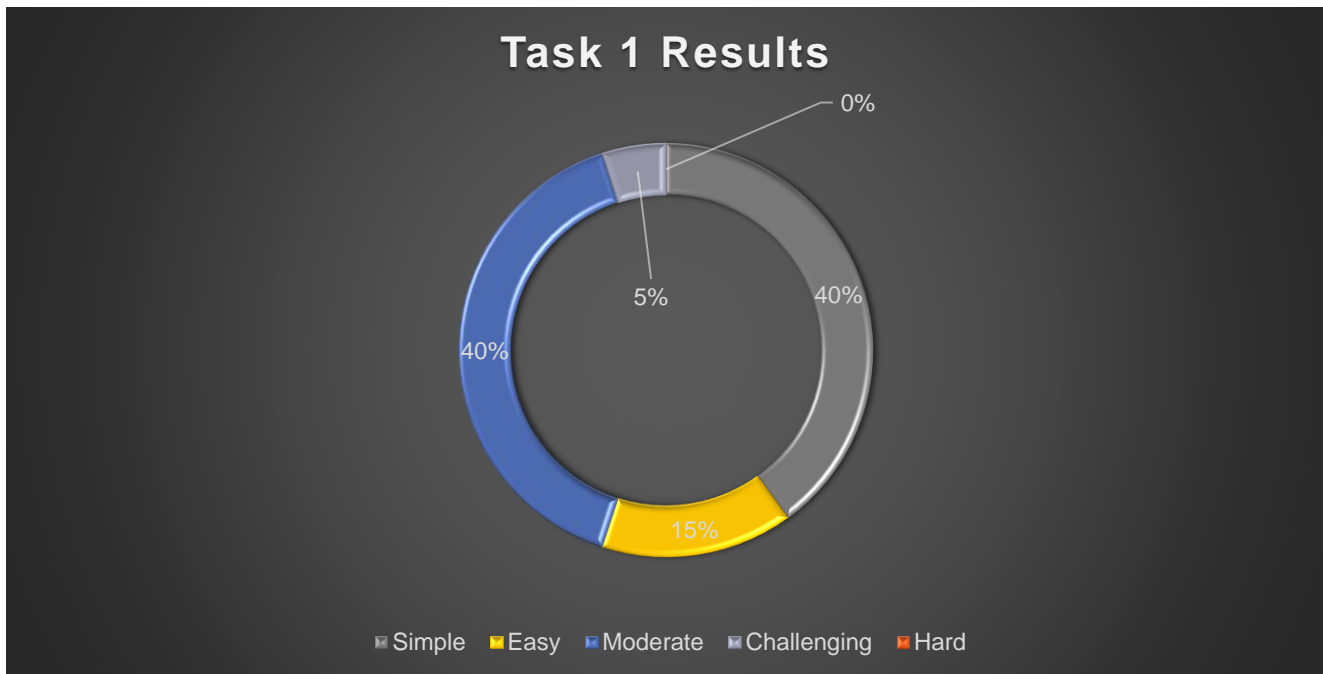
RESULTS OBTAINED FROM 20 PARTICIPANTS

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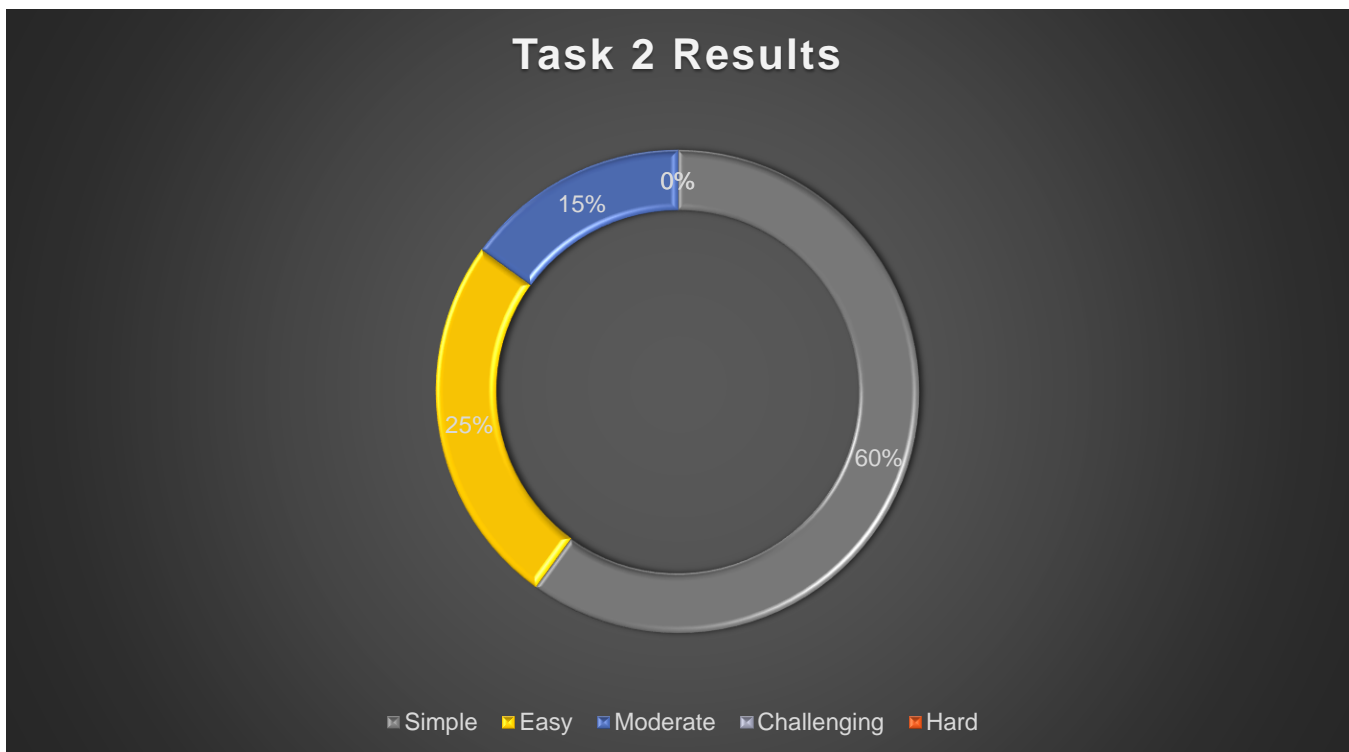
GRAPHS AND A FINAL REPORT ON THE FINDINGS OF THE USABILITY STUDY

TASK ONE (UPLOAD NEW .OBJ FILE INTO WEB INTERFACE):

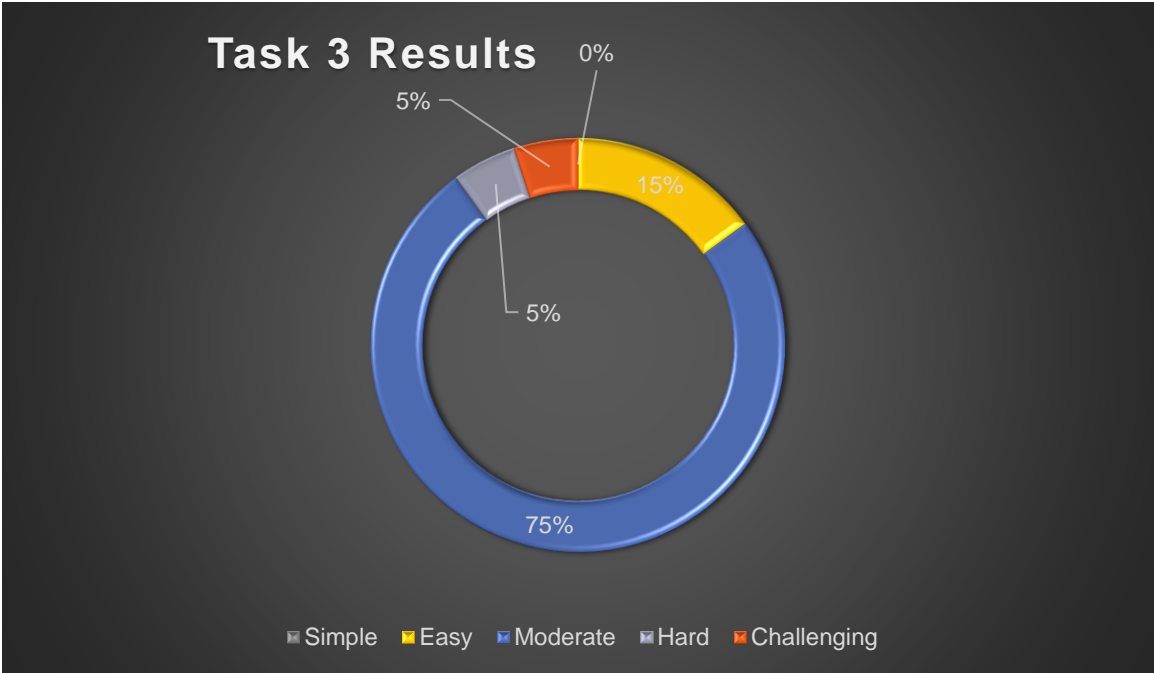


Users found the uploading of .obj files relatively simple, only one user found the task challenging.

TASK TWO(CHANGE TEXTURE OF LEAVES TO LEAVES2.PNG):

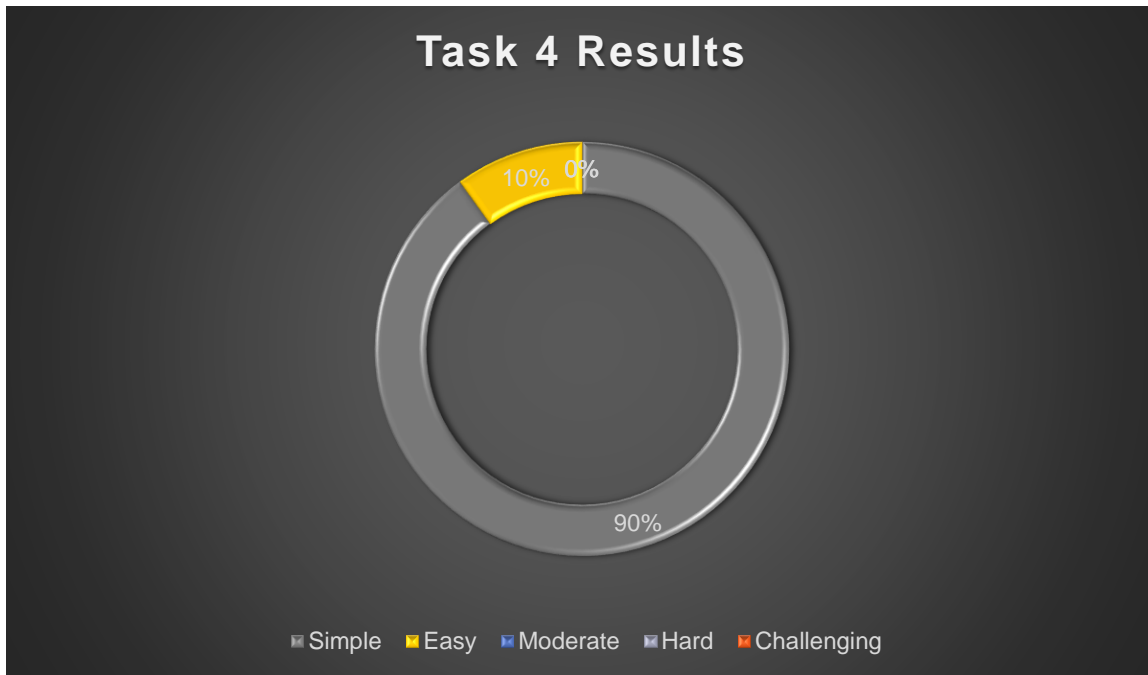


TASK THREE(CHANGE THE LEAVES TO SPHERES SHAPED):

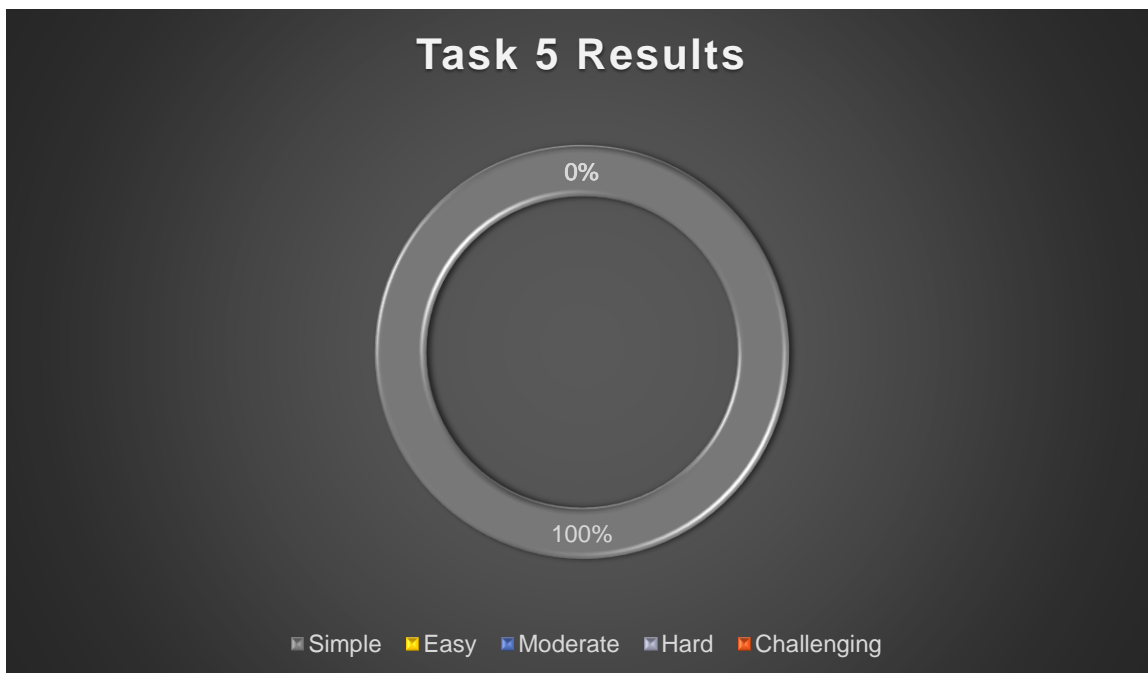


The changing of shapes was found to be a simple task by most, although not many immediately knew how to do so.

TASK FOUR(UPLOAD NEW RULES FILE INTO WEB INTERFACE):

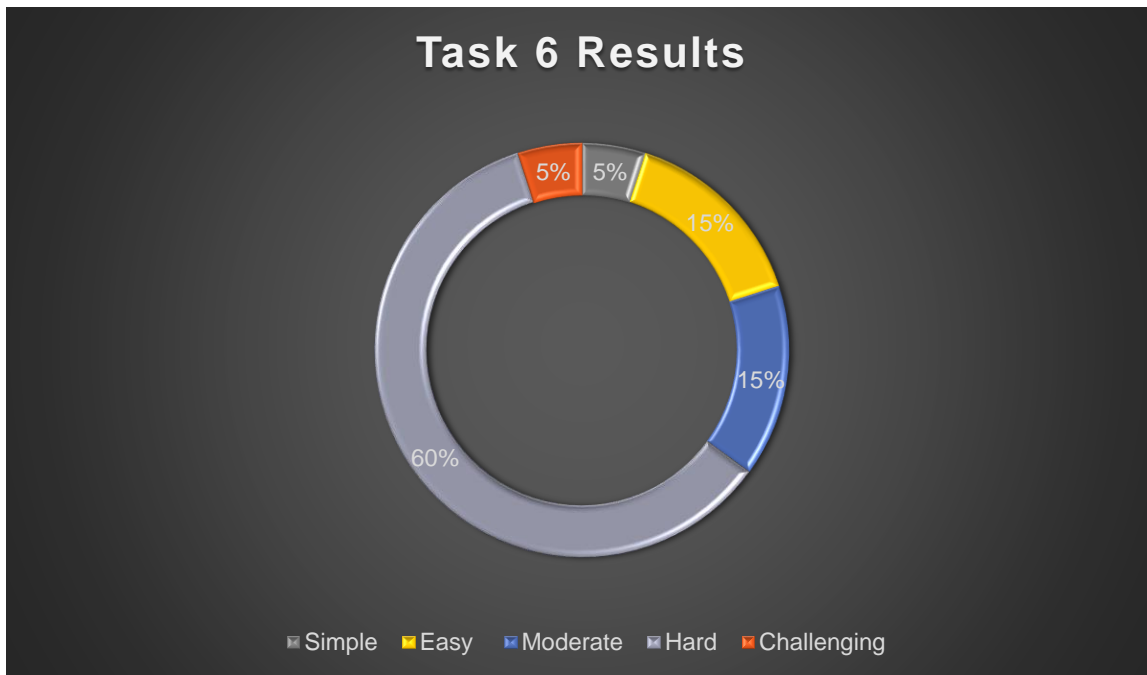


TASK FIVE(UPLOAD NEW TEXTURES INTO INTERFACE):



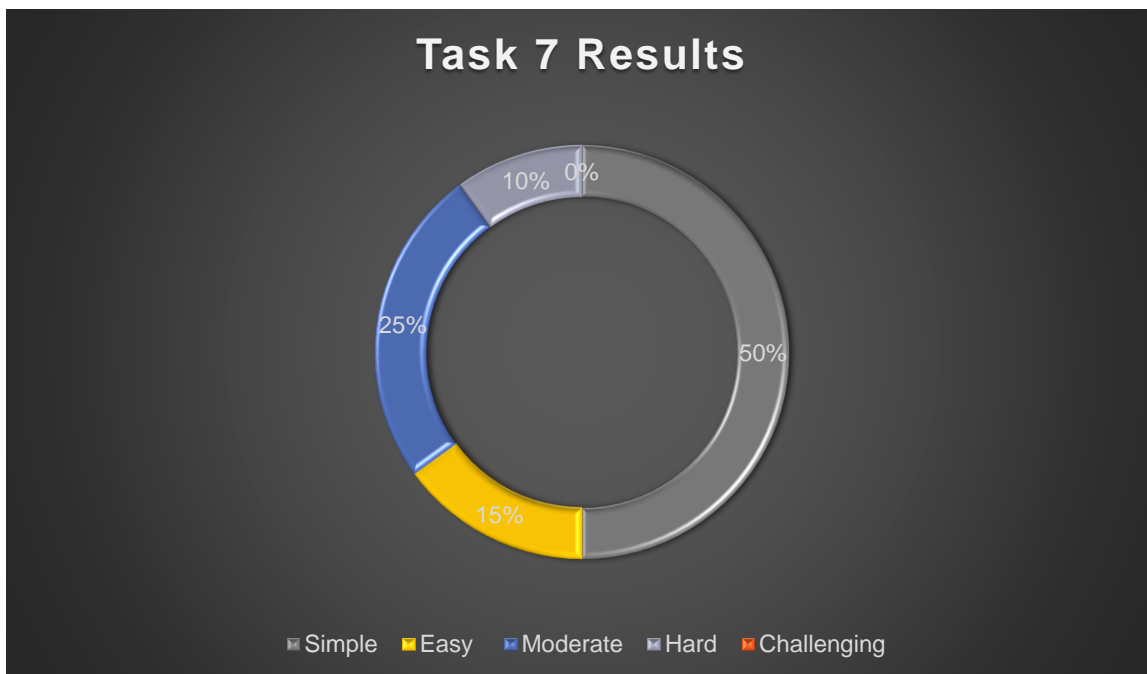
The uploading of various files was found incredibly easy by all users. They quickly made use of the upload buttons.

TASK SIX (TRANSFORM A SECTION OF THE OBJECT TO DISPLAY IN A DODECAHEDRON SHAPE):

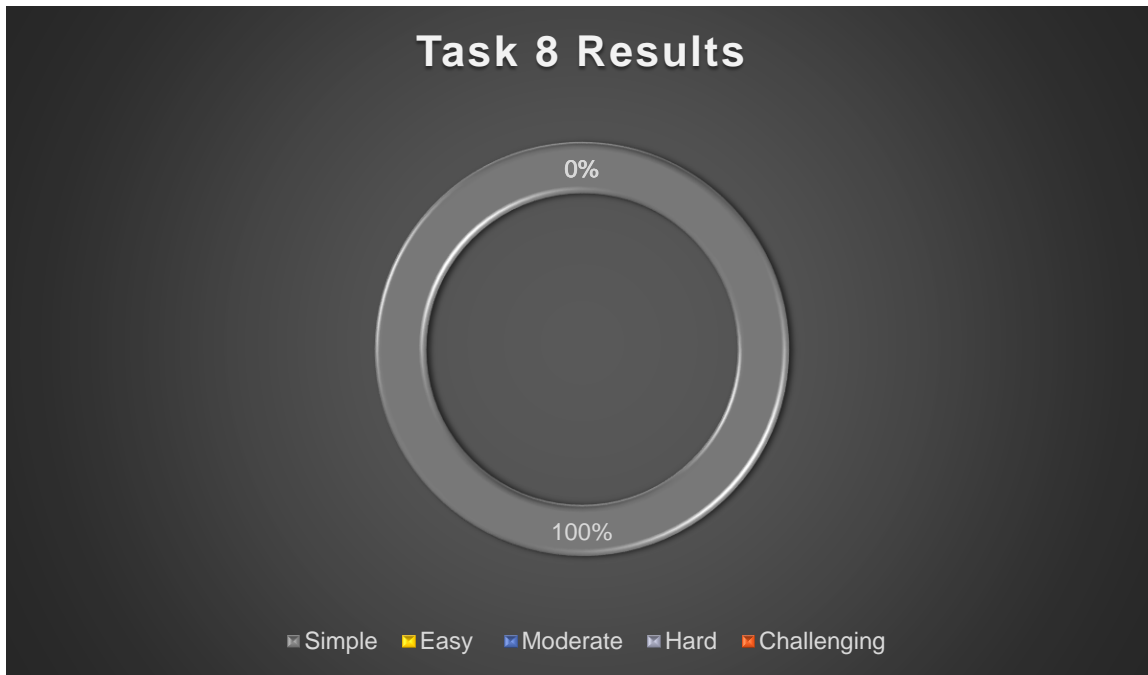


The users struggled to find the right way to change a shape on average although once found it was found easy

TASK SEVEN (ROTATE AROUND THE DISPLAYED OBJECT):

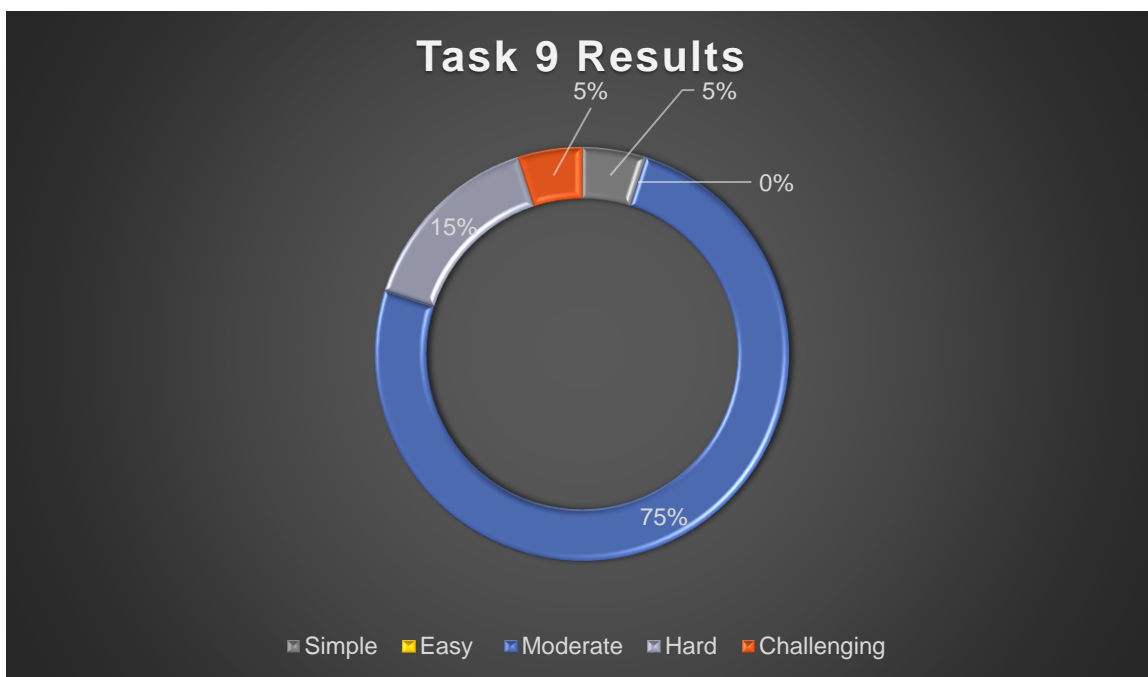


TASK EIGHT(ZOOM INTO THE DISPLAYED OBJECT):



Rotation and zooming of the object was met with ease by all users.

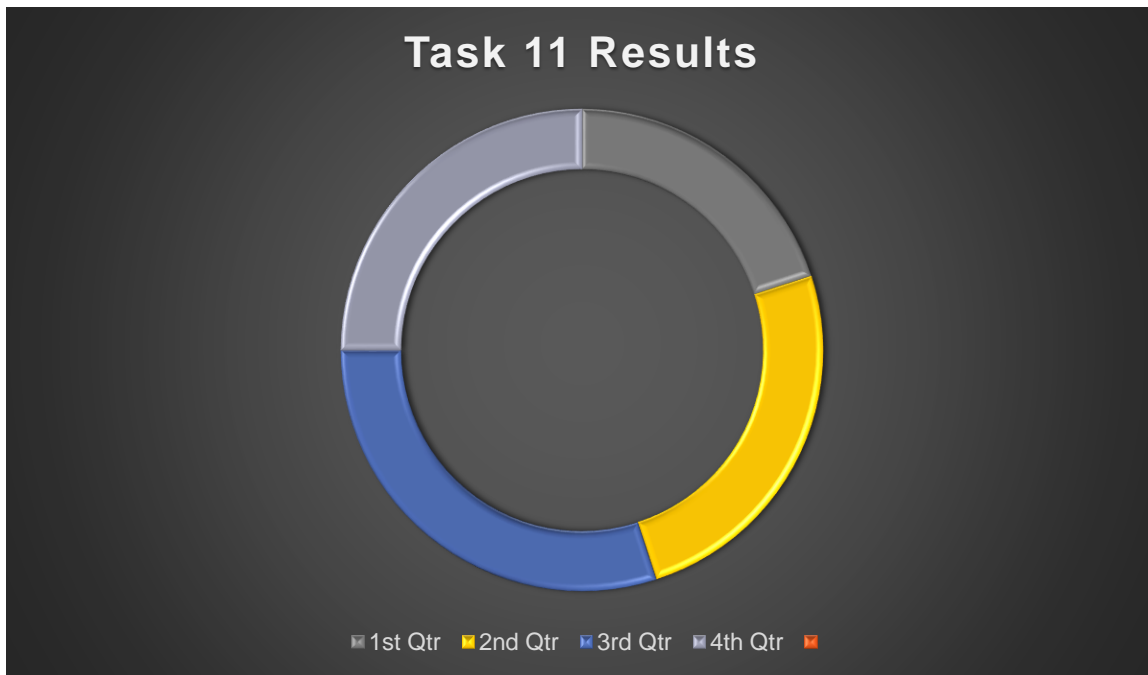
TASK NINE(RETURN OBJECT TO A DEFAULT LAYOUT):



TASK TEN(OPEN THE USER MANUAL):

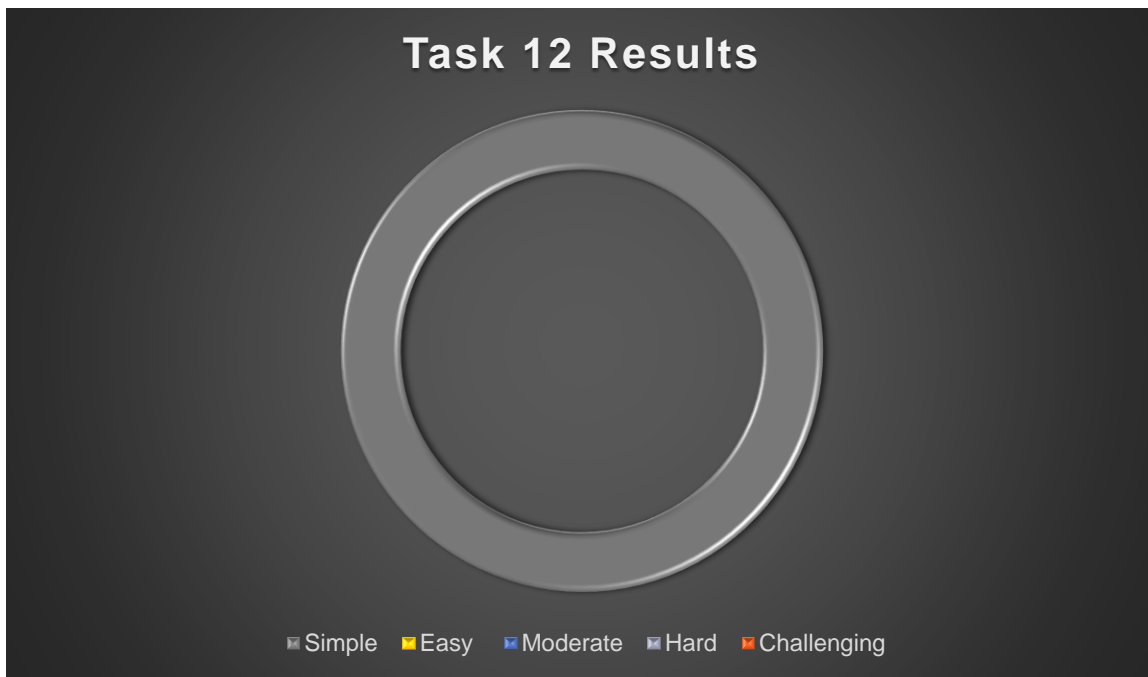


TASK ELEVEN(APPLY BUMP MAPPING TO THE OBJECT):

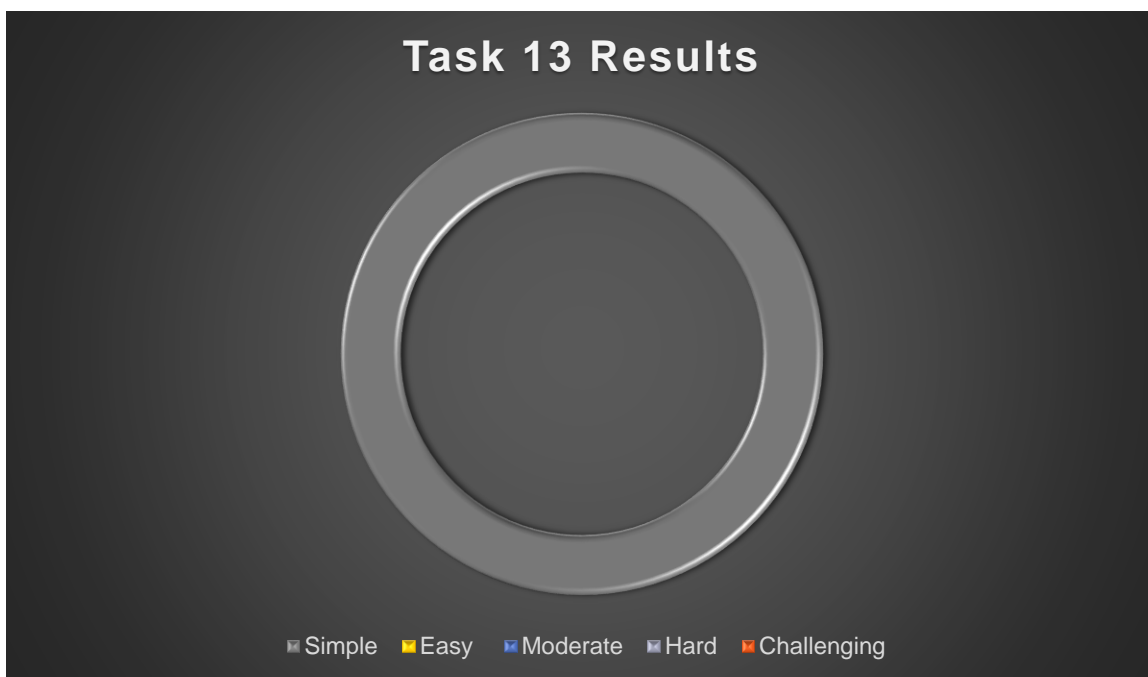


Users commented that after changing a shape in rules file they found dealing with the rules file simpler.

TASK TWELVE(OPEN A LIST OF DIFFERENT TEXTURES):



TASK THIRTEEN(OPEN A LIST OF TEXTURES):

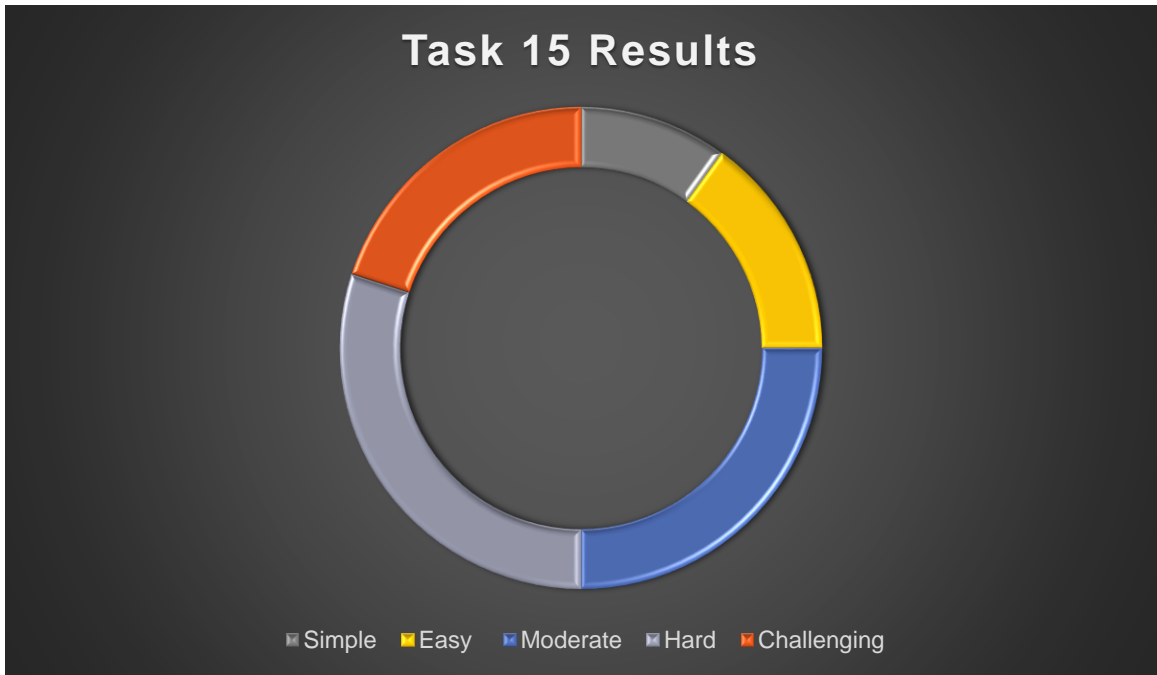


Users found open lists and documents easy with the use of the available buttons.

TASK FOURTEEN(USE MAGICVOXEL TO CREATE AN OBJECT):



TASK FIFTEEN(UPLOAD NEW OBJECT):

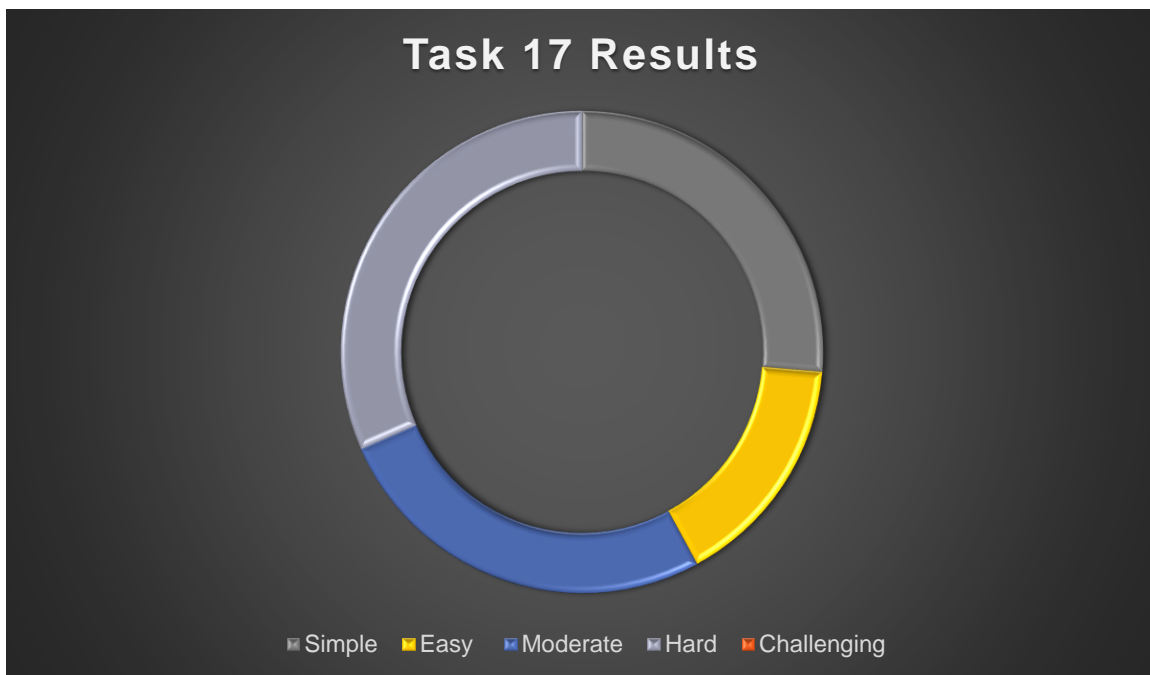


Users found this task to be more enjoyable and only struggled when uploading objs that were large or one where there were blocks diagonal to each other.

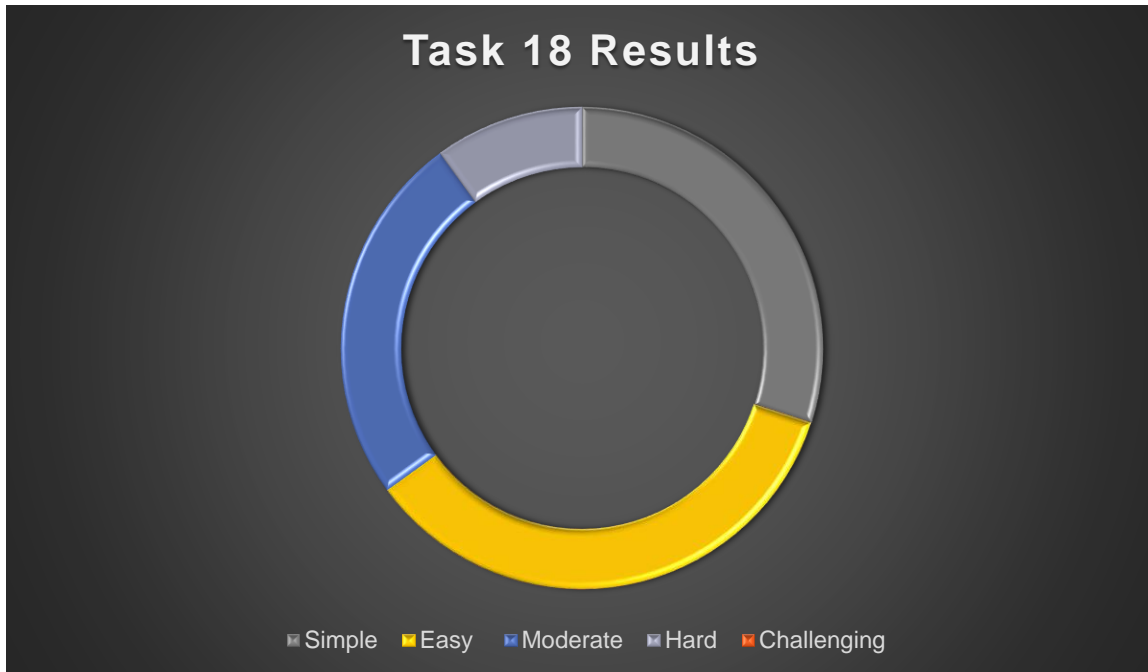
TASK SIXTEEN(DOWNLOAD MINIFIED JAVASCRIPT):



TASK SEVENTEEN(ADD RULE TO RULE FILE):

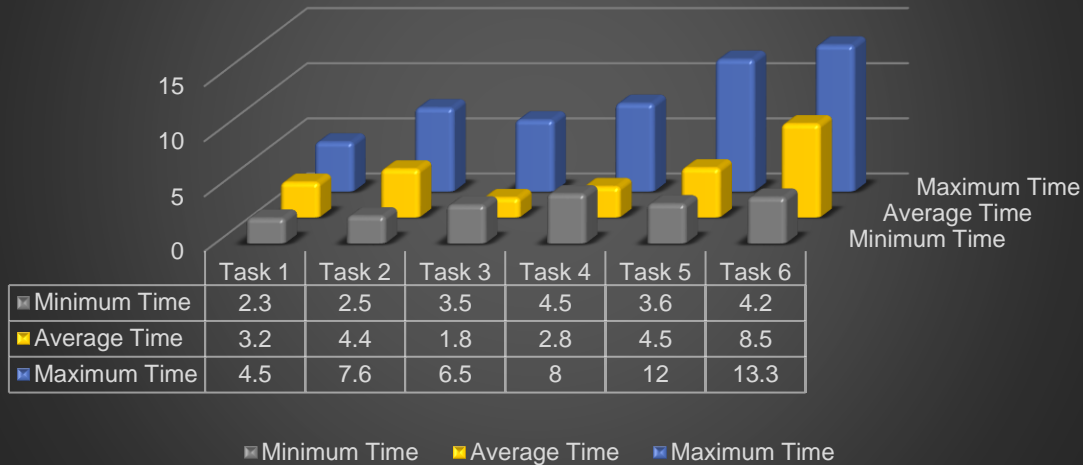


TASK EIGHTEEN(CHANGE EVERYTHING INTO CUBES):

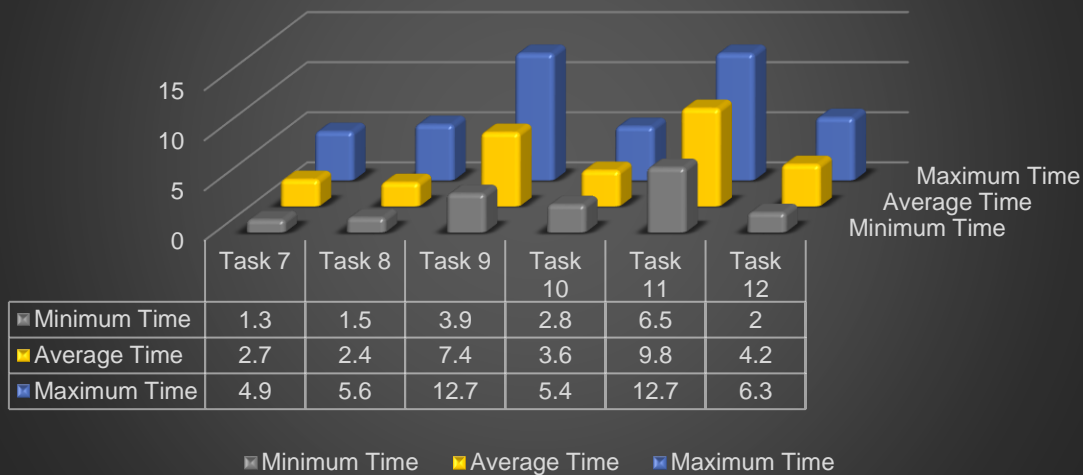


OBSERVER'S RESULTS:

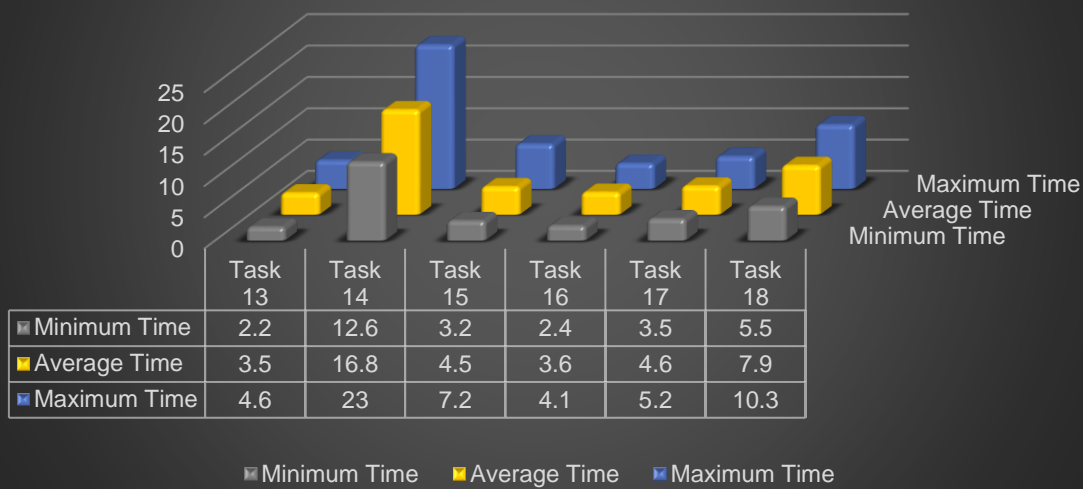
Graph showing time taken to finish tasks



Graph showing time taken to finish tasks



Graph showing time taken to finish tasks



The time taken to finish the tasks shows us that the uploading is restricted by the speed of the upload but the actual tasks are easily performed. Other manipulation tasks took users longer but after using the rules file once or twice their task speed sped up.

TESTING OF SYSTEM

Due to unforeseen technical difficulties, we were unable to complete our tests using jasmine. This forced us to manually test the program and see if it provides the expected results upon certain input.

Test	input	output	Passed(True/False)
Shapes:			
1. cube	Shape:" cube";	Outputs Cube	True
2. cylinder	Shape:" cylinder";	Outputs cylinder	True
3. circle	Shape:" circle";	Outputs circle	True
4. cone	Shape:" cone";	Outputs cone	True
5. plane	Shape:" plane";	Outputs plane	True
6. pyramid	Shape:" pyramid";	Outputs pyramid	True
7. ring	Shape:" ring";	Outputs ring	True
8. sphere	Shape:" sphere";	Outputs sphere	True
9. torus	Shape:" torus";	Outputs torus	True
10.torus knot	Shape:" torus knot";	Outputs torus knot	True
11.dodecahedron	Shape:" dodecahedron";	Outputs dodecahedron	True
12.icosahedron	Shape:" icosahedron";	Outputs icosahedron	True
13.Default	Shape:""	Outputs Cube	True

Test	input	output	Passed(True/False)
Colors:			
14.Default	Color:"";	Outputs invisible	True
15.Color that matches uploaded .obj	Color:" 0x664611";	Outputs textures	True

Test	input	output	Passed(True/False)
Textures			
16.Brick texture	"./resources/textures/brick-texture.jpg"	Brick texture	True

17. Flowerbed texture	"/resources/textures/flowerbed-texture.jpg"	Flowerbed texture	True
18. Grass texture	"/resources/textures/grass-texture.jpg"	Grass texture	True
19. Leaves texture	"/resources/textures/leaves.jpg"	Leaves texture	True
20. Oak texture	"/resources/textures/oak.png"	Oak texture	True
21. Slate roof texture	"/resources/textures/slate-roof-texture.jpg"	Slate roof texture	true

Test	Passed(true/false)
22. Upload rules file	True
23. Download rules file	False
24. Upload .obj file	True
25. Alter BMAP STATUS	True
26. Select background color	True

All shapes that have been loaded are applicable as all can be used on uploaded .obj files to transform sections of the file into different shapes. Uploading of new shapes is available and can increase the amount of available shapes.

Defaulting the output is a fundamental process as it allows the user to 'begin again'. This function is working properly and defaults the output to white cubes. When a hexadecimal color is chosen, that color is properly rendered onto the object.

If instead of a color a texture is preferred, a texture can be uploaded into the collection and used on the objects. All available textures were applied to different regions and all successful rendering was achieved.

The uploading of files functions operate correctly but the download rules file function is failing as no file is downloaded. Altering bump mapping and the alteration of background were successful.