



# Preliminary Questionnaire

1. Have you ever taken a course on modeling for 3d computer graphics?

yes.



2. Have you ever followed a tutorial in order to create a 3d model?

yes.

3. On a scale of 1 to 5, how confident do you feel that you could create a 3d model that you have never attempted before using a tutorial? 1 being the least confident, 5 being the most confident.

1

2

3

4

5

# Study Questionnaire

## Part I. In general, compare the use of a video or static document tutorial to the interactive visualization system.

1. Rate the usefulness of each of the following on a scale of 1 to 5, 1 being the least useful and 5 being the most useful.

Usefulness for getting a general overview of how a model is constructed

Tutorial Document:	1	2	3	4	5
Tutorial Video:	1	2	3	4	5
Interactive Vis:	1	2	3	4	5

Usefulness for investigating key details and understanding how they were achieved

Tutorial Document:	1	2	3	4	5
Tutorial Video:	1	2	3	4	5
Interactive Vis:	1	2	3	4	5

2. If you had to choose only one way of learning how to make a model, please rank your preference for each type of tutorial/visualization in the order you would choose.

1<sup>st</sup> choice: Interactive Vis

2<sup>nd</sup> choice: Tutorial Video

3<sup>rd</sup> choice: Tutorial Document

3. What did you like about your first choice compared to the others?

What I liked about the interactive Vis. was that I was able to change the views to get a look at problem areas I could not understand in the tutorial video. With the tutorial video, no matter how many times I watched if the view remained the same and did not bring me closer to seeing things that the filmmaker did not record.

**Part II. Compare the tutorial screenshots to the screenshots from the interactive visualization system.**

1. Rate the usefulness of each of the following on a scale of 1 to 5, 1 being the least useful and 5 being the most useful.

Usefulness for getting a general overview of how a model is constructed

Tutorial:	1	2	3	4	5
Interactive Vis:	1	2	3	4	5

Usefulness for investigating key details and understanding how they were achieved

Tutorial:	1	2	3	4	5
Interactive Vis:	1	2	3	4	5

Usefulness of the graphical annotations

Tutorial:	1	2	3	4	5
Interactive Vis:	1	2	3	4	5

2. If you had to choose between the two, which set of images better explained how the model was built (tutorial or interactive vis)? Explain what you liked about your choice.

The ~~the~~ interactive vis explained more because the changes were highlighted very prominently with the green or yellow. I liked that more images were used to show more steps in the creating of the shark.

3. How did the use of graphical annotations affect your choice?

The graphical annotations were pretty much ~~my~~ the deciding factor in my choice for the interactive vis.

**Part III. Compare the interactive visualization system with and without the ability to cluster or filter changes to the model.**

1. Rate the usefulness of each of the following on a scale of 1 to 5, 1 being the least useful and 5 being the most useful.

Usefulness of for getting a general overview of how a model is constructed

Clustering:	1	2	3	4	5
Filtering by types of operations:	1	2	3	4	5
Filtering by selecting parts of the model:	1	2	3	4	5

Usefulness for investigating key details and understanding how they were achieved

Clustering:	1	2	3	4	5
Filtering by types of operations:	1	2	3	4	5
Filtering by selecting parts of the model:	1	2	3	4	5

2. Would you prefer to have the ability to cluster and filter changes to the model? Explain why or why not.

yes. While looking at the robot + hydrant, having to view the build of the model @ the lowest level of specificity was time consuming and ineffective (somewhat) because it showed every little camera movement (not necessarily change) that the modeler did. Being able to cluster + filter allowed for the choosing of specificity of whatever parts of the model i wanted to focus on. if it weren't for these features, i might've gotten frustrated w/ the usage of the slow movement that the arrow keys gave me and the fast movement that the mouse drag allowed for.

**Part IV.** Consider the interactive visualization system. Please leave a few comments on each of the following.

1. In general, do you think that the ability to interact with the visualization and change characteristics of what you see helps you to understand how a model was created? How so?

Yes. Being able to shift the view almost as though I were modeling it myself allowed me to make sense of what I was doing ~~while~~ building. I could physically highlight the relevant aspects of the model and change the level of specificity to my ~~own~~<sup>taste</sup> depending upon whether I knew what I was doing or not.

2. Do the clustering of operations and the graphical annotations help to give you an overview of how the model was created? Do you find this useful? How so?

I found these features to be the most useful because I could actually see, down to ~~the~~<sup>the</sup> movement of a vertex, what was going on and what functions ~~at~~ were used rather than engaging in the trial and error process of some tutorials.

3. Do you think you would change the level of detail in the clustering often? How important to you is the ability to change this level of detail?

Yes. Depending on if I knew what it was building, I might cluster at a lower level but if I was using the interactive program to build something complex, being ~~able~~ able to get down to the basic specifics and lower level of detail would significantly help me with my model building. The freedom of being able to change the level of detail is something that tutorials don't offer and would be a great help.  
(document + video)

4. Does filtering out types of operations help you to focus on parts of the model creation process that are interesting to you? Please give an example.

Yes. For instance, the creation of the hip on the biped. While the video tutorial showed how to shape the hip area, it occurred later on in the video tutorial and would involve me scanning through to find this moment. Although this isn't a crazy inconvenience, it was simply more convenient to highlight my portion of interest, the hips, and see how it was shaped.

5. Does filtering out operations that affect only certain parts of the model help you to focus on parts of the model creation process that are interesting to you? Please give an example.

I'm not sure that this helped me to focus on <sup>a specific</sup> parts of the model. For finding parts of the model that I'm interested in working on, the ~~the~~ paint tool was helpful. The filtering out operations just made it more convenient for me to not waste time viewing the modeler's camera changes.

6. Do filtering out sections of the timeline and using the thumbnail views help you to focus on parts of the model creation process that are interesting to you? Please give an example.

Yes. The "color coding" on the thumbnails made it easy for me to find the part of the timeline where the modeler worked on the hands and from there it made it easier for me to find the ~~the~~ moment where the modeler worked on the thumb.

7. In general, please rate the usefulness of each of the following features compared to one another on a scale of 1 to 5, 1 being the least useful and 5 being the most useful.

Graphical annotations:

1      2      3      4      (5)

High level clustering (seeing many operations at once):

1      2      (3)      4      5

Ability to control the clustering level of detail:

1      2      3      4      (5)

Filtering by types of operations:

1      2      (3)      4      5

Filtering by selecting parts of the model:

1      2      3      (4)      5

Filtering by focusing on the timeline and thumbnails:

1      2      3      (4)      5