

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.

1st choice: Interactive Vis

2nd choice: Tutorial Video

3rd choice: Tutorial Document

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

Dynamic camera views, ability to control panning of tutorial/visualization.
Ability to activate wireframe, & step by step / frame by frame view for specific details.

Also... navigation bar at the bottom of the page (preview of model on the timeline) made hunting and pecking for proper placement much easier.

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.

I thought that the interactive vis better explained how the model was built. I liked the color scheme / familiar interface, as well as the ability to easily distinguish/identify what was being altered.

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

I felt that the interactive vis had more clear graphical annotations when compared to the tutorial's screenshots.

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 I would, especially with more detailed models. Having the ability to cluster & filter changes looks as if it would be a great time saver. In addition, filtering by selecting certain parts of the model really gives the user a lot of freedom in a more personalized streamlined tutorial.

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. Having the ability to determine the camera angle, as well as ~~the~~ how ~~you~~ information was displayed / represented was very helpful.

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?

yes. ~~There~~ While the clustering can be overwhelming, being able to see several changes at once along side with graphical notations (arrows, highlighting, etc.) helps to really make an easy to understand overview.

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?

I do. I think that it is very important because some clusterings leave out the important nitty gritty details associated with more complex steps / complex models.

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.

Didn't really have a chance to experiment... No comment.

↳ I assume it would.

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.

Yes. For the complex robot example. Highlighting / pointing the wheel & head helped making their creation / modeling more easy to understand.

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 it did. The thumbnails helped provide good estimators as to where the sections of interest in the interactive vis. were located.

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