

INSTRUCTIONAL TECHNOLOGY SURVEY ANALYSIS

The World's Columbian Exposition model as instructional technology
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Professor Steve Mintz's large-enrollment class American history class, University of Houston

Session: March 28, 2006

62 participants returned surveys

The presentation of the model took approximately 45 minutes, and coverage was split 70/30 on the exposition and the technology. The focus of the class was actually on later time periods, so the presentation of the model was a bit off topic. The survey was administered five days after the classroom presentation of the model.

Write up: Lisa M. Snyder

In describing these students and their survey responses, Professor Mintz wrote the following in an e-mail: "I am delighted by the student reactions to your presentation-- and I hope you are too. Remember, not one of the students is in the big lecture class voluntarily. Virtually none have a positive view of history. Most are wary of anything that isn't directly linked to their exam. These aren't students who would voluntarily go to a history museum or historical site. To me, this is proof that even the most resistant student can be turned on by your approach."

Question 1:

Overall, rate your last class session when you were shown the computer model of the World's Columbian Exposition.

Average: 5.43 (on scale where 1=poor and 7=excellent)

Question 2:

How did this experience affect your understanding of the World's Columbian Exposition?

Average: 5.72 (on scale where 1=nothing and 7=a lot)

Question 3:

How did this experience affect your interest in the World's Columbian Exposition?

Average: 5.25 (on scale where 1=decreased and 7=increased)

Question 4:

How did this experience affect your interest in computer modeling and technology?

Average: 5.25 (on scale where 1=decreased and 7=increased)

Question 5:

Do you think interactive computer models are a good way to learn about architecture and urban space?

Average: 6.44 (on scale where 1=no and 7=yes)

Why?

Student 1: 6 (on scale where 1=no and 7=yes)

They are an excellent way to visual 3-D models and images and gain more than just a mental interpretation of blueprints and photographs.

S3: 6: Visual demonstration that can explain better than any book description

S4: 6: It provides a more solid and graphic representation than pictures and maps do.

S5: 7: As an architect major, I found the presentation very pleasing & educational.

S6: 6: Its a good tool to get people interested & like many others, I'm a visual person & need to just see some things to understand it.

S7: 7: Gives you a much better perspective on the use of space when you can see it in 3-D & reference to size.

S8: 7: Visual learning just like any visual aid in a presentation/lecture

S9: 5: I'm a visual learner

S10: 7: They are a very effective visual tool, especially in re-creating historical buildings & artforms and give a different perspective to history.

S11: 7: It shows the development of architecture through history

S12: 7: It allows you to actually see the design and get an idea of how it can actually be in real life.

S14: 7: Technology & the visual aid given helps a lot in seeing and understanding

S15: 6: Able to understand the architecture of the time period.

S16: 7: The[y?] help predict problems so we can adjust and save money.

S17: 7: Because I learn & understand better when it's hands on instead of reading out of a textbook.

S18: 5: Visually comprehensive, more engaging than static diagrams/images

S19: 6: Lets you look at things or buildings that don't exist anymore

S20: 4: Because it shows how buildings will look upon completion.

S21: 7: It makes it easier for visual learners

S22: 7: It show how everything was back then.

S23: 7: You can really see the models and understand styles and proportions.

S24: 6: Gives a clear mental picture instead of measurements on paper.

S25: 7: They allow people to understand more easily what architects and urban planners thought like back then.

S26: 7: It shows you (illegible word ... might be possibility) and the only thing that stops creation is imagination

S27: 7: Give much clearer idea bout the historical event, such as those building. And it is much more interesting.

S28: 7: This type of interacting with media and lectures, gives the student a more detailed description of understanding in the topic and objective

S29: 7: The more you get to see your ideals in actual concept is the key element of understanding faults.

S30: 5: You can see up close how the buildings were structured.

S31: 7: The visual aspect is very important in these subjects

S32: 7: I think technology & interaction helps students learn better instead of straight lectures.

S33: 6: Because it is a good way to preview or get inside a building or even just an idea.

S34: 4: Virtual, visual, your able to see it more clear

S36: 6: The computer models are a way to experience rather than just hear about it

S38: 5: Helps of understand

S39: 7: Give you a better understanding

S40: 7: Sticks in your head better

- S42: 7: If the subject doesn't exist anymore computer technology has the ability to bring the structure back to life and increase understanding.
- S43: 7: Visually stimulating, pictures tell more when combined with words
- S44: 6: Brings it to life
- S45: 7: Show what pictures along, can't
- S46: 7: It showed the actual size and really made you understand the significance of its importance.
- S47: 7: Computer modes are much more effective than still pictures in that there can be exploration of size scale and object location relative to other objects
- S48: 7: It shows important aspects better.
- S49: 7: I got to walk around and actually be there. Very neat!
- S50: 7: Because it can give people a sense of how big these places were.
- S51: 7: Makes it more personal and gives a better frame of reference
- S52: 6: A lot of good detail
- S53: 7: Perspective
- S56: 6: Its the visual
- S57: 6: Most people learn better if they see it
- S58: 7: Technology is important today, so it helps to give a really good picture.
- S59: 7: Everything is going virtual.
- S60: It helps the visual aspect, people gain better perspectives.

Question 6:

What did you particularly like about this experience and/or the computer model?

- S1: I loved the detail that was put into the outside of the buildings and the way the cameras could be used to give an accurate description of real-time scale.
- S3: The movement of the mouse that allowed you to experience it somewhat "first hand"
- S4: The ability to see the architecture and frame work of the buildings as well as routes used to navigate the fair.
- S5: The graphics. The dedication that was evident in the project
- S6: It was amazing to see what technology can do, it was a great model.
- S7: Allowed me to see how computer technology can be used to gain a better perspective on historical events.
- S8: I like concept an instructor could use as an aid when teaching about different battles during Civil War or Revolution.
- S9: The depth of perception
- S10: I liked how it gave me an actual image to relate to the history I've only read about.
- S11: The experience showed great enthusiasm for this technology.
- S12: I became interested in the exposition. The computer model was really cool it looked as if I were playing a video game
- S13: The structure
- S14: The view of the buildings & work. Description of work
- S15: The "walk through" and show of design
- S16: The feel that I saw many years before now and I notice that the differences are not much (note: the handwriting here is difficult to read)
- S17: It was really interesting; it[s] shown me that there's much that I don't [know] about architecture content that's requirer in a model. (note: ?)
- S19: Just looking at the Roman style architecture
- S20: The guy & Ferris Wheel part.

S21: It was nice to see the layout in a 3-D view and also nice to be able to see the size of the buildings in perspective to our size.

S22: Everything was good. A lot of details they cover.

S23: The ability to grasp on size of fair, and looks and overall view of fairground that it can't get from a picture.

S24: The level of detail

S25: I was impressed by where thing[s] were located and by the materials used to make the buildings.

S26: It reminded me of when I used to do 3D modeling and the lighting effects and textures interested me.

S27: I remember it. Give clear idea about how the whole thing was settled.

S28: More detail, visual learning

S29: The conceptual perspective of the fair through visuals that any one can see. (Pictures on the internet)

S30: Interesting to see detail of buildings, and how buildings were to scale based on our height

S31: Free movement through the space.

S32: The details put into the display & how they could reconstruct something that really doesn't exist anymore.

S33: How real it was, and how I could see it coming together.

S34: It was like you were there in person

S35: How everything looked realistic.

S36: The landscape

S37: Very interesting & informative

S38: Very informative

S39: How life-like it was

S40: The detail and the way you can explore like if you were in the actual place

S41: I like graphics and architecture

S42: It was incredibly interesting because I had no previous knowledge of what it might have looked like. I thought it was just a Ferris Wheel.

S43: It's intricacy and detail

S44: Ability to see the past in reality

S45: It had good descriptions, very detailed

S46: The details were interesting and the way you could move throughout the model.

S48: It was like a real thing

S49: I enjoyed the detail. I can't wait till classes are taught in virtual reality. I would learn so much more

S50: Seeing how these structures were made.

S51: Was very engaging and enlightening; much better than just pics! You get a sense of the space & technology of the time.

S52: The architecture

S53: The scale system

S54: That objects actually moved like the boats

S55: It served (note: probably means 'served') as a visual

S56: Visual + specific and great

S57: You get a feeling of what it was like

S58: It felt real + the details were amazing – it would be great on Imax

S59: The virtual program.

S60: The dimensions of the buildings & Ferris Wheel

S61: Good visual aid

S62: Helpful in understanding

Question 7:

What did you particularly *dislike* about this experience and/or the computer model?

S1: I wished there could have been more inside light in the buildings when it was dark.

S3: Dragged on

S4: The presentation was not really planned and the model could be more completed.

S5: The fact that it was unfinished

S6: I would have liked to see pictures of people actually being at the Fair.

S7: It all seemed pretty interesting. Would be nice to see the final product.

S8: Wasn't complete. Would be better if Dr. Mintz could lecture while driving

S9: Not complete yet

S10: That it was incomplete.

S11: There was no dislike.

S12: What I didn't like about seeing the exposition was that it left me wishing it still existed today.

S13: It was not finished

S14: The lack of it being complete. Was kind of dull. Need completion

S15: It wasn't complete

S17: I was looking forward in her showing us how she actually creates the model

S19: It was boring

S20: Was boring. Need something to make it interesting.

S22: It was not full complete.

S23: Lack of people and not being able to look inside some building.

S24: It was not complete

S25: The lighting when it was dark.

S26: The drop in frames and the lack of some detail.

S27: Nothing. Just so big that I kind [of] got lost

S28: --

S29: If it was more complete it could have been better.

S30: It was too long

S31: That is was unfinished. Some sounds would have made it more interesting

S32: It was unfinished.

S33: I wouldn't be particularly interested in doing something like that, but it was overall good

S34: She wasn't very prepared, but she warned us.

S35: I think it was to[o] long.

S36: How incomplete it was

S37: Nothing

S38: It was unfinished

S39: It was unfinished.

S40: Nothing

S41: None

S42: That it was not finished [note: with a 'smiley' face]

S43: It wasn't finished.

S44: That it wasn't finished!

S45: Nothing

S46: I didn't dislike anything.

S48: Nothing

S49: It wasn't complete. There weren't people doing what they might do in the fair

S50: Nothing really

S51: Wished it could have lasted longer!
 S52: The missing building
 S53: Lack details
 S56: Z buffering problems
 S57: To[o] long
 S58: Nothing really comes to mind.
 S59: Nothing
 S60: It was slightly boring.
 S61: n/a
 S62: N/A

Question 8:

How did this experience compare to courses that only use static slides or images?

Average: 5.70 (on scale where 1=worse and 7=better)

Question 9: (not tabulated yet)

What do you think are the best use(s) for these types of interactive computer models? (check all that apply)

In class lectures (- responses); Student use in class (- responses); Personal use at home (- responses); Shouldn't use at all (- responses); Other (- responses)

S11: Business
 S16: Urban and regional management
 S30: If students want to learn more, access from home
 S43: All learning, especially chemistry, biology, physics

Question 10: (not tabulated yet)

What aspects of interactive computer models do you think are most important for creating a satisfying experience? (Please rank your choices, with 1 with the most important)

Aspect	First Choice	Appears in Top 3
Responsiveness of the model (frame rate)		
Amount of detail in model		
Model based on factual evidence		
Interactive options within the model		
Photo-realism		
Sound		
Support or interpretive information		
Other		

Question 11:

What is your most lasting impression of your experience touring through the World's Columbian Exposition model? (Use the back side of the page for your response. Please be as specific as possible.)

S1: The model gave an amazingly accurate description and visual example of what it must have been like to visit the World's Columbian Exchange. It helped me gain a better understanding of how and why this World's Fair had such a lasting impression on 1890's

people and why it was such a technological and social leap. The sheet scale of the model was a good way to better comprehend the message of the World's Fair, "that the future is open, it's big, and it's right here waiting for you." Thank you very much for this wonderful demonstration. I hope to see more of it again as it progresses. What a wonderful work in progress! (note: with a 'smiley' face)

S3: Got to see how everything was built and organized.

S4: I really remember the moving side walk representation, Ferris Wheel, and green building (note: ?) and how it surprised the visitors and relating it to scale with the models (note: I think the comment is about Manufactures, it's green roof, and how big it was, which is shown in scale with little model people)

S5: You gain a clearer understanding of the culture in that era simply by the architecture

S6: My most lasting impression was that it seemed like a lot of fun. The model was a great tool to show us exactly what we could have seen, if we had been there. The details were incredible, the shadows, the inside structures, etc. It almost felt like watching the movie Titanic. I saw pictures and had an idea of what the ship must have been like, but the movie made it come to life. This model gave me a way to visualize the World's Columbian Exposition in a new way.

S7: Allowed me to see accurate representation of a massive historical event.

S8: None; just a good concept for future use

S9: The detailing was especially interesting. Like the info about how it was expected for patrons to arrive via the moveable sidewalk. Also appreciated the info about the permanence of the Fine Arts Bldg. which now houses the Museum of Science/Industry & the elevated train.

S10: My most lasting impression was the intricacy and detail put into every aspect of the World's Columbian Exposition. Specifically the motives/inspiration behind each building and exhibit.

S11: The past can be brought back to life.

S12: I like the buildings based on Ancient design + the River.

S13: The space of the models & the movement as you move from building to building.

S14: Good work, needs more visual aid of people + interaction activities + model support and information.

S15: The framework of the buildings an[d] knowing how it was built was very interesting and also what type of technology they had at the time.

S17: It was such a beautiful place I just can't believe it's gone now. Our architurers (note: architects?) should reconstruct the place.

S19: Nothing!

S20: The little guy & the wheel (note: probably referring to Scott standing next to the Ferris Wheel for scale)

S21: I enjoyed understanding the layout and seeing/understanding the magnitude of size of the Ferris Wheel.

S23: The size of the place + the intricate designs of buildings.

S24: It's a lot more impressive to me now than just a description in a book

S25: There was a lot of time put into the project.

S26: The most lasting impression was basically the size of the buildings and the Ferris Wheel. Its different when they tell you how big something is and when they actually show you, to scale.

S27: Done need to be too detail as it were showing but it is better 'cuz it catch my attention more

S29: The detail in the buildings were just picture-perfect. Gave me ideas for my designs.

S30: Learned a little but didn't really care about subject.

- S32: The creativity of the exposition + the amount of time input for it.
- S33: How I felt like I was actually there and experienced it. That is very cool, its like going through time, and gives more understanding. I look forward to seeing more of this.
- S34: I didn't know about this at all in U.S. History until that day. It was great to see a visual computer model to show me.
- S35: I thought the presentation was interesting. It is hard to tell how big the event was by just pictures.
- S36: The Ferris Wheel
- S37: It was very professional
- S39: It was lifelike + gave me a better understanding of the world exposition
- S40: The actual size of the buildings[,] almost incredible that we were capable of that back then
- S41: Not as much interested in the fair itself as the ability to create realistic models of cities
- S42: How massive the complex was and it's importance in world (note: ?) unity and (illegible word)
- S43: I am amazed by the architectural ability that was present even in the 1890s.
- S44: It was very interesting, but hard to really judge as it was a complete experience. I really wanted to see more.
- S46: The size and details of the building – it made me able to really see myself there.
- S47: ie having a person standing @ the bottom of the Ferris Wheel or building to show scale
- S49: Going on the train ride
- S50: How the structures of these places were built
- S51: Very amazed at the technological advances at the period; the use of water throughout the space and the short life span of the architecture.
- S52: It huge.
- S53: The 25 mile loop (note: may have been referring to the elevated, 6 miles round trip?)
- S54: The Ferris Wheel
- S56: The visual image[,] detail + experience
- S57: The buildings were absolutely beautiful
- S58: The fact that you could see building skeletons.
- S59: Detail work shown about the buildings
- S60: The height of the Ferris Wheel compared to a normal person.
- S62: Great impression, increased use!

Other comments:

- S8: Would be better in future (next to Question 8 on comparison to static image presentations)
- S38: N/A (next to Question 8 on comparison to static image presentations)