

Post-experiment survey

Please tick the relevant box to indicate how you respond to each statement:

SA = Strongly A = Agree N = Neutral D = Disagree SD = Strongly Disagree	SA	A	N	D	SD
1. I would like to learn more about special relativity.					
2. I found the virtual world easy to navigate.					
3. When using the Real Time Relativity simulator I needed to constantly refer to the instructions.					
4. I would be interested in using the Real Time Relativity software in my own time.					
5. In other experiments it was easier to connect the theory to what I observed.					
6. Using a relativity simulation is more fun than the other experiments.					
7. I learnt more from this experiment than most others.					
8. I would like to use more simulations in my studies.					
9. I found this to be an interesting experiment.					
10. This experiment took more preparation than the other experiments.					

Please indicate by ticking the relevant box how confident you feel that you are able to:

Task	Very Confident	Confident	Some Confidence	Little Confidence	No Confidence Whatsoever
Explain the theory of Special Relativity to someone who isn't studying physics					
Apply aspects of the theory of Special Relativity to solve problems					
Calculate the length contraction of a moving object given a relative velocity					
Predict the change in colour of an object moving at near light speed					
Describe the observed changes in shape of an object moving at high speed					
Explain reference frames					
Explain the Relativity of Simultaneity					
Solve problems concerning Length Contraction and Time Dilation					
Describe the effects of Aberration					
Explain the Doppler Effect					

Please answer the post-test questions and tick the relevant box to indicate how confident you are that your answer is correct:

Question	Answer	Very Confident	Confident	Some Confidence	Little Confidence	No Confidence Whatsoever
1						
2						
3						
4						
5						
6						

1. What was the most interesting thing that you learned from this experiment, and how did you learn it?

2. What aspect of this experiment most needs improvement?

3. Please provide any additional comments on this experiment here.

Pre-experiment survey

How much time did you spend completing the pre-experiment activities and preparing for this experiment?

Please tick the relevant box about how you respond to each statement:

SA = Strongly A = Agree N = Neutral D = Disagree SD = Strongly Disagree	SA	A	N	D	SD
1. I enjoy trying to solve new physics problems.					
2. I have less trouble learning physics than other subjects.					
3. I have a good understanding of Special Relativity.					
4. Special Relativity is more abstract than other areas of physics.					
5. I can use the formulae for Special Relativity but do not understand why they work.					
6. I enjoy physics laboratory work.					
7. Laboratory practicals are an effective use of my study time.					
8. I enjoy trying new things on a computer.					
9. I find simulations are an effective way to learn.					

Please indicate by ticking the relevant box how confident you feel that you are able to:

Task	Very Confident	Confident	Some Confidence	Little Confidence	No Confidence Whatsoever
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Apply aspects of the theory of Special Relativity to solve problems					
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Please answer the pre-test questions and tick the relevant box to indicate how confident you are that your answer is correct:

Question	Answer	Very Confident	Confident	Some Confidence	Little Confidence	No Confidence Whatsoever
1						
2						
3						
4						
5						