

WorldWide Telescope in the Classroom

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More Surveys Digitized Sky Surveys VLSS: VLA Low-fre WMAP ILC 5-Year SFD Dust Map (Inf IRIS: Improved Re 2MASS: Two Micro Hydrogen Alpha Fu

Finder Scope

Classification: Spiral Galaxy in Andromeda

NGC224

RA: 00h42m42s Magnitude: 3.4
Dec: 41 : 16 : 00 Distance: n/a
Alt: 70 : 06 : 26 Rise: 05:14
Az: 275 : 42 : 17 Transit: 14:53
Set: 00:35

Look At Sky Imagery Digitized Sky Surveys

Image Credits: Data provided by two NASA satellites, the Infrared Astronomy Satellite (IRAS) and the Cosmic Background Explorer (COBE). Processing <http://astro.berkeley.edu/~marc/dust/>

Research Show Object Close

NGC221 M31

Andromeda 01:58:26

RA : 00h42m40s
Dec : 41:13:35

WorldWide Telescope

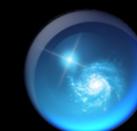


Patricia Udomprasert, Alyssa Goodman,
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**Curtis Wong &
Jonathan Fay**
Microsoft Research

WorldWide Telescope in the Classroom

WorldWide Telescope Ambassadors

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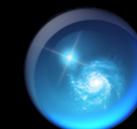
Spring 2012 Update
Submitted by patudom on May. 9

WWT Ambassadors have had a busy and productive spring! We demo'd WWT at the [USA Science and Engineering Festival](#) and two local science festival events in Cambridge to engaged and enthusiastic crowds of close to 2000 people. The most common refrain we heard was, "Really? I can download this at home for free?" Ambassadors continue to be impressed by the astute questions and observations made by children who are given the opportunity to explore our universe for the first time. "Why is Pluto's orbit so out of whack from all the other planets?" "Why does Jupiter have so many more moons than other planets?" "How long would it take for us to travel far enough outside the Milky Way to take a picture of it?"

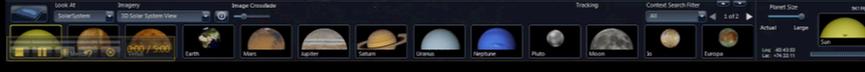
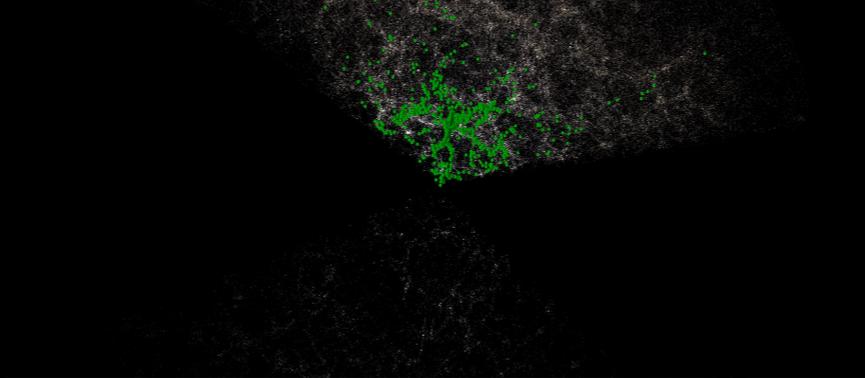
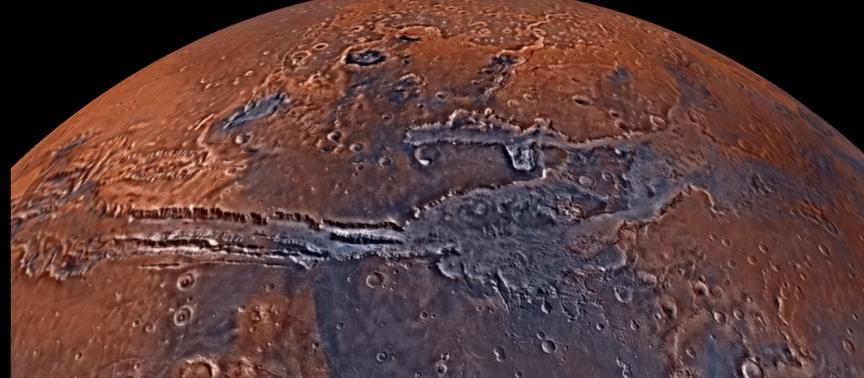
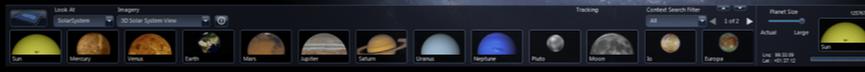
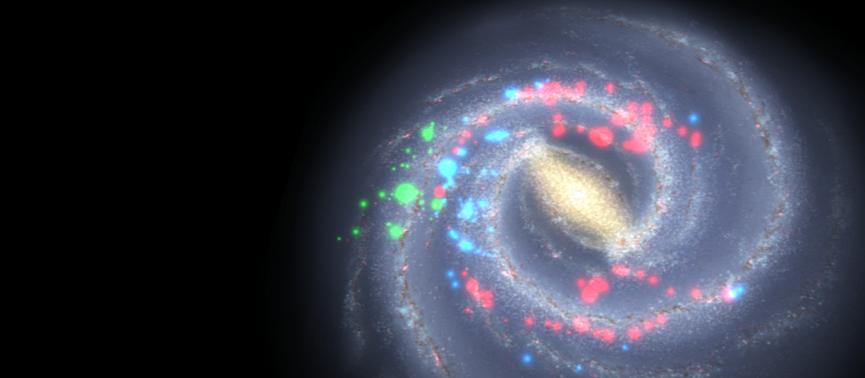
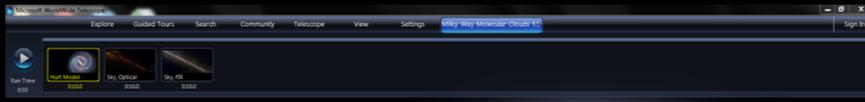
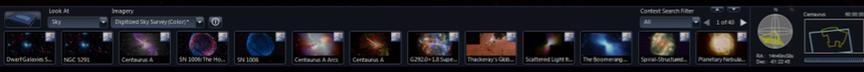
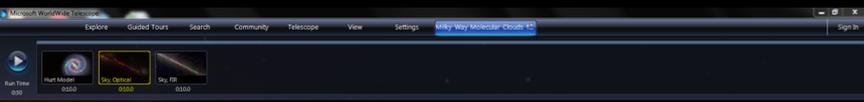
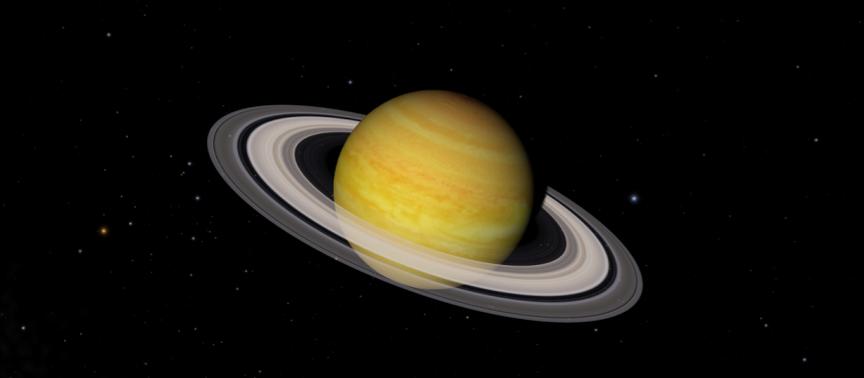
wwtambassadors.org



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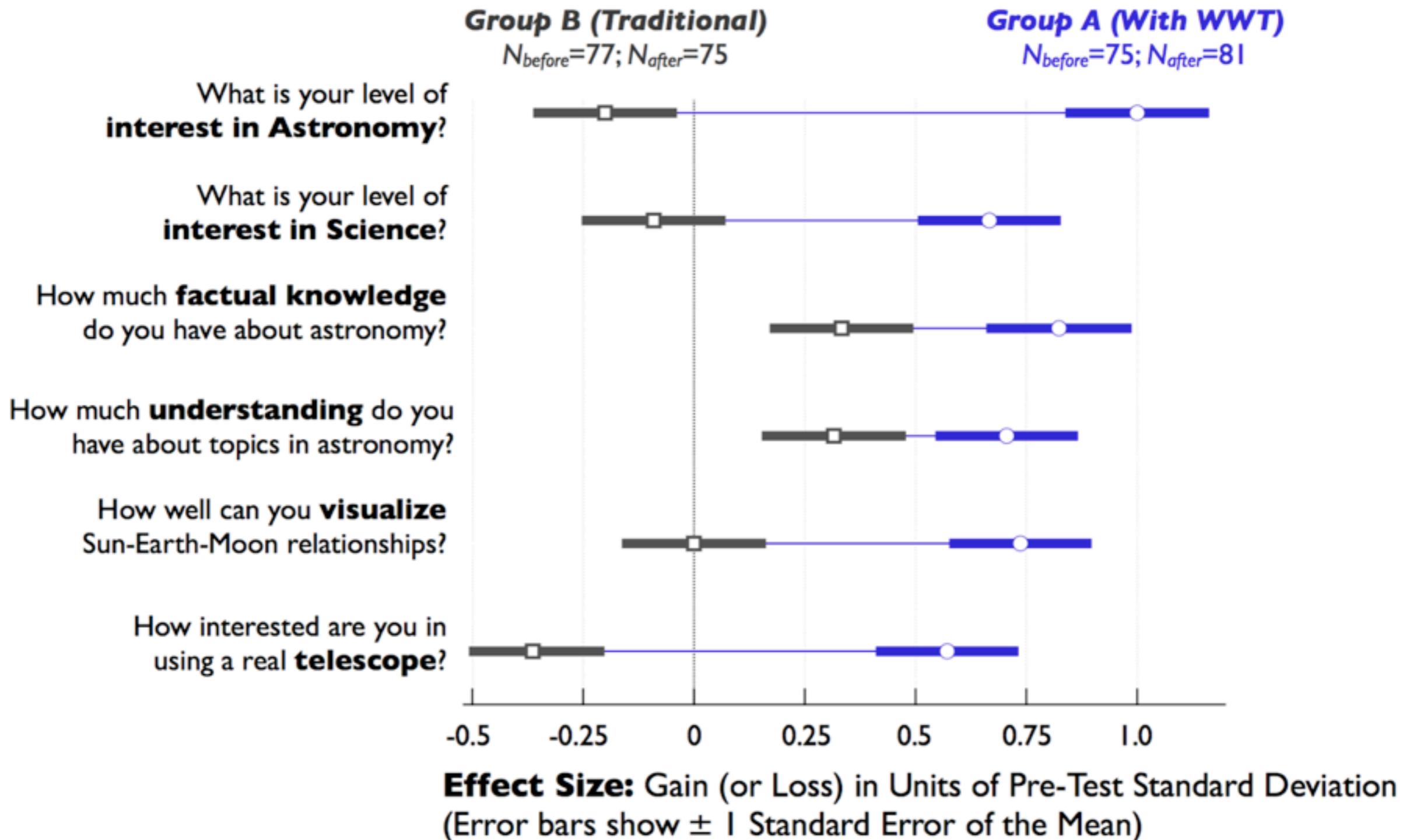
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Experience WWT at worldwidetelescope.org

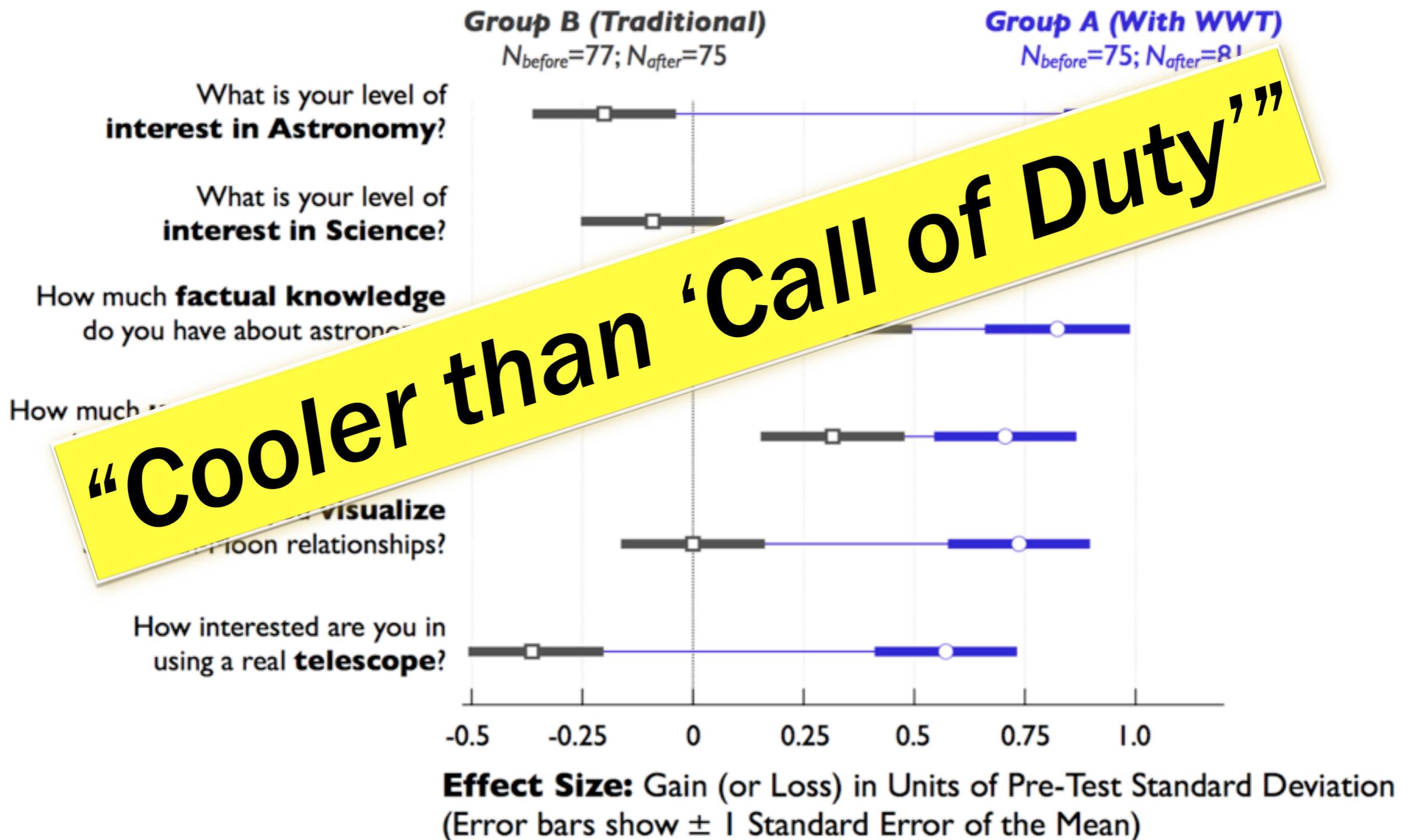
Gains in Student Interest and Understanding

(“Traditional Way” vs “WWT Way”)



Gains in Student Interest and Understanding

(“Traditional Way” vs “WWT Way”)





“I never knew programs like this could even exist. It’s just amazing.”

– Middle School 6th grade student

More quotes from 6th Graders

“It gave me a better mental map of the universe.”

“Awesome, amazing, cool, incredible (repeat 30 times)”

“Learning about our Universe by actually seeing and exploring it makes it easier to contemplate and more fun.”

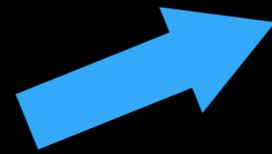
“You can explore the Universe yourself and you don't always have to only learn from the teacher.”

WWT vs Simple 2D simulator
(both in conjunction with styrofoam ball/lamp model)

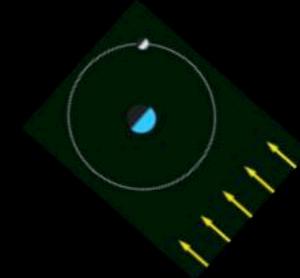
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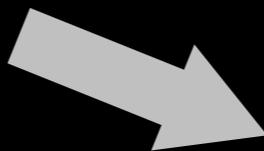
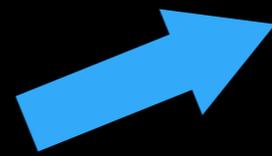


Waxing
Gibbous Moon



WWWT

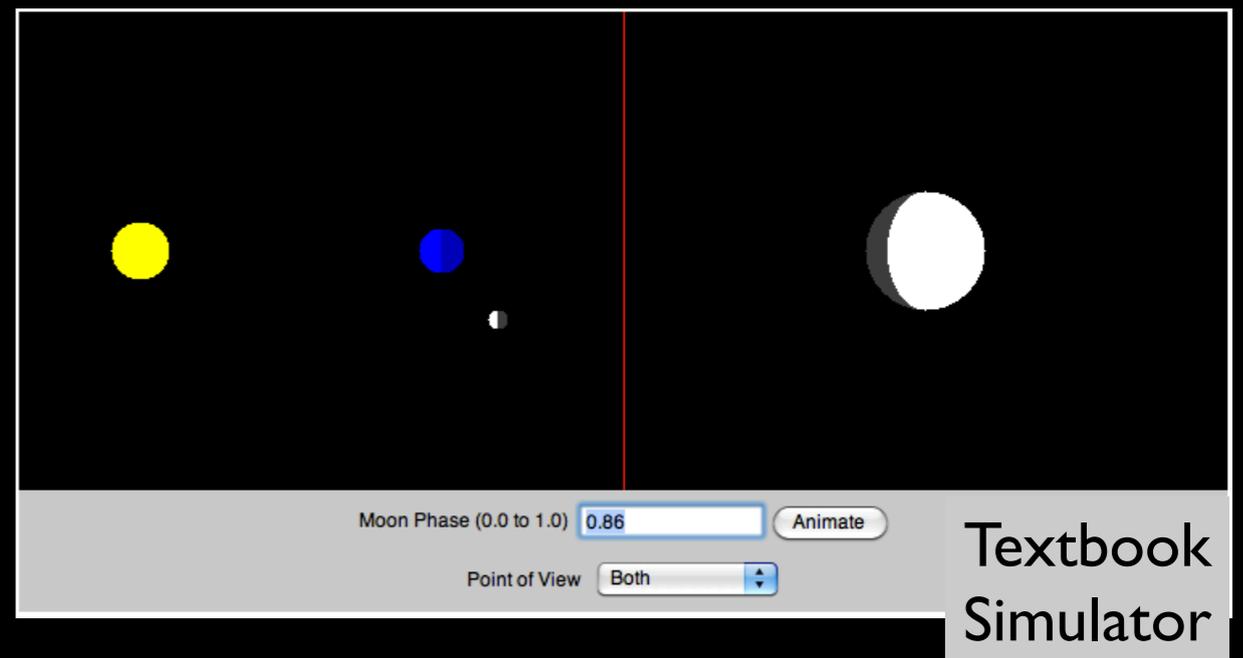
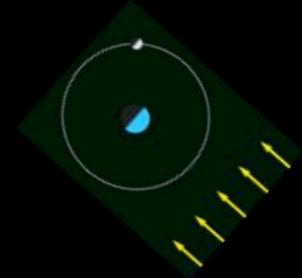
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Waxing
Gibbous Moon



WWWT



Phase I: Learning Comparison

WWVT vs Textbook Simulator

(both with styrofoam/lamp model)

	<i>Avg Pretest score out of 7 (stdev)</i>	<i>Avg Posttest score out of 7 (stdev)</i>	<i>Gain</i>	<i>Effect Size</i>
WWVT (N=39)	2.7 (1.2)			
Textbook Simulator (N=38)	2.6 (1.2)			

Phase I: Learning Comparison

WWVT vs Textbook Simulator

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Astronomy and
Space Science
Concept Inventory
(Sadler et al 2009)

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WWVT (N=39)	2.7 (1.2)	5.1 (1.3)		
Textbook Simulator (N=38)	2.6 (1.2)	4.3 (1.4)		

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WWVT vs Textbook Simulator

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	Avg Pretest score out of 7 (stdev)	Avg Posttest score out of 7 (stdev)	Gain	Effect Size
WWVT (N=39)	2.7 (1.2)	5.1 (1.3)	2.5	
Textbook Simulator (N=38)	2.6 (1.2)	4.3 (1.4)	1.7	

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Textbook Simulator (N=38)	2.6 (1.2)	4.3 (1.4)	1.7	1.5

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Textbook Simulator (N=38)	2.6 (1.2)	4.3 (1.4)	1.7	1.5

These students
continued to
explore WWVT
independently!

Find out more about using WWT in your classroom.



or

Email pudompra@cfa.harvard.edu

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