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# **NSSE 2015 Topical Module**

## **Learning with Technology**

Central Connecticut State University

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## About This Topical Module

Developed in partnership with EDUCAUSE, these questions examine the role of technology in student learning, focusing on usage, contribution to learning, and perceptions of institutional support. This module complements questions on the core survey about learning with peers, quality of interactions with others, and institutional emphasis on academic support. Complementary FSSE set available.

## Comparison Group

This section summarizes how this module's comparison group was identified, including selection criteria and whether the default option was taken. This is followed by the resulting list of institutions represented in the 'Learning with Tech' column of this report.

Group label	Learning with Tech
Date submitted	6/10/15
How was this comparison group constructed?	Your institution retained the default comparison group (all module participants).
Group description	All NSSE institutions administering the module "Learning with Technology" (includes current- and prior-year administrations)

## Learning with Tech (N=98)

Abilene Christian University (Abilene, TX)	Goshen College (Goshen, IN)
Adelphi University (Garden City, NY)	Grand Canyon University (Phoenix, AZ)
Alverno College (Milwaukee, WI)	Hastings College (Hastings, NE)
Austin College (Sherman, TX)*	Hofstra University (Hempstead, NY)*
Bacone College (Muskogee, OK)	Hope College (Holland, MI)
Baptist Memorial College of Health Sciences (Memphis, TN)	Immaculata University (Immaculata, PA)*
Bethune Cookman University (Daytona Beach, FL)*	Indiana University East (Richmond, IN)
Binghamton University (State University of New York) (Binghamton, NY)*	Jackson State University (Jackson, MS)
Cabrini College (Radnor, PA)*	Jacksonville State University (Jacksonville, AL)
California State University-Dominguez Hills (Carson, CA)	Keene State College (Keene, NH)*
California State University, Fresno (Fresno, CA)	Keuka College (Keuka Park, NY)*
California State University, Northridge (Northridge, CA)	Kwantlen Polytechnic University (Surrey, BC)*
Capital University (Columbus, OH)	Lafayette College (Easton, PA)
Carlow University (Pittsburgh, PA)*	Lake Superior State University (Sault Ste Marie, MI)*
Carroll University (Waukesha, WI)*	Lewis University (Romeoville, IL)*
Central Michigan University (Mount Pleasant, MI)	LIM College (New York, NY)
Centre College (Danville, KY)	Lourdes University (Sylvania, OH)
Citadel, The Military College of South Carolina, The (Charleston, SC)	Luther College (Decorah, IA)*
Claremont McKenna College (Claremont, CA)*	Lynn University (Boca Raton, FL)
Clark University (Worcester, MA)*	Mars Hill University (Mars Hill, NC)
College of Wooster, The (Wooster, OH)	McDaniel College (Westminster, MD)
Colorado State University-Pueblo (Pueblo, CO)*	Methodist University (Fayetteville, NC)
Columbia College Chicago (Chicago, IL)*	Misericordia University (Dallas, PA)*
Concordia University (Portland, OR)	Moravian College (Bethlehem, PA)
Cornerstone University (Grand Rapids, MI)	Morrisville State College (Morrisville, NY)*
Culver-Stockton College (Canton, MO)	Mount Mary University (Milwaukee, WI)
CUNY New York City College of Technology (Brooklyn, NY)	North Carolina Central University (Durham, NC)*
CUNY Queens College (Flushing, NY)*	Oklahoma City University (Oklahoma City, OK)
Eastern New Mexico University (Portales, NM)	Old Dominion University (Norfolk, VA)
Gallaudet University (Washington, DC)*	Otis College of Art and Design (Los Angeles, CA)

## Learning with Tech (N=98), continued

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Ramapo College of New Jersey (Mahwah, NJ)\*  
Rollins College (Winter Park, FL)\*  
Savannah College of Art and Design (Savannah, GA)  
Seton Hall University (South Orange, NJ)  
Shenandoah University (Winchester, VA)  
Southern University and A&M College (Baton Rouge, LA)  
Southwestern Christian University (Bethany, OK)  
Springfield College (Springfield, MA)\*  
St. Lawrence University (Canton, NY)\*  
Texas A&M University - Central Texas (Killeen, TX)  
Thompson Rivers University (Kamloops, BC)\*  
Tyndale University College (Toronto, ON)  
Université de Moncton (Moncton, NB)\*  
University of Advancing Technology (Tempe, AZ)  
University of Arkansas at Monticello (Monticello, AR)\*  
University of British Columbia (Vancouver, BC)\*  
University of British Columbia Okanagan (Kelowna, BC)\*  
University of Detroit Mercy (Detroit, MI)\*  
University of Hartford (West Hartford, CT)  
University of Houston (Houston, TX)  
University of Kentucky (Lexington, KY)  
University of Maine at Fort Kent (Fort Kent, ME)\*  
University of Maryland-Eastern Shore (Princess Anne, MD)  
University of Minnesota-Crookston (Crookston, MN)\*  
University of New Hampshire (Durham, NH)  
University of Puerto Rico in Ponce (Ponce, PR)\*  
University of Saint Mary (Leavenworth, KS)  
University of Southern Maine (Portland, ME)\*  
University of St. Thomas (Saint Paul, MN)\*  
University of Toledo (Toledo, OH)  
University of Waterloo (Waterloo, ON)\*  
University of Wisconsin-Stout (Menomonie, WI)\*  
Valley City State University (Valley City, ND)  
Washburn University (Topeka, KS)\*  
Wayne State College (Wayne, NE)  
Westminster College (Fulton, MO)  
William Jewell College (Liberty, MO)  
William Paterson University of New Jersey (Wayne, NJ)\*

\*2014 participant

### First-Year Students

Item wording or description	Variable name	Values <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				CCSU		Learning with Tech		CCSU	Learning with Tech	Effect size <sup>d</sup>
				Count	%	Count	%	Mean	Mean	
<b>1. During the current school year, how much has your use of technology contributed to the following:</b>										
a. Your understanding of course materials and ideas	TEC01a	1	Very little	4	2	573	3	<b>3.2</b>	3.3	-.08
		2	Some	38	16	3,201	14			
		3	Quite a bit	98	44	8,789	38			
		4	Very much	87	38	10,243	45			
		Total		227	100	22,806	100			
b. Demonstrating your understanding of course content	TEC01b	1	Very little	5	2	710	3	<b>3.1</b>	3.2	-.04
		2	Some	37	16	3,904	17			
		3	Quite a bit	112	50	9,043	40			
		4	Very much	73	32	9,001	39			
		Total		227	100	22,658	100			
c. Learning, studying, or completing coursework <b>on your own</b>	TEC01c	1	Very little	4	1	374	2	<b>3.3</b>	3.4	-.13
		2	Some	27	12	2,242	10			
		3	Quite a bit	90	40	7,618	33			
		4	Very much	106	47	12,476	55			
		Total		227	100	22,710	100			
d. Learning, studying, or completing coursework <b>with other students</b>	TEC01d	1	Very little	24	10	1,988	10	<b>2.8</b>	2.9	-.10
		2	Some	59	26	5,155	23			
		3	Quite a bit	80	35	7,474	33			
		4	Very much	64	29	8,012	34			
		Total		227	100	22,629	100			
e. Distracting you from completing your coursework	TEC01e	1	Very little	20	9	2,578	12	<b>2.8</b>	2.7	.05
		2	Some	75	32	7,128	32			
		3	Quite a bit	68	32	6,597	29			
		4	Very much	61	27	6,327	28			
		Total		224	100	22,630	100			
<b>2. During the current school year, how much have your courses improved your understanding and use of technology?</b>										
	TEC02	1	Very little	40	18	3,664	17	<b>2.4</b>	2.5	-.08
		2	Some	69	33	7,876	35			
		3	Quite a bit	78	37	7,196	32			
		4	Very much	22	11	3,713	17			
		Total		209	100	22,449	100			
<b>3. During the current school year, about how often have you used the following technologies in your courses?</b>										
a. Electronic textbooks	TEC03a	1	Never	75	30	7,665	33	<b>2.3</b>	2.2	.06
		2	Sometimes	60	26	6,759	30			
		3	Often	56	26	4,101	18			
		4	Very often	34	16	4,055	18			
		—	I don't know what this is	2	1	182	1			
		Total		227	100	22,762	100			
b. Online portfolios or e-portfolios	TEC03b	1	Never	114	49	10,049	45	<b>1.8</b>	1.8	-.01
		2	Sometimes	38	17	5,302	24			
		3	Often	38	18	2,645	11			
		4	Very often	10	5	1,677	7			
		—	I don't know what this is	25	11	3,004	13			
		Total		225	100	22,677	100			

### First-Year Students

Item wording or description	Variable name	Values <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				CCSU		Learning with Tech		CCSU	Learning with Tech	
				Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
c. Blogs	TEC03c	1	Never	131	56	12,457	54	<b>1.7</b>	1.7	.00
		2	Sometimes	48	22	6,046	28			
		3	Often	34	16	2,447	11			
		4	Very often	9	4	1,315	6			
		—	I don't know what this is	3	1	252	1			
		Total		225	100	22,517	100			
d. Collaborative editing software (Wikis, Google Docs, etc.)	TEC03d	1	Never	65	28	5,145	24	<b>2.3</b>	2.4	-.08
		2	Sometimes	66	30	7,683	34			
		3	Often	65	29	5,423	24			
		4	Very often	27	13	4,083	17			
		—	I don't know what this is	2	1	252	1			
		Total		225	100	22,586	100			
e. Multimedia software (drawing, audio or video production, editing, etc.)	TEC03e	1	Never	123	53	10,917	47	<b>1.8</b>	1.9	-.06
		2	Sometimes	40	19	5,879	26			
		3	Often	42	19	3,227	15			
		4	Very often	16	8	2,290	10			
		—	I don't know what this is	4	2	310	1			
		Total		225	100	22,623	100			
f. Social networking (Facebook, Twitter, etc.)	TEC03f	1	Never	108	48	8,631	39	<b>2.0</b>	2.1	-.10
		2	Sometimes	41	18	6,198	27			
		3	Often	41	19	3,708	16			
		4	Very often	30	14	3,930	17			
		—	I don't know what this is	2	1	151	1			
		Total		222	100	22,618	100			
g. Mobile computing (handheld devices such as smartphones, tablets, etc.)	TEC03g	1	Never	44	19	4,279	19	<b>2.5</b>	2.6	-.08
		2	Sometimes	74	32	6,927	31			
		3	Often	62	29	5,047	23			
		4	Very often	46	20	6,310	28			
		—	I don't know what this is	1	0	98	0			
		Total		227	100	22,661	100			
<b>4. During the current school year, about how often have you used technology to communicate with the following people?</b>										
a. Students	TEC04a	1	Never	11	5	417	2	<b>3.3</b>	3.5 **	-0.22
		2	Sometimes	38	16	2,401	12			
		3	Often	52	25	5,201	24			
		4	Very often	126	54	14,733	62			
		—	I don't know what this is							
		Total		227	100	22,752	100			
b. Academic advisors	TEC04b	1	Never	30	13	3,515	17	<b>2.6</b>	2.6	.01
		2	Sometimes	87	39	7,349	33			
		3	Often	58	26	6,173	27			
		4	Very often	51	22	5,670	24			
		—	I don't know what this is							
		Total		226	100	22,707	100			
c. Faculty	TEC04c	1	Never	11	5	1,951	9	<b>2.8</b>	2.8	.07
		2	Sometimes	76	34	7,009	32			
		3	Often	74	33	7,184	32			
		4	Very often	66	28	6,511	27			
		—	I don't know what this is							
		Total		227	100	22,655	100			

\*p<.05, \*\*p<.01, \*\*\*p<.001 (2-tailed); Refer to the Endnotes page for a key to the triangle symbols.

### First-Year Students

Item wording or description	Variable name	Values <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				CCSU		Learning with Tech		CCSU	Learning with Tech	
				Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
d. Student services staff (career services, student activities, housing, etc.)	TEC04d	1	Never	66	29	6,706	31	<b>2.3</b>	2.2	.06
		2	Sometimes	79	35	8,022	35			
		3	Often	42	19	4,026	18			
		4	Very often	40	17	3,886	16			
		Total		227	100	22,640	100			
e. Other administrative staff and offices (registrar, financial aid, etc.)	TEC04e	1	Never	59	26	6,435	30	<b>2.2</b>	2.2	.04
		2	Sometimes	93	41	8,632	38			
		3	Often	39	18	3,810	17			
		4	Very often	34	15	3,703	16			
		Total		225	100	22,580	100			
<b>5. How much does your institution emphasize the following?</b>										
a. Teaching with new, cutting-edge technologies	TEC05a	1	Very little	35	15	2,878	13	<b>2.4</b>	2.6	-.12
		2	Some	95	40	7,976	36			
		3	Quite a bit	68	32	7,739	33			
		4	Very much	29	13	4,122	18			
		Total		227	100	22,715	100			
b. Providing technology to help you learn, study or complete coursework	TEC05b	1	Very little	20	9	1,796	9	<b>2.7</b>	2.8	-.12
		2	Some	75	32	6,106	27			
		3	Quite a bit	89	41	8,851	39			
		4	Very much	43	19	5,903	25			
		Total		227	100	22,656	100			
c. Teaching you how to use available technologies to learn, study, or complete coursework	TEC05c	1	Very little	27	11	2,256	11	<b>2.6</b>	2.7 **	-.19
		2	Some	87	38	6,616	29			
		3	Quite a bit	77	36	8,272	36			
		4	Very much	36	15	5,530	24			
		Total		227	100	22,674	100			
d. Providing support services to assist you with your use of technology	TEC05d	1	Very little	28	12	2,560	12	<b>2.6</b>	2.7	-.13
		2	Some	86	38	6,793	30			
		3	Quite a bit	73	34	7,799	34			
		4	Very much	39	17	5,451	23			
		Total		226	100	22,603	100			

\*p<.05, \*\*p<.01, \*\*\*p<.001 (2-tailed); Refer to the Endnotes page for a key to the triangle symbols.

## Seniors

Item wording or description	Variable name	Values <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				CCSU		Learning with Tech		CCSU	Learning with Tech	
				Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
<b>1. During the current school year, how much has your use of technology contributed to the following:</b>										
a. Your understanding of course materials and ideas	TEC01a	1	Very little	19	6	810	3	<b>3.1</b>	3.4 ***	-0.30
		2	Some	41	16	3,550	12			
		3	Quite a bit	100	39	9,112	32			
		4	Very much	106	40	14,880	53			
		Total		266	100	28,352	100			
b. Demonstrating your understanding of course content	TEC01b	1	Very little	17	6	1,016	4	<b>3.1</b>	3.3 ***	-0.24
		2	Some	50	20	4,276	15			
		3	Quite a bit	99	38	9,446	33			
		4	Very much	99	37	13,441	48			
		Total		265	100	28,179	100			
c. Learning, studying, or completing coursework <b>on your own</b>	TEC01c	1	Very little	15	6	488	2	<b>3.3</b>	3.5 ***	-0.35
		2	Some	24	10	2,252	8			
		3	Quite a bit	96	37	8,001	28			
		4	Very much	126	47	17,502	62			
		Total		261	100	28,243	100			
d. Learning, studying, or completing coursework <b>with other students</b>	TEC01d	1	Very little	38	14	2,264	9	<b>2.8</b>	3.1 ***	-0.28
		2	Some	56	21	5,162	19			
		3	Quite a bit	86	33	8,216	28			
		4	Very much	81	31	12,510	44			
		Total		261	100	28,152	100			
e. Distracting you from completing your coursework	TEC01e	1	Very little	45	18	4,721	18	<b>2.5</b>	2.6	-0.09
		2	Some	90	35	8,394	30			
		3	Quite a bit	68	25	7,238	25			
		4	Very much	60	22	7,785	27			
		Total		263	100	28,138	100			
<b>2. During the current school year, how much have your courses improved your understanding and use of technology?</b>										
	TEC02	1	Very little	47	17	4,697	17	<b>2.5</b>	2.6	-0.04
		2	Some	82	31	9,072	31			
		3	Quite a bit	84	32	8,432	30			
		4	Very much	48	19	5,896	22			
		Total		261	100	28,097	100			
<b>3. During the current school year, about how often have you used the following technologies in your courses?</b>										
a. Electronic textbooks	TEC03a	1	Never	114	41	9,586	32	<b>2.0</b>	2.3 ***	-0.25
		2	Sometimes	79	31	8,269	29			
		3	Often	41	16	4,289	16			
		4	Very often	30	12	6,048	22			
		—	I don't know what this is	0	0	114	0			
Total		264	100	28,306	100					
b. Online portfolios or e-portfolios	TEC03b	1	Never	154	59	13,019	46	<b>1.6</b>	1.8 ***	-0.26
		2	Sometimes	56	22	6,010	22			
		3	Often	22	9	2,937	10			
		4	Very often	11	5	2,987	11			
		—	I don't know what this is	18	6	3,226	12			
Total		261	100	28,179	100					

\*p<.05, \*\*p<.01, \*\*\*p<.001 (2-tailed); Refer to the Endnotes page for a key to the triangle symbols.



## Seniors

Item wording or description	Variable name	Values <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				CCSU		Learning with Tech		CCSU	Learning with Tech	
				Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
c. Blogs	TEC03c	1	Never	144	55	15,487	55	<b>1.6</b>	1.7	-.06
		2	Sometimes	77	29	7,885	29			
		3	Often	28	11	2,524	9			
		4	Very often	8	3	1,777	7			
		—	I don't know what this is	3	1	286	1			
		Total		260	100	27,959	100			
d. Collaborative editing software (Wikis, Google Docs, etc.)	TEC03d	1	Never	88	34	5,865	21	<b>2.1</b>	2.5 ***	-.37
		2	Sometimes	89	34	8,795	31			
		3	Often	59	22	6,632	24			
		4	Very often	28	10	6,546	23			
		—	I don't know what this is	1	0	264	1			
		Total		265	100	28,102	100			
e. Multimedia software (drawing, audio or video production, editing, etc.)	TEC03e	1	Never	109	40	12,977	45	<b>2.0</b>	2.0	.05
		2	Sometimes	84	33	7,572	27			
		3	Often	31	12	3,573	13			
		4	Very often	37	14	3,674	14			
		—	I don't know what this is	3	1	334	1			
		Total		264	100	28,130	100			
f. Social networking (Facebook, Twitter, etc.)	TEC03f	1	Never	142	55	11,695	42	<b>1.8</b>	2.0 ***	-.22
		2	Sometimes	57	21	7,858	27			
		3	Often	41	15	4,131	15			
		4	Very often	23	9	4,218	15			
		—	I don't know what this is	1	0	200	1			
		Total		264	100	28,102	100			
g. Mobile computing (handheld devices such as smartphones, tablets, etc.)	TEC03g	1	Never	82	30	6,251	22	<b>2.3</b>	2.6 ***	-.25
		2	Sometimes	73	29	7,860	27			
		3	Often	52	19	5,880	21			
		4	Very often	55	21	8,081	30			
		—	I don't know what this is	4	1	107	0			
		Total		266	100	28,179	100			
<b>4. During the current school year, about how often have you used technology to communicate with the following people?</b>										
a. Students	TEC04a	1	Never	9	4	444	2	<b>3.2</b>	3.5 ***	-.42
		2	Sometimes	47	18	2,631	10			
		3	Often	75	30	5,411	20			
		4	Very often	134	48	19,822	68			
		Total		265	100	28,308	100			
		b. Academic advisors	TEC04b	1	Never	22	8			
2	Sometimes			103	40	7,847	29			
3	Often			70	27	6,909	24			
4	Very often			69	25	9,807	32			
Total				264	100	28,257	100			
c. Faculty	TEC04c			1	Never	8	3	1,150	5	<b>3.0</b>
		2	Sometimes	65	25	6,454	24			
		3	Often	102	40	8,725	31			
		4	Very often	86	31	11,795	40			
		Total		261	100	28,124	100			

\*p<.05, \*\*p<.01, \*\*\*p<.001 (2-tailed); Refer to the Endnotes page for a key to the triangle symbols.

### Seniors

Item wording or description	Variable name	Values <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				CCSU		Learning with Tech		CCSU	Learning with Tech	
				Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
d. Student services staff (career services, student activities, housing, etc.)	TEC04d	1	Never	130	48	10,325	39	<b>1.8</b>	2.1 ***	-.24
		2	Sometimes	70	28	8,113	29			
		3	Often	41	16	4,104	14			
		4	Very often	23	8	5,598	19			
		Total		264	100	28,140	100			
e. Other administrative staff and offices (registrar, financial aid, etc.)	TEC04e	1	Never	76	28	7,740	30	<b>2.1</b>	2.2 **	-.14
		2	Sometimes	122	47	10,695	37			
		3	Often	44	17	4,226	15			
		4	Very often	22	8	5,440	18			
		Total		264	100	28,101	100			
<b>5. How much does your institution emphasize the following?</b>										
a. Teaching with new, cutting-edge technologies	TEC05a	1	Very little	47	17	4,152	15	<b>2.3</b>	2.5 ***	-.23
		2	Some	111	43	10,147	35			
		3	Quite a bit	85	33	8,968	32			
		4	Very much	21	8	5,015	18			
		Total		264	100	28,282	100			
b. Providing technology to help you learn, study or complete coursework	TEC05b	1	Very little	29	11	3,020	11	<b>2.6</b>	2.7 **	-.19
		2	Some	99	38	8,265	29			
		3	Quite a bit	95	37	10,222	36			
		4	Very much	41	15	6,719	24			
		Total		264	100	28,226	100			
c. Teaching you how to use available technologies to learn, study, or complete coursework	TEC05c	1	Very little	42	16	3,792	14	<b>2.4</b>	2.6 ***	-.20
		2	Some	99	37	9,077	32			
		3	Quite a bit	92	35	9,242	33			
		4	Very much	32	12	6,120	22			
		Total		265	100	28,231	100			
d. Providing support services to assist you with your use of technology	TEC05d	1	Very little	42	15	4,234	16	<b>2.4</b>	2.6 *	-.12
		2	Some	103	38	9,441	33			
		3	Quite a bit	83	33	8,663	31			
		4	Very much	36	13	5,812	21			
		Total		264	100	28,150	100			

\*p<.05, \*\*p<.01, \*\*\*p<.001 (2-tailed); Refer to the Endnotes page for a key to the triangle symbols.

## First-Year Students

Variable name	N	Mean		Standard error <sup>f</sup>		Standard deviation <sup>g</sup>		DF <sup>h</sup>	Sig. <sup>i</sup>	Effect size <sup>d</sup>
		CCSU	Learning with Tech	CCSU	Learning with Tech	CCSU	Learning with Tech			
TEC01a	226	3.19	3.25	.05	.01	0.76	0.80	23,072	.215	-.08
TEC01b	226	3.12	3.16	.05	.01	0.74	0.82	230	.509	-.04
TEC01c	226	3.32	3.41	.05	.00	0.74	0.74	22,962	.060	-.13
TEC01d	226	2.82	2.92	.06	.01	0.97	0.98	22,897	.131	-.10
TEC01e	223	2.77	2.72	.06	.01	0.95	1.00	22,908	.453	.05
TEC02	206	2.41	2.48	.06	.01	0.91	0.96	22,675	.279	-.08
TEC03a	224	2.29	2.22	.07	.01	1.07	1.10	22,844	.390	.06
TEC03b	199	1.77	1.78	.07	.01	0.96	0.97	19,945	.885	-.01
TEC03c	220	1.69	1.69	.06	.01	0.90	0.90	22,508	.999	.00
TEC03d	222	2.27	2.35	.07	.01	1.01	1.03	22,610	.217	-.08
TEC03e	220	1.81	1.88	.07	.01	1.00	1.02	22,599	.357	-.06
TEC03f	219	1.99	2.10	.08	.01	1.11	1.10	22,697	.157	-.10
TEC03g	225	2.51	2.59	.07	.01	1.02	1.08	229	.211	-.08
TEC04a	226	3.28	3.46	.06	.01	0.90	0.79	228	.004	-.22
TEC04b	225	2.57	2.56	.07	.01	0.98	1.03	22,953	.904	.01
TEC04c	226	2.84	2.77	.06	.01	0.89	0.95	22,895	.266	.07
TEC04d	226	2.25	2.19	.07	.01	1.05	1.05	22,880	.359	.06
TEC04e	223	2.22	2.18	.07	.01	1.00	1.03	22,819	.566	.04
TEC05a	226	2.44	2.55	.06	.01	0.90	0.93	22,962	.075	-.12
TEC05b	226	2.70	2.80	.06	.01	0.88	0.91	22,915	.084	-.12
TEC05c	226	2.55	2.73	.06	.01	0.89	0.94	22,928	.005	-.19
TEC05d	225	2.56	2.68	.06	.01	0.91	0.96	22,853	.061	-.13

## Seniors

Variable name	N	Mean		Standard error <sup>f</sup>		Standard deviation <sup>g</sup>		DF <sup>h</sup>	Sig. <sup>i</sup>	Effect size <sup>d</sup>
		CCSU	Learning with Tech	CCSU	Learning with Tech	CCSU	Learning with Tech			
								<i>Comparisons with:</i>		
								Learning with Tech		
TEC01a	270	3.11	3.35	.05	.00	0.89	0.81	27,118	.000	-.30
TEC01b	269	3.06	3.26	.05	.01	0.89	0.85	26,944	.000	-.24
TEC01c	265	3.26	3.51	.05	.00	0.86	0.72	268	.000	-.35
TEC01d	264	2.81	3.08	.06	.01	1.03	0.98	26,929	.000	-.28
TEC01e	266	2.52	2.61	.06	.01	1.03	1.07	26,916	.164	-.09
TEC02	265	2.53	2.57	.06	.01	0.99	1.01	26,861	.537	-.04
TEC03a	268	1.99	2.28	.06	.01	1.03	1.14	273	.000	-.25
TEC03b	248	1.57	1.84	.05	.01	0.85	1.04	255	.000	-.26
TEC03c	262	1.62	1.68	.05	.01	0.82	0.90	26,461	.310	-.06
TEC03d	268	2.09	2.49	.06	.01	0.98	1.07	274	.000	-.37
TEC03e	265	2.01	1.95	.06	.01	1.05	1.07	26,575	.398	.05
TEC03f	267	1.78	2.02	.06	.01	1.01	1.08	26,684	.000	-.22
TEC03g	267	2.31	2.59	.07	.01	1.12	1.13	26,860	.000	-.25
TEC04a	269	3.22	3.54	.05	.00	0.88	0.76	273	.000	-.42
TEC04b	268	2.69	2.73	.06	.01	0.94	1.07	273	.453	-.04
TEC04c	265	2.99	3.06	.05	.01	0.84	0.91	270	.226	-.07
TEC04d	268	1.85	2.12	.06	.01	0.97	1.12	275	.000	-.24
TEC04e	268	2.07	2.21	.05	.01	0.89	1.06	274	.009	-.14
TEC05a	268	2.31	2.53	.05	.01	0.84	0.95	274	.000	-.23
TEC05b	268	2.55	2.73	.05	.01	0.87	0.95	27,018	.002	-.19
TEC05c	269	2.43	2.63	.05	.01	0.90	0.98	274	.000	-.20
TEC05d	268	2.45	2.56	.06	.01	0.91	0.99	273	.039	-.12

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## Endnotes

- a. Column percentages are weighted by institution-reported sex and enrollment status (and institution size for comparison groups). Percentages may not sum to 100 due to rounding. Counts are unweighted; column percentages cannot be replicated from counts.
- b. All statistics are weighted by institution-reported sex and enrollment status (and institution size for comparison groups). Unless otherwise noted, statistical comparisons are two-tailed independent  $t$ -tests. Items with categorical response sets are left blank.
- c. These are the values used to calculate means. For the majority of items, these values match the codes in the data file and codebook.
- d. Effect size for independent  $t$ -tests uses Cohen's  $d$ .
- e. Statistics are weighted by institution-reported sex and enrollment status (and institution size for comparison groups). Categorical items are not listed.
- f. The 95% confidence interval for the population mean is equal to the sample mean plus or minus 1.96 times the standard error of the mean.
- g. A measure of the amount individual scores deviate from the mean of all the scores in the distribution.
- h. Degrees of freedom used to compute the  $t$ -tests. Values differ from  $N$ s due to weighting and whether equal variances were assumed.
- i. Statistical comparisons are two-tailed independent  $t$ -tests. Statistical significance represents the probability that the difference between your students' mean and that of the comparison group is due to chance.

### **Key to symbols:**

- ▲ **Your students' average** was significantly higher ( $p < .05$ ) with an effect size at least .3 in magnitude.
- △ **Your students' average** was significantly higher ( $p < .05$ ) with an effect size less than .3 in magnitude.
- ▼ **Your students' average** was significantly lower ( $p < .05$ ) with an effect size less than .3 in magnitude.
- ▽ **Your students' average** was significantly lower ( $p < .05$ ) with an effect size at least .3 in magnitude.

Note: It is important to interpret the direction of differences relative to item wording and your institutional context.