
NSSE 2021 Topical Module Report

Development of Transferable Skills

Tennessee Technological University

Adapted from a pilot survey that was developed by the American Association of State Colleges and Universities, this module examines activities that develop useful and transferable skills for the workplace and beyond (such as verbal and written fluency, critical thinking, creative thinking, problem solving, project management, and time management). The module complements questions on the core survey about higher-order learning, reflective and integrative learning, and students' perceptions of their development in a variety of areas.

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First-Year Students

Item wording or description	Variable name	Values ^c	Response options	Frequency Distributions ^a				Statistical Comparisons ^b		
				Tennessee Tech		Transferable Skills		Tennessee Tech	Transferable Skills	Effect size ^d
				Count	%	Count	%	Mean	Mean	
1. During the current school year, whether course-related or not, about how often have you done the following?										
a. Discussed or debated an issue of social, political, or philosophical importance	TRN01a21	1	Never	67	19	965	18	2.3	2.4	-.10
		2	Sometimes	152	43	2,148	37			
		3	Often	88	25	1,668	28			
		4	Very often	50	14	967	17			
		Total		357	100	5,748	100			
b. Made a speech to a group	TRN01b21	1	Never	149	41	2,190	39	1.9	1.9	-.04
		2	Sometimes	126	36	2,105	36			
		3	Often	53	15	979	17			
		4	Very often	29	8	471	8			
		Total		357	100	5,745	100			
c. Worked in a group with people who differed from you in terms of background, political orientation, points of view, etc.	TRN01c21	1	Never	62	17	798	15	2.3	2.5 **	-.14
		2	Sometimes	157	44	2,190	38			
		3	Often	98	28	1,798	31			
		4	Very often	40	12	946	16			
		Total		357	100	5,732	100			
d. Discussed the ethical consequences of a course of action	TRN01d21	1	Never	90	25	1,056	19	2.2	2.3 **	-.15
		2	Sometimes	138	40	2,278	39			
		3	Often	95	26	1,687	29			
		4	Very often	34	10	718	13			
		Total		357	100	5,739	100			
e. Evaluated the credibility of information sources	TRN01e21	1	Never	44	12	482	9	2.5	2.7 ***	-.21
		2	Sometimes	135	39	1,783	31			
		3	Often	124	35	2,300	40			
		4	Very often	53	14	1,173	20			
		Total		356	100	5,738	100			
f. Discussed complex problems with others to develop a better solution	TRN01f21	1	Never	58	16	680	13	2.4	2.5	-.09
		2	Sometimes	129	37	2,173	38			
		3	Often	125	35	1,993	34			
		4	Very often	45	12	881	15			
		Total		357	100	5,727	100			
g. Generated multiple solutions to a problem or task	TRN01g21	1	Never	41	11	529	10	2.6	2.6	-.02
		2	Sometimes	127	35	2,149	37			
		3	Often	132	37	2,101	36			
		4	Very often	57	16	943	16			
		Total		357	100	5,722	100			
h. Combined dissimilar concepts to create a novel idea	TRN01h21	1	Never	132	36	1,484	26	2.0	2.1 **	-.17
		2	Sometimes	127	36	2,419	42			
		3	Often	72	21	1,313	23			
		4	Very often	26	7	507	9			
		Total		357	100	5,723	100			
i. Adapted a previously used solution to a new situation	TRN01i21	1	Never	62	16	813	15	2.4	2.4	-.05
		2	Sometimes	143	41	2,379	41			
		3	Often	114	32	1,826	32			
		4	Very often	38	11	697	12			
		Total		357	100	5,715	100			

First-Year Students

Item wording or description	Variable name	Values ^c	Response options	Frequency Distributions ^a				Statistical Comparisons ^b		
				Tennessee Tech		Transferable Skills		Tennessee Tech	Transferable Skills	Effect size ^d
				Count	%	Count	%	Mean	Mean	
j. Referred to online content (tutorial, forum, webpage, etc.) to solve a problem	TRN01j21	1	Never	26	7	302	6	2.9	2.9	-.03
		2	Sometimes	104	29	1,569	28			
		3	Often	113	31	2,122	37			
		4	Very often	113	32	1,721	30			
		Total		356	100	5,714	100			
k. Referred to online content (tutorial, forum, webpage, etc.) to learn a new skill or procedure	TRN01k21	1	Never	25	7	320	6	2.8	2.9	-.08
		2	Sometimes	115	32	1,616	29			
		3	Often	120	34	2,110	37			
		4	Very often	95	27	1,663	29			
		Total		355	100	5,709	100			
l. Used project management tools to plan, organize, or schedule tasks	TRN01l21	1	Never	65	18	730	13	2.4	2.5	-.09
		2	Sometimes	130	38	2,128	38			
		3	Often	95	26	1,867	32			
		4	Very often	65	18	980	17			
		Total		355	100	5,705	100			
m. Used a daily or weekly "to do" list	TRN01m21	1	Never	35	11	492	10	3.0	3.0	.02
		2	Sometimes	75	22	1,334	25			
		3	Often	83	24	1,392	25			
		4	Very often	162	43	2,489	41			
		Total		355	100	5,707	100			
n. Prioritized what tasks need to be accomplished	TRN01n21	1	Never	3	1	116	2	3.4	3.3 *	.13
		2	Sometimes	52	15	916	17			
		3	Often	107	31	1,918	34			
		4	Very often	194	53	2,757	47			
		Total		356	100	5,707	100			
o. Worked longer hours than usual to meet deadlines (i.e., after midnight, before dawn)	TRN01o21	1	Never	18	5	391	7	3.1	3.0 **	.16
		2	Sometimes	78	23	1,448	26			
		3	Often	95	27	1,613	28			
		4	Very often	164	46	2,263	38			
		Total		355	100	5,715	100			
p. Written something (paper, report, article, etc.) that used information from a variety of sources (books, journals, Internet, databases, etc.)	TRN01p21	1	Never	33	9	218	4	2.6	3.0 ***	-.41
		2	Sometimes	132	38	1,496	27			
		3	Often	118	34	1,952	35			
		4	Very often	71	19	2,036	34			
		Total		354	100	5,702	100			
q. Written something (paper, report, article, etc.) that assessed the conclusions of a published work	TRN01q21	1	Never	74	20	741	14	2.3	2.6 ***	-.30
		2	Sometimes	142	41	1,952	35			
		3	Often	93	26	1,700	30			
		4	Very often	44	12	1,302	22			
		Total		353	100	5,695	100			

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

First-Year Students

Item wording or description	Variable name	Values ^c	Response options	Frequency Distributions ^a				Statistical Comparisons ^b		
				Tennessee Tech		Transferable Skills		Tennessee Tech	Transferable Skills	Effect size ^d
				Count	%	Count	%	Mean	Mean	
r. Written something (paper, report, article, etc.) that included ideas from more than one academic discipline	TRN01r21	1	Never	83	23	869	16	2.2	2.5 ***	-.29
		2	Sometimes	147	42	2,118	37			
		3	Often	90	25	1,597	28			
		4	Very often	34	10	1,112	19			
		Total		354	100	5,696	100			
s. Written something (paper, report, article, etc.) that presented multiple viewpoints or perspectives	TRN01s21	1	Never	52	14	513	9	2.4	2.6 ***	-.31
		2	Sometimes	166	48	2,142	38			
		3	Often	90	26	1,860	33			
		4	Very often	45	12	1,193	20			
		Total		353	100	5,708	100			

Seniors

Item wording or description	Variable name	Values ^c	Response options	Frequency Distributions ^a				Statistical Comparisons ^b		
				Tennessee Tech		Transferable Skills		Tennessee Tech	Transferable Skills	Effect size ^d
				Count	%	Count	%	Mean	Mean	
1. During the current school year, whether course-related or not, about how often have you done the following?										
a. Discussed or debated an issue of social, political, or philosophical importance	TRN01a21	1	Never	105	23	1,200	18	2.3	2.5 ***	-.19
		2	Sometimes	185	40	2,481	35			
		3	Often	100	21	1,851	27			
		4	Very often	73	16	1,400	20			
		Total		463	100	6,932	100			
b. Made a speech to a group	TRN01b21	1	Never	112	25	2,167	32	2.2	2.1 ***	.16
		2	Sometimes	184	40	2,764	40			
		3	Often	115	24	1,305	19			
		4	Very often	50	11	675	10			
		Total		461	100	6,911	100			
c. Worked in a group with people who differed from you in terms of background, political orientation, points of view, etc.	TRN01c21	1	Never	35	8	607	9	2.8	2.7	.05
		2	Sometimes	142	31	2,272	33			
		3	Often	175	38	2,422	35			
		4	Very often	108	24	1,624	23			
		Total		460	100	6,925	100			
d. Discussed the ethical consequences of a course of action	TRN01d21	1	Never	75	16	1,016	16	2.5	2.5	.00
		2	Sometimes	165	36	2,519	36			
		3	Often	143	31	2,212	32			
		4	Very often	80	17	1,177	16			
		Total		463	100	6,924	100			
e. Evaluated the credibility of information sources	TRN01e21	1	Never	38	8	508	8	2.7	2.8 **	-.14
		2	Sometimes	164	36	1,909	28			
		3	Often	156	33	2,634	38			
		4	Very often	104	22	1,868	27			
		Total		462	100	6,919	100			
f. Discussed complex problems with others to develop a better solution	TRN01f21	1	Never	37	8	617	10	2.8	2.7 **	.15
		2	Sometimes	125	26	2,171	32			
		3	Often	175	38	2,651	38			
		4	Very often	125	27	1,473	21			
		Total		462	100	6,912	100			
g. Generated multiple solutions to a problem or task	TRN01g21	1	Never	30	7	451	7	2.8	2.7 *	.12
		2	Sometimes	128	28	2,261	33			
		3	Often	184	40	2,710	39			
		4	Very often	120	26	1,487	21			
		Total		462	100	6,909	100			
h. Combined dissimilar concepts to create a novel idea	TRN01h21	1	Never	107	23	1,393	21	2.3	2.3	.02
		2	Sometimes	171	37	2,973	43			
		3	Often	123	26	1,708	25			
		4	Very often	61	14	818	12			
		Total		462	100	6,892	100			
i. Adapted a previously used solution to a new situation	TRN01i21	1	Never	52	11	738	11	2.6	2.5	.05
		2	Sometimes	171	37	2,672	39			
		3	Often	149	33	2,422	35			
		4	Very often	87	19	1,061	15			
		Total		459	100	6,893	100			

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

Seniors

Item wording or description	Variable name	Values ^c	Response options	Frequency Distributions ^a				Statistical Comparisons ^b		
				Tennessee Tech		Transferable Skills		Tennessee Tech	Transferable Skills	Effect size ^d
				Count	%	Count	%	Mean	Mean	
j. Referred to online content (tutorial, forum, webpage, etc.) to solve a problem	TRN01j21	1	Never	28	6	267	4	2.9	3.0 ***	-0.17
		2	Sometimes	122	26	1,595	23			
		3	Often	175	38	2,534	37			
		4	Very often	134	29	2,495	36			
		Total		459	100	6,891	100			
k. Referred to online content (tutorial, forum, webpage, etc.) to learn a new skill or procedure	TRN01k21	1	Never	21	5	290	4	3.0	3.0	-0.05
		2	Sometimes	109	24	1,666	24			
		3	Often	189	42	2,509	36			
		4	Very often	143	30	2,426	35			
		Total		462	100	6,891	100			
l. Used project management tools to plan, organize, or schedule tasks	TRN01l21	1	Never	65	15	784	12	2.6	2.6	-0.02
		2	Sometimes	138	30	2,201	33			
		3	Often	152	33	2,383	34			
		4	Very often	104	22	1,509	21			
		Total		459	100	6,877	100			
m. Used a daily or weekly "to do" list	TRN01m21	1	Never	39	9	514	8	3.1	3.0	.03
		2	Sometimes	94	22	1,473	23			
		3	Often	98	21	1,757	26			
		4	Very often	229	47	3,155	43			
		Total		460	100	6,899	100			
n. Prioritized what tasks need to be accomplished	TRN01n21	1	Never	10	2	106	2	3.4	3.4	.03
		2	Sometimes	54	13	847	13			
		3	Often	134	30	2,196	33			
		4	Very often	264	55	3,742	53			
		Total		462	100	6,891	100			
o. Worked longer hours than usual to meet deadlines (i.e., after midnight, before dawn)	TRN01o21	1	Never	34	8	402	6	3.1	3.1	.02
		2	Sometimes	100	23	1,631	24			
		3	Often	112	25	1,936	29			
		4	Very often	215	45	2,924	41			
		Total		461	100	6,893	100			
p. Written something (paper, report, article, etc.) that used information from a variety of sources (books, journals, Internet, databases, etc.)	TRN01p21	1	Never	40	9	295	5	2.8	3.1 ***	-0.29
		2	Sometimes	134	29	1,539	23			
		3	Often	153	33	2,216	32			
		4	Very often	134	29	2,838	40			
		Total		461	100	6,888	100			
q. Written something (paper, report, article, etc.) that assessed the conclusions of a published work	TRN01q21	1	Never	91	21	924	14	2.4	2.6 ***	-0.24
		2	Sometimes	173	37	2,196	32			
		3	Often	109	23	1,947	28			
		4	Very often	86	19	1,813	26			
		Total		459	100	6,880	100			

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

NSSE 2021 Development of Transferable Skills

Frequencies and Statistical Comparisons Tennessee Technological University

Seniors

Item wording or description	Variable name	Values ^c	Response options	Frequency Distributions ^a				Statistical Comparisons ^b		
				Tennessee Tech		Transferable Skills		Tennessee Tech	Transferable Skills	Effect size ^d
				Count	%	Count	%	Mean	Mean	
r. Written something (paper, report, article, etc.) that included ideas from more than one academic discipline	TRN01r21	1	Never	87	20	878	13	2.4	2.6 ***	-0.20
		2	Sometimes	170	36	2,280	33			
		3	Often	111	23	2,043	30			
		4	Very often	93	20	1,686	24			
		Total		461	100	6,887	100			
s. Written something (paper, report, article, etc.) that presented multiple viewpoints or perspectives	TRN01s21	1	Never	78	17	719	11	2.5	2.6 ***	-0.20
		2	Sometimes	176	38	2,418	35			
		3	Often	123	27	2,173	31			
		4	Very often	85	18	1,581	22			
		Total		462	100	6,891	100			

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

NSSE 2021 Development of Transferable Skills

Detailed Statistics^e

Tennessee Technological University

First-Year Students

Variable name	N	Mean		Standard error ^f		Standard deviation ^g		DF ^h	Sig. ⁱ	Effect size ^d
		Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills			
								<i>Comparisons with:</i>		
								Transferable Skills		
TRN01a21	355	2.34	2.44	.050	.014	0.94	0.97	5,125	.059	-.10
TRN01b21	355	1.90	1.94	.050	.014	0.94	0.94	5,124	.455	-.04
TRN01c21	355	2.35	2.48	.047	.014	0.89	0.93	414	.007	-.14
TRN01d21	355	2.21	2.34	.049	.013	0.92	0.93	5,117	.008	-.15
TRN01e21	354	2.52	2.71	.047	.013	0.88	0.89	5,114	.000	-.21
TRN01f21	355	2.44	2.52	.048	.013	0.90	0.90	5,108	.102	-.09
TRN01g21	355	2.58	2.59	.047	.013	0.89	0.88	5,105	.734	-.02
TRN01h21	355	1.99	2.14	.050	.013	0.93	0.91	5,106	.002	-.17
TRN01i21	355	2.37	2.42	.047	.013	0.88	0.88	5,100	.362	-.05
TRN01j21	354	2.88	2.91	.050	.013	0.95	0.89	401	.571	-.03
TRN01k21	353	2.82	2.89	.049	.013	0.91	0.89	5,095	.155	-.08
TRN01l21	353	2.44	2.52	.053	.013	0.99	0.92	399	.140	-.09
TRN01m21	353	2.99	2.97	.056	.015	1.04	1.02	5,093	.733	.02
TRN01n21	354	3.36	3.25	.041	.012	0.77	0.82	5,094	.019	.13
TRN01o21	353	3.13	2.98	.049	.014	0.93	0.96	5,100	.004	.16
TRN01p21	352	2.63	2.99	.047	.013	0.89	0.88	404	.000	-.41
TRN01q21	352	2.31	2.60	.049	.014	0.93	0.98	411	.000	-.30
TRN01r21	353	2.22	2.50	.048	.014	0.91	0.97	414	.000	-.29
TRN01s21	351	2.36	2.64	.047	.013	0.87	0.91	408	.000	-.31

NSSE 2021 Development of Transferable Skills

Detailed Statistics^e

Tennessee Technological University

Seniors

Variable name	N	Mean		Standard error ^f		Standard deviation ^g		DF ^h	Sig. ⁱ	Effect size ^d
		Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills			
								<i>Comparisons with:</i>		
								Transferable Skills		
TRN01a21	463	2.29	2.48	.046	.012	0.99	1.01	7,144	.000	-.19
TRN01b21	461	2.21	2.06	.044	.012	0.94	0.94	7,121	.001	.16
TRN01c21	461	2.77	2.72	.042	.011	0.90	0.93	7,137	.254	.05
TRN01d21	463	2.49	2.49	.045	.012	0.96	0.94	7,137	.962	.00
TRN01e21	462	2.70	2.83	.042	.011	0.91	0.91	7,130	.004	-.14
TRN01f21	462	2.84	2.70	.043	.011	0.92	0.90	7,126	.001	.15
TRN01g21	462	2.84	2.74	.041	.011	0.89	0.87	7,120	.013	.12
TRN01h21	462	2.30	2.28	.045	.011	0.97	0.92	520	.657	.02
TRN01i21	459	2.59	2.54	.043	.011	0.92	0.88	7,099	.302	.05
TRN01j21	459	2.90	3.05	.042	.011	0.89	0.87	7,097	.000	-.17
TRN01k21	462	2.98	3.02	.040	.011	0.85	0.88	7,100	.277	-.05
TRN01l21	459	2.63	2.65	.046	.012	0.99	0.95	7,086	.649	-.02
TRN01m21	460	3.07	3.04	.048	.012	1.03	0.99	519	.564	.03
TRN01n21	462	3.38	3.36	.037	.009	0.79	0.77	7,100	.545	.03
TRN01o21	461	3.08	3.06	.046	.012	0.99	0.94	520	.642	.02
TRN01p21	461	2.82	3.08	.044	.011	0.95	0.90	519	.000	-.29
TRN01q21	459	2.40	2.65	.047	.012	1.01	1.01	7,089	.000	-.24
TRN01r21	462	2.44	2.64	.048	.012	1.03	0.99	7,098	.000	-.20
TRN01s21	462	2.46	2.65	.046	.012	0.98	0.95	7,102	.000	-.20

See the endnotes on the last page of this report.

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. Comparison group details are in the *Selected Comparison Groups* report, linked in the Data & Reports table on the Institution Interface.
- 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 ; z -tests use Cohen's h .
- 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 or z -tests. Statistical significance represents the probability that the difference between your students' mean and that of the students in the comparison group is due to chance.
- j. Statistical comparison uses z -test to compare the proportion who responded (depending on the item) "Done or in progress" or "Yes" with all who responded otherwise.
- k. Mean represents the proportion who responded (depending on the item) "Done or in progress" or "Yes."

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.