NSSE national survey of student engagement

NSSE 2024 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.

Comparison group details are in the online Selected Comparison Groups report, linked in the Data & Reports table on the Institution Interface. A PDF copy is also saved in your report download folder.

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NSSE 2024 Development of Transferable Skills

Frequencies and Statistical Comparisons

Tennessee Technological University

First-Year Students

Item wording or description	Variable name	Values [c]	Response options	Frequency Distributions [a]: Tennessee Tech Count	Tennessee Tech %	Transferable Skills Count	Transferable Skills %	Statistical Comparisons [b]: Tennessee Tech Mean	Transferable Skills Mean	Effect size [d]
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	TRNdebate	1	Never	79	25	2,518	19	2.2	2.4 *** ▽	-.19
		2	Sometimes	130	42	5,264	40			
		3	Often	68	23	3,533	27			
		4	Very often	31	10	1,858	14			
			Total	308	100	13,173	100			
b. Made a speech to a group	TRNspeech	1	Never	81	27	4,066	31	2.1	2.1	.02
		2	Sometimes	131	42	5,160	39			
		3	Often	68	23	2,650	20			
		4	Very often	26	8	1,287	10			
			Total	306	100	13,163	100			
c. Worked in a group with people who differed from you in terms of background, political orientation, points of view, etc.	TRNgroup	1	Never	21	7	915	7	2.6	2.7	-.09
		2	Sometimes	121	39	4,558	35			
		3	Often	117	38	5,186	39			
		4	Very often	49	15	2,496	19			
			Total	308	100	13,155	100			
d. Discussed the ethical consequences of a course of action	TRNethical	1	Never	61	21	2,054	16	2.2	2.4 ** ▽	-.18
		2	Sometimes	137	44	5,336	40			
		3	Often	81	26	4,101	31			
		4	Very often	29	9	1,666	12			
			Total	308	100	13,157	100			
e. Evaluated the credibility of information sources	TRNcred	1	Never	26	9	838	7	2.6	2.8 *** ▽	-.21
		2	Sometimes	116	38	4,044	31			
		3	Often	115	37	5,387	41			
		4	Very often	50	16	2,877	22			
			Total	307	100	13,146	100			
f. Discussed complex problems with others to develop a better solution	TRNcomplex	1	Never	28	10	1,026	8	2.6	2.7 * ▽	-.12
		2	Sometimes	124	41	4,530	35			
		3	Often	105	33	5,195	39			
		4	Very often	49	16	2,383	18			
			Total	306	100	13,134	100			
g. Generated multiple solutions to a problem or task	TRNsolution	1	Never	16	5	747	6	2.7	2.7	-.05
		2	Sometimes	118	39	4,464	34			
		3	Often	119	39	5,475	41			
		4	Very often	53	17	2,450	18			
			Total	306	100	13,136	100			
h. Combined dissimilar concepts to create a novel idea	TRNcreate	1	Never	78	26	2,712	21	2.2	2.3	-.11
		2	Sometimes	124	41	5,607	42			
		3	Often	79	25	3,506	27			
		4	Very often	26	8	1,286	10			
			Total	307	100	13,111	100			
i. Adapted a previously used solution to a new situation	TRNadapt	1	Never	36	12	1,312	10	2.5	2.5	-.06
		2	Sometimes	126	41	5,057	39			
		3	Often	101	33	4,922	37			
		4	Very often	43	14	1,806	14			
			Total	306	100	13,097	100			

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

NSSE 2024 Development of Transferable Skills

Frequencies and Statistical Comparisons

Tennessee Technological University

First-Year Students

Item wording or description	Variable name	Values [c]	Response options	Frequency Distributions [a] Tennessee Tech Count	Tennessee Tech %	Transferable Skills Count	Transferable Skills %	Statistical Comparisons [b] Tennessee Tech Mean	Transferable Skills Mean	Effect size [d]
j. Referred to online content (tutorial, forum, webpage, etc.) to solve a problem	TRNonlsolve	1	Never	10	3	530	4			
		2	Sometimes	81	27	3,260	25			
		3	Often	132	43	5,127	39	2.9	3.0	-.04
		4	Very often	83	27	4,181	31			
			Total	306	100	13,098	100			
k. Referred to online content (tutorial, forum, webpage, etc.) to learn a new skill or procedure	TRNonlskill	1	Never	12	4	563	5			
		2	Sometimes	85	28	3,588	28			
		3	Often	123	40	5,061	38	2.9	2.9	.00
		4	Very often	86	28	3,885	29			
			Total	306	100	13,097	100			
l. Used project management tools to plan, organize, or schedule tasks	TRNproject	1	Never	38	13	1,417	12			
		2	Sometimes	122	40	4,539	35			
		3	Often	94	32	4,647	35	2.5	2.6	-.11
		4	Very often	51	15	2,489	18			
			Total	305	100	13,092	100			
m. Used a daily or weekly "to do" list	TRNtodo	1	Never	48	18	1,074	10			
		2	Sometimes	80	27	3,147	25			
		3	Often	69	23	3,223	25	2.7	2.9 *** ▽	-.24
		4	Very often	109	32	5,670	40			
			Total	306	100	13,114	100			
n. Prioritized what tasks need to be accomplished	TRNtasks	1	Never	9	3	205	2			
		2	Sometimes	58	20	1,984	16			
		3	Often	117	40	4,557	35	3.1	3.3 *** ▽	-.20
		4	Very often	122	37	6,327	47			
			Total	306	100	13,073	100			
o. Worked longer hours than usual to meet deadlines (i.e., after midnight, before dawn)	TRNhours	1	Never	22	8	949	8			
		2	Sometimes	92	30	3,508	27			
		3	Often	99	33	3,870	30	2.8	2.9	-.11
		4	Very often	94	29	4,783	35			
			Total	307	100	13,110	100			
p. Written something (paper, report, article, etc.) that used information from a variety of sources (books, journals, Internet, databases, etc.)	TRNwrsource	1	Never	25	9	443	4			
		2	Sometimes	107	36	3,297	26			
		3	Often	101	33	4,761	36	2.7	3.0 *** ▼	-.37
		4	Very often	74	22	4,585	34			
			Total	307	100	13,086	100			
q. Written something (paper, report, article, etc.) that assessed the conclusions of a published work	TRNwrassess	1	Never	47	16	1,542	12			
		2	Sometimes	118	39	4,418	34			
		3	Often	93	31	4,156	32	2.4	2.6 *** ▽	-.22
		4	Very often	47	14	2,957	22			
			Total	305	100	13,073	100			

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

NSSE 2024 Development of Transferable Skills

Frequencies and Statistical Comparisons

Tennessee Technological University

First-Year Students

Item wording or description	Variable name	Values [c]	Response options	Frequency Distributions [a] Tennessee Tech Count	Tennessee Tech %	Transferable Skills Count	Transferable Skills %	Statistical Comparisons [b] Tennessee Tech Mean	Transferable Skills Mean	Effect size [d]
r. Written something (paper, report, article, etc.) that included ideas from more than one academic discipline	TRNwrideas	1	Never	46	16	1,609	13			
		2	Sometimes	127	41	4,676	36			
		3	Often	85	28	4,152	31	2.4	2.6 ** ▽	-.16
		4	Very often	48	15	2,629	20			
			Total	306	100	13,066	100			
s. Written something (paper, report, article, etc.) that presented multiple viewpoints or perspectives	TRNwrviews	1	Never	34	12	1,180	9			
		2	Sometimes	129	42	4,732	36			
		3	Often	88	29	4,475	34	2.5	2.7 ** ▽	-.17
		4	Very often	54	16	2,696	20			
			Total	305	100	13,083	100			

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

NSSE 2024 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] Tennessee Tech Count	Tennessee Tech %	Transferable Skills Count	Transferable Skills %	Statistical Comparisons [b] Tennessee Tech Mean	Transferable Skills Mean	Effect size [d]
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	TRNdebate	1	Never	134	23	2,451	19			
		2	Sometimes	258	46	5,088	37			
		3	Often	104	19	3,586	26	2.2	2.4 *** ▽	-.24
		4	Very often	66	12	2,414	18			
			Total	562	100	13,539	100			
b. Made a speech to a group	TRNspeech	1	Never	107	19	3,156	24			
		2	Sometimes	265	48	5,585	41			
		3	Often	113	20	3,050	22	2.3	2.2	.04
		4	Very often	78	14	1,752	13			
			Total	563	100	13,543	100			
c. Worked in a group with people who differed from you in terms of background, political orientation, points of view, etc.	TRNgroup	1	Never	29	5	795	6			
		2	Sometimes	212	39	4,273	31			
		3	Often	203	35	5,186	38	2.7	2.8 * ▽	-.09
		4	Very often	116	21	3,279	24			
			Total	560	100	13,533	100			
d. Discussed the ethical consequences of a course of action	TRNethical	1	Never	73	13	1,659	13			
		2	Sometimes	246	44	5,007	37			
		3	Often	177	31	4,499	33	2.4	2.6 *** ▽	-.14
		4	Very often	67	12	2,366	17			
			Total	563	100	13,531	100			
e. Evaluated the credibility of information sources	TRNcred	1	Never	34	6	767	6			
		2	Sometimes	195	35	3,732	28			
		3	Often	205	36	5,234	38	2.8	2.9 ** ▽	-.14
		4	Very often	129	23	3,787	28			
			Total	563	100	13,520	100			
f. Discussed complex problems with others to develop a better solution	TRNcomplex	1	Never	38	7	805	6			
		2	Sometimes	186	33	3,795	28			
		3	Often	206	36	5,486	40	2.8	2.8	-.08
		4	Very often	133	24	3,431	25			
			Total	563	100	13,517	100			
g. Generated multiple solutions to a problem or task	TRNsolution	1	Never	38	7	613	5			
		2	Sometimes	171	30	3,820	29			
		3	Often	225	40	5,712	42	2.8	2.9 * ▽	-.09
		4	Very often	128	23	3,367	25			
			Total	562	100	13,512	100			
h. Combined dissimilar concepts to create a novel idea	TRNcreate	1	Never	117	20	2,296	17			
		2	Sometimes	272	49	5,791	43			
		3	Often	120	21	3,674	27	2.2	2.4 *** ▽	-.17
		4	Very often	54	10	1,736	13			
			Total	563	100	13,497	100			
i. Adapted a previously used solution to a new situation	TRNadapt	1	Never	50	9	1,088	8			
		2	Sometimes	215	38	4,774	35			
		3	Often	202	36	5,196	39	2.6	2.7	-.06
		4	Very often	95	17	2,442	18			
			Total	562	100	13,500	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] Tennessee Tech Count	Tennessee Tech %	Transferable Skills Count	Transferable Skills %	Statistical Comparisons[b] Tennessee Tech Mean	Transferable Skills Mean	Effect size[d]
j. Referred to online content (tutorial, forum, webpage, etc.) to solve a problem	TRNonlsolve	1	Never	26	5	471	4			
		2	Sometimes	115	20	2,962	22			
		3	Often	204	36	4,901	36	3.1	3.1	.00
		4	Very often	218	39	5,179	38			
			Total	563	100	13,513	100			
k. Referred to online content (tutorial, forum, webpage, etc.) to learn a new skill or procedure	TRNonlskill	1	Never	26	5	538	4			
		2	Sometimes	147	26	3,243	24			
		3	Often	186	33	4,968	37	3.0	3.0	-.03
		4	Very often	199	36	4,751	35			
			Total	558	100	13,500	100			
l. Used project management tools to plan, organize, or schedule tasks	TRNproject	1	Never	63	11	1,392	11			
		2	Sometimes	194	35	4,107	31			
		3	Often	176	31	4,764	35	2.6	2.7	-.07
		4	Very often	130	23	3,219	23			
			Total	563	100	13,482	100			
m. Used a daily or weekly "to do" list	TRNtodo	1	Never	62	12	993	8			
		2	Sometimes	127	23	2,710	21			
		3	Often	122	22	3,285	25	3.0	3.1 ** ▽	-.13
		4	Very often	252	43	6,519	46			
			Total	563	100	13,507	100			
n. Prioritized what tasks need to be accomplished	TRNtasks	1	Never	10	2	188	2			
		2	Sometimes	72	13	1,554	12			
		3	Often	172	31	4,251	32	3.4	3.4	-.03
		4	Very often	308	54	7,507	54			
			Total	562	100	13,500	100			
o. Worked longer hours than usual to meet deadlines (i.e., after midnight, before dawn)	TRNhours	1	Never	35	6	883	7			
		2	Sometimes	151	27	3,426	26			
		3	Often	152	27	3,583	27	3.0	3.0	-.04
		4	Very often	223	39	5,614	41			
			Total	561	100	13,506	100			
p. Written something (paper, report, article, etc.) that used information from a variety of sources (books, journals, Internet, databases, etc.)	TRNwrsource	1	Never	37	7	432	4			
		2	Sometimes	172	32	2,655	21			
		3	Often	188	33	4,337	32	2.8	3.2 *** ▼	-.38
		4	Very often	162	28	6,062	44			
			Total	559	100	13,486	100			
q. Written something (paper, report, article, etc.) that assessed the conclusions of a published work	TRNwrassess	1	Never	94	17	1,437	11			
		2	Sometimes	208	38	4,088	31			
		3	Often	143	25	3,970	29	2.5	2.8 *** ▽	-.27
		4	Very often	114	20	3,982	29			
			Total	559	100	13,477	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] Tennessee Tech Count	Tennessee Tech %	Transferable Skills Count	Transferable Skills %	Statistical Comparisons [b] Tennessee Tech Mean	Transferable Skills Mean	Effect size [d]
r. Written something (paper, report, article, etc.) that included ideas from more than one academic discipline	TRNwrideas	1	Never	90	16	1,321	11			
		2	Sometimes	226	41	4,249	32			
		3	Often	145	25	4,183	31	2.4	2.7 *** ▼	-.30
		4	Very often	102	18	3,741	27			
			Total	563	100	13,494	100			
s. Written something (paper, report, article, etc.) that presented multiple viewpoints or perspectives	TRNwrviews	1	Never	103	18	1,227	10			
		2	Sometimes	224	41	4,596	34			
		3	Often	143	25	4,284	32	2.4	2.7 *** ▼	-.34
		4	Very often	92	16	3,381	24			
			Total	562	100	13,488	100			

NSSE 2024 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]
								Comparisons with:		
	Tennessee Tech	Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills	Transferable Skills		
TRNdebate	306	2.17	2.35	.053	.008	.92	.94	320	.001	-.19
TRNspeech	305	2.12	2.10	.052	.008	.90	.95	14,328	.732	.02
TRNgroup	306	2.62	2.69	.047	.007	.83	.86	14,322	.118	-.09
TRNethical	307	2.24	2.39	.050	.008	.88	.90	320	.002	-.18
TRNcred	305	2.59	2.77	.049	.007	.86	.86	14,313	.000	-.21
TRNcomplex	304	2.56	2.66	.050	.007	.87	.86	14,296	.034	-.12
TRNsolution	305	2.68	2.72	.047	.007	.82	.83	14,305	.377	-.05
TRNcreate	305	2.16	2.26	.052	.008	.90	.90	14,260	.068	-.11
TRNadapt	304	2.49	2.55	.050	.007	.87	.85	14,249	.262	-.06
TRNonlsolve	305	2.94	2.97	.047	.007	.81	.86	14,258	.457	-.04
TRNonlskill	305	2.92	2.92	.048	.007	.84	.86	14,251	.965	.00
TRNproject	304	2.49	2.59	.052	.008	.90	.92	14,250	.052	-.11
TRNtodo	305	2.70	2.94	.063	.009	1.10	1.03	315	.000	-.24
TRNtasks	305	3.11	3.27	.048	.007	.83	.79	14,233	.001	-.20
TRNhours	305	2.82	2.92	.054	.008	.94	.96	14,268	.064	-.11
TRNwrsource	306	2.68	3.01	.053	.007	.92	.86	317	.000	-.37
TRNwrassess	303	2.43	2.64	.053	.008	.92	.95	14,233	.000	-.22
TRNwrideas	305	2.43	2.58	.053	.008	.93	.94	14,220	.006	-.16
TRNwrviews	303	2.50	2.66	.052	.008	.90	.90	14,246	.004	-.17

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

NSSE 2024 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]
								Comparisons with:		
	Tennessee Tech	Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills	Tennessee Tech	Transferable Skills	Transferable Skills		
TRNdebate	564	2.19	2.43	.039	.008	.93	.99	614	.000	-.24
TRNspeech	565	2.29	2.25	.039	.008	.92	.96	14,976	.356	.04
TRNgroup	562	2.72	2.81	.036	.007	.85	.87	14,954	.030	-.09
TRNethical	565	2.42	2.55	.036	.008	.86	.92	616	.000	-.14
TRNcred	565	2.76	2.88	.037	.007	.87	.88	14,953	.001	-.14
TRNcomplex	565	2.78	2.85	.037	.007	.89	.87	14,945	.060	-.08
TRNsolution	564	2.79	2.87	.037	.007	.87	.84	605	.043	-.09
TRNcreate	565	2.20	2.36	.037	.008	.88	.91	613	.000	-.17
TRNadapt	564	2.62	2.67	.037	.007	.87	.87	14,927	.148	-.06
TRNonlsolve	565	3.09	3.10	.037	.007	.88	.86	14,943	.961	.00
TRNonlskill	560	3.01	3.04	.038	.007	.90	.86	14,917	.445	-.03
TRNproject	565	2.65	2.71	.040	.008	.96	.94	14,906	.117	-.07
TRNtodo	565	2.96	3.08	.045	.008	1.07	.99	603	.006	-.13
TRNtasks	564	3.37	3.39	.033	.006	.78	.76	14,931	.482	-.03
TRNhours	563	2.99	3.02	.040	.008	.96	.96	14,936	.393	-.04
TRNwrsource	561	2.83	3.16	.039	.007	.92	.87	600	.000	-.38
TRNwrassess	561	2.48	2.75	.042	.008	.99	.99	14,897	.000	-.27
TRNwrideas	565	2.45	2.74	.040	.008	.96	.97	14,921	.000	-.30
TRNwrviews	564	2.38	2.71	.041	.008	.96	.94	14,910	.000	-.34

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

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 Ns 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. You may not see all of these symbols in your report.