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# NSSE 2023 Topical Module Report

## Development of Transferable Skills

University of Kentucky

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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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## 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>		
				UK		Dev Transfer Skills		UK	Dev Transfer Skills	Effect size <sup>d</sup>
				Count	%	Count	%	Mean	Mean	
<b>1. During the current school year, whether course-related or not, about how often have you done the following?</b>										
a. Discussed or debated an issue of social, political, or philosophical importance	TRNdebate	1	Never	339	14	840	21	<b>2.4</b>	2.3 ***	.13
		2	Sometimes	987	42	1,637	41			
		3	Often	710	30	1,083	26			
		4	Very often	318	13	571	13			
		Total		2,354	100	4,131	100			
b. Made a speech to a group	TRNspeech	1	Never	247	11	1,517	37	<b>2.5</b>	1.9 ***	.57
		2	Sometimes	1,047	45	1,575	39			
		3	Often	759	32	692	16			
		4	Very often	297	13	338	8			
		Total		2,350	100	4,122	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	63	3	293	8	<b>2.8</b>	2.6 ***	.23
		2	Sometimes	726	31	1,479	37			
		3	Often	1,077	46	1,586	38			
		4	Very often	483	21	770	17			
		Total		2,349	100	4,128	100			
d. Discussed the ethical consequences of a course of action	TRNethical	1	Never	204	9	691	18	<b>2.6</b>	2.3 ***	.26
		2	Sometimes	921	39	1,692	42			
		3	Often	903	39	1,235	29			
		4	Very often	321	14	508	11			
		Total		2,349	100	4,126	100			
e. Evaluated the credibility of information sources	TRNcred	1	Never	64	3	291	7	<b>2.9</b>	2.7 ***	.21
		2	Sometimes	647	28	1,283	33			
		3	Often	1,050	45	1,640	40			
		4	Very often	584	25	904	21			
		Total		2,345	100	4,118	100			
f. Discussed complex problems with others to develop a better solution	TRNcomplex	1	Never	76	3	344	9	<b>2.8</b>	2.6 ***	.24
		2	Sometimes	772	33	1,511	38			
		3	Often	1,039	44	1,553	37			
		4	Very often	459	20	709	16			
		Total		2,346	100	4,117	100			
g. Generated multiple solutions to a problem or task	TRNsolution	1	Never	59	3	251	6	<b>2.8</b>	2.7 ***	.21
		2	Sometimes	726	31	1,442	36			
		3	Often	1,079	46	1,674	41			
		4	Very often	484	20	742	16			
		Total		2,348	100	4,109	100			
h. Combined dissimilar concepts to create a novel idea	TRNcreate	1	Never	288	12	934	24	<b>2.5</b>	2.2 ***	.34
		2	Sometimes	953	41	1,797	44			
		3	Often	801	34	992	24			
		4	Very often	308	13	387	9			
		Total		2,350	100	4,110	100			
i. Adapted a previously used solution to a new situation	TRNadapt	1	Never	118	5	435	11	<b>2.7</b>	2.5 ***	.23
		2	Sometimes	865	37	1,647	41			
		3	Often	997	43	1,486	36			
		4	Very often	366	16	537	12			
		Total		2,346	100	4,105	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 <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				UK		Dev Transfer Skills		UK	Dev Transfer Skills	Effect size <sup>d</sup>
				Count	%	Count	%	Mean	Mean	
j. Referred to online content (tutorial, forum, webpage, etc.) to solve a problem	TRNnonsolve	1	Never	40	2	182	4	<b>3.0</b>	3.0 ***	.10
		2	Sometimes	559	24	1,085	26			
		3	Often	1,005	43	1,597	39			
		4	Very often	743	31	1,246	30			
		Total		2,347	100	4,110	100			
k. Referred to online content (tutorial, forum, webpage, etc.) to learn a new skill or procedure	TRNnonskill	1	Never	49	2	185	4	<b>3.0</b>	2.9 ***	.10
		2	Sometimes	605	26	1,148	29			
		3	Often	966	41	1,578	38			
		4	Very often	723	31	1,199	29			
		Total		2,343	100	4,110	100			
l. Used project management tools to plan, organize, or schedule tasks	TRNproject	1	Never	125	5	468	13	<b>2.8</b>	2.5 ***	.26
		2	Sometimes	745	32	1,483	37			
		3	Often	985	42	1,425	34			
		4	Very often	484	20	729	16			
		Total		2,339	100	4,105	100			
m. Used a daily or weekly "to do" list	TRNtodo	1	Never	139	6	362	11	<b>3.0</b>	2.9 ***	.08
		2	Sometimes	605	26	967	25			
		3	Often	671	29	998	24			
		4	Very often	930	39	1,781	40			
		Total		2,345	100	4,108	100			
n. Prioritized what tasks need to be accomplished	TRNtasks	1	Never	29	1	66	2	<b>3.2</b>	3.3	-.04
		2	Sometimes	419	18	667	18			
		3	Often	856	37	1,382	34			
		4	Very often	1,037	44	1,981	47			
		Total		2,341	100	4,096	100			
o. Worked longer hours than usual to meet deadlines (i.e., after midnight, before dawn)	TRNhours	1	Never	99	4	282	7	<b>3.0</b>	3.0 **	.07
		2	Sometimes	599	26	1,103	27			
		3	Often	750	32	1,183	29			
		4	Very often	895	38	1,541	37			
		Total		2,343	100	4,109	100			
p. Written something (paper, report, article, etc.) that used information from a variety of sources (books, journals, Internet, databases, etc.)	TRNwrsources	1	Never	39	2	151	4	<b>3.1</b>	2.9 ***	.20
		2	Sometimes	517	23	1,103	29			
		3	Often	914	39	1,507	37			
		4	Very often	873	37	1,339	30			
		Total		2,343	100	4,100	100			
q. Written something (paper, report, article, etc.) that assessed the conclusions of a published work	TRNwrassess	1	Never	127	6	505	13	<b>2.9</b>	2.6 ***	.31
		2	Sometimes	699	30	1,406	35			
		3	Often	845	36	1,315	32			
		4	Very often	669	28	874	19			
		Total		2,340	100	4,100	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 <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				UK		Dev Transfer Skills		UK	Dev Transfer Skills	Effect size <sup>d</sup>
				Count	%	Count	%	Mean	Mean	
r. Written something (paper, report, article, etc.) that included ideas from more than one academic discipline	TRNwrideas	1	Never	133	6	595	16	<b>2.8</b>	2.5 ***	.37
		2	Sometimes	747	32	1,512	38			
		3	Often	860	37	1,239	29			
		4	Very often	599	25	750	17			
		Total		2,339	100	4,096	100			
s. Written something (paper, report, article, etc.) that presented multiple viewpoints or perspectives	TRNwrviews	1	Never	101	4	373	11	<b>2.8</b>	2.6 ***	.29
		2	Sometimes	726	31	1,532	39			
		3	Often	920	39	1,374	32			
		4	Very often	589	25	833	19			
		Total		2,336	100	4,112	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 <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				UK		Dev Transfer Skills		UK	Dev Transfer Skills	Effect size <sup>d</sup>
				Count	%	Count	%	Mean	Mean	
<b>1. During the current school year, whether course-related or not, about how often have you done the following?</b>										
a. Discussed or debated an issue of social, political, or philosophical importance	TRNdebate	1	Never	345	16	1,224	22	<b>2.4</b>	2.4 *	.05
		2	Sometimes	896	42	1,868	36			
		3	Often	573	27	1,279	25			
		4	Very often	326	15	869	17			
		Total		2,140	100	5,240	100			
b. Made a speech to a group	TRNspeech	1	Never	403	19	1,739	30	<b>2.3</b>	2.1 ***	.16
		2	Sometimes	982	46	1,975	40			
		3	Often	493	23	940	19			
		4	Very often	265	12	589	12			
		Total		2,143	100	5,243	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	95	4	550	10	<b>2.8</b>	2.7 **	.07
		2	Sometimes	697	33	1,572	31			
		3	Often	875	41	1,848	35			
		4	Very often	468	22	1,272	24			
		Total		2,135	100	5,242	100			
d. Discussed the ethical consequences of a course of action	TRNethical	1	Never	220	10	844	16	<b>2.6</b>	2.5 ***	.09
		2	Sometimes	826	39	1,887	37			
		3	Often	753	35	1,627	31			
		4	Very often	338	16	877	16			
		Total		2,137	100	5,235	100			
e. Evaluated the credibility of information sources	TRNcred	1	Never	100	5	437	8	<b>2.8</b>	2.8	.00
		2	Sometimes	638	30	1,420	27			
		3	Often	870	41	1,908	37			
		4	Very often	527	24	1,457	28			
		Total		2,135	100	5,222	100			
f. Discussed complex problems with others to develop a better solution	TRNcomplex	1	Never	102	5	506	9	<b>2.8</b>	2.8 ***	.09
		2	Sometimes	630	30	1,519	29			
		3	Often	889	42	1,937	37			
		4	Very often	517	24	1,274	24			
		Total		2,138	100	5,236	100			
g. Generated multiple solutions to a problem or task	TRNsolution	1	Never	75	4	395	7	<b>2.9</b>	2.8 ***	.08
		2	Sometimes	630	30	1,521	29			
		3	Often	915	43	2,038	39			
		4	Very often	521	24	1,269	24			
		Total		2,141	100	5,223	100			
h. Combined dissimilar concepts to create a novel idea	TRNcreate	1	Never	305	14	1,097	21	<b>2.4</b>	2.3 ***	.12
		2	Sometimes	921	43	2,077	40			
		3	Often	609	29	1,357	26			
		4	Very often	302	14	682	13			
		Total		2,137	100	5,213	100			
i. Adapted a previously used solution to a new situation	TRNadapt	1	Never	131	6	589	11	<b>2.7</b>	2.6 ***	.08
		2	Sometimes	784	37	1,768	33			
		3	Often	820	39	1,888	37			
		4	Very often	396	19	961	19			
		Total		2,131	100	5,206	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 <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				UK		Dev Transfer Skills		UK	Dev Transfer Skills	
				Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
j. Referred to online content (tutorial, forum, webpage, etc.) to solve a problem	TRNnonsolve	1	Never	48	2	258	5	<b>3.1</b>	3.1 *	.05
		2	Sometimes	475	22	1,207	23			
		3	Often	823	39	1,815	35			
		4	Very often	789	37	1,930	38			
		Total		2,135	100	5,210	100			
k. Referred to online content (tutorial, forum, webpage, etc.) to learn a new skill or procedure	TRNnonskill	1	Never	52	2	278	5	<b>3.0</b>	3.0	.04
		2	Sometimes	535	25	1,247	24			
		3	Often	805	38	1,858	36			
		4	Very often	740	35	1,824	35			
		Total		2,132	100	5,207	100			
l. Used project management tools to plan, organize, or schedule tasks	TRNproject	1	Never	164	8	617	12	<b>2.8</b>	2.7 ***	.08
		2	Sometimes	673	32	1,653	32			
		3	Often	784	37	1,718	32			
		4	Very often	514	24	1,218	24			
		Total		2,135	100	5,206	100			
m. Used a daily or weekly "to do" list	TRNtodo	1	Never	159	8	403	9	<b>3.0</b>	3.1 **	-.06
		2	Sometimes	529	25	1,050	21			
		3	Often	516	24	1,289	25			
		4	Very often	932	42	2,472	46			
		Total		2,136	100	5,214	100			
n. Prioritized what tasks need to be accomplished	TRNtasks	1	Never	24	1	105	2	<b>3.3</b>	3.4 *	-.05
		2	Sometimes	310	15	622	12			
		3	Often	700	33	1,625	32			
		4	Very often	1,101	51	2,852	54			
		Total		2,135	100	5,204	100			
o. Worked longer hours than usual to meet deadlines (i.e., after midnight, before dawn)	TRNhours	1	Never	110	5	313	6	<b>3.0</b>	3.1	-.04
		2	Sometimes	554	26	1,267	25			
		3	Often	644	30	1,394	26			
		4	Very often	831	38	2,237	43			
		Total		2,139	100	5,211	100			
p. Written something (paper, report, article, etc.) that used information from a variety of sources (books, journals, Internet, databases, etc.)	TRNwrsources	1	Never	70	3	228	4	<b>3.0</b>	3.1 **	-.08
		2	Sometimes	567	27	1,110	22			
		3	Often	697	33	1,694	32			
		4	Very often	801	37	2,174	41			
		Total		2,135	100	5,206	100			
q. Written something (paper, report, article, etc.) that assessed the conclusions of a published work	TRNwrassess	1	Never	225	11	641	13	<b>2.7</b>	2.7	.03
		2	Sometimes	682	32	1,593	31			
		3	Often	638	30	1,469	29			
		4	Very often	583	27	1,494	27			
		Total		2,128	100	5,197	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 <sup>c</sup>	Response options	Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>		
				UK		Dev Transfer Skills		UK	Dev Transfer Skills	Effect size <sup>d</sup>
				Count	%	Count	%	Mean	Mean	
r. Written something (paper, report, article, etc.) that included ideas from more than one academic discipline	TRNwrideas	1	Never	197	9	625	12	<b>2.7</b>	2.7	.01
		2	Sometimes	748	35	1,630	32			
		3	Often	659	31	1,546	29			
		4	Very often	532	25	1,401	26			
		Total		2,136	100	5,202	100			
s. Written something (paper, report, article, etc.) that presented multiple viewpoints or perspectives	TRNwrviews	1	Never	195	9	553	11	<b>2.7</b>	2.6	.03
		2	Sometimes	791	37	1,813	36			
		3	Often	652	30	1,550	29			
		4	Very often	498	23	1,283	23			
		Total		2,136	100	5,199	100			

### 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>
		UK	Dev Transfer Skills	UK	Dev Transfer Skills	UK	Dev Transfer Skills			
TRNdebate	2,354	2.43	2.31	.018	.010	0.89	0.94	3,779	.000	.13
TRNspeech	2,350	2.47	1.95	.017	.010	0.84	0.92	11,626	.000	.57
TRNgroup	2,349	2.84	2.65	.016	.009	0.77	0.85	3,909	.000	.23
TRNethical	2,349	2.57	2.34	.017	.009	0.83	0.90	3,848	.000	.26
TRNcred	2,345	2.91	2.74	.016	.009	0.79	0.87	3,873	.000	.21
TRNcomplex	2,345	2.80	2.59	.016	.009	0.79	0.86	3,878	.000	.24
TRNsolution	2,348	2.84	2.68	.016	.009	0.77	0.82	3,818	.000	.21
TRNcreate	2,350	2.48	2.18	.018	.009	0.87	0.89	3,713	.000	.34
TRNadapt	2,346	2.69	2.50	.016	.009	0.79	0.85	3,819	.000	.23
TRNnonsolve	2,347	3.04	2.95	.016	.009	0.79	0.86	3,892	.000	.10
TRNnonskill	2,343	3.00	2.92	.017	.009	0.81	0.86	3,818	.000	.10
TRNproject	2,339	2.77	2.54	.017	.009	0.83	0.91	3,874	.000	.26
TRNtodo	2,345	3.00	2.92	.020	.011	0.95	1.04	3,913	.000	.08
TRNtasks	2,341	3.23	3.25	.016	.008	0.79	0.81	3,680	.123	-.04
TRNhours	2,343	3.03	2.96	.019	.010	0.90	0.95	3,797	.002	.07
TRNwresource	2,343	3.11	2.94	.017	.009	0.81	0.86	3,823	.000	.20
TRNwrsassess	2,340	2.87	2.58	.018	.010	0.89	0.95	3,811	.000	.31
TRNwrideas	2,339	2.81	2.47	.018	.010	0.88	0.95	3,856	.000	.37
TRNwrviews	2,336	2.85	2.59	.017	.009	0.85	0.91	3,816	.000	.29

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

### 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>
		UK	Dev Transfer Skills	UK	Dev Transfer Skills	UK	Dev Transfer Skills			
TRNdebate	2,140	2.41	2.36	.020	.011	0.93	1.01	3,421	.028	.05
TRNspeech	2,143	2.29	2.13	.020	.010	0.91	0.97	11,172	.000	.16
TRNgroup	2,135	2.80	2.74	.018	.010	0.83	0.93	3,535	.004	.07
TRNethical	2,137	2.56	2.47	.019	.010	0.88	0.94	3,412	.000	.09
TRNcred	2,135	2.85	2.84	.018	.010	0.84	0.92	3,435	.832	.00
TRNcomplex	2,138	2.85	2.77	.018	.010	0.84	0.92	3,456	.000	.09
TRNsolution	2,141	2.87	2.81	.018	.009	0.82	0.89	3,442	.000	.08
TRNcreate	2,137	2.42	2.31	.019	.010	0.90	0.94	3,346	.000	.12
TRNadapt	2,131	2.70	2.63	.018	.010	0.84	0.91	3,424	.001	.08
TRNnonsolve	2,135	3.10	3.05	.018	.009	0.82	0.89	3,433	.021	.05
TRNnonskill	2,133	3.04	3.01	.018	.009	0.83	0.89	3,394	.116	.04
TRNproject	2,135	2.76	2.68	.019	.010	0.90	0.96	3,388	.000	.08
TRNtodo	2,136	3.01	3.08	.022	.011	1.00	1.00	11,125	.007	-.06
TRNtasks	2,136	3.33	3.37	.017	.008	0.77	0.78	11,096	.041	-.05
TRNhours	2,139	3.02	3.06	.020	.010	0.92	0.96	3,324	.062	-.04
TRNwresource	2,135	3.03	3.10	.019	.009	0.88	0.89	11,098	.001	-.08
TRNwrsassess	2,128	2.73	2.70	.021	.011	0.98	1.01	3,285	.193	.03
TRNwrideas	2,137	2.70	2.69	.020	.010	0.94	0.99	3,353	.612	.01
TRNwrviews	2,136	2.67	2.64	.020	.010	0.93	0.96	3,298	.215	.03

## 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.