

# NSSE 2015 Topical Module Development of Transferable Skills

Indiana University-Purdue University Indianapolis

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#### Administration Summary Indiana University-Purdue University Indianapolis

#### **About This Topical Module**

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 (such as verbal and written fluency and analytic inquiry). 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. 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 'Pub research TSkils' column of this report.

Group label	Pub research TSkils
Date submitted	6/8/15
How was this comparison group constructed?	Your institution customized this comparison group by selecting institutions from all module participants.
Group description	Public Research Institutions who completed the development of transferable skills module.

#### Pub research TSkils (N=10)

Clemson University (Clemson, SC) Florida State University (Tallahassee, FL)\* Louisiana State University and Agricultural & Mechanical College (Baton Rouge, LA) Mississippi State University (Mississippi State, MS)\* New Mexico State University (Las Cruces, NM)\* South Dakota State University (Brookings, SD)\* University at Buffalo, State University of New York (Buffalo, NY)\* University of Illinois at Urbana-Champaign (Urbana, IL) University of Maryland (College Park, MD)\* University of Wisconsin-Milwaukee (Milwaukee, WI)\*



## Frequencies and Statistical Comparisons Indiana University-Purdue University Indianapolis

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#### **First-Year Students**

				Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>			
				Pub research				research			
				IUPUI		TSkils		IUPUI	TSkil	s	
	Variable									Effect	
Item wording or description	name	Values <sup>c</sup>	Response options	Count	%	Count	%	Mean	Mean	size <sup>d</sup>	
1. During the current school year, v	vhether coui	se-related	or not, about how ofte	n have you do	ne the	following?					
a. Discussed or debated an issue of	TRN01a	1	Never	77	16	659	13				
social, political, or philosophical		2	Sometimes	179	39	1,922	39				
importance		3	Often	110	25	1,449	30	2.5	2.5	05	
		4	Very often	88	19	850	18				
			Total	454	100	4,880	100				
b. Made a speech to a group	TRN01b	1	Never	48	10	1,373	28				
		2	Sometimes	123	29	2,094	43				
		3	Often	149	33	984	20	2.8	2.1 ***	.77	
		4	Very often	128	28	406	9				
			Total	448	100	4,857	100				
c. Worked in a group with people	TRN01c	1	Never	22	5	322	7				
who differed from you in terms of		2	Sometimes	139	31	1,680	34				
background, political orientation,		3	Often	175	38	1,883	39	2.8	2.7 **	.15	
points of view, etc.		4	Very often	118	26	979	20		Δ		
			Total	454	100	4,864	100				
d. Discussed the ethical consequences	TRN01d	1	Never	67	15	718	15				
of a course of action		2	Sometimes	169	37	2,067	42				
		3	Often	142	32	1,454	30	2.5	2.4	.09	
		4	Very often	75	16	624	13				
			Total	453	100	4,863	100				
e. Creatively thought about new ideas	TRN01e	1	Never	22	5	299	6				
or about ways to improve things		2	Sometimes	136	30	1,647	33				
		3	Often	182	41	1,831	38	2.8	2.8	.09	
		4	Very often	111	24	1,088	23				
			Total	451	100	4,865	100				
f. Critically evaluated multiple	TRN01f	1	Never	29	6	284	6				
solutions to a problem		2	Sometimes	135	30	1,646	34				
		3	Often	176	38	1,890	38	2.8	2.8	.07	
		4	Very often	109	25	1,046	22	210	2.0		
			Total	449	100	4,866	100				
g. Discussed complex problems with	TRN01g	1	Never	30	6	432	9				
others to develop a better solution	÷	2	Sometimes	148	32	1,743	35				
		3	Often	165	37	1,715	35	2.8	2.7 **	.14	
		4	Very often	110	25	947	20	210	Δ	.17	
			Total	453	100	4,837	100		-		

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



## Frequencies and Statistical Comparisons Indiana University-Purdue University Indianapolis

#### **First-Year Students**

				Frequen	cy D	istributio	Statistical Comparison			
				IUPUI	IUPUI		ch	IUPUI	Pub research TSkils	
Item wording or description	Variable name	Values <sup>c</sup>	Response options	Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
2. During the current school year,	whether cour	se-related	l or not, about how oft	en have you <i>wr</i>	itten s	omething (p	aper, r	eport, article, blo	g, etc.) that	::
a. Used information from a variety of	TRN02a	1	Never	16	4	219	5			
sources (books, journals, Internet,		2	Sometimes	91	21	1,326	28			
databases, etc.)		3	Often	172	38	1,812	36	3.1	2.9 ***	.19
		4	Very often	175	37	1,526	30		Δ	
			Total	454	100	4,883	100			
b. Assessed the conclusions of a	TRN02b	1	Never	56	12	780	16			
published work		2	Sometimes	136	31	1,736	36			
		3	Often	154	34	1,524	31	2.7	2.5 ***	.21
		4	Very often	107	23	837	16		Δ	
			Total	453	100	4,877	100			
c. Included ideas from more than one	TRN02c	1	Never	46	10	646	14			
academic discipline		2	Sometimes	144	32	1,673	35			
		3	Often	156	35	1,618	33	2.7	2.6 **	.15
		4	Very often	107	23	936	19		Δ	
			Total	453	100	4,873	100			
d. Presented multiple viewpoints or	TRN02d	1	Never	38	8	471	10			
perspectives		2	Sometimes	137	32	1,692	35			
		3	Often	164	36	1,710	35	2.8	2.6 **	.14
		4	Very often	113	24	985	20		Δ	
			Total	452	100	4,858	100			

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## Frequencies and Statistical Comparisons Indiana University-Purdue University Indianapolis

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#### **Seniors**

				Frequency Distributions <sup>a</sup>			Statistical Comparisons <sup>b</sup>			
					Pub research IUPUI TSkils		ch		Pub research	
				IUPUI			IUPUI	TSkils		
Item wording or description	Variable name	Values <sup>c</sup>	Response options	Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>
1. During the current school year, v				have very de-		fellowing2				
a. Discussed or debated an issue of	TRN01a	rse-related	Never	124	18	1,141	13			
social, political, or philosophical	INNOIA	2	Sometimes	235	32	2,930	36			
importance		2	Often	184	25	2,930	29	2.6	2.6	02
		4	Very often	181	25	1,681	29	2.0	2.6	02
		+	Total	724	100	8,032	100			
b. Made a speech to a group	TRN01b	1	Never	154	22	1,330	16			
b. Made a speech to a group	IKNOID	2	Sometimes	269	37	3,330	42			
		3	Often	168	23	2,045	26	2.4	2.4	0.4
		4	Very often	103	18	1,289	20 16	2.4	2.4	04
		+	Total	723	100	7,994	100			
c. Worked in a group with people	TRN01c	1	Never	52	8	424	5			
who differed from you in terms of	TRIVUTC	1 2	Sometimes	188	26	2,358	30			
background, political orientation,		2	Often	230	20 31	2,538	30 37	2.0		
points of view, etc.				230 254		<i>,</i>	28	2.9	2.9	.06
		4	Very often Total	254 724	35 100	2,256 8,005	28 100			
d. Discussed the ethical consequences	TRN01d	1	Never	98	100	1,029	13			
of a course of action	TKINUTU	1	Sometimes	98 234	32	3,102	15 39			
		2	Often	234 227	32 31	2,461	39	2.6		
		4		163	22	2,401 1,411	18	2.0	2.5 *	.08
		4	Very often Total	722	100	8,003	100		Δ	
Constitution in the second sec	TRN01e	1		46	7		4			
e. Creatively thought about new ideas or about ways to improve things	TRN01e	1	Never			316				
		2 3	Sometimes Often	181 255	25 35	1,968	25	2.0		
				255 236	33	3,051	38 34	2.9	3.0	08
		4	Very often			2,661				
f. Critically evaluated multiple	TRN01f	1	Total Never	718 41	100	7,996	100			
solutions to a problem	TKN011	1		41 189	0 27					
solutions to a prosterin			Sometimes			1,961	24	2.0		
		3	Often	259	35	3,091	39	3.0	3.0 *	08
		4	Very often	237	33	2,631	34		V	
	<b>TD</b> 101		Total	726	100	7,991	100			
g. Discussed complex problems with others to develop a better solution	TRN01g	1	Never	53	8	430	5			
salers to develop a better solution		2	Sometimes	186	25	2,167	27			
		3	Often	254	35	2,924	36	2.9	2.9	02
		4	Very often	229	32	2,432	31			
			Total	722	100	7,953	100			

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



## Frequencies and Statistical Comparisons Indiana University-Purdue University Indianapolis

#### **Seniors**

				Frequency Distributions <sup>a</sup>				Statistical Comparisons <sup>b</sup>			
						Pub resear	rch		Pub rese		
				IUPUI		TSkils		IUPUI	TSkil	s	
Item wording or description	Variable name	Values <sup>c</sup>	Response options	Count	%	Count	%	Mean	Mean	Effect size <sup>d</sup>	
2. During the current school year,	whether cour	se-related	l or not, about how often	have you wr	itten s	something (p	aper, re	eport, article, blog	g, etc.) that	:	
a. Used information from a variety of	TRN02a	1	Never	33	5	431	5				
sources (books, journals, Internet,		2	Sometimes	134	19	1,996	25				
databases, etc.)		3	Often	204	29	2,523	31	3.2	3.0 ***	.17	
		4	Very often	353	47	3,067	38		Δ		
			Total	724	100	8,017	100				
b. Assessed the conclusions of a	TRN02b	1	Never	101	15	1,189	14				
published work		2	Sometimes	192	27	2,658	33				
		3	Often	220	30	2,210	28	2.7	2.6 *	.09	
		4	Very often	210	28	1,948	24		Δ		
			Total	723	100	8,005	100				
c. Included ideas from more than one	TRN02c	1	Never	60	9	973	12				
academic discipline		2	Sometimes	220	31	2,555	32				
		3	Often	221	31	2,403	30	2.8	2.7 **	.12	
		4	Very often	221	29	2,065	26		Δ		
			Total	722	100	7,996	100				
d. Presented multiple viewpoints or	TRN02d	1	Never	60	9	852	11				
perspectives		2	Sometimes	217	31	2,759	35				
		3	Often	222	31	2,468	31	2.8	2.7 ***	.14	
		4	Very often	218	29	1,909	24		Δ		
			Total	717	100	7,988	100				



## Detailed Statistics<sup>e</sup> Indiana University-Purdue University Indianapolis

#### **First-Year Students**

			Standard							Effect
	Ν	N Mean		Standa	rd error <sup>f</sup>	dev	iation <sup>g</sup>	DF <sup>h</sup>	Sig. <sup>i</sup>	size <sup>d</sup>
Variable								Comp	arisons with:	
name	IUPUI	IUPUI	Pub research TSkils	IUPUI	Pub research TSkils	IUPUI	Pub research TSkils	Pub re	esearch TSkils	;
TRN01a	455	2.47	2.53	.05	.01	0.98	0.94	6,399	.269	05
TRN01b	449	2.80	2.09	.05	.01	0.97	0.91	509	.000	.77
TRN01c	455	2.85	2.72	.04	.01	0.86	0.86	6,377	.003	.15
TRN01d	454	2.50	2.41	.04	.01	0.93	0.90	6,369	.054	.09
TRN01e	452	2.85	2.77	.04	.01	0.85	0.87	527	.063	.09
TRN01f	451	2.83	2.77	.04	.01	0.88	0.86	6,379	.147	.07
TRN01g	454	2.79	2.67	.04	.01	0.89	0.90	6,350	.004	.14
TRN02a	455	3.09	2.92	.04	.01	0.85	0.88	6,401	.000	.19
TRN02b	454	2.68	2.48	.04	.01	0.96	0.95	6,389	.000	.21
TRN02c	454	2.70	2.56	.04	.01	0.93	0.95	6,384	.002	.15
TRN02d	453	2.77	2.64	.04	.01	0.91	0.91	6,365	.005	.14



## Detailed Statistics<sup>e</sup> Indiana University-Purdue University Indianapolis

#### **Seniors**

						Sta	ndard			Effect
	Ν	Mean		Mean Standard error <sup>f</sup>				DF <sup>h</sup>	Sig. <sup>i</sup>	size <sup>d</sup>
Variable								Comp	arisons with:	
name	IUPUI	IUPUI	Pub research TSkils	IUPUI	Pub research TSkils	IUPUI	Pub research TSkils	Pub re	esearch TSkils	
TRN01a	725	2.57	2.59	.04	.01	1.05	0.97	825	.644	02
TRN01b	725	2.38	2.42	.04	.01	1.02	0.94	826	.322	04
TRN01c	725	2.93	2.88	.04	.01	0.96	0.88	824	.150	.06
TRN01d	723	2.61	2.53	.04	.01	0.99	0.92	825	.040	.08
TRN01e	720	2.94	3.01	.03	.01	0.92	0.86	821	.053	08
TRN01f	727	2.95	3.02	.03	.01	0.91	0.85	832	.046	08
TRN01g	723	2.91	2.93	.03	.01	0.94	0.89	9,827	.602	02
TRN02a	726	3.18	3.02	.03	.01	0.91	0.92	9,894	.000	.17
TRN02b	725	2.71	2.62	.04	.01	1.03	1.01	9,875	.021	.09
TRN02c	723	2.81	2.70	.04	.01	0.96	0.98	847	.002	.12
TRN02d	719	2.81	2.67	.04	.01	0.96	0.95	9,854	.000	.14



Endnotes

Indiana University-Purdue University Indianapolis

#### **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 Ns 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.
- $\Delta$  Your students' average was significantly higher (p < .05) with an effect size less than .3 in magnitude.
- $\nabla$  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.