

University of Waterloo



**Report Sections** 

# **NSSE 2023 Engagement Indicators**

#### **About This Report**

### About Your Engagement Indicators Report

Engagement Indicators (EIs) provide a useful summary of the detailed information contained in your students' NSSE responses. By combining responses to related NSSE questions, each EI offers valuable information about a distinct aspect of student engagement. Ten indicators, based on three to eight survey questions each (a total of 47 survey questions), are organized into four broad themes as shown at right. The specific items within each EI are listed below, starting on page 5.

Theme	Engagement Indicator
	Higher-Order Learning
Academic Challenge	Reflective & Integrative Learning
j.	Learning Strategies
	Quantitative Reasoning
Learning with Peers	Collaborative Learning
5	Discussions with Diverse Others
Experiences with Faculty	Student-Faculty Interaction
	Effective Teaching Practices
	Quality of Interactions
Campus Environment	Supportive Environment

Overview (p. 3)	Displays how average EI scores for your students compare with those of students at your comparison group institutions.
Theme Reports (pp. 4-13)	Detailed views of EI scores within the four themes for your students and those at comparison group institutions. Three views offer varied insights into your EI scores:
	Mean Comparisons Straightforward comparisons of average scores between your students and those at comparison group institutions, with tests of significance and effect sizes (see below).
	Score Distributions Box-and-whisker charts show the variation in scores <i>within</i> your institution and comparison groups.
	Performance on Indicator Items Responses to each item in a given EI are summarized for your institution and comparison groups.
Comparisons with High- Performing Institutions (p. 15)	Comparisons of your students' average scores on each EI with those of students at institutions whose average scores were in the top 50% and top 10% of all current- and prior-year institutions.
Detailed Statistics (pp. 16-19)	Detailed information about EI score means, distributions, and tests of statistical significance.

#### **Interpreting Comparisons**

Mean comparisons report both statistical significance and effect size. Effect size indicates the practical importance of an observed difference. For EI comparisons, NSSE research has concluded that an effect size of about .1 may be considered small, .3 medium, and .5 large (Rocconi & Gonyea, 2018). Comparisons with an effect size of at least .3 in magnitude (before rounding) are highlighted in the Overview (p. 3).

*Els vary more among students within an institution than between institutions*, like many experiences and outcomes in higher education. As a result, focusing attention on average scores alone amounts to examining the tip of the iceberg. It's equally important to understand how student engagement varies within your institution. Score distributions indicate how El scores vary among your students and those in your comparison groups. Your NSSE Tableau dashboards and Report Builder (released in the fall) offer valuable perspectives on internal variation and help you investigate your students' engagement in depth.

#### **How Engagement Indicators are Computed**

Each EI is scored on a 60-point scale. To produce an indicator score, the response set for each item is converted to a 60-point scale (e.g., Never = 0; Sometimes = 20; Often = 40; Very often = 60), and the rescaled items are averaged. Thus a score of zero means a student responded at the bottom of the scale for every item in the EI, while a score of 60 indicates responses at the top of the scale on every item.

For more information on EIs and their psychometric properties, refer to the NSSE website: nsse.indiana.edu

Rocconi, L.M., & Gonyea, R.M. (2018). Contextualizing effect sizes in the National Survey of Student Engagement: An empirical analysis. *Research & Practice in Assessment,* 13 (Summer/Fall), pp. 22-38.



Overview

#### **University of Waterloo**

### **Engagement Indicators: Overview**

Engagement Indicators are summary measures based on sets of NSSE questions examining key dimensions of student engagement. The ten indicators are organized within four broad themes: Academic Challenge, Learning with Peers, Experiences with Faculty, and Campus Environment. The tables below compare average scores for your students with those in your comparison groups. Use the following key:

- **Vour students' average** was significantly higher (p < .05) with an effect size at least .3 in magnitude.
- $\triangle$  Your students' average was significantly higher (p < .05) with an effect size less than .3 in magnitude.
- -- No significant difference.

- $\nabla$  Your students' average was significantly lower (p < .05) with an effect size less than .3 in magnitude.
- **Vour 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 your institutional context. You may not see all of these symbols in your report.

irst-Year Students		Your first-year students compared with	Your first-year students compared with	Your first-year students compared with
Theme	Engagement Indicator	U15 Institutions	ON Universities	U6 Institutions
	Higher-Order Learning	$\Delta$		
Academic	Reflective & Integrative Learning	$\nabla$	$\nabla$	$\nabla$
Challenge	Learning Strategies			
	Quantitative Reasoning	$\Delta$	$\Delta$	
Learning with	Collaborative Learning	$\Delta$	$\Delta$	$\Delta$
Peers	Discussions with Diverse Others	$\Delta$	$\Delta$	$\Delta$
Experiences	Student-Faculty Interaction	Δ	$\Delta$	Δ
with Faculty	Effective Teaching Practices	$\Delta$	$\Delta$	$\Delta$
Campus	Quality of Interactions	$\Delta$	$\Delta$	$\Delta$
Environment	Supportive Environment		$\nabla$	$\nabla$
eniors		Your seniors compared with	Your seniors compared with	Your seniors compared with
Theme	Engagement Indicator	U15 Institutions	ON Universities	U6 Institutions
	Higher-Order Learning	$\nabla$	$\nabla$	$\nabla$
Academic	Reflective & Integrative Learning	$\blacksquare$		$\blacksquare$
Challenge	Learning Strategies	$\nabla$	$\nabla$	$\nabla$
	Quantitative Reasoning	$\Delta$		
Learning with	Collaborative Learning	Δ		$\Delta$
Peers	Discussions with Diverse Others		$\nabla$	$\bigtriangledown$
Experiences	Student-Faculty Interaction		$\bigtriangledown$	$\nabla$
with Faculty	Effective Teaching Practices	$\bigtriangledown$	$\bigtriangledown$	$\nabla$
Campus	Quality of Interactions	Δ		
Environment	Supportive Environment	$\nabla$	$\bigtriangledown$	$\bigtriangledown$



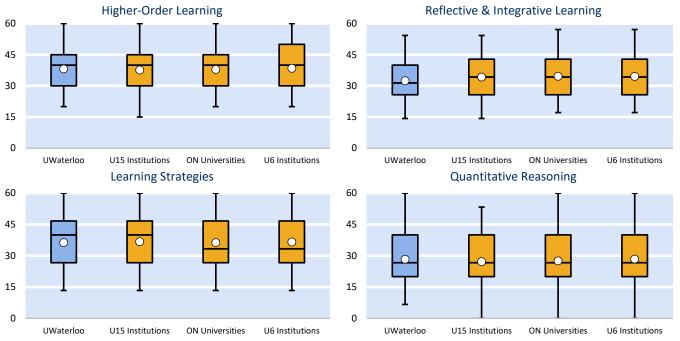
Academic Challenge University of Waterloo

### **Academic Challenge: First-year students**

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning, Reflective & Integrative Learning, Learning Strategies,* and *Quantitative Reasoning.* Below and on the next page are three views of your results alongside those of your comparison groups.

Mean Comparisons		Your first-year students compared with				
	UWaterloo	U15 Institutions	ON Universities	U6 Institutions		
Engagement Indicator	Mean	Effect Mean size	Effect Mean size	Effect Mean size		
Higher-Order Learning	38.2	37.7 * .04	37.9 .02	38.502		
Reflective & Integrative Learning	32.5	34.2 ***15	34.7 ***18	34.5 ***17		
Learning Strategies	36.3	36.803	36.3 .00	36.602		
Quantitative Reasoning	28.3	27.1 *** .08	27.5 * .05	28.4 .00		

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### **Score Distributions**



Academic Challenge

**University of Waterloo** 

# Academic Challenge: First-year students (continued)

#### **Performance on Indicator Items**

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage point difference <sup>a</sup> between your FY studen			
Higher-Order Learning	UWaterloo	U15 Institutions	ON Universities	U6 Institutions	
Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized	%				
4b. Applying facts, theories, or methods to practical problems or new situations	80	+5	+6	+4	
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	72	+3	+3	+1	
4d. Evaluating a point of view, decision, or information source	56	-5	-8	-7	
4e. Forming a new idea or understanding from various pieces of information	67	+1	-0	-1	
Reflective & Integrative Learning					
Percentage of students who responded that they "Very often" or "Often"					
2a. Combined ideas from different courses when completing assignments	51	-2	-2	-2	
2b. Connected your learning to societal problems or issues	39	-10	-10	-9	
Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course 2c. discussions or assignments	36	-7	-12	-9	
2d. Examined the strengths and weaknesses of your own views on a topic or issue	56	-3	-4	-4	
Tried to better understand someone else's views by imagining how an issue looks from 2e. their perspective	62	-4	-6	-6	
2f. Learned something that changed the way you understand an issue or concept	67	-2	-1	-2	
2g. Connected ideas from your courses to your prior experiences and knowledge	78	-2	-0	-2	
Learning Strategies					
Percentage of students who responded that they "Very often" or "Often"					
9a. Identified key information from reading assignments	68	-3	-3	-4	
9b. Reviewed your notes after class	58	+1	+2	+2	
9c. Summarized what you learned in class or from course materials	64	+0	+2	+2	
Quantitative Reasoning					
Percentage of students who responded that they "Very often" or "Often"					
Reached conclusions based on your own analysis of numerical information (numbers, 6a. graphs, statistics, etc.) Used numerical information to examine a real-world problem or issue (unemployment,	54	+4	+5	+3	
6b. climate change, public health, etc.)	37	-0	-2	-3	
6c. Evaluated what others have concluded from numerical information	41	+2	+1	-2	

Notes: Refer to your Frequencies and Statistical Comparisons report for full distributions and significance tests. Item numbering corresponds to the survey facsimile available on the NSSE website.

a. Percentage point difference = Institution percentage – Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



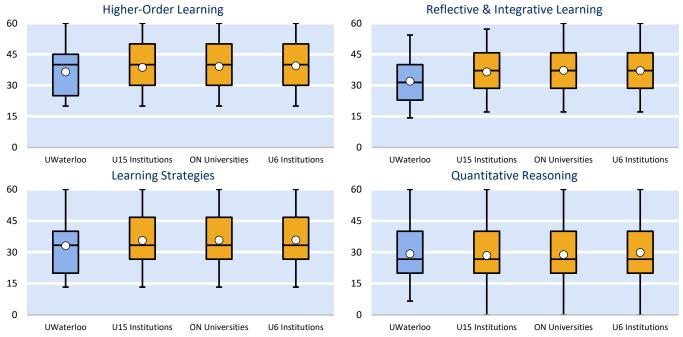
Academic Challenge University of Waterloo

### **Academic Challenge: Seniors**

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning, Reflective & Integrative Learning, Learning Strategies,* and *Quantitative Reasoning.* Below and on the next page are three views of your results alongside those of your comparison groups.

Mean Comparisons		Your seniors compared with				
	UWaterloo	U15 Institutions Effect	ON Universities Effect	U6 Institutions Effect		
Engagement Indicator	Mean	Mean size	Mean size	Mean size		
Higher-Order Learning	36.5	38.6 ***16	39.1 ***20	39.5 ***23		
Reflective & Integrative Learning	32.0	36.5 ***36	37.3 ***42	37.1 ***41		
Learning Strategies	33.0	35.6 ***18	35.8 ***19	35.8 ***20		
Quantitative Reasoning	29.2	28.4 * .05	28.8 .03	29.904		

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).



**Score Distributions** 

Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.



Academic Challenge University of Waterloo

## Academic Challenge: Seniors (continued)

#### **Performance on Indicator Items**

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage poin	our seniors and	
Higher-Order Learning	UWaterloo	U15 Institutions	ON Universities	U6 Institutions
Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized	%			
4b. Applying facts, theories, or methods to practical problems or new situations	75	-1	-1	-1
$4_{C.}$ Analyzing an idea, experience, or line of reasoning in depth by examining its parts	68	-4	-4	-5
4d. Evaluating a point of view, decision, or information source	56	-10	-12	-12
4e. Forming a new idea or understanding from various pieces of information	64	-5	-6	-7
Reflective & Integrative Learning				
Percentage of students who responded that they "Very often" or "Often"				
2a. Combined ideas from different courses when completing assignments	55	-10	-12	-11
2b. Connected your learning to societal problems or issues	42	-17	-18	-17
Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course 2c. discussions or assignments	35	-13	-18	-17
2d. Examined the strengths and weaknesses of your own views on a topic or issue	51	-10	-13	-12
Tried to better understand someone else's views by imagining how an issue looks from 2e. their perspective	59	-8	-10	-9
2f. Learned something that changed the way you understand an issue or concept	64	-7	-7	-7
2g. Connected ideas from your courses to your prior experiences and knowledge	75	-6	-6	-6
Learning Strategies				
Percentage of students who responded that they "Very often" or "Often"				
9a. Identified key information from reading assignments	66	-6	-8	-7
9b. Reviewed your notes after class	47	-5	-5	-4
9c. Summarized what you learned in class or from course materials	51	-7	-8	-8
Quantitative Reasoning				
Percentage of students who responded that they "Very often" or "Often"				
Reached conclusions based on your own analysis of numerical information (numbers, 6a. graphs, statistics, etc.)	55	+4	+4	+2
Used numerical information to examine a real-world problem or issue (unemployment, 6b. climate change, public health, etc.)	42	+1	+0	-1
6c. Evaluated what others have concluded from numerical information	44	+0	-1	-4

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile available on the NSSE website.

a. Percentage point difference = Institution percentage – Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



**Learning with Peers** 

### **University of Waterloo**

### Learning with Peers: First-year students

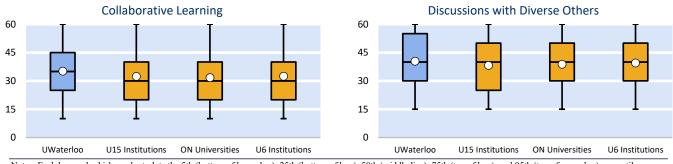
Collaborating with others in mastering difficult material and interacting with peers from different backgrounds prepares students to deal with complex, unscripted problems they will encounter during and after college. Two Engagement Indicators make up this theme: Collaborative Learning and Discussions with Diverse Others. Below are three views of your results alongside those of your comparison groups.

#### Mean Comparisons

		Your first-year students compared with					
	UWaterloo	U15 Inst	itutions	ON Univ	ersities	U6 Instit	utions
			Effect		Effect		Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Collaborative Learning	35.2	32.3 ***	.20	31.7 ***	.24	32.5 ***	.19
Discussions with Diverse Others	40.4	38.2 ***	.14	38.8 ***	.10	39.5 **	.06

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### **Performance on Indicator Items**

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage point o	difference <sup>a</sup> between yo	ur FY students and
Collaborative Learning	UWaterloo	U15 Institutions	ON Universities	U6 Institutions
Percentage of students who responded that they "Very often" or "Often"	%			
1b. Asked another student to help you understand course material	62	+9	+10	+8
1c. Explained course material to one or more students	61	+6	+6	+5
1d. Prepared for exams by discussing or working through course material with other students	57	+7	+9	+6
1e. Worked with other students on course projects or assignments	60	+6	+10	+8
Discussions with Diverse Others				
Percentage of students who responded that they "Very often" or "Often" had discussions with				
8a. People of races or ethnicities other than your own	78	+5	+4	+3
8b. People from economic backgrounds other than your own	71	+3	+2	+1
8c. People with religious beliefs other than your own	73	+7	+4	+3
8d. People with political views other than your own	55	+2	+1	+1

NSSE website.

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



Learning with Peers University of Waterloo

### **Learning with Peers: Seniors**

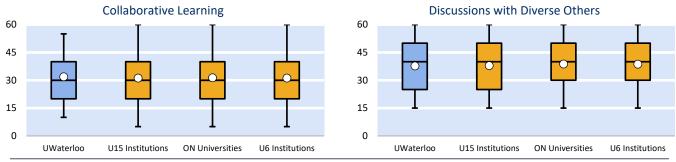
Collaborating with others in mastering difficult material and interacting with peers from different backgrounds prepares students to deal with complex, unscripted problems they will encounter during and after college. Two Engagement Indicators make up this theme: *Collaborative Learning* and *Discussions with Diverse Others*. Below are three views of your results alongside those of your comparison groups.

#### **Mean Comparisons**

vicali compansons		Your seniors compared with					
	UWaterloo	U15 Institutions		ON Universities		U6 Institutions	
			Effect		Effect		Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Collaborative Learning	31.9	31.2 *	.05	31.3	.04	31.2 *	.05
Discussions with Diverse Others	37.8	37.9	01	38.8 **	06	38.7 *	06

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### **Performance on Indicator Items**

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage poin	t difference <sup>a</sup> between y	our seniors and
Collaborative Learning	UWaterloo	U15 Institutions	ON Universities	U6 Institutions
Percentage of students who responded that they "Very often" or "Often"	%			
1b. Asked another student to help you understand course material	47	+6	+5	+6
1c. Explained course material to one or more students	51	+1	-1	+1
1d. Prepared for exams by discussing or working through course material with other students	46	+3	+3	+4
1e. Worked with other students on course projects or assignments	64	-0	+1	+1
Discussions with Diverse Others				
Percentage of students who responded that they "Very often" or "Often" had discussions with				
8a. People of races or ethnicities other than your own	74	+1	-0	-2
8b. People from economic backgrounds other than your own	65	-1	-3	-3
8c. People with religious beliefs other than your own	68	+5	+1	+1
8d. People with political views other than your own	49	-2	-4	-2

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile available on the NSSE website.

a. Percentage point difference = Institution percentage – Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



**Experiences with Faculty University of Waterloo** 

### **Experiences with Faculty: First-year students**

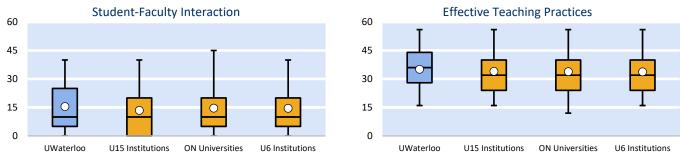
Students learn firsthand how experts think about and solve problems by interacting with faculty members inside and outside of instructional settings. As a result, faculty become role models, mentors, and guides for lifelong learning. In addition, effective teaching requires that faculty deliver course material and provide feedback in student-centered ways. Two Engagement Indicators investigate this theme: Student-Faculty Interaction and Effective Teaching Practices. Below are three views of your results alongside those of your comparison groups.

#### Ν

Mean Comparisons		Your first-year students compared with					
	UWaterloo	U15 Institutions	ON Universities	U6 Institutions			
		Effect	Effect	Effect			
Engagement Indicator	Mean	Mean size	Mean size	Mean size			
Student-Faculty Interaction	15.4	13.4 *** .14	14.6 ** .06	14.5 ** .06			
Effective Teaching Practices	35.1	34.0 *** .09	33.8 *** .10	33.7 *** .11			

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard  $deviation; Symbols \ on \ the \ Overview \ page \ are \ based \ on \ effect \ size \ and \ p \ before \ rounding; \ *p < .05, \ **p < .01, \ ***p < .001 \ (2-tailed).$ 

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### Performance on Indicator Items

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage point o	difference <sup>a</sup> between yo	ur FY students and
Student-Faculty Interaction	UWaterloo	U15 Institutions	<b>ON Universities</b>	U6 Institutions
Percentage of students who responded that they "Very often" or "Often"	%			
3a. Talked about career plans with a faculty member	21	+2	+0	+1
3b. Worked w/faculty on activities other than coursework (committees, student groups, etc.)	15	+3	+0	+1
3c. Discussed course topics, ideas, or concepts with a faculty member outside of class	24	+4	+2	+2
3d. Discussed your academic performance with a faculty member	18	+3	+0	+1
Effective Teaching Practices				in the second se
Percentage responding "Very much" or "Quite a bit" about how much instructors have				
5a. Clearly explained course goals and requirements	75	+2	+4	+3
5b. Taught course sessions in an organized way	70	-0	+2	+1
5c. Used examples or illustrations to explain difficult points	73	+1	+4	+2
5d. Provided feedback on a draft or work in progress	44	+2	+1	+3
5e. Provided prompt and detailed feedback on tests or completed assignments	51	+7	+6	+7

Notes: Refer to your Frequencies and Statistical Comparisons report for full distributions and significance tests. Item numbering corresponds to the survey facsimile available on the NSSE website.

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



# **Experiences with Faculty University of Waterloo**

### **Experiences with Faculty: Seniors**

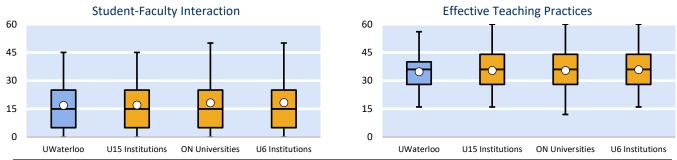
Students learn firsthand how experts think about and solve problems by interacting with faculty members inside and outside of instructional settings. As a result, faculty become role models, mentors, and guides for lifelong learning. In addition, effective teaching requires that faculty deliver course material and provide feedback in student-centered ways. Two Engagement Indicators investigate this theme: Student-Faculty Interaction and Effective Teaching Practices. Below are three views of your results alongside those of your comparison groups.

#### N

Mean Comparisons				Your seniors com	pared with			
	UWaterloo	U15 Inst	itutions Effect	ON Univ	ersities Effect	U6 Insti	tutions Effect	
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size	
Student-Faculty Interaction	16.8	17.0	01	18.2 ***	09	18.2 ***	09	
Effective Teaching Practices	34.7	35.4 **	06	35.3 *	05	35.8 ***	09	

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### Performance on Indicator Items

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Perc	entage poii	nt difference	between	your seniors	and
Student-Faculty Interaction	UWaterloo	U15 Ins	titutions	ON Uni	versities	U6 Inst	itutions
Percentage of students who responded that they "Very often" or "Often"	%						
3a. Talked about career plans with a faculty member	23		-1		-4		-3
3b. Worked w/faculty on activities other than coursework (committees, student groups, etc.)	21	+2		+0	1		-0
3c. Discussed course topics, ideas, or concepts with a faculty member outside of class	23		-0		-2		-2
3d. Discussed your academic performance with a faculty member	18	+1	)	I	-4		-2
Effective Teaching Practices					-		-
Percentage responding "Very much" or "Quite a bit" about how much instructors have							
5a. Clearly explained course goals and requirements	72		-3		-2		-3
5b. Taught course sessions in an organized way	69		-4		-1		-4
5c. Used examples or illustrations to explain difficult points	72		-1	+2	)	+0	)
5d. Provided feedback on a draft or work in progress	45		-3		-5		-5
5e. Provided prompt and detailed feedback on tests or completed assignments	50	+1	)		-1		-1

Notes: Refer to your Frequencies and Statistical Comparisons report for full distributions and significance tests. Item numbering corresponds to the survey facsimile available on the NSSE website.

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.

. . ....

a , .



**Campus Environment** 

### **University of Waterloo**

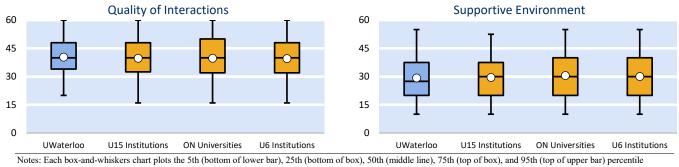
### **Campus Environment: First-year students**

Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons			Your	first-year student	s compared v	vith	
	UWaterloo	U15 Ins	titutions	ON Univ		U6 Inst	itutions
			Effect		Effect		Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Quality of Interactions	40.3	39.7 *	.05	39.7 *	.05	39.6 **	.06
Supportive Environment	29.3	29.5	02	30.6 ***	09	30.1 **	06

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



#### **Performance on Indicator Items**

scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage point o	difference <sup>a</sup> between you	ur FY students and
Quality of Interactions	UWaterloo	U15 Institutions	ON Universities	U6 Institutions
Percentage rating their interactions a 6 or 7 (on a scale from $l="Poor"$ to $7="Excellent"$ ) with	%			
13a. Students	54	+1	+4	+2
13b. Academic advisors	40	+2	+1	+2
13c. Faculty	39	-0	+1	+2
13d. Student services staff (career services, student activities, housing, etc.)	38	-2	-3	-2
13e. Other administrative staff and offices (registrar, financial aid, etc.)	34	-3	-4	-3
Supportive Environment			-	
Percentage responding "Very much" or "Quite a bit" about how much the institution emphasized				
14b. Providing support to help students succeed academically	63	+1	+1	+1
14c. Using learning support services (tutoring services, writing center, etc.)	57	-1	-4	-3
14d. Encouraging contact among students from diff. backgrounds (soc., racial/eth., relig., etc.)	50	+1	-2	-1
14e. Providing opportunities to be involved socially	56	-1	-3	-2
14f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	53	-1	-3	-2
14g. Helping you manage your non-academic responsibilities (work, family, etc.)	29	+1	-2	F -0
14h. Attending campus activities and events (performing arts, athletic events, etc.)	45	-5	-6	-5
14i. Attending events that address important social, economic, or political issues	33	-4	-7	-5
Notes: Refer to your <i>Frequencies and Statistical Comparisons</i> report for full distributions and significant NSSE website.	ce tests. Item nun	nbering corresponds to	o the survey facsimile av	ailable on the

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



Campus Environment University of Waterloo

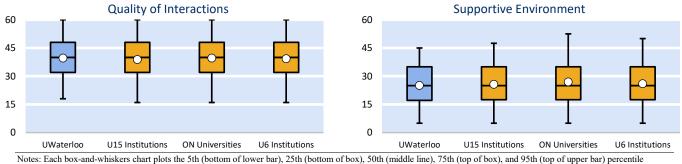
### **Campus Environment: Seniors**

Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons				Your seniors con	npared with		
	UWaterloo	U15 Ins	titutions	ON Uni	versities	U6 Inst	itutions
			Effect		Effect		Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Quality of Interactions	39.7	38.9 *	.06	39.7	.00	39.3	.03
Supportive Environment	25.1	25.7 *	05	27.0 ***	14	26.1 **	07

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### **Performance on Indicator Items**

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage por	nt difference "between	your seniors and
Quality of Interactions	UWaterloo	U15 Institutions	ON Universities	U6 Institutions
Percentage rating their interactions a 6 or 7 (on a scale from $l="Poor"$ to $7="Excellent"$ ) with	%			
13a. Students	54	-2	-1	-0
13b. Academic advisors	42	+6	+2	+4
13c. Faculty	41	-1	-0	-0
13d. Student services staff (career services, student activities, housing, etc.)	32	-3	-6	-5
13e. Other administrative staff and offices (registrar, financial aid, etc.)	32	-2	-4	-3
Supportive Environment				-
Percentage responding "Very much" or "Quite a bit" about how much the institution emphasized				
14b. Providing support to help students succeed academically	52	+2	-1	+2 ㅣ
14c. Using learning support services (tutoring services, writing center, etc.)	43	<b>-</b> 0	-6	-3
14d. Encouraging contact among students from diff. backgrounds (soc., racial/eth., relig., etc.)	38	-2	-6	-4
14e. Providing opportunities to be involved socially	44	-6	-8	-7
14f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	43	-0	-4	-1
14g. Helping you manage your non-academic responsibilities (work, family, etc.)	23	+3	- O	+2
14h. Attending campus activities and events (performing arts, athletic events, etc.)	36	-5	-6	-5
14i. Attending events that address important social, economic, or political issues	26	-4	-7	-5

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.

antaga point difference<sup>a</sup> between your conjers and

This page intentionally left blank.



### Comparisons with High-Performing Institutions University of Waterloo

### Comparisons with Top 50% and Top 10% Institutions

While NSSE's policy is not to rank institutions (see go.iu.edu/NSSE-PnP), the results below are designed to compare the engagement of your

students with those attending two groups of institutions identified by NSSE<sup>a</sup> for their high average levels of student engagement:

- (a) institutions with average scores placing them in the top 50% of all 2022 and 2023 NSSE institutions, and
- (b) institutions with average scores placing them in the top 10% of all 2022 and 2023 NSSE institutions.

While the average scores for most institutions are below the mean for the top 50% or top 10%, your institution may show areas of distinction where your average student was as engaged as (or even more engaged than) the typical student at high-performing institutions. A check mark  $(\checkmark)$  signifies those comparisons where your average score was at least comparable<sup>b</sup> to that of the high-performing group. However, the presence of a check mark does not necessarily mean that your institution was a member of that group.

It should be noted that most of the variability in student engagement is within, not between, institutions. Even "high-performing" institutions have students with engagement levels below the average for all institutions.

First-Year	Students			Your first-year stud	ents compared with	ı	
		UWaterloo	NSSE T	op 50%	NSSE T	op 10%	
Theme	Engagement Indicator	Mean	Mean	Effect size √	Mean	Effect size	$\checkmark$
	Higher-Order Learning	38.2	39.6 ***	10	42.2 ***	32	
Academic	Reflective and Integrative Learning	32.5	37.2 ***	40	39.8 ***	62	
Challenge	Learning Strategies	36.3	39.8 ***	25	42.8 ***	46	
	Quantitative Reasoning	28.3	30.7 ***	15	33.4 ***	33	
Learning	Collaborative Learning	35.2	33.2 ***	.14 🗸	36.6 ***	11	
with Peers	Discussions with Diverse Others	40.4	40.5	01 🗸	43.6 ***	23	
Experiences	Student-Faculty Interaction	15.4	25.4 ***	65	29.3 ***	91	
with Faculty	Effective Teaching Practices	35.1	40.1 ***	38	43.3 ***	62	
Campus	Quality of Interactions	40.3	45.2 ***	43	48.1 ***	65	
Environment	Supportive Environment	29.3	36.8 ***	57	39.6 ***	81	

#### Seniors

Semiors				Your seniors compared with									
		UWaterloo	NSSE T	Гор 50%	NSSE T	op 10%							
Theme	Engagement Indicator	Mean	Mean	Effect size √	Mean	Effect size	$\checkmark$						
	Higher-Order Learning	36.5	42.1 ***	41	44.7 ***	64							
Academic	Reflective and Integrative Learning	32.0	40.6 ***	69	43.1 ***	93							
Challenge	Learning Strategies	33.0	40.9 ***	55	43.6 ***	74							
	Quantitative Reasoning	29.2	32.7 ***	21	36.3 ***	44							
Learning	Collaborative Learning	31.9	34.7 ***	20	38.1 ***	46							
with Peers	Discussions with Diverse Others	37.8	41.1 ***	21	43.9 ***	42							
Experiences	Student-Faculty Interaction	16.8	29.6 ***	79	34.3 ***	-1.11							
with Faculty	Effective Teaching Practices	34.7	42.1 ***	54	44.7 ***	76							
Campus	Quality of Interactions	39.7	45.4 ***	47	47.9 ***	66							
Environment	Supportive Environment	25.1	34.5 ***	66	37.7 ***	91							

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by the pooled standard deviation; \*p < .05, \*\*p < .01, \*\*\*p < .01 (2-tailed).

a. Precision-weighted means were used to determine the top 50% and top 10% institutions for each Engagement Indicator from all current- and prior-year institutions, separately by class. Using this method, Engagement Indicator scores of institutions with relatively large standard errors were adjusted toward the mean of all students, while those with smaller standard errors received smaller corrections. As a result, schools with less stable data—even those with high average scores—may not be among the top scorers. NSSE does not publish the names of the top 50% and top 10% institutions because of our commitment not to release institutional results and our policy against ranking institutions.

b. Check marks are assigned to comparisons that are either positive or non-significant with an effect size > -.10.

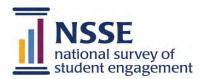
Your seniors compared with



# Detailed Statistics<sup>a</sup> University of Waterloo

# **Detailed Statistics: First-Year Students**

	Mea	n statisti	cs		Perce	ntile <sup>d</sup> sco	ores		Comparison results			
	Mean	SD <sup>b</sup>	SE <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size
Academic Challenge	mean		02	547	2311	50111	7561	5500	jrecuom	۵, , , , ,	o.g.	5.20
Higher-Order Learning												
UWaterloo (N = $2784$ )	38.2	12.7	.24	20	30	40	45	60				
U15 Institutions	37.7	13.1	.07	15	30	40	45	60	3,234	.5	.039	.040
ON Universities	37.9	13.3	.07	20	30	40	45	60	3,263	.3	.291	.020
U6 Institutions	38.5	13.1	.10	20	30	40	50	60	3,852	3	.235	02
Top 50%	39.6	13.2	.03	20	30	40	50	60	210,741	-1.4	.000	10
Top 10%	42.2	12.8	.08	20	35	40	55	60	28,344	-4.1	.000	31
Reflective & Integrative Learning	ng											
UWaterloo ( $N = 2863$ )	32.5	11.7	.22	14	26	31	40	54				
U15 Institutions	34.2	11.8	.06	14	26	34	43	54	43,182	-1.7	.000	14
ON Universities	34.7	12.0	.06	17	26	34	43	57	3,317	-2.2	.000	18
U6 Institutions	34.5	11.8	.09	17	26	34	43	57	20,422	-2.0	.000	17
Top 50%	37.2	12.0	.03	20	29	37	46	60	200,810	-4.7	.000	39
Top 10%	39.8	11.8	.07	20	31	40	49	60	28,604	-7.3	.000	62
Learning Strategies												
UWaterloo ( $N = 2708$ )	36.3	13.4	.26	13	27	40	47	60				
U15 Institutions	36.8	13.8	.07	13	27	40	47	60	3,168	5	.086	03
ON Universities	36.3	13.7	.07	13	27	33	47	60	36,935	.0	.861	.00
U6 Institutions	36.6	13.8	.11	13	27	33	47	60	3,780	2	.391	01
Top 50%	39.8	13.9	.03	20	27	40	53	60	172,057	-3.5	.000	24
Top 10%	42.8	14.0	.07	20	33	40	60	60	3,178	-6.5	.000	46
Quantitative Reasoning												
UWaterloo ( $N = 2710$ )	28.3	14.9	.29	7	20	27	40	60				
U15 Institutions	27.1	15.2	.08	0	20	27	40	53	38,271	1.2	.000	.07
ON Universities	27.5	15.4	.08	0	20	27	40	60	37,394	.8	.012	.05
U6 Institutions	28.4	15.2	.12	0	20	27	40	60	18,344	.0	.899	00
Top 50%	30.7	15.3	.03	7	20	27	40	60	2,785	-2.4	.000	15
Top 10%	33.4	15.4	.08	7	20	33	40	60	3,204	-5.1	.000	33
earning with Peers												
Collaborative Learning												
UWaterloo (N = $2927$ )	35.2	14.1	.26	10	25	35	45	60				
U15 Institutions	32.3	14.6	.07	10	20	30	40	60	3,362	2.9	.000	.19
ON Universities	31.7	14.7	.07	10	20	30	40	60	3,385	3.5	.000	.23
U6 Institutions	32.5	14.5	.11	10	20	30	40	60	3,959	2.7	.000	.18
Top 50%	33.2	13.9	.03	10	25	35	40	60	230,745	2.0	.000	.14
Top 10%	36.6	13.7	.07	15	25	35	45	60	46,275	-1.5	.000	10
Discussions with Diverse Other												
UWaterloo (N = $2694$ )	40.4	14.8	.29	15	30	40	55	60				
U15 Institutions	38.2	15.3	.08	15	25	40	50	60	3,151	2.1	.000	.14
ON Universities	38.8	15.4	.08	15	30	40	50	60	3,166	1.6	.000	.10
U6 Institutions	39.5	15.0	.12	15	30	40	50	60	18,198	.9	.004	.06
Top 50%	40.5	14.8	.03	20	30	40	55	60	186,800	2	.583	01
Top 10%	43.6	13.9	.09	20	35	40	60	60	24,597	-3.3	.000	23



# Detailed Statistics<sup>a</sup> University of Waterloo

### **Detailed Statistics: First-Year Students**

	Mea	n statisti	cs	Percentile <sup>d</sup> scores					Со	mparison	mparison results			
									Deg. of	Mean		Effect		
	Mean	SD <sup>b</sup>	SE <sup>c</sup>	5th	25th	50th	75th	95th	freedom <sup>e</sup>	diff.	Sig. <sup>f</sup>	size <sup>g</sup>		
Experiences with Faculty														
Student-Faculty Interaction														
UWaterloo $(N = 2798)$	15.4	14.5	.27	0	5	10	25	40						
U15 Institutions	13.4	13.9	.07	0	0	10	20	40	3,179	2.0	.000	.144		
ON Universities	14.6	14.5	.08	0	5	10	20	45	40,378	.8	.005	.055		
U6 Institutions	14.5	14.4	.11	0	5	10	20	40	19,684	.9	.002	.065		
Top 50%	25.4	15.3	.05	5	15	25	35	60	2,952	-9.9	.000	651		
Top 10%	29.3	15.3	.12	5	20	25	40	60	3,968	-13.8	.000	909		
Effective Teaching Practices														
UWaterloo ( $N = 2788$ )	35.1	12.0	.23	16	28	36	44	56						
U15 Institutions	34.0	12.2	.06	16	24	32	40	56	40,278	1.1	.000	.088		
ON Universities	33.8	12.8	.07	12	24	32	40	56	3,285	1.2	.000	.098		
U6 Institutions	33.7	12.3	.10	16	24	32	40	56	19,230	1.3	.000	.109		
Top 50%	40.1	13.5	.04	16	32	40	52	60	2,922	-5.1	.000	375		
Top 10%	43.3	13.3	.10	20	36	44	56	60	3,854	-8.2	.000	622		
Campus Environment														
Quality of Interactions														
UWaterloo $(N = 2228)$	40.3	11.7	.25	20	34	40	48	60						
U15 Institutions	39.7	12.3	.08	16	33	40	48	60	2,672	.6	.020	.049		
ON Universities	39.7	12.6	.08	16	32	40	50	60	2,672	.6	.018	.049		
U6 Institutions	39.6	12.4	.11	16	32	40	48	60	3,206	.7	.006	.060		
Top 50%	45.2	11.5	.03	24	38	46	54	60	118,700	-4.9	.000	428		
Top 10%	48.1	12.1	.08	24	42	50	60	60	2,737	-7.8	.000	647		
Supportive Environment														
UWaterloo (N = $2666$ )	29.3	12.7	.25	10	20	28	38	55						
U15 Institutions	29.5	12.9	.07	10	20	30	38	53	36,822	2	.424	016		
ON Universities	30.6	13.4	.07	10	20	30	40	55	3,153	-1.2	.000	093		
U6 Institutions	30.1	13.1	.11	10	20	30	40	55	3,734	8	.004	059		
Top 50%	36.8	13.1	.04	15	28	38	45	60	129,996	-7.4	.000	570		
Top 10%	39.6	12.8	.10	20	30	40	50	60	17,700	-10.3	.000	808		

a. Results weighted by institution-reported sex and enrollment status (and institutional size for comparison groups).

b. Standard deviation is a measure of the amount the individual scores deviate from the mean of all the scores in the distribution.

c. Standard error of the mean, used to compute a confidence interval (CI) around the sample mean. For example, the 95% CI (equal to the sample mean +/- 1.96 x SE)

is the range that is 95% likely to contain the true population mean.

d. A percentile is the point in the distribution of student-level EI scores at or below which a given percentage of EI scores fall.

e. Degrees of freedom used to compute the t-tests. Values vary from the total Ns due to weighting and whether equal variances were assumed.

f. Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

g. Effect size is the mean difference divided by the pooled standard deviation.



# Detailed Statistics<sup>a</sup> University of Waterloo

# **Detailed Statistics: Seniors**

	Mea	in statisti	CS		Perce	ntile <sup>d</sup> sco	ores			mparison	results	
	Mean	SD <sup>b</sup>	SE <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size <sup>g</sup>
Academic Challenge	weun	30	3E	501	2501	50111	7501	9501	Jieedom	uŋj.	siy.	5120
Higher-Order Learning												
UWaterloo (N = $1919$ )	36.5	12.9	.29	20	25	40	45	60				
U15 Institutions	38.6	13.2	.08	20	30	40	50	60	31,042	-2.1	.000	163
ON Universities	39.1	13.4	.08	20 20	30	40	50	60	29,645	-2.1	.000	199
U6 Institutions	39.1	13.4	.08	20 20	30	40	50	60	29,043 14,492	-2.0	.000	227
Top 50%						40 40	50 55		·		.000	
Top 10%	42.1 44.7	13.7 12.8	.03 .10	20 20	35 40	40 45	55 60	60 60	1,970 17,508	-5.6 -8.2	.000	409 641
100 1070	44.7	12.0	.10	20	40	45	00	00	17,508	-0.2	.000	041
Reflective & Integrative Learnin	g											
UWaterloo ( $N = 1996$ )	32.0	12.3	.28	14	23	31	40	54				
U15 Institutions	36.5	12.4	.07	17	29	37	46	57	32,904	-4.5	.000	364
ON Universities	37.3	12.6	.07	17	29	37	46	60	31,452	-5.3	.000	420
U6 Institutions	37.1	12.5	.11	17	29	37	46	60	15,337	-5.1	.000	406
Top 50%	40.6	12.5	.03	20	31	40	51	60	149,671	-8.6	.000	688
Top 10%	43.1	11.8	.10	23	34	43	54	60	16,968	-11.1	.000	929
Learning Strategies UWaterloo (N = 1888)	33.0	14.1	.32	13	20	33	40	60				
U15 Institutions		14.1	.32		20				2 161	2.5	000	170
	35.6			13		33	47	60	2,161	-2.5	.000	178
ON Universities	35.8	14.2	.09	13	27	33	47	60	2,174	-2.7	.000	191
U6 Institutions	35.8	14.1	.13	13	27	33	47	60	13,823	-2.8	.000	198
Top 50%	40.9	14.5	.03	20	33	40	53	60	1,930	-7.9	.000	545
Top 10%	43.6	14.1	.09	20	33	40	60	60	2,180	-10.5	.000	745
Quantitative Reasoning												
UWaterloo ( $N = 1888$ )	29.2	14.4	.33	7	20	27	40	60				
U15 Institutions	28.4	15.8	.09	0	20	27	40	60	2,203	.8	.014	.054
ON Universities	28.8	15.9	.10	0	20	27	40	60	2,223	.4	.211	.027
U6 Institutions	29.9	15.7	.14	0	20	27	40	60	2,628	6	.083	040
Тор 50%	32.7	16.5	.04	7	20	33	40	60	1,932	-3.4	.000	209
Top 10%	36.3	16.2	.13	7	20	40	47	60	2,461	-7.0	.000	439
Learning with Peers												
Collaborative Learning	21.0	12.7	20	10	20	20	10	<i></i>				
UWaterloo (N = $2020$ )	31.9	13.7	.30	10	20	30	40	55	2 2 1 2	-	027	0.45
U15 Institutions	31.2	14.6	.08	5	20	30	40	60	2,313	.7	.037	.045
ON Universities	31.3	14.7	.08	5	20	30	40	60	2,335	.5	.094	.036
U6 Institutions	31.2	14.6	.12	5	20	30	40	60	2,731	.7	.045	.045
Top 50%	34.7	14.2	.04	10	25	35	45	60	2,073	-2.8	.000	200
Top 10%	38.1	13.6	.09	15	30	40	50	60	24,221	-6.2	.000	458
Discussions with Diverse Others	;											
UWaterloo (N = $1879$ )	37.8	15.1	.35	15	25	40	50	60				
U15 Institutions	37.9	15.3	.09	15	25	40	50	60	29,386	1	.754	007
ON Universities	38.8	15.5	.10	15	30	40	50	60	28,184	-1.0	.008	064
U6 Institutions	38.7	15.2	.14	15	30	40	50	60	13,806	9	.013	062
Top 50%	41.1	15.6	.04	15	30	40	55	60	1,920	-3.3	.000	210
Top 10%	43.9	14.8	.11	20	35	45	60	60	21,073	-6.1	.000	415
		1 1.0		20	55	10	00	00	21,075	5.1		



# Detailed Statistics<sup>a</sup> University of Waterloo

### **Detailed Statistics: Seniors**

	Mean statistics				Percentile <sup>d</sup> scores					Comparison results			
		SD <sup>b</sup>	SE <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size <sup>g</sup>	
	Mean												
Experiences with Faculty													
Student-Faculty Interaction													
UWaterloo (N = $1946$ )	16.8	14.7	.33	0	5	15	25	45					
U15 Institutions	17.0	14.6	.08	0	5	15	25	45	31,880	1	.697	009	
ON Universities	18.2	15.2	.09	0	5	15	25	50	30,389	-1.4	.000	092	
U6 Institutions	18.2	15.0	.13	0	5	15	25	50	14,849	-1.4	.000	094	
Top 50%	29.6	16.2	.06	5	20	30	40	60	2,064	-12.7	.000	789	
Top 10%	34.3	15.8	.17	10	20	35	45	60	3,013	-17.4	.000	-1.115	
Effective Teaching Practices													
UWaterloo ( $N = 1938$ )	34.7	11.9	.27	16	28	36	40	56					
U15 Institutions	35.4	12.7	.07	16	28	36	44	60	2,243	7	.008	058	
ON Universities	35.3	13.3	.08	12	28	36	44	60	2,287	7	.015	052	
U6 Institutions	35.8	12.7	.11	16	28	36	44	60	2,668	-1.1	.000	090	
Top 50%	42.1	13.8	.04	20	32	40	56	60	2,021	-7.5	.000	545	
Top 10%	44.7	13.4	.10	20	36	44	56	60	2,468	-10.0	.000	758	
Campus Environment													
Quality of Interactions													
UWaterloo (N = $1666$ )	39.7	12.0	.29	18	32	40	48	60					
U15 Institutions	38.9	12.5	.08	16	32	40	48	60	1,953	.8	.010	.063	
ON Universities	39.7	12.5	.08	16	32	40	48	60	1,945	.0	.933	.002	
U6 Institutions	39.3	12.3	.12	16	32	40	48	60	2,278	.4	.188	.034	
Top 50%	45.4	12.1	.03	22	38	48	55	60	131,711	-5.7	.000	470	
Top 10%	47.9	12.5	.07	22	40	50	60	60	1,859	-8.2	.000	655	
Supportive Environment													
UWaterloo $(N = 1869)$	25.1	12.7	.29	5	17	25	35	45					
U15 Institutions	25.7	12.7	.08	5	18	25	35	48	28,785	6	.050	047	
ON Universities	27.0	13.4	.08	5	18	25	35	53	2,180	-1.8	.000	138	
U6 Institutions	26.1	12.9	.12	5	18	25	35	50	13,577	9	.003	074	
Top 50%	34.5	14.3	.04	10	25	35	45	60	1,944	-9.4	.000	657	
Top 10%	37.7	13.9	.13	15	28	38	48	60	2,657	-12.5	.000	911	

a. Results weighted by institution-reported sex and enrollment status (and institutional size for comparison groups).

b. Standard deviation is a measure of the amount the individual scores deviate from the mean of all the scores in the distribution.

c. Standard error of the mean, used to compute a confidence interval (CI) around the sample mean. For example, the 95% CI (equal to the sample mean +/- 1.96 x SE)

is the range that is 95% likely to contain the true population mean.

d. A percentile is the point in the distribution of student-level EI scores at or below which a given percentage of EI scores fall.

e. Degrees of freedom used to compute the t-tests. Values vary from the total Ns due to weighting and whether equal variances were assumed.

f. Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

g. Effect size is the mean difference divided by the pooled standard deviation.