



Assessment Report:	Critical Thinking Report
Assessment Period:	Academic Year 2022
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The following report is based on data from student **electronic writing portfolios** and the most recent cycle of the **National Survey of Student Engagement (NSSE)** administered at Eastern Illinois University. Electronic writing portfolio submissions are required of all EIU undergraduates by their senior year and include **writing samples from throughout their collegiate career**. NSSE data are collected from **first-year students** and **seniors**. While EIU has administered both the Collegiate Learning Assessment (CLA+) and the Watson-Glaser Critical Thinking Appraisal (2000-2016) in years past, in 2022 EIU’s General Education Committee advanced a rubric to assess critical thinking evidenced in student writing samples. The use of an internal assessment with NSSE Engagement indicators allows us to compile a more thorough understanding of student critical thinking.

The Critical Thinking Subcommittee of EIU’s General Education Committee was tasked with reviewing critical thinking assessment tools in the fall of 2020. After comparing several internal and standardized external assessment options, the Subcommittee submitted their report of recommendations. Following those recommendations, the Subcommittee was asked to develop a rubric to implement as an internal assessment of students’ critical thinking skills. Internal assessment, as compared with most external instruments, utilize authentic artifacts from student learning and more directly involve faculty in the assessment process. The Subcommittee adapted a **critical thinking rubric (Appendix 3)** from AAC&U’s Critical Thinking VALUE Rubric and the Center for Teaching, Learning, & Technology at Washington State University’s Guide to Rating Critical & Integrative Thinking. Electronic Writing Portfolio reviewers first employed the rubric in the spring of 2022 to evaluate 41 portfolios.

Electronic writing portfolio (41 portfolio evaluations, Spring 2022)

<i>Rating criteria</i>	n/a	Mastering		Developing		Emerging		Average
		6	5	4	3	2	1	
<i>Asks essential questions; engages diverse perspectives</i>	0	1	9	11	15	5	0	3.66
<i>Seeks data, information, and knowledge</i>	0	2	6	13	15	5	0	3.63
<i>Interprets and critiques relevant data, information, and knowledge</i>	0	0	6	12	13	9	1	3.32
<i>Integrates data, information, and knowledge to create new insights</i>	1	0	7	11	14	8	0	3.43
<i>Evaluates implications of arguments and conclusions</i>	0	0	8	16	10	6	1	3.59
<i>Creates and presents defensible positions and proposals</i>	1	1	9	12	11	5	2	3.60
Total	2	4	45	75	78	38	4	3.54

Across all rating criteria, most student scores fall in the range of **developing**. Students tended to score slightly higher in *Asks essential questions; engages diverse perspectives*. On average, students scored lowest in *Interprets and critiques relevant data, information, and knowledge*. EWPs can include writing samples from a student’s first year in college through their senior year, and the rubric scores do not separate a student’s early writing samples from those later in their college career. The full range of scores include those falling within the emerging skill set up through mastering.

National Survey of Student Engagement (Survey year: 2020)

	Response rate	Sampling error	Total respondents	Full completions
<i>First-year students</i>	26%	+/- 4.7%	326	229
<i>Seniors</i>	30%	+/- 4.7%	300	252

This report utilizes the definition of “critical thinking” as specified on the “critical thinking value rubric” composed by the AAC&U (Association of American Colleges and Universities):

“Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.”

Following the AAC&U definition, the report before you collates data from three large umbrella questions asked in the NSSE survey.

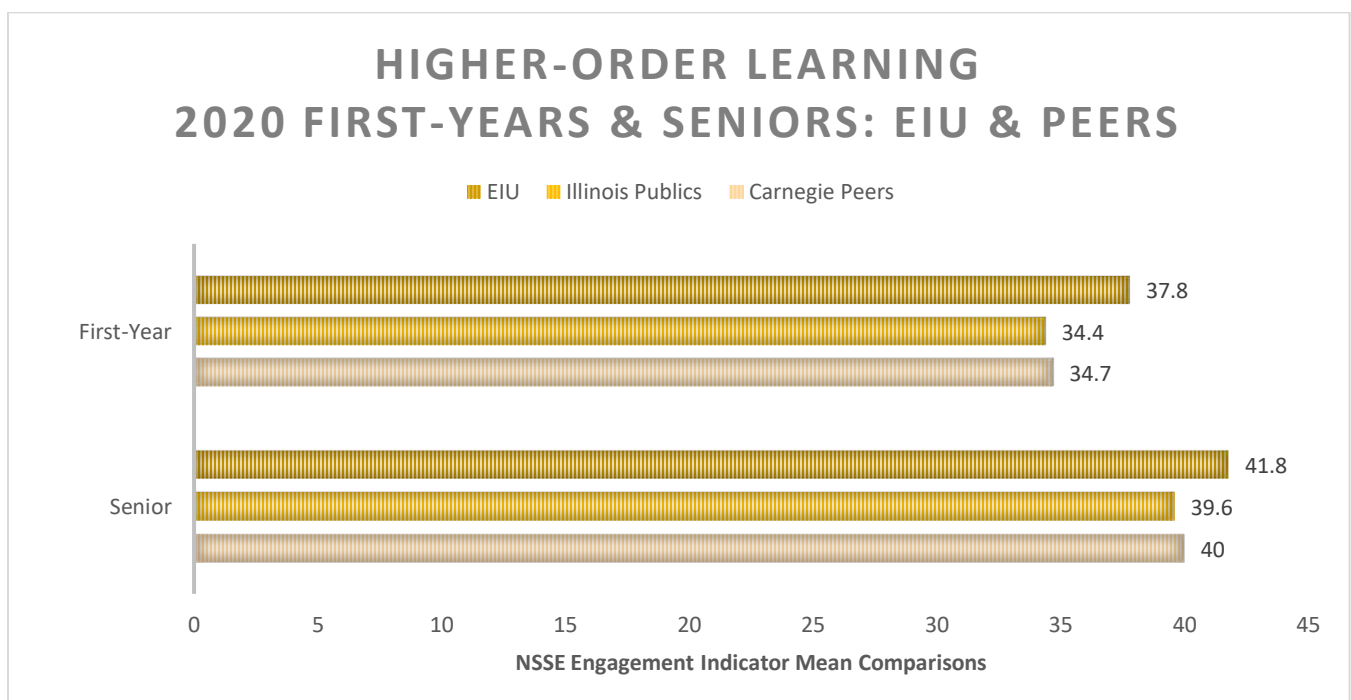
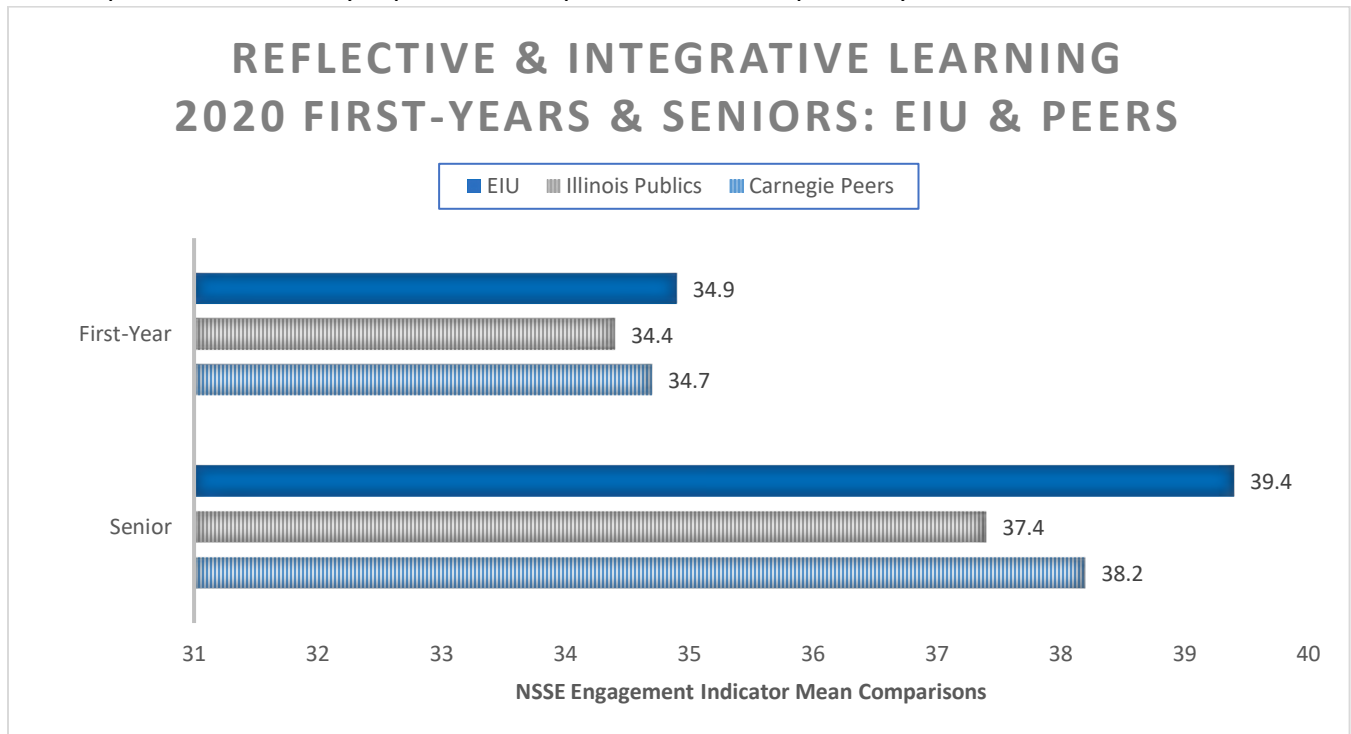
Students’ answers give a snapshot of how they view their critical thinking activities within these three broad frameworks, corresponding to categories defined by NSSE: “**reflective and integrative learning**” (question 2), “**higher-order learning**” (question 4), and **institutional experience** (question 18).

This report includes an overall picture comparing EIU and peer institutions, and then moves to detailed pictures of each critical thinking framework. The breakdown of the survey questions compiled for NSSE’s Engagement Indicators demonstrates areas in which EIU students report minor divergences from peer institutions.

Questions correspond to the NSSE survey, listed in **Appendix 1** (page 7). “Peer institutions” indicates similarly-sized public, master’s degree-granting institutions. See **Appendix 2** for a specification of peer institutions (page 8).

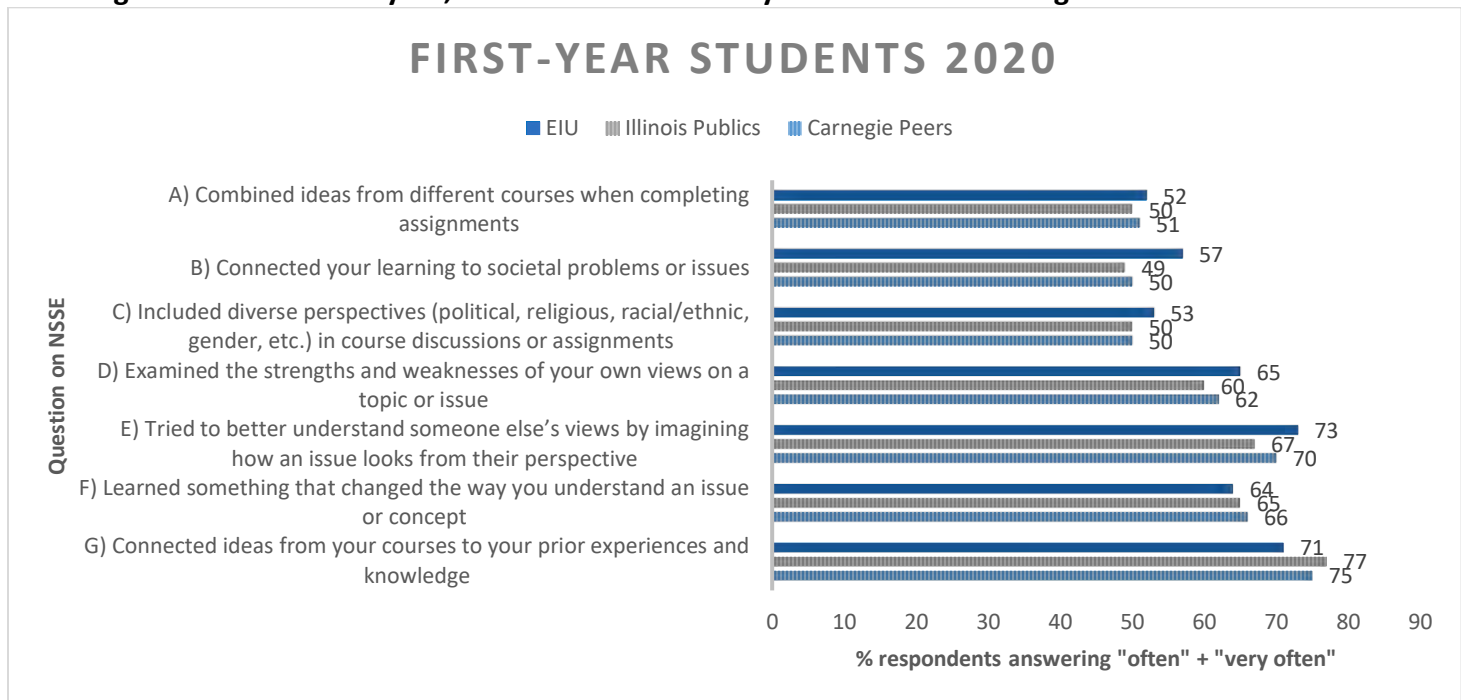
2020 larger picture: EIU & peer institutions

The NSSE Report compiles scores (“Engagement Indicators”) in four categories of “deep learning.” EIU uses two of these categories—“Reflective & Integrative Learning” and “Higher-Order Learning”—to measure critical thinking. **EIU compares favorably against peer institutions in both categories.** For Reflective & Integrative Learning, EIU first-year students show nearly equivalent mean comparisons to peer institutions, while at the senior level, NSSE reports EIU scores are “significantly higher with an effect size less than .3 in magnitude.” For Higher-Order Learning, both EIU first-years and seniors exceed peer institutions by 3-points and 2-points overall, respectively.

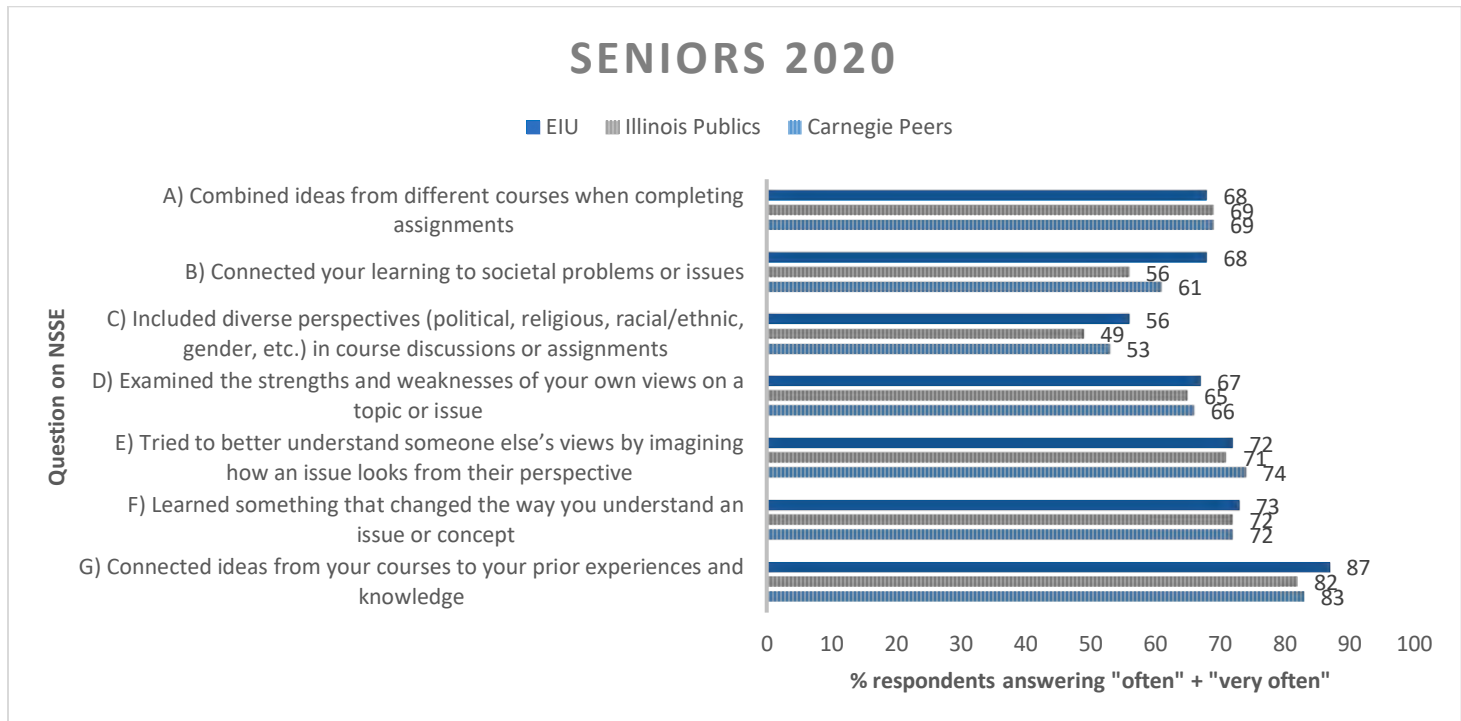


2020 detailed picture: reflective & integrative learning

2. During the current school year, about how often have you done the following?



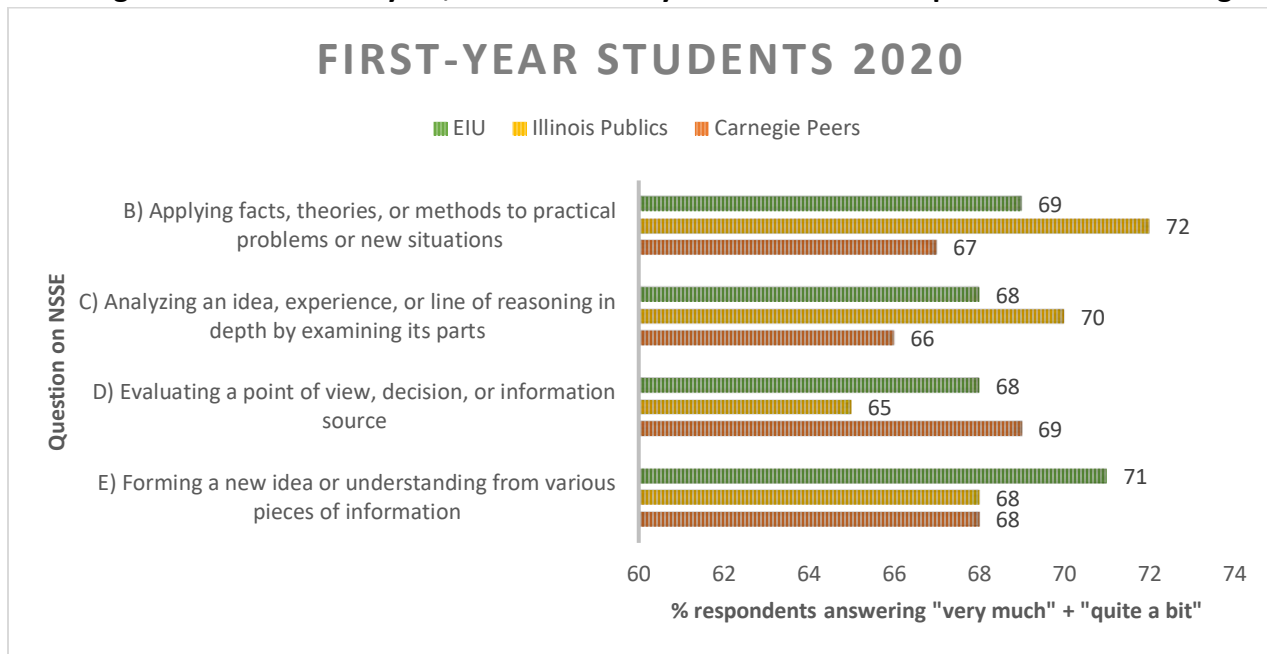
In most areas of Reflective and Integrative Learning, EIU first-year students report very similar experiences to peer institutions. EIU students showed statistically more-frequent experiences than peers in two areas: 1) Connecting learning to societal problems, and 2) Trying to better understand an issue from someone else's perspective. In one area—"Connecting course ideas to prior experiences and knowledge"—EIU first-year students reported less-frequent exposure than peers.



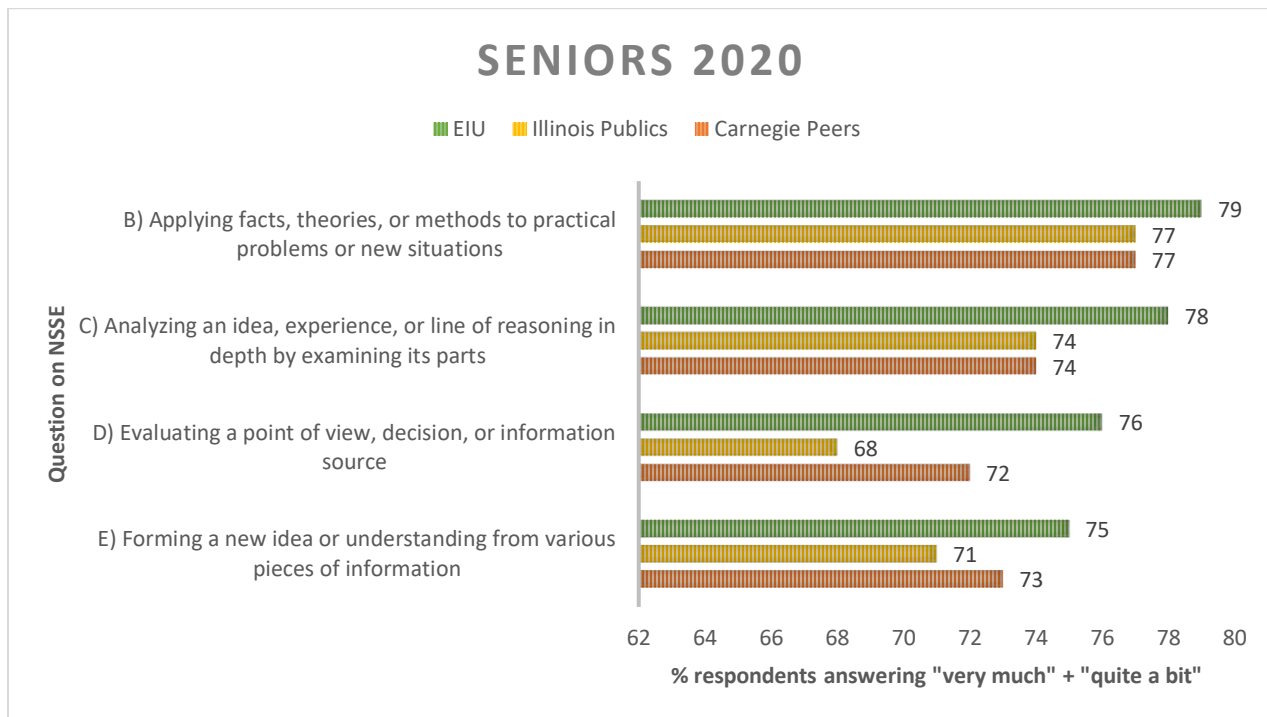
EIU senior scores are “significantly higher with an effect size less than .3 in magnitude.” EIU seniors scores lagged peers in no areas, but showed statistically more-frequent experiences in three areas: 1) Connecting learning to societal problems (same as first-years), 2) Including diverse perspectives, and 3) Connecting course ideas to prior experiences and knowledge (the area that first-year students report less-frequent exposure).

2020 detailed picture: higher-order learning

4. During the current school year, how much has your coursework emphasized the following?



In most areas of Higher-Order Learning, EIU first-year students report very similar experiences to peer institutions, with no statistical divergence from peers.

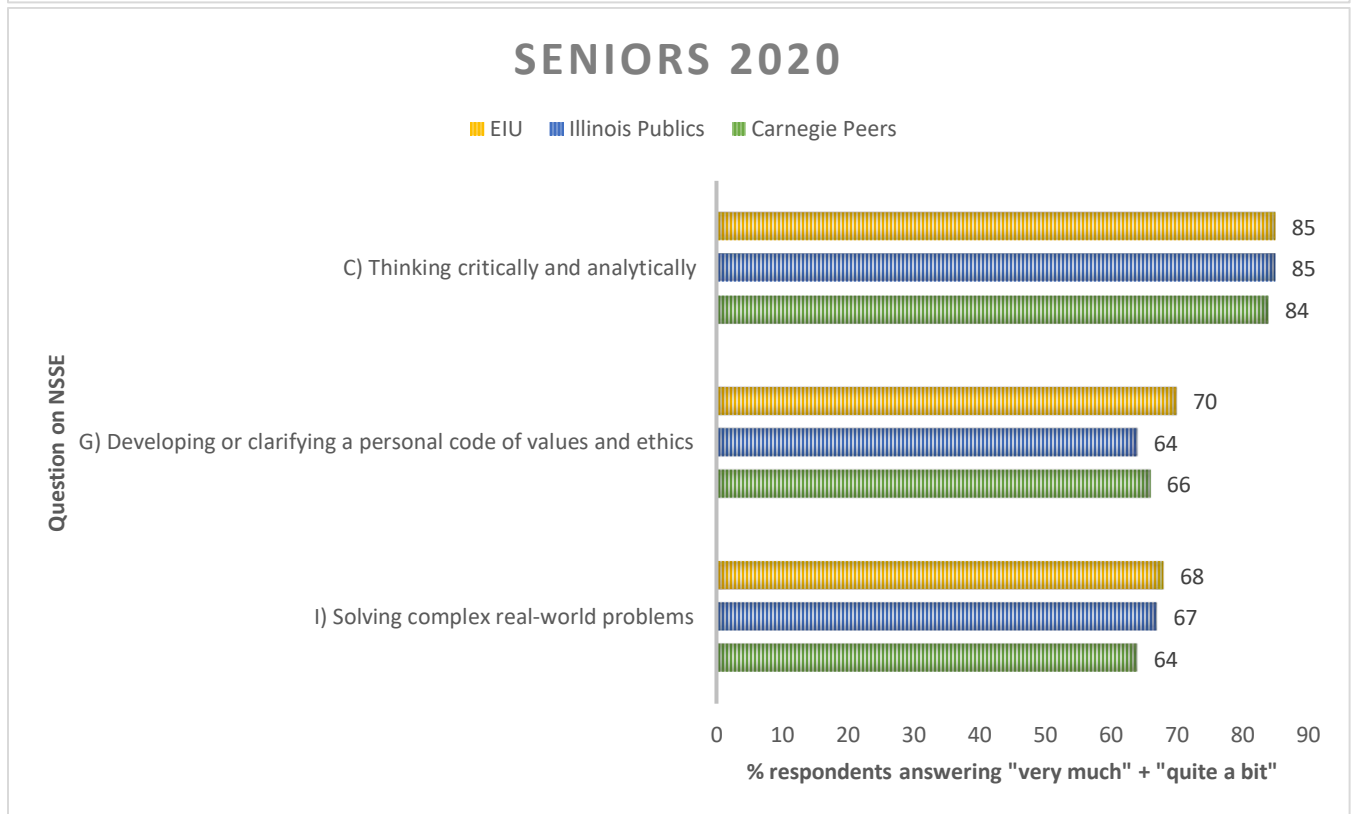
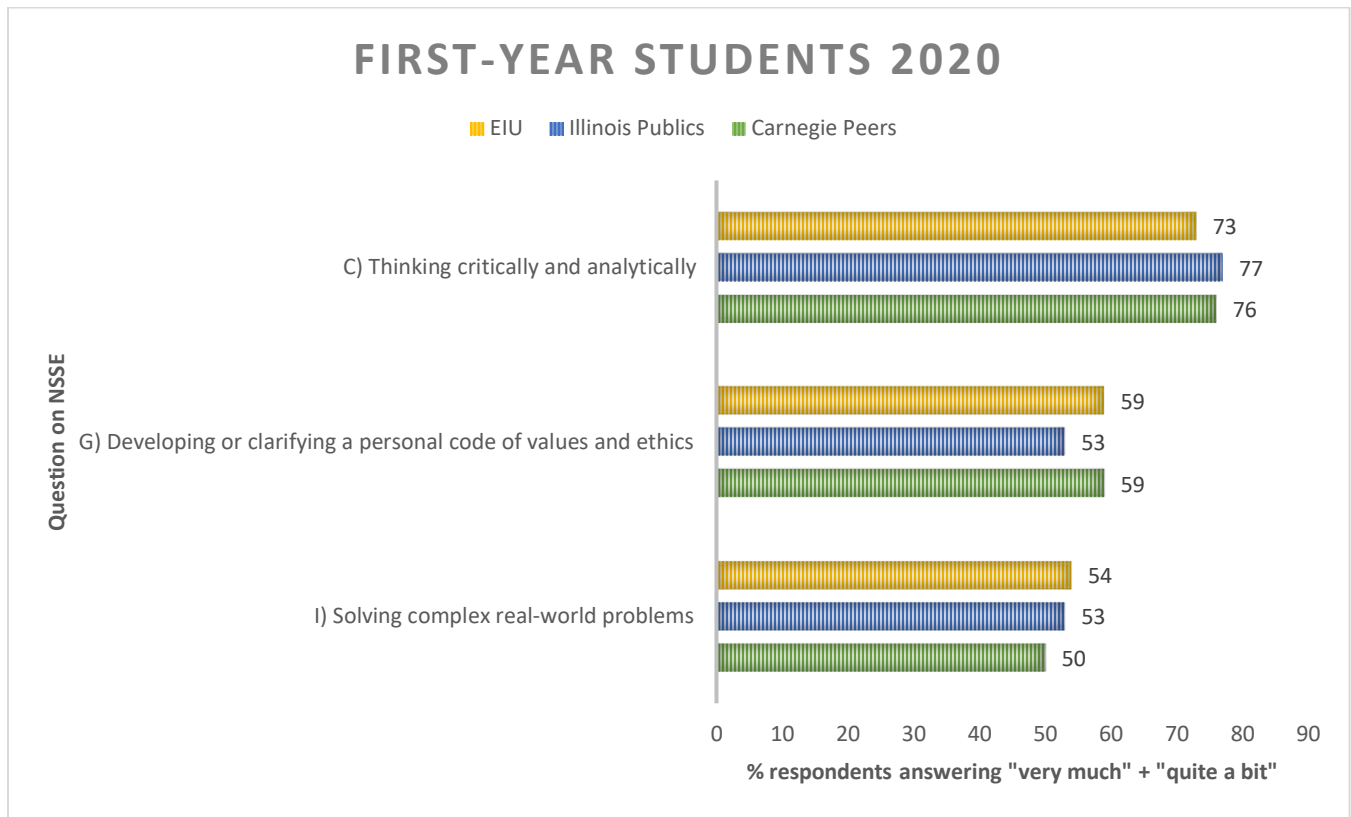


At the senior level, NSSE reports Higher-Order Learning scores at EIU are “significantly higher with an effect size less than .3 in magnitude.” EIU senior scores exceeded peers in all areas, with significantly more-frequent experiences in: 1) Analyzing an idea, experience, or line of reasoning in depth by examining its parts, 2) Evaluating a point of view, decision, or information source, and 3) Forming a new idea or understanding from various pieces of information.

While over two-thirds of first-year students and three-quarters of seniors report coursework that emphasizes higher-order learning “very much” and “quite a bit,” EWP critical thinking evaluations indicate room for growth, with average scores lying centrally in the **developing** portion of the rating scale.

2020 detailed picture: institutional experience

18. How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?



APPENDIX 1

NSSE survey questions

First-year students and seniors answered the following questions on the NSSE survey:

“Reflective and integrative learning”

2. During the current school year, about how often have you done the following?

- A) Combined ideas from different courses when completing assignments
- B) Connected your learning to societal problems or issues
- C) Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
- D) Examined the strengths and weaknesses of your own views on a topic or issue
- E) Tried to better understand someone else’s views by imagining how an issue looks from their perspective
- F) Learned something that changed the way you understand an issue or concept
- G) Connected ideas from your courses to your prior experiences and knowledge

“Higher-order learning”

4. During the current school year, how much has your coursework emphasized the following?

- B) Applying facts, theories, or methods to practical problems or new situations
- C) Analyzing an idea, experience, or line of reasoning in depth by examining its parts
- D) Evaluating a point of view, decision, or information source
- E) Forming a new idea or understanding from various pieces of information

Institutional experience

18. How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

- C) Thinking critically and analytically
- G) Developing or clarifying a personal code of values and ethics
- I) Solving complex real-world problems

APPENDIX 2

NSSE selected comparison groups

Illinois Publics = University of Illinois system schools, plus Governors State

Carnegie Peers = Master's-granting public universities

For purposes of comparison, this report uses NSSE data for the following 29 institutions: Chicago State U, Eastern Kentucky U, Ferris State U, Governors State U, Indiana U East, Lincoln U, Missouri State U-Springfield, Murray State U, Northeastern Illinois U, Northern Michigan U, Northwest Missouri State U, Saginaw Valley State U, Truman State U, U Central Missouri, U Illinois-Springfield, U Michigan-Dearborn, U Michigan-Flint, U Saint Francis-Fort Wayne, U Southern Indiana, U Wisconsin (UW)-Oshkosh, UW-Eau Claire, UW-Green Bay, UW-La Crosse, UW-Platteville, UW-River Falls, UW-Stevens Point, UW-Stout, UW-Whitewater, Western Illinois U

Rating Criteria	Rating Scale						
	N/A	Mastering		Developing		Emerging	
Asks essential questions; engages diverse perspectives		Question to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding. Integrates different disciplinary and epistemological ways of knowing.		Question to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown. Acknowledges and integrates different ways of knowing.		Question to be considered critically is stated without clarification or description. Little or no evidence of attending to others' views.	
	n/a	6	5	4	3	2	1
Seeks data, information, and knowledge		Evidence of source evaluation skills. Information need is clearly defined and integrated to meet and exceed assignment.		Demonstrates adequate skill in selecting sources to meet information need. Appropriate evidence is provided although exploration is routine.		No evidence of selection or source evaluation skills. Evidence is simplistic, inappropriate or not related to topic.	
	n/a	6	5	4	3	2	1
Interprets and critiques relevant data, information, and knowledge		Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.		Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.		Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.	
	n/a	6	5	4	3	2	1
Integrates data, information, and knowledge to create new insights		Addresses diverse perspectives from a variety of sources to qualify analysis. Any analogies are used effectively. Clearly justifies own view while respecting views of others. Analysis of other positions is accurate and respectful. Evidence of reflection and self-assessment.		Begins to relate alternative views. Rough integration of multiple viewpoints. Ideas are investigated in a limited way. May overstate conflict or dismiss alternative views hastily. Analysis of other views mostly accurate. Some evidence of self-assessment.		Deals with a single perspective and fails to discuss others' perspective. Adopts a single idea with little question. Alternatives are not integrated. Ideas are obvious. Avoids discomfiting ideas. Treats other positions superficially. No evidence of self-assessment.	
	n/a	6	5	4	3	2	1
Evaluates implications of arguments and conclusions		Identifies and discusses conclusions, implications, and consequences. Considers context, assumptions, and evidence. Qualifies own assertions. Consequences are considered and integrated. Implications are developed, and consider ambiguities.		Conclusions consider evidence of consequences extending beyond a single issue. Presents implications that may impact other people or issues. Presents conclusions as only loosely related to consequences. Implications may include vague reference to conclusions.		Fails to identify conclusions, implications, and consequences, or conclusion is a simplistic summary. Conclusions are absolute, and may attribute conclusion to external authority.	
	n/a	6	5	4	3	2	1
Creates and presents defensible positions and proposals		Position demonstrates ownership. Appropriately identifies own position, drawing support from experience and information not from assigned sources. Justifies own view while integrating contrary interpretations. Hypothesis demonstrates sophisticated thought.		Presents own position, which includes some original thinking, though inconsistently. Justifies own position without addressing other views or does so superficially. Position is generally clear, although gaps may exist.		Position is clearly adopted with little consideration. Addresses a single view of the argument, failing to clarify the position relative to one's own. Fails to justify own opinion or hypothesis is unclear or simplistic.	
	n/a	6	5	4	3	2	1