



NSSE Survey Deep Learning Items:
Comparison of First-Year and
Senior Student Responses

Office of Institutional Research

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Introduction

The University of Rhode Island has participated in the National Survey of Student Engagement (NSSE) several times during the last decade. NSSE is coordinated by the Indiana University Center for Postsecondary Research and collects information from samples of first-year and senior students about the nature and quality of their undergraduate experience. Response data is acquired through voluntary participation in an online survey instrument. Both first-year and senior students are questioned in the same survey so results should not be seen as a longitudinal study of the same cohort at two different time periods. Students are asked to answer questions based on a group of courses they have taken recently rather than a single course. Data from first-year students represents perceptions early in their college experience while data from senior students measures them nearly at the end. Response rates typically were about 25% of the sample invited to participate.

Aggregated data from surveys in 2002, 2005, 2007, and 2011 are examined here. The four-year gap between the last two surveys is due to participation in the Wabash National Study of Liberal Arts Education (WNSLAE) which only included first year students. Their results are not used in this analysis.

From the many items of the NSSE survey instrument a set of twelve has been identified by WNSLAE as being associated strongly with deep learning. From the abstract of a recent research paper *:

“Deep learning” is important in higher education because students who utilize such an approach tend to get more out of their educational experiences.

These deep learning items are grouped into three areas: Integrative Learning, Higher Order Learning, and Reflective Learning. Responses are evaluated individually and summary conclusions are made at the end of the report.

* Nelson Laird, T. F., Schwarz, M. J., Shoup, R. and Kuh, G. D. 2005. *Disciplinary Differences in Faculty Members' Emphasis on Deep Approaches to Learning*. Paper presented at the Annual Meeting of the Association for Institutional Research, May 14 – May 18, 2005, Chicago, IL
<http://fsse.iub.edu/pdf/2006AIRFSSEDeepLearningFINAL.pdf>

Results

Results from the all survey implementations are compiled in Tables A through D (pages 9 – 16). Responses are recoded on a four-point ordinal scale to calculate means for each item. Mean values for all survey years then are averaged to create item scores for overall comparison. Charts comparing response frequencies of first-year to senior students are shown in the Appendix (pages 17 – 22).

On the numeric scale, a midpoint score is 2.5. For first-year students, 9 of 12 items score above the midpoint; seniors score 11 of 12 items above it. There is improvement between the first and senior years for all but one item with positive differences ranging from a low of +0.09 to a high of +0.39.

The change over time is most obvious from the charts. Generally there has been improvement from 2002 to 2011 in most items, with first-year students showing more than seniors. In some cases the response mean for seniors stayed level or even decreased.

Individual item results follow, showing the question (*italicized*), average scores of all four survey years combined, the difference between first-year and senior students, and a brief comment on the data.

Integrative Learning item-1

NSSE code: INTEGRAT

In your experience at your institution during the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Worked on a paper or project that required integrating ideas or information from various sources.

FirstYear	2.94	Senior	3.26	Difference	+0.32
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- Significant change occurs between first-year and senior student experiences. Although already high for first-year students, senior students find that upper level coursework requires even more integration.

Integrative Learning item-2

NSSE code: DIVCLASS

In your experience at your institution during the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments.

FirstYear	2.64	Senior	2.63	Difference	-0.01
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- Inclusion of diverse perspectives in coursework hardly changes between student levels.

Integrative Learning item-3

NSSE code: INTIDEAS

In your experience at your institution during the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Put together ideas or concepts from different courses when completing assignments or during class discussions.

FirstYear	2.50	Senior	2.89	Difference	+0.39
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- This item produces the greatest difference between levels, probably because first-year students have a broader set of less connected coursework than seniors.

Integrative Learning item-4

NSSE code: FACIDEAS

In your experience at your institution during the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Discussed ideas from your readings or classes with faculty members outside of class.

FirstYear	1.77	Senior	2.02	Difference	+0.25
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- This item scores well below the mid point (2.5) for both student levels, but with significant improvement for seniors.

Integrative Learning item-5

NSSE code: OOCIDEAS

In your experience at your institution during the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Discuss ideas from your readings or classes with others outside of class (other students, family members, co-workers, etc.)

FirstYear	2.60	Senior	2.75	Difference	+0.15
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- Students are more likely to discuss coursework outside of class with others than they are with faculty. This may be as much from opportunity as effort.

Higher Order Learning item-1

NSSE code: ANALYZE

During the current school year, how much has your coursework emphasized the following mental activities? (1=very little, 2=some, 3=quite a bit, 4=very much)

Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components

FirstYear	3.05	Senior	3.25	Difference	+0.20
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- This item produced high scores at both student levels, indicating that coursework is focusing on analytical skills.

Higher Order Learning item-2

NSSE code: SYNTHESZ

During the current school year, how much has your coursework emphasized the following mental activities? (1=very little, 2=some, 3=quite a bit, 4=very much)

Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships.

FirstYear	2.82	Senior	2.96	Difference	+0.14
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- Synthesis of ideas and information is not emphasized in coursework to nearly the same degree as Analysis.

Higher Order Learning item-3

NSSE code: EVALUATE

During the current school year, how much has your coursework emphasized the following mental activities? (1=very little, 2=some, 3=quite a bit, 4=very much)

Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions.

FirstYear	2.78	Senior	2.91	Difference	+0.13
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- Students perceive that making evaluations is the least emphasized Higher Order Learning skill in their coursework.

Higher Order Learning item-4

NSSE code: APPLYING

During the current school year, how much has your coursework emphasized the following mental activities? (1=very little, 2=some, 3=quite a bit, 4=very much)

Applying theories or concepts to practical problems or in new situations.

FirstYear	3.03	Senior	3.22	Difference	+0.19
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- Application of learned ideas shows high scores similar to Analytical skills.

Reflective Learning item-1

NSSE code: OWNVIEW

During the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Examined the strengths and weaknesses of your own views on a topic or issue.

FirstYear	2.40	Senior	2.52	Difference	+0.12
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- First-year students infrequently examine their own views. Although there is some improvement with seniors, the average score still is only at the midpoint of the range.

Reflective Learning item-2

NSSE code: OTHRVIEW

During the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Tried to better understand someone else's views by imagining how an issue looks from his or her perspective.

FirstYear	2.62	Senior	2.72	Difference	+0.10
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- Students make moderate attempts at seeing viewpoints from other perspectives but the improvement between first-year and senior levels is small.

Reflective Learning item-3

NSSE code: CHNGVIEW

During the current school year, about how often have you done each of the following? (1=never, 2=sometimes, 3=often, 4=very often)

Learned something that changed the way you understand an issue or concept.

FirstYear	2.72	Senior	2.81	Difference	+0.09
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- Even though this item has the strongest positive response in the Reflective Learning group, the change between class levels is slight.

Conclusions

For most of the twelve deep learning items, students perceive a better than average positive frequency of occurrence in their coursework. As would be hoped, items are scored higher by seniors than first-year students, although the amount of improvement varies.

The five Integrative Learning items involve combining information, ideas, and concepts as well as communicating with faculty and others about the coursework. Results indicate very good improvement between first-year and senior levels with integration of ideas (+0.32) and combining of concepts from different courses (+0.39). Students see no difference in the inclusion of diverse perspectives between levels (-0.01). Even though the change is strongly positive (+0.25), interactions with faculty that are related to coursework are low for both first-year and senior students. Students are more likely to discuss coursework with other students and family, but the improvement between levels is smaller (+0.15).

The four Higher Order Learning items are analysis, synthesis, making judgments, and application of concepts to problems. All items score above the midpoint at both levels, with analysis and application being emphasized most strongly in coursework. The differences between class levels are moderate (+0.13 to +0.20) for these four items.

The three Reflective Learning items are concerned with examining the views of oneself and others for a broadened perspective and the consideration of the value of other ideas. Students are less likely to question the strengths and weaknesses of their own views than they try to understand the views of others. More frequently they indicate that they have learned something that changed their understanding. In all cases the increase from first-year to senior level is small to moderate (+0.09 to +0.12).

Overall these results are showing that improvement between levels is happening in some of the deep learning skills – particularly those related to analysis, integration, and application – during the college experience. The least change occurs with the Reflective Learning items.

The charts reveal that over time the mean scores in many of the items improve more for first-year students than for seniors. This could be interpreted as greater progress being made in developing deep learning skills in introductory level coursework than in the most advanced coursework. The reason for this may lie 1) in recent attention being given to at the first-year level, 2) in the idea that it is more challenging to accomplish with advance coursework, or 3) in something else. Further examination of all NSSE items is invited.

Results for these deep learning items are showing fairly clear trends of improvement over the last decade. They reflect at a broad level the efforts being made by the University to enhance student learning outcomes through a variety of initiatives.

Table A. Mean values for First-Year Students**NSSE items identified by Wabash National Study that are highly correlated with learning**

Means for 2002 are weighted by NSSE; means for all other years were calculated as unweighted.

Item	NSSE code	2002	2005	2007	2011	Average of Means
Academic and Intellectual Experiences: Integrative Learning 1=never, 2=sometimes, 3=often, 4=very often						
1d. Worked on a paper or project that required integrating ideas or information from various sources	INTEGRAT	2.86	2.92	2.99	2.98	2.94
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	DIVCLASS	2.64	2.63	2.59	2.68	2.64
1i. Put together ideas or concepts from different courses when completing assignments or during class discussions	INTIDEAS	2.35	2.53	2.51	2.62	2.50
1p. Discussed ideas from your readings or classes with faculty members outside of class	FACIDEAS	1.69	1.76	1.76	1.88	1.77
1t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	OOCIDEAS	2.62	2.51	2.59	2.66	2.60
Mental Activities: Higher Order Learning 1=very little, 2=some, 3=quite a bit, 4=very much						
2b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	ANALYZE	2.96	3.03	3.04	3.18	3.05
2c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	SYNTHESZ	2.70	2.78	2.80	2.99	2.82
2d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	EVALUATE	2.67	2.71	2.74	2.98	2.78
2e. Applying theories or concepts to practical problems or in new situations	APPLYING	2.93	2.99	2.98	3.20	3.03
Additional Collegiate Experiences: Reflective Learning 1=never, 2=sometimes, 3=often, 4=very often						
6d. Examined the strengths and weaknesses of your own views on a topic or issue	OWNVIEW	n/a	2.37	2.38	2.45	2.40
6e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	OTHRVIEW	n/a	2.63	2.59	2.65	2.62
6f. Learned something that changed the way you understand an issue or concept	CHNGVIEW	n/a	2.68	2.71	2.77	2.72

Table B. Mean values for Senior Students**NSSE items identified by Wabash National Study that are highly correlated with learning**

Means for 2002 are weighted by NSSE; means for all other years were calculated as unweighted.

Item	NSSE code	2002	2005	2007	2011	Average of Means
Academic and Intellectual Experiences: Integrative Learning 1=never, 2=sometimes, 3=often, 4=very often						
1d. Worked on a paper or project that required integrating ideas or information from various sources	INTEGRAT	3.29	3.23	3.24	3.27	3.26
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	DIVCLASS	2.67	2.59	2.68	2.58	2.63
1i. Put together ideas or concepts from different courses when completing assignments or during class discussions	INTIDEAS	2.88	2.87	2.93	2.86	2.89
1p. Discussed ideas from your readings or classes with faculty members outside of class	FACIDEAS	1.96	1.98	2.02	2.12	2.02
1t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	OOCIDEAS	2.83	2.71	2.65	2.80	2.75
Mental Activities: Higher Order Learning 1=very little, 2=some, 3=quite a bit, 4=very much						
2b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	ANALYZE	3.29	3.11	3.24	3.35	3.25
2c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	SYNTHESZ	2.94	2.88	2.98	3.05	2.96
2d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	EVALUATE	2.91	2.81	2.93	2.98	2.91
2e. Applying theories or concepts to practical problems or in new situations	APPLYING	3.19	3.12	3.21	3.34	3.22
Additional Collegiate Experiences: Reflective Learning 1=never, 2=sometimes, 3=often, 4=very often						
6d. Examined the strengths and weaknesses of your own views on a topic or issue	OWNVIEW	n/a	2.51	2.5	2.54	2.52
6e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	OTHRVIEW	n/a	2.76	2.73	2.66	2.72
6f. Learned something that changed the way you understand an issue or concept	CHNGVIEW	n/a	2.84	2.79	2.81	2.81

Table C. Response Frequencies of First-Year Students

Academic and Intellectual Experiences		Integrative Learning							
NSSE response options: 1=never, 2=sometimes, 3=often, 4=very often	NSSE Code	Year	Never	Sometimes	Often	Very Often	Mean*	SE	StDev
			PERCENT						
1d. Worked on a paper or project that required integrating ideas or information from various sources	INTEGRAT	2002	3%	30%	44%	23%	2.86	0.06	0.80
		2005	4%	25%	45%	25%	2.92	0.05	0.81
		2007	2%	25%	47%	26%	2.99	0.03	0.76
		2011	2%	23%	48%	27%	2.98	0.03	0.77
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	DIVCLASS	2002	6%	39%	40%	15%	2.64	0.06	0.81
		2005	9%	37%	35%	19%	2.63	0.05	0.89
		2007	8%	38%	41%	13%	2.59	0.03	0.82
		2011	7%	36%	38%	18%	2.68	0.04	0.85
1i. Put together ideas or concepts from different courses when completing assignments or during class discussions	INTIDEAS	2002	12%	51%	26%	10%	2.35	0.06	0.82
		2005	7%	45%	35%	13%	2.53	0.05	0.80
		2007	9%	44%	35%	12%	2.51	0.04	0.82
		2011	6%	40%	39%	15%	2.62	0.04	0.81
1p. Discussed ideas from your readings or classes with faculty members outside of class	FACIDEAS	2002	48%	39%	8%	4%	1.69	0.06	0.80
		2005	45%	37%	13%	4%	1.76	0.05	0.83
		2007	47%	34%	14%	5%	1.76	0.04	0.86
		2011	40%	37%	16%	6%	1.88	0.04	0.89
1t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	OOCIDEAS	2002	9%	38%	35%	18%	2.62	0.07	0.88
		2005	10%	42%	34%	14%	2.51	0.05	0.85
		2007	9%	40%	36%	16%	2.59	0.04	0.86
		2011	7%	39%	35%	19%	2.66	0.04	0.86

Mental Activities
Higher Order Learning

NSSE response options: 1=very little, 2=some, 3=quite a bit, 4=very much		NSSE Code	Year	Very Little	Some	Quite a bit	Very much	Mean*	SE	StDev
				PERCENT						
2b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components		ANALYZE								
			2002	4%	26%	40%	30%	2.96	0.06	0.84
			2005	2%	23%	45%	30%	3.03	0.05	0.78
			2007	2%	20%	49%	29%	3.04	0.03	0.77
			2011	1%	16%	47%	36%	3.18	0.03	0.74
2c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships		SYNTHESZ								
			2002	8%	33%	42%	18%	2.70	0.06	0.85
			2005	6%	30%	44%	20%	2.78	0.05	0.83
			2007	4%	32%	43%	20%	2.80	0.04	0.81
			2011	3%	23%	47%	27%	2.99	0.04	0.78
2d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions		EVALUATE								
			2002	7%	38%	36%	19%	2.67	0.06	0.87
			2005	7%	35%	38%	20%	2.71	0.06	0.87
			2007	8%	30%	41%	20%	2.74	0.04	0.87
			2011	3%	23%	46%	28%	2.98	0.04	0.80
2e. Applying theories or concepts to practical problems or in new situations		APPLYING								
			2002	4%	29%	37%	30%	2.93	0.06	0.86
			2005	3%	25%	41%	30%	2.99	0.05	0.83
			2007	5%	25%	39%	32%	2.98	0.04	0.87
			2011	1%	17%	43%	39%	3.20	0.03	0.76

Additional Collegiate Experiences

Reflective Learning

NSSE response options: 1=never, 2=sometimes, 3=often, 4=very often		NSSE Code	Year	Never	Sometimes	Often	Very Often	Mean*	SE	StDev
				PERCENT						
6d. Examined the strengths and weaknesses of your own views on a topic or issue		OWNVIEW	2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			2005	15%	46%	27%	12%	2.37	0.06	0.88
			2007	14%	44%	31%	10%	2.38	0.04	0.85
			2011	12%	43%	33%	12%	2.45	0.04	0.85
6e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective		OTHRVIEW	2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			2005	8%	40%	35%	18%	2.63	0.06	0.86
			2007	8%	39%	38%	15%	2.59	0.04	0.84
			2011	7%	37%	40%	16%	2.65	0.04	0.84
6f. Learned something that changed the way you understand an issue or concept		CHNGVIEW	2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			2005	6%	38%	38%	18%	2.68	0.05	0.84
			2007	5%	35%	44%	16%	2.71	0.04	0.79
			2011	6%	33%	40%	22%	2.77	0.04	0.85

Table D. Response Frequencies of Senior Students

Academic and Intellectual Experiences		Integrative Learning							
NSSE response options: 1=never, 2=sometimes, 3=often, 4=very often	NSSE Code	Year	Never	Sometimes	Often	Very Often	Mean*	SE	StDev
			PERCENT						
1d. Worked on a paper or project that required integrating ideas or information from various sources	INTEGRAT	2002	1%	14%	41%	44%	3.29	0.06	0.72
		2005	1%	17%	39%	43%	3.23	0.05	0.78
		2007	2%	15%	40%	43%	3.24	0.04	0.77
		2011	1%	13%	42%	44%	3.27	0.03	0.74
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	DIVCLASS	2002	9%	38%	29%	23%	2.67	0.07	0.94
		2005	10%	40%	32%	18%	2.59	0.05	0.90
		2007	9%	37%	31%	23%	2.68	0.05	0.92
		2011	11%	37%	36%	17%	2.58	0.04	0.89
1i. Put together ideas or concepts from different courses when completing assignments or during class discussions	INTIDEAS	2002	4%	31%	39%	26%	2.88	0.06	0.83
		2005	5%	29%	41%	25%	2.87	0.05	0.84
		2007	4%	26%	42%	27%	2.93	0.05	0.83
		2011	3%	28%	48%	21%	2.86	0.03	0.78
1p. Discussed ideas from your readings or classes with faculty members outside of class	FACIDEAS	2002	30%	49%	15%	5%	1.96	0.06	0.81
		2005	36%	39%	15%	10%	1.98	0.06	0.95
		2007	33%	44%	13%	11%	2.02	0.05	0.94
		2011	26%	44%	21%	9%	2.12	0.04	0.89
1t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	OOCIDEAS	2002	6%	29%	40%	25%	2.83	0.07	0.87
		2005	7%	37%	32%	23%	2.71	0.05	0.90
		2007	7%	40%	34%	19%	2.65	0.05	0.86
		2011	5%	34%	37%	24%	2.80	0.03	0.87

Mental Activities

Higher Order Learning

NSSE response options: 1=very little, 2=some, 3=quite a bit, 4=very much		NSSE Code	Year	Very Little	Some	Quite a bit	Very much	Mean*	SE	StDev
				PERCENT						
2b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components		ANALYZE								
			2002	3%	11%	41%	46%	3.29	0.06	0.77
			2005	1%	20%	46%	33%	3.11	0.05	0.75
			2007	1%	14%	45%	40%	3.24	0.04	0.72
			2011	1%	12%	39%	49%	3.35	0.03	0.72
2c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships		SYNTHESZ								
			2002	6%	26%	36%	32%	2.94	0.07	0.90
			2005	4%	29%	40%	26%	2.88	0.05	0.85
			2007	4%	24%	42%	30%	2.98	0.05	0.83
			2011	3%	22%	40%	34%	3.05	0.03	0.83
2d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions		EVALUATE								
			2002	5%	29%	35%	31%	2.91	0.07	0.90
			2005	8%	28%	39%	25%	2.81	0.05	0.90
			2007	6%	23%	45%	27%	2.93	0.05	0.85
			2011	5%	25%	38%	33%	2.98	0.04	0.88
2e. Applying theories or concepts to practical problems or in new situations		APPLYING								
			2002	2%	18%	38%	42%	3.19	0.06	0.81
			2005	4%	19%	37%	40%	3.12	0.05	0.86
			2007	3%	17%	37%	43%	3.21	0.05	0.81
			2011	2%	13%	34%	51%	3.34	0.03	0.77

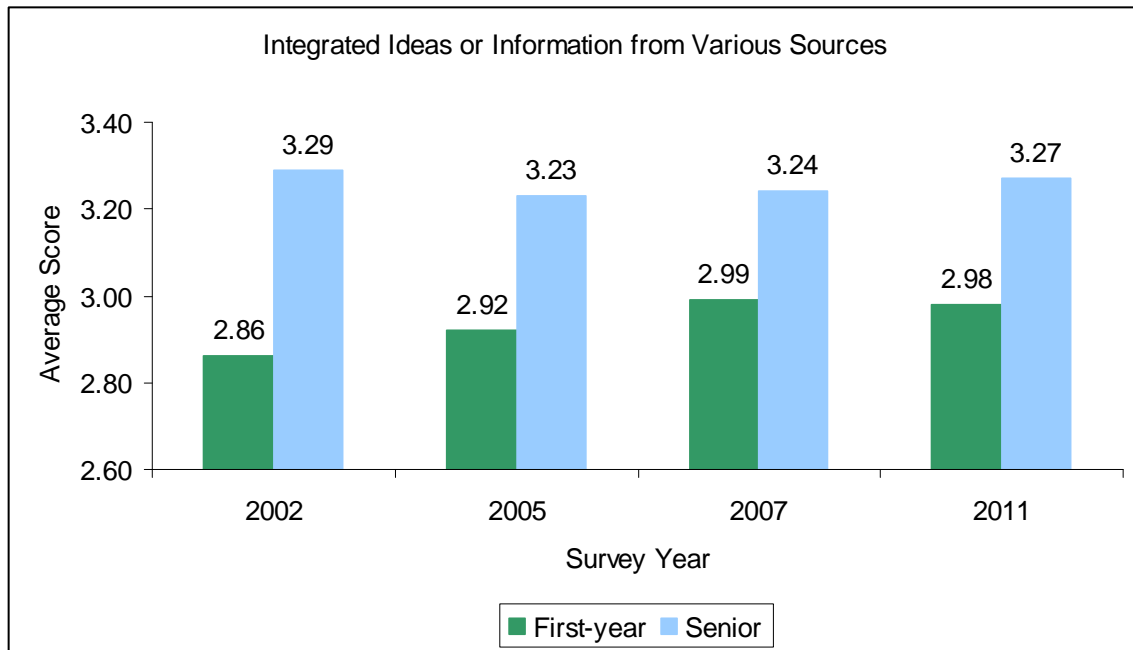
Additional Collegiate Experiences

Reflective Learning

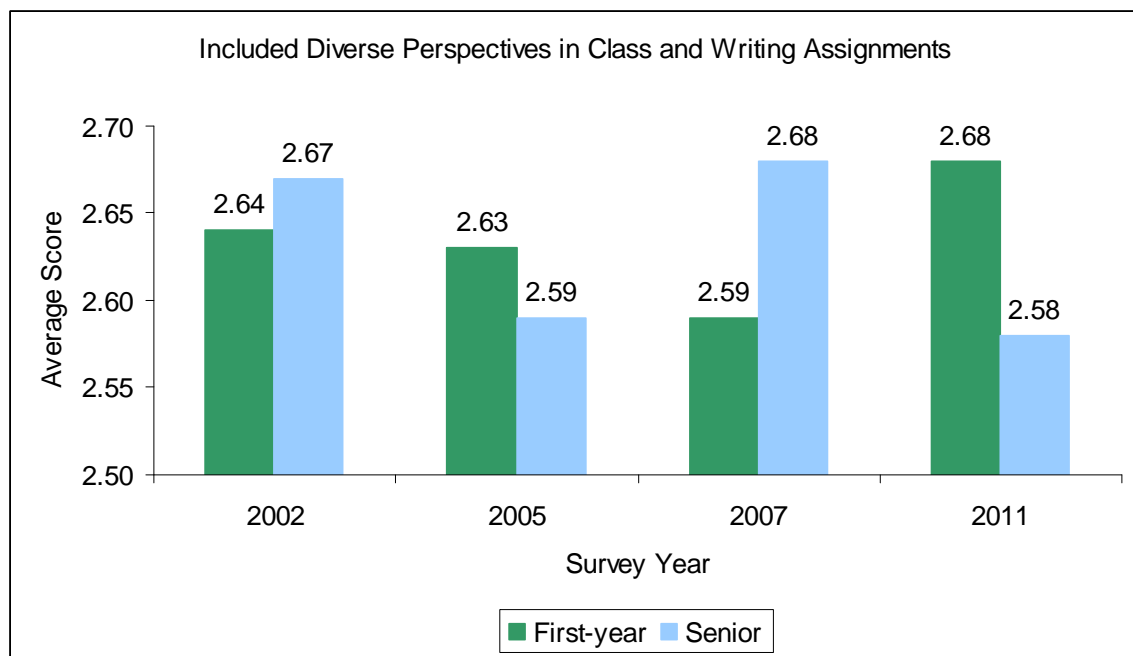
NSSE response options: 1=never, 2=sometimes, 3=often, 4=very often		NSSE Code	Year	Never	Sometimes	Often	Very Often	Mean*	SE	StDev
				PERCENT						
6d. Examined the strengths and weaknesses of your own views on a topic or issue		OWNVIEW	2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			2005	15%	39%	27%	19%	2.51	0.06	0.96
			2007	12%	38%	37%	13%	2.50	0.05	0.86
			2011	10%	42%	34%	15%	2.54	0.03	0.86
6e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective		OTHRVIEW	2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			2005	4%	37%	37%	21%	2.76	0.05	0.84
			2007	6%	32%	45%	17%	2.73	0.05	0.81
			2011	7%	39%	34%	19%	2.66	0.04	0.87
6f. Learned something that changed the way you understand an issue or concept		CHNGVIEW	2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
			2005	4%	33%	37%	26%	2.84	0.05	0.86
			2007	3%	34%	43%	20%	2.79	0.05	0.79
			2011	4%	35%	39%	23%	2.81	0.03	0.83

Appendix: Response Frequency Charts

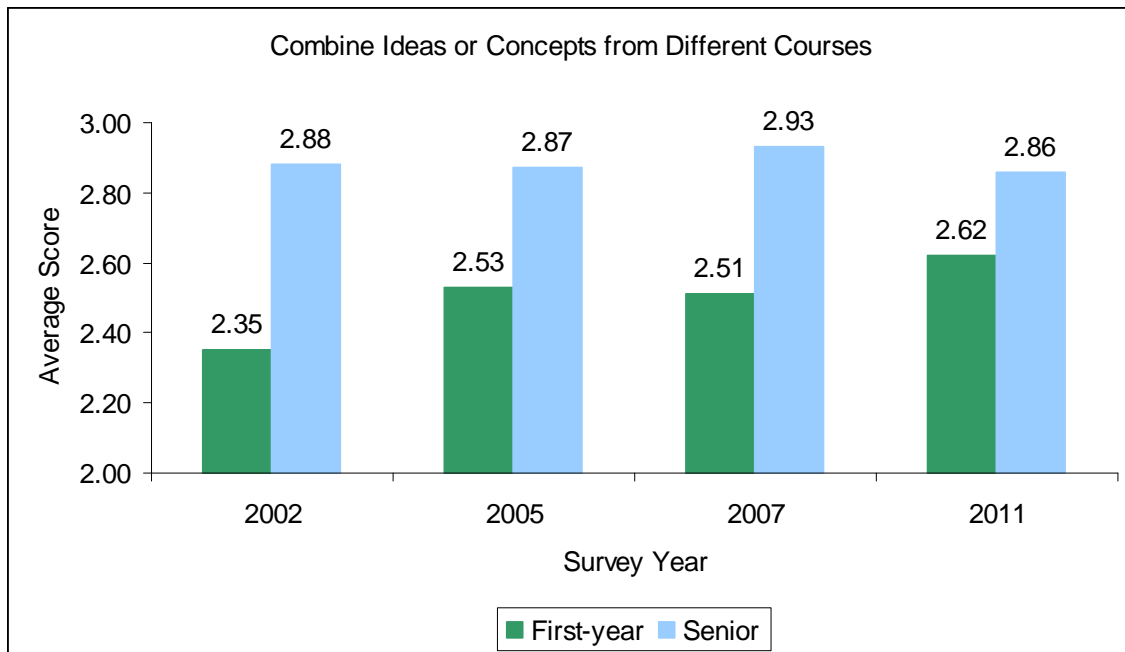
Integrative Learning item-1



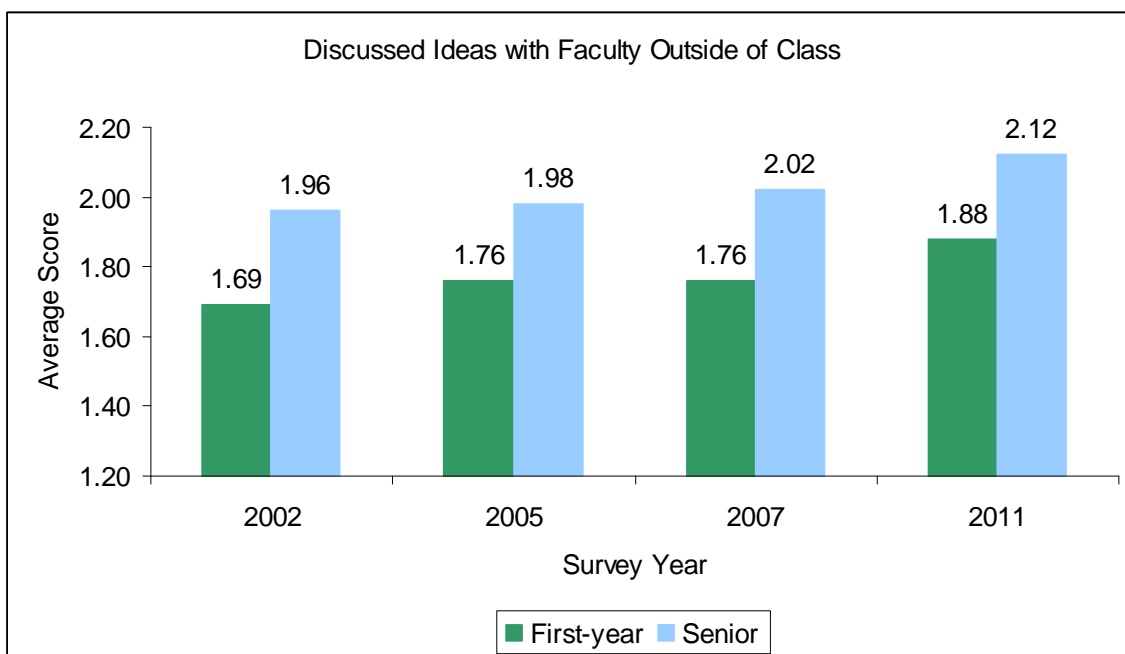
Integrative Learning item-2



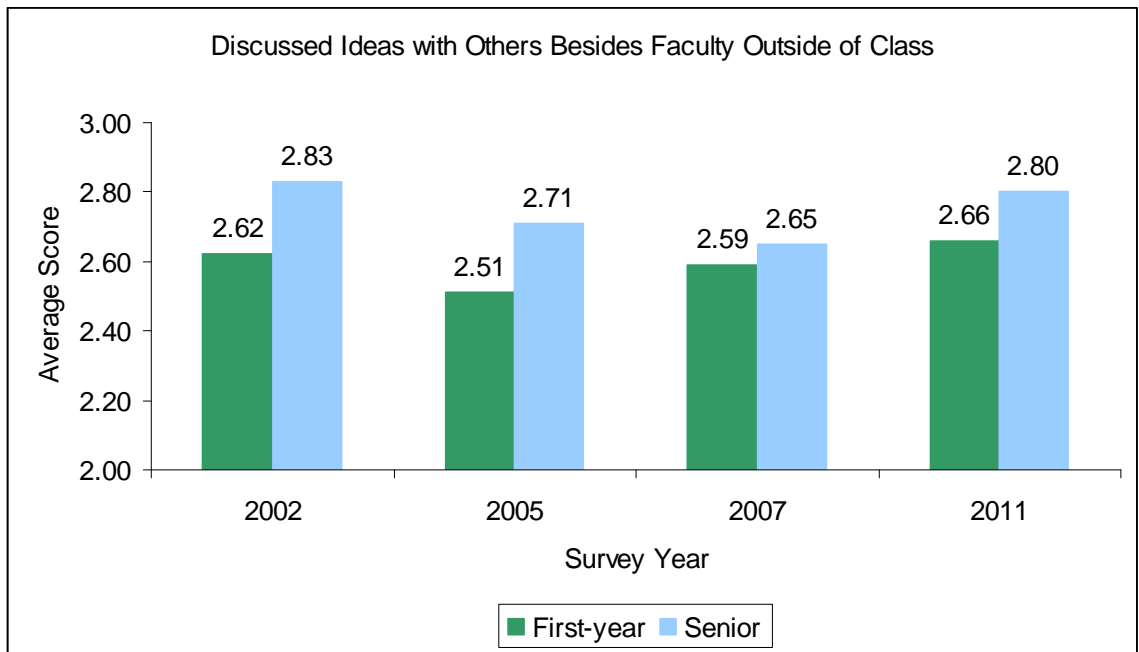
Integrative Learning item-3



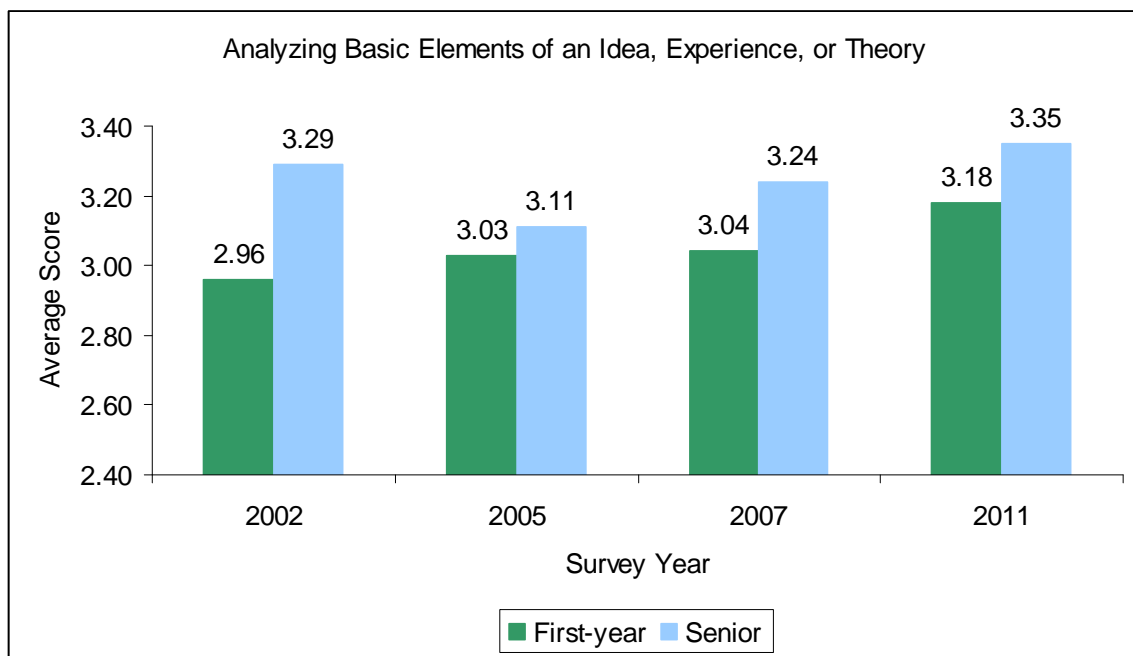
Integrative Learning item-4



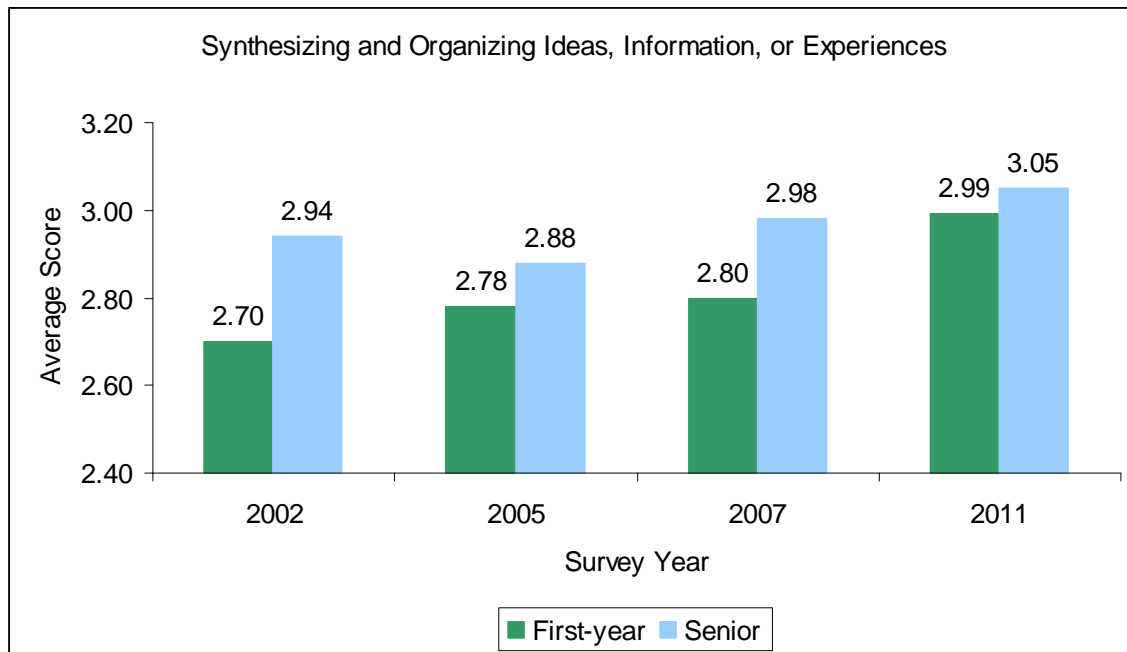
Integrative Learning item-5



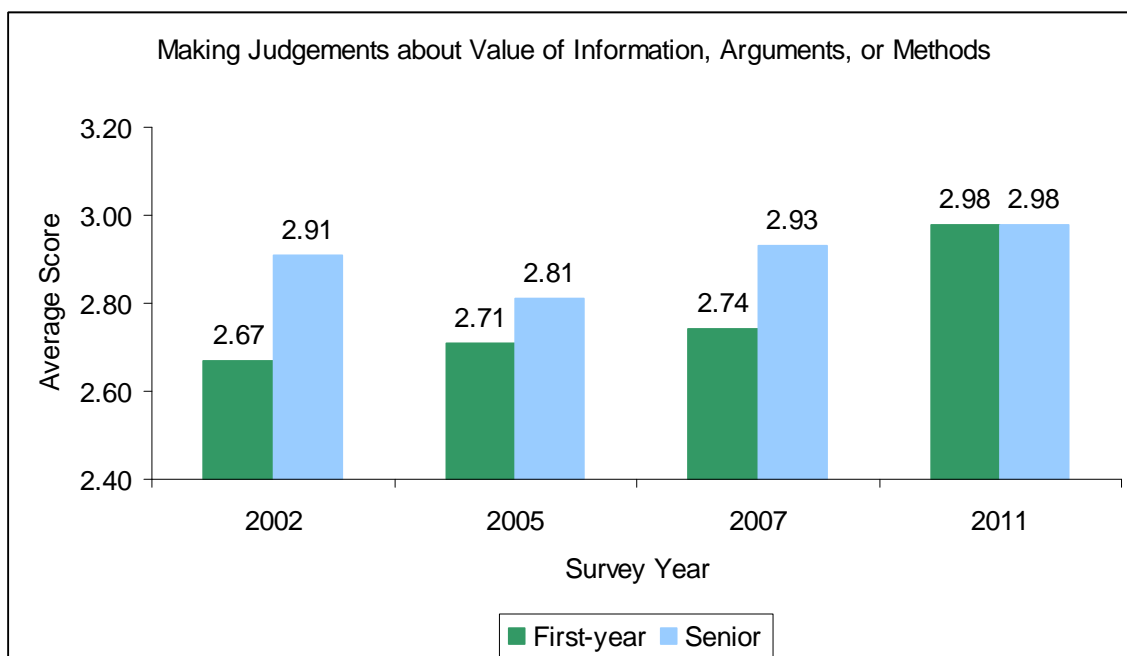
Higher Order Learning item-1



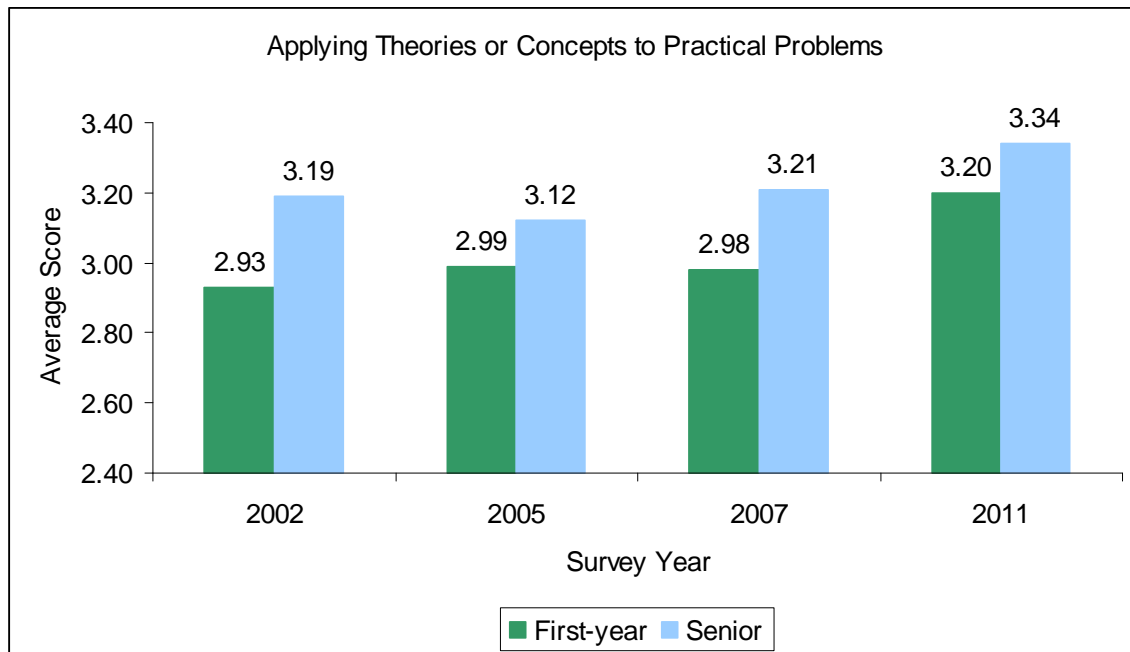
Higher Order Learning item-2



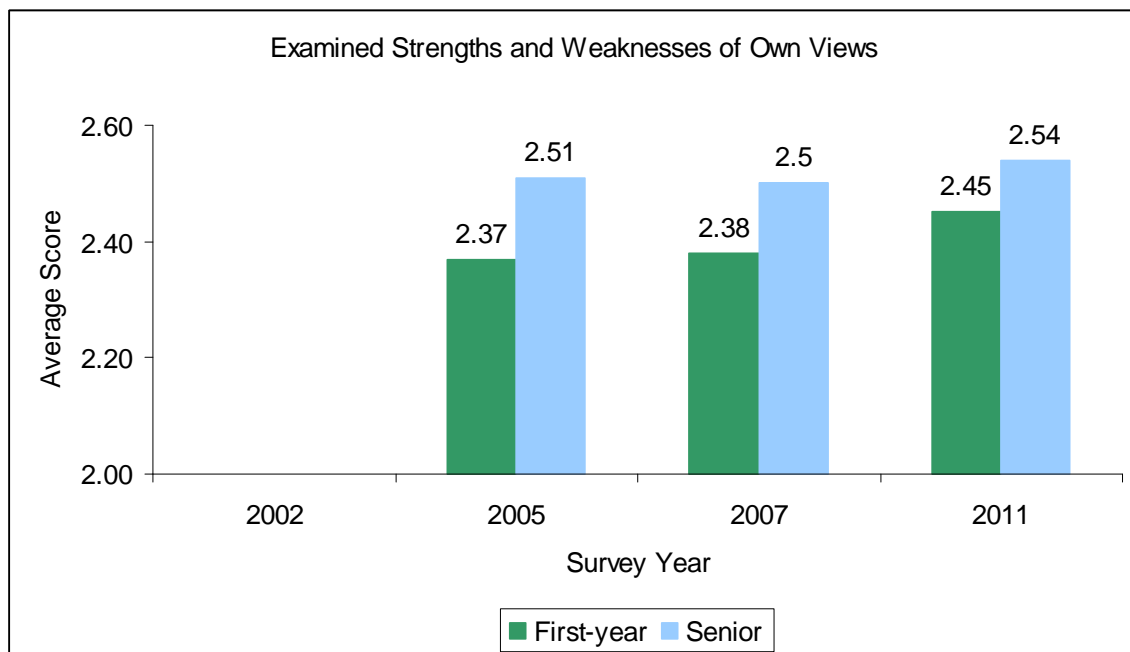
Higher Order Learning item-3



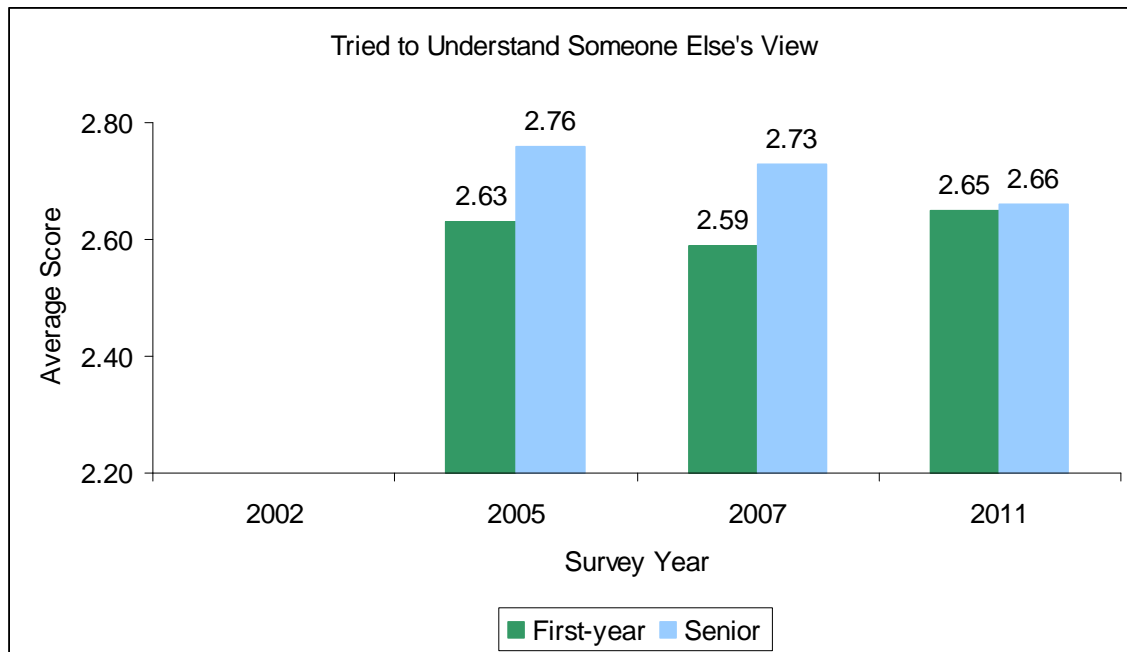
Higher Order Learning item-4



Reflective Learning item-1



Reflective Learning item-2



Reflective Learning item-3

