



2007 ENROLLED STUDENT SURVEY STUDENT OUTCOMES

Office of Institutional Research
Dartmouth College





Background

- The Enrolled Student Survey, sponsored by a consortium of highly selective, private institutions was administered as a web survey to 3,680 undergraduates who were in residence in Hanover during Spring 2007
- The response rate was 33% (n=1,200)



Respondent Characteristics

- In general, the 1,200 students who responded to the survey were representative of the population of students who were invited to participate.
- The percentages between the total population and students responding to the survey are quite similar, with the exception of gender

Gender	Respondents	Population
Male	42%	51%
Female	58%	49%

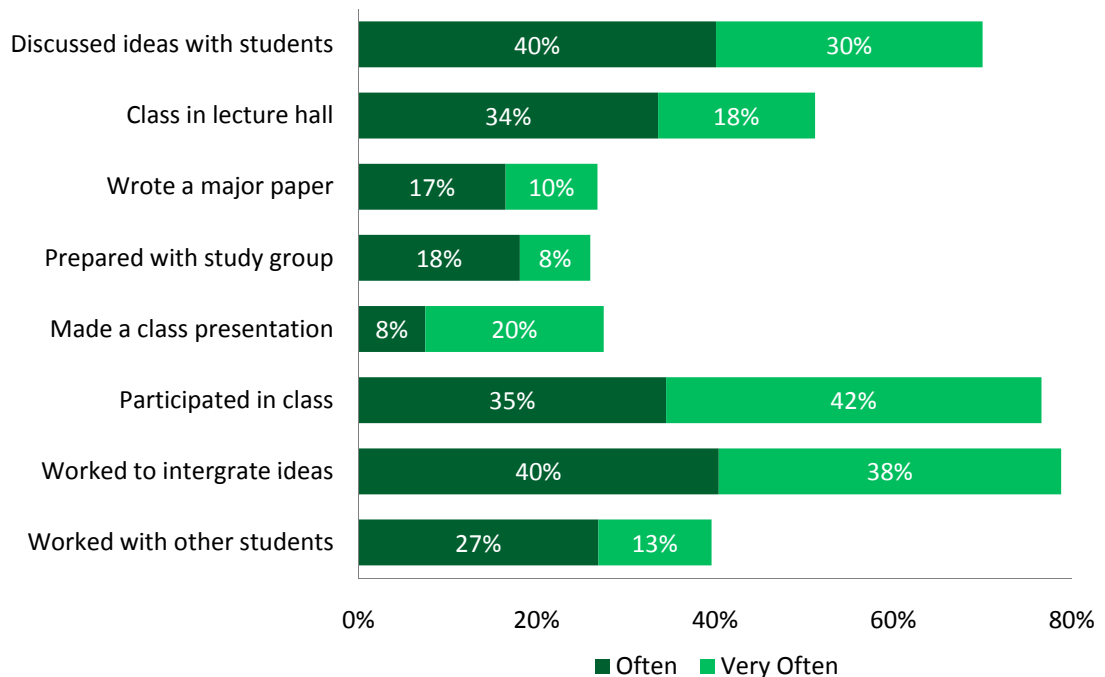
Class	Respondents	Population
First	30%	30%
Second	22%	23%
Third	21%	23%
Fourth	27%	25%

Ethnicity	Respondents	Population
American Indian	3%	4%
African American	7%	7%
Asian American	13%	14%
Hispanic	6%	6%
International	5%	5%
White	61%	58%
Unknown	6%	6%

Dartmouth Students Participating in Various Classroom Activities

- Over 70% of Dartmouth students reported that in class they “often” or “very often” discussed ideas with students, participated in class, or worked to integrate ideas.
- Fewer than 30% “often” or “very often” wrote a major paper, prepared with a study group, or made a class presentation.

Q. During the current school year, how often have you done each of the following?
 [Scale: Never, Occasionally, Often, Very Often]



Source: 2007 Enrolled Student Survey

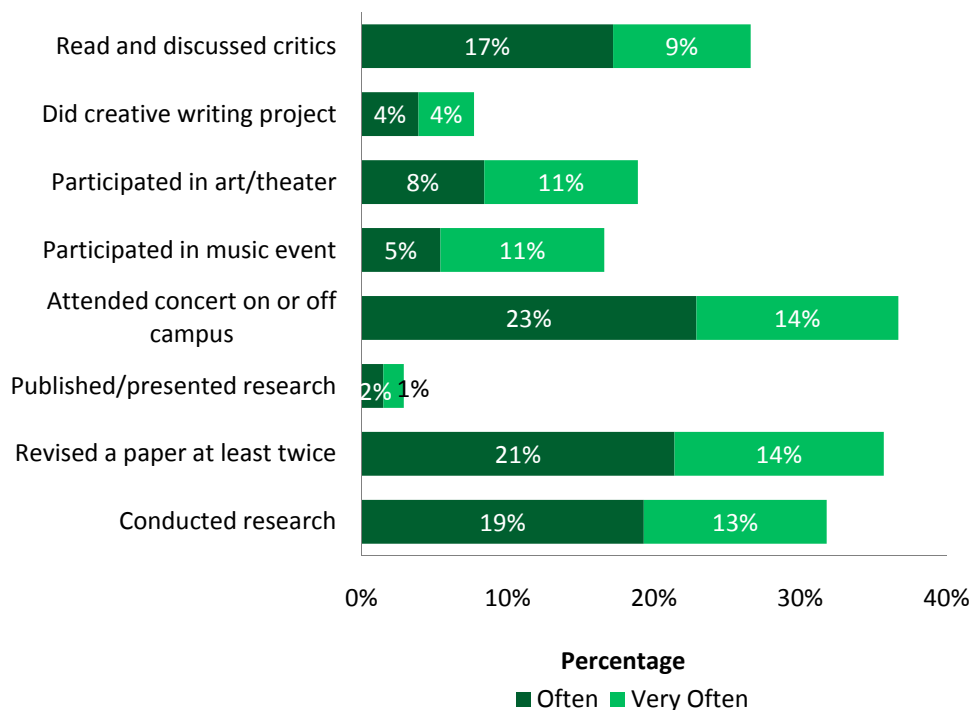


Dartmouth Students Participating in Research, Writing, and Arts

- More than 1/3 of Dartmouth students “often” or “very often” attended a concert or revised a paper twice.
- Fewer than 25% of students have “often” or “very often” completed a writing project, participated in art/theater, participated in music event, or published/presented research.

Q: During the current school year, how often have you done each of the following?

[Scale: Never, Occasionally, Often, Very Often]



Source: 2007 Enrolled Student Survey

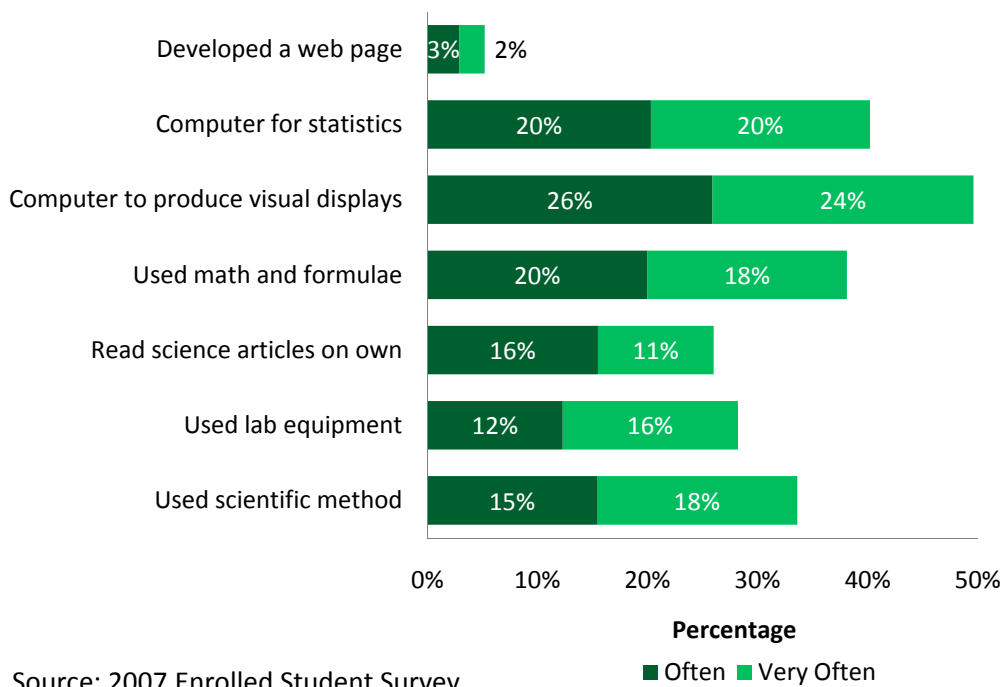




Dartmouth Students Participating In Math, Science, and Technology

- More than 40% of students “often” or “very often” used a computer for statistics or to produce visual displays.
- Fewer than 30% of Dartmouth students “often” or “very often” developed a web page, read science articles on own, or used lab equipment.

Q: During the current school year, how often have you done each of the following?
 [Scale: Never, Occasionally, Often, Very Often]



Source: 2007 Enrolled Student Survey

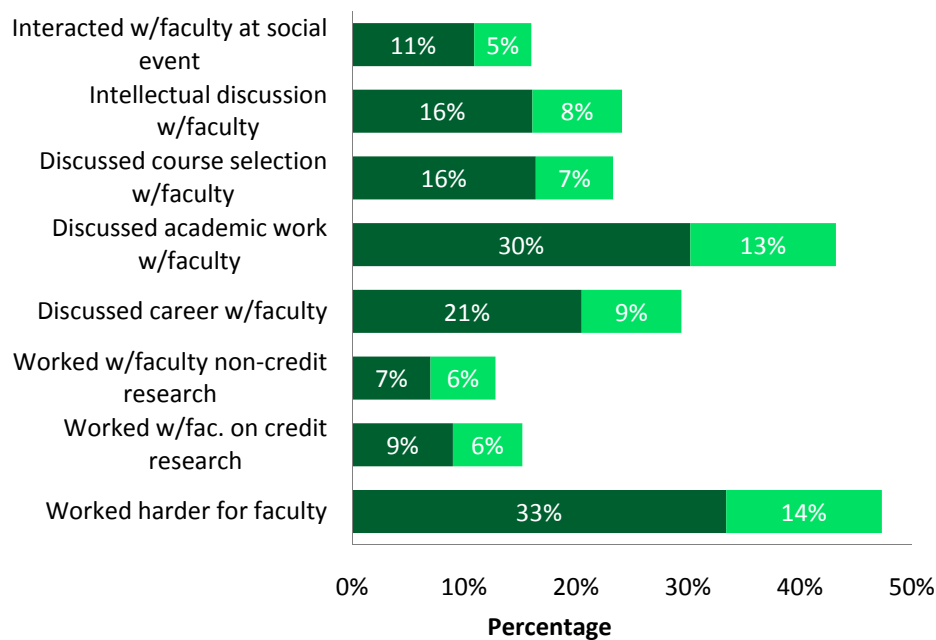
Percentage of Dartmouth Students Interacting with Faculty

- Almost 40% of Dartmouth students “often” or “very often” worked harder for faculty or discussed academic work with faculty.

- Fewer than 20% of students “often” or “very often” interacted with faculty at a social event or worked with faculty on credit or non-credit research.

Q: During the current school year, how often have you done each of the following?

[Scale: Never, Occasionally, Often, Very Often]



Source: 2007 Enrolled Student Survey

■ Often ■ Very Often

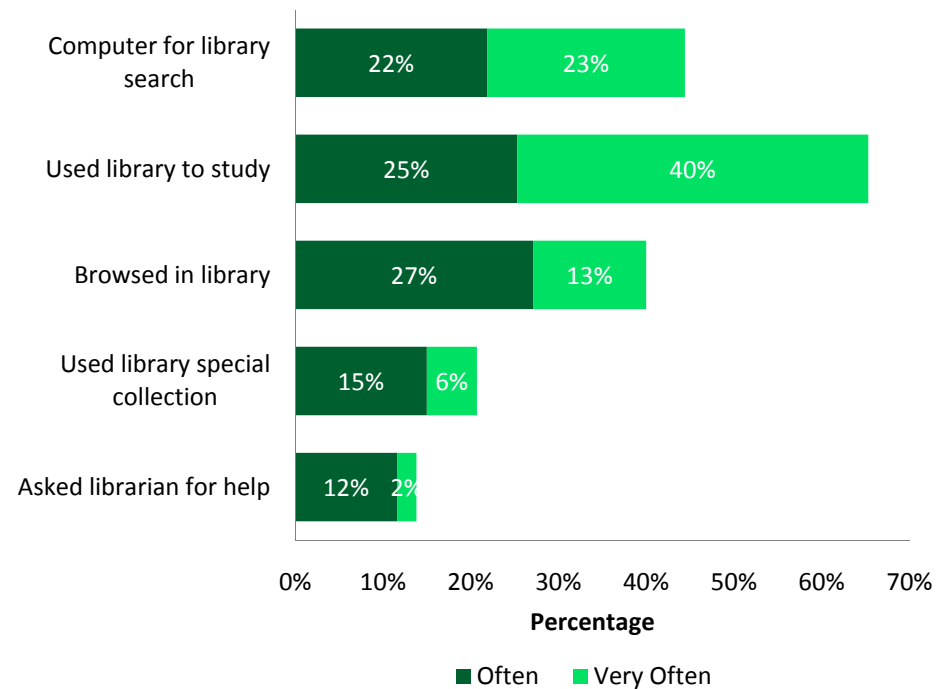


Percentage of Dartmouth Students Using Library Resources

- 65% of Dartmouth students “often” or “very often” used the library to study.
- Fewer than 25% of students “often” or “very often” used the library special collection or asked a librarian for help.

Q: During the current school year, how often have you done each of the following?

[Scale: Never, Occasionally, Often, Very Often]



Source: 2007 Enrolled Student Survey



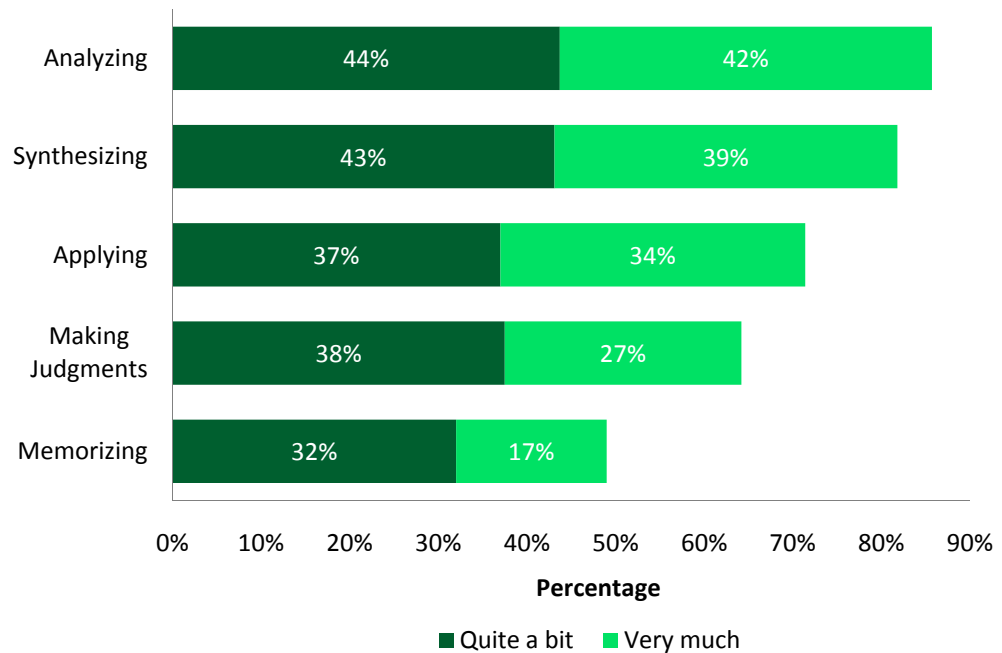
Modes of Thought in Dartmouth Classes

Q: During the current school year, how much has your coursework emphasized these mental activities?

[Scale: Very little, Some, Quite a bit, Very much]

• More than 2/3 of Dartmouth students report that their coursework emphasized the following mental activities “quite a bit” or “very much”:

- Applying
- Synthesizing
- Analyzing



Source: 2007 Enrolled Student Survey



Frequent Academic Engagement

More than 2/3 of Dartmouth students reported that they “often” or “very often”:

- discussed ideas with other students
- participated in class
- worked to integrate ideas
- used the library to study



Comparison of Mean Skill Gains for Dartmouth Compared to Peers

Scale: 1=weaker now, 2=no change, 3=stronger now, 4=much stronger now

		Dartmouth 1st vs. 4th year Contrasts	
		1st year n=358	Senior year n=335
Active Learning and Critical Thinking	Acquire new skills and knowledge on own	2.98	3.24
	Think analytically and logically	2.86	3.28
	Formulate, create original ideas and solutions	2.71	3.08
	Evaluate and choose between alternative courses of action	2.72	3.00
Tolerance and Adaptability	Lead and supervise tasks and groups of people	2.47	3.13
	Relate well to people of different races/nations/religions	2.66	2.81
	Develop an awareness of social problems	2.82	3.12
	Function effectively as a member of a team	2.45	2.79
	Place current problems in perspective	2.71	3.11
	Identify moral and ethical issues	2.66	2.92
Personal Responsibility and Self-Efficacy	Understand own abilities, interests, limitations, and personal	3.08	3.40
	Develop self-esteem, confidence	2.59	2.81
	Resolve interpersonal conflicts positively	2.54	2.85
	Function independently, without supervision	3.01	3.15
	Adapt to change	2.92	3.10
Gain In-Depth Knowledge	Gain in-depth knowledge of a field	3.01	3.41
	Plan and execute complex projects	2.67	3.24
	Synthesize and integrate ideas and information	2.76	3.12
Breadth of Study	Write effectively	2.84	3.12
	Communicate well orally	2.52	3.09
	Read or speak a foreign language	2.50	2.86
	Appreciate art, literature, music, and drama	2.60	2.85
	Acquire broad knowledge in the arts and sciences	2.82	3.01
Scientific Inquiry/ Quantitative	Understand the process of science and experimentation	2.55	2.73
	Evaluate the role of science and technology in society	2.59	2.86
	Use quantitative tools	2.51	2.80

Note: Cells colored green indicate that the contrast is significant at least $p < .05$ using Analysis of Variance (ANOVA) with least squares means and Tukey-Kramer post-hoc test.

•Notably, Dartmouth seniors reported statistically significant greater strength than first-year students on every skill listed on the ESS

SKILLS COMPARISONS WITH PEERS



Comparison of Mean Skill Gains for Dartmouth Compared to Peers

Scale: 1=weaker now, 2=no change, 3=stronger now, 4=much stronger now

		Dartmouth 1st year vs. 1st year at Peer Institutions	
		Dartmouth 1st year n=358	Peers n=7,696
Active Learning and Critical Thinking	Acquire new skills and knowledge on own	2.98	2.92
	Think analytically and logically	2.86	2.90
	Formulate, create original ideas and solutions	2.71	2.72
	Evaluate and choose between alternative courses of action	2.72	2.67
Tolerance and Adaptability	Lead and supervise tasks and groups of people	2.47	2.41
	Relate well to people of different races/nations/religions	2.66	2.70
	Develop an awareness of social problems	2.82	2.76
	Function effectively as a member of a team	2.45	2.47
	Place current problems in perspective	2.71	2.73
	Identify moral and ethical issues	2.66	2.65
Personal Responsibility and Self-Efficacy	Understand own abilities, interests, limitations, and personal	3.08	3.00
	Develop self-esteem, confidence	2.59	2.46
	Resolve interpersonal conflicts positively	2.54	2.51
	Function independently, without supervision	3.01	2.98
	Adapt to change	2.92	2.86
Gain In-Depth Knowledge	Gain in-depth knowledge of a field	3.01	2.96
	Plan and execute complex projects	2.67	2.63
	Synthesize and integrate ideas and information	2.76	2.73
Breadth of Study	Write effectively	2.84	2.75
	Communicate well orally	2.52	2.55
	Read or speak a foreign language	2.50	2.48
	Appreciate art, literature, music, and drama	2.60	2.56
	Acquire broad knowledge in the arts and sciences	2.82	2.70
Scientific Inquiry/ Quantitative	Understand the process of science and experimentation	2.55	2.47
	Evaluate the role of science and technology in society	2.59	2.51
	Use quantitative tools	2.51	2.41

•Dartmouth 1st year students reported greater increase of strength in 7 skills compared to peers.

Note: Cells colored green indicate that the contrast is significant at least $p < .05$ using Analysis of Variance (ANOVA) with least squares means and Tukey-Kramer post-hoc test.



Comparison of Mean Skill Gains for Dartmouth Compared to Peers

Scale: 1=weaker now, 2=no change, 3=stronger now, 4=much stronger now

		Dartmouth Seniors vs. Seniors at Peers Institutions	
		Dartmouth Senior n=335	Peers n=7,088
Active Learning and Critical Thinking	Acquire new skills and knowledge on own	3.24	3.28
	Think analytically and logically	3.28	3.32
	Formulate, create original ideas and solutions	3.08	3.12
	Evaluate and choose between alternative courses of action	3.00	3.02
Tolerance and Adaptability	Lead and supervise tasks and groups of people	3.13	3.07
	Relate well to people of different races/nations/religions	2.81	2.85
	Develop an awareness of social problems	3.12	3.06
	Function effectively as a member of a team	2.79	2.80
	Place current problems in perspective	3.11	3.11
Personal Responsibility and Self-Efficacy	Identify moral and ethical issues	2.92	2.93
	Understand own abilities, interests, limitations, and personal	3.40	3.37
	Develop self-esteem, confidence	2.81	2.81
	Resolve interpersonal conflicts positively	2.85	2.82
	Function independently, without supervision	3.15	3.18
Gain In-Depth Knowledge	Adapt to change	3.10	3.09
	Gain in-depth knowledge of a field	3.41	3.40
	Plan and execute complex projects	3.24	3.19
	Synthesize and integrate ideas and information	3.12	3.11
Breadth of Study	Write effectively	3.12	3.10
	Communicate well orally	3.09	3.03
	Read or speak a foreign language	2.86	2.55
	Appreciate art, literature, music, and drama	2.85	2.77
	Acquire broad knowledge in the arts and sciences	3.01	2.95
Scientific Inquiry/ Quantitative	Understand the process of science and experimentation	2.73	2.74
	Evaluate the role of science and technology in society	2.86	2.83
	Use quantitative tools	2.80	2.83

Note: Cells colored green indicate that the contrast is significant at least $p < .05$ using Analysis of Variance (ANOVA) with least squares means and Tukey-Kramer post-hoc test.

- Dartmouth seniors reported statistically significant greater strength on only one skill (reading and speaking a foreign language) compared to our peers
- While our students are reporting significant gains while at Dartmouth, those gains are comparable to gains reported by peers



Comparison of Mean Skill Gains for Dartmouth Students - Similarities

- No statistically significant differences exist between classes in terms of:
 - relating well to others
 - functioning independently without supervision
 - developing self-esteem
- This pattern suggests that students from each class perceive equal change since entering Dartmouth for each of these three skills



Comparison of Mean Skill Gains for Dartmouth Students - Differences

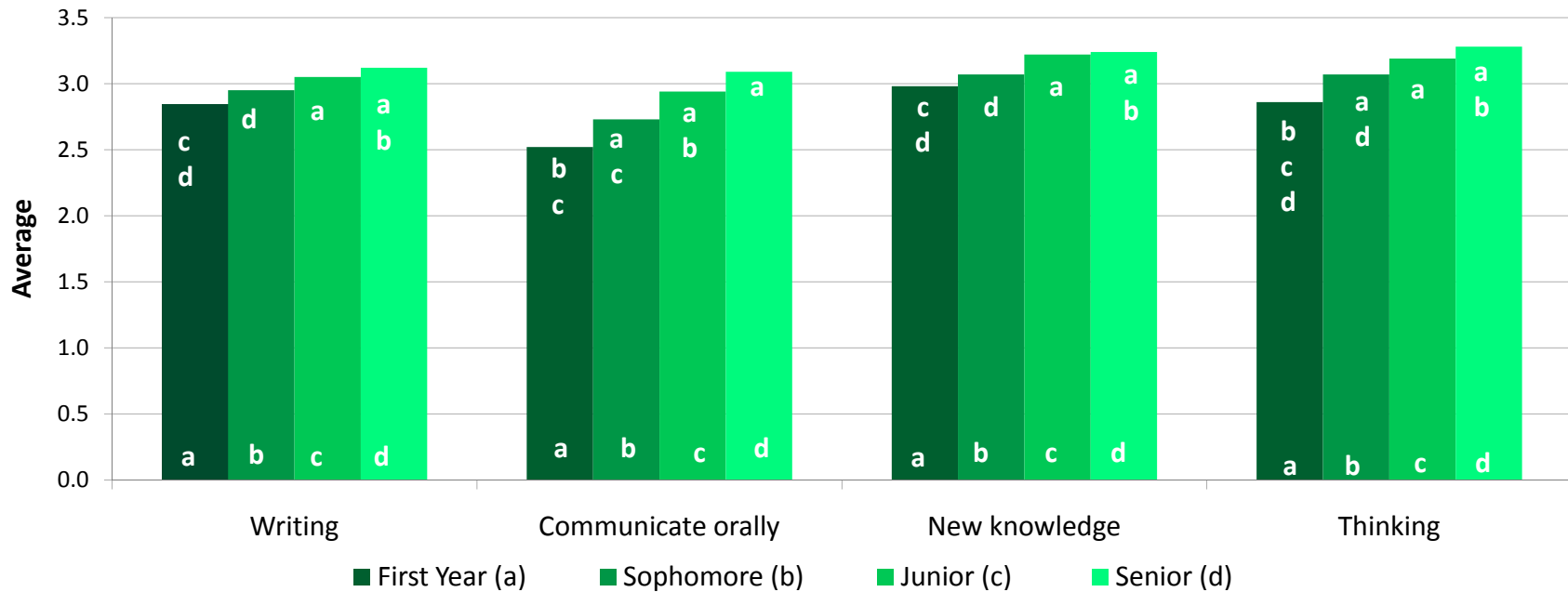
- Seniors are statistically significantly different from every class in terms of:
 - evaluating science and technology in society
 - developing an awareness of social problems
 - solving complex problems
- This pattern suggests that seniors perceive greater change since entering Dartmouth than every other class for these three skills



Comparison of Change in Skills and Abilities for Dartmouth Undergraduates

Please indicate how your ability has changed since you first enrolled at Dartmouth

[Scale: Weaker now, No change, Stronger now, Much stronger]



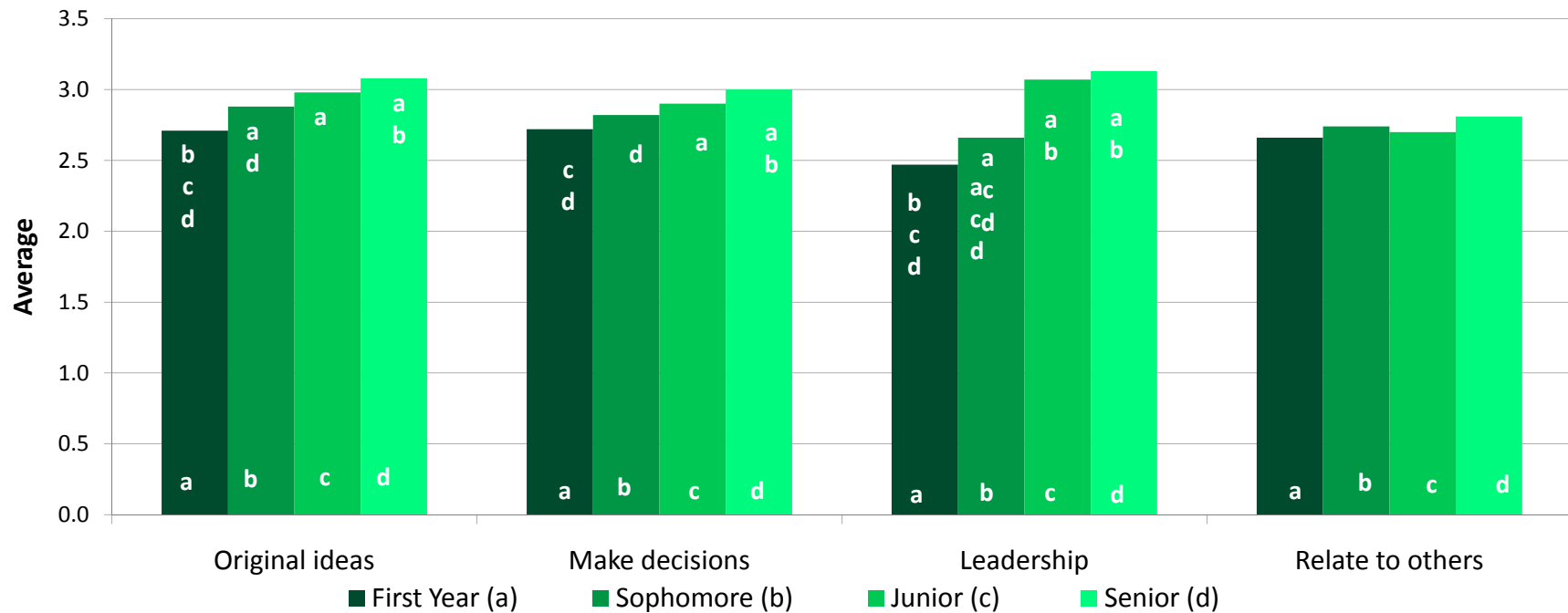
Note: For a given skill, the letters at the top of the column indicate those class(es) whose average was statistically different ($p < .05$) from the class of that column based on Analyses of Variance (ANOVA) with Bonferroni post-hoc comparisons.



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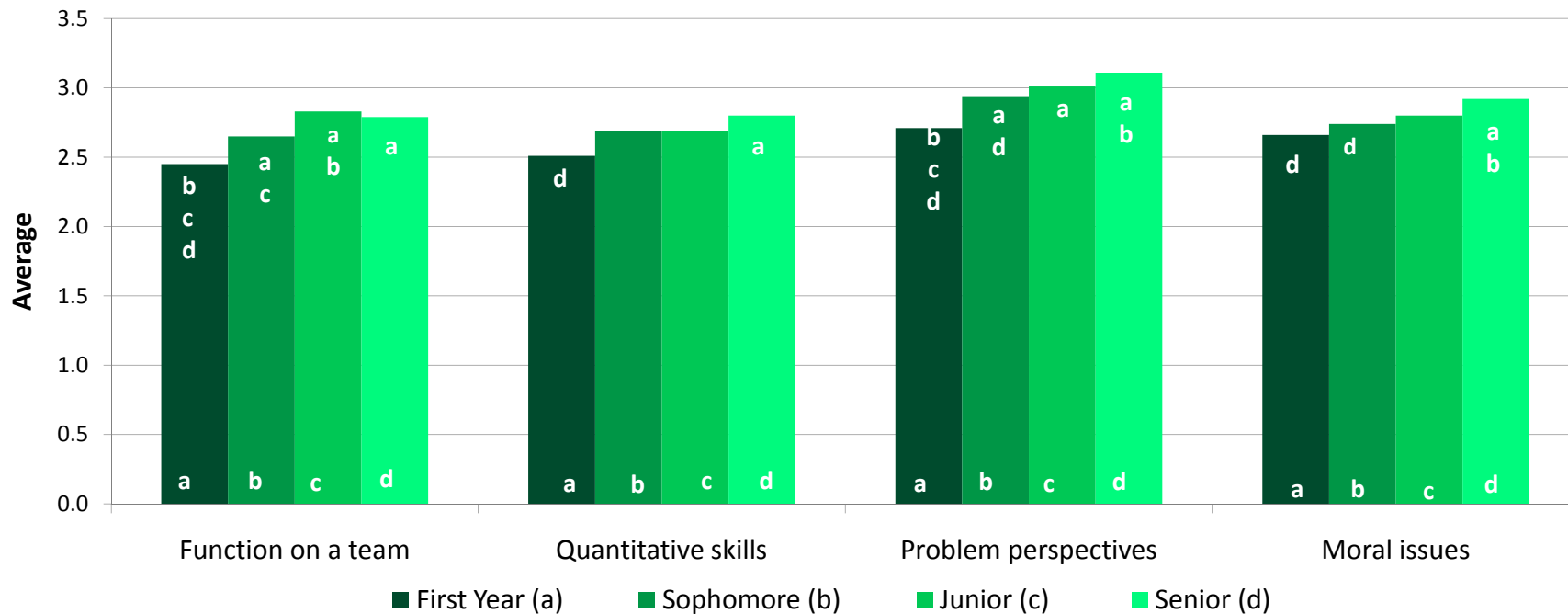
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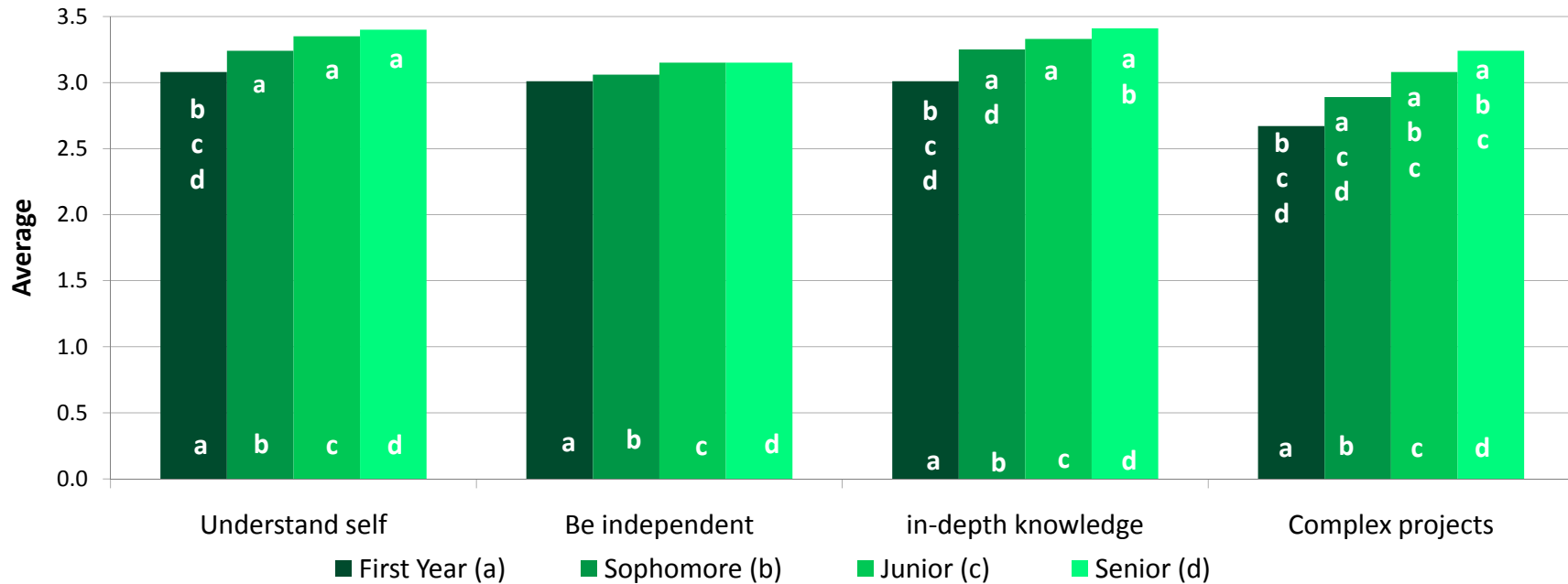
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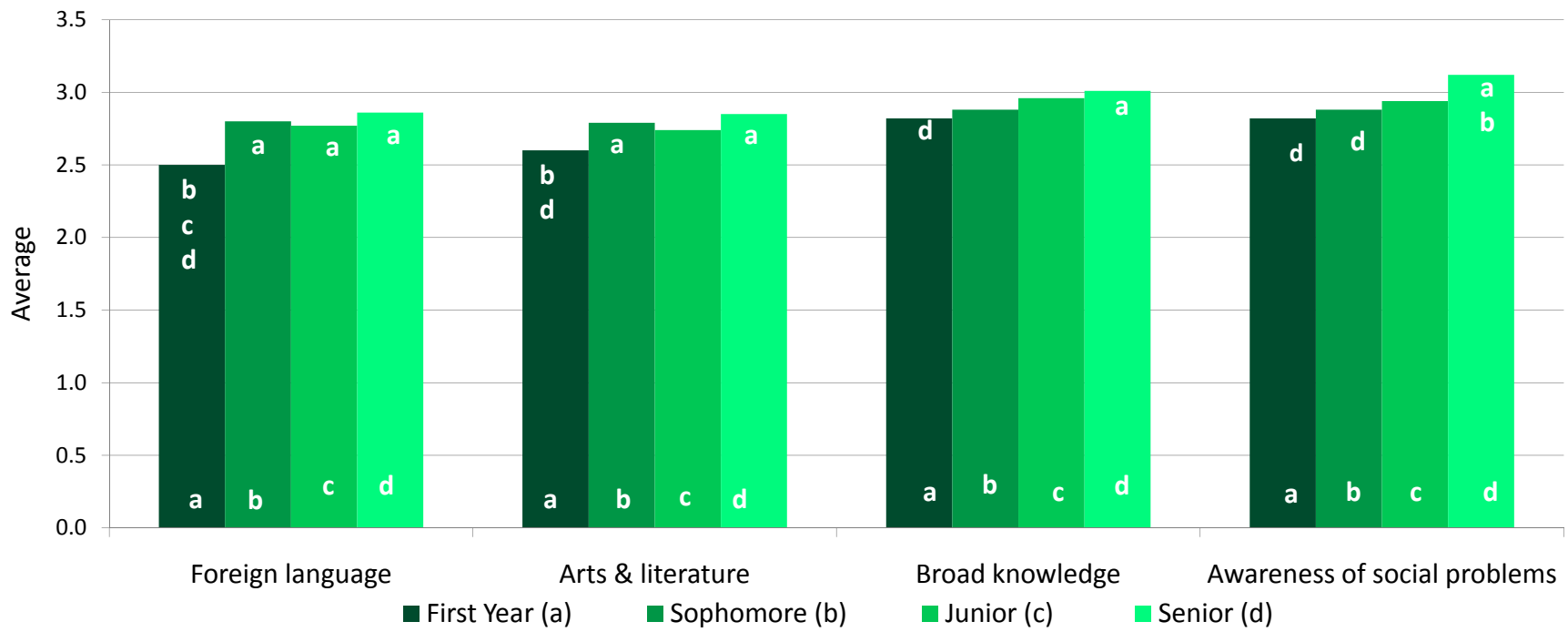
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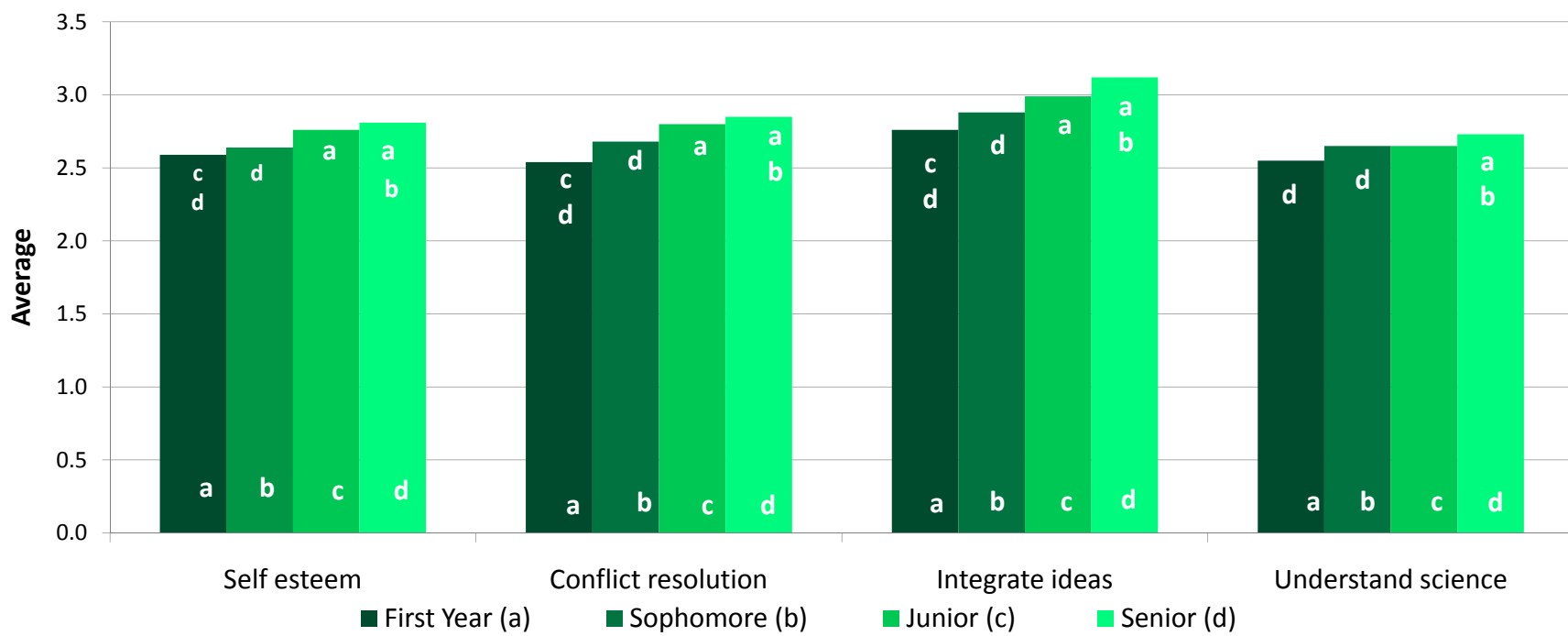


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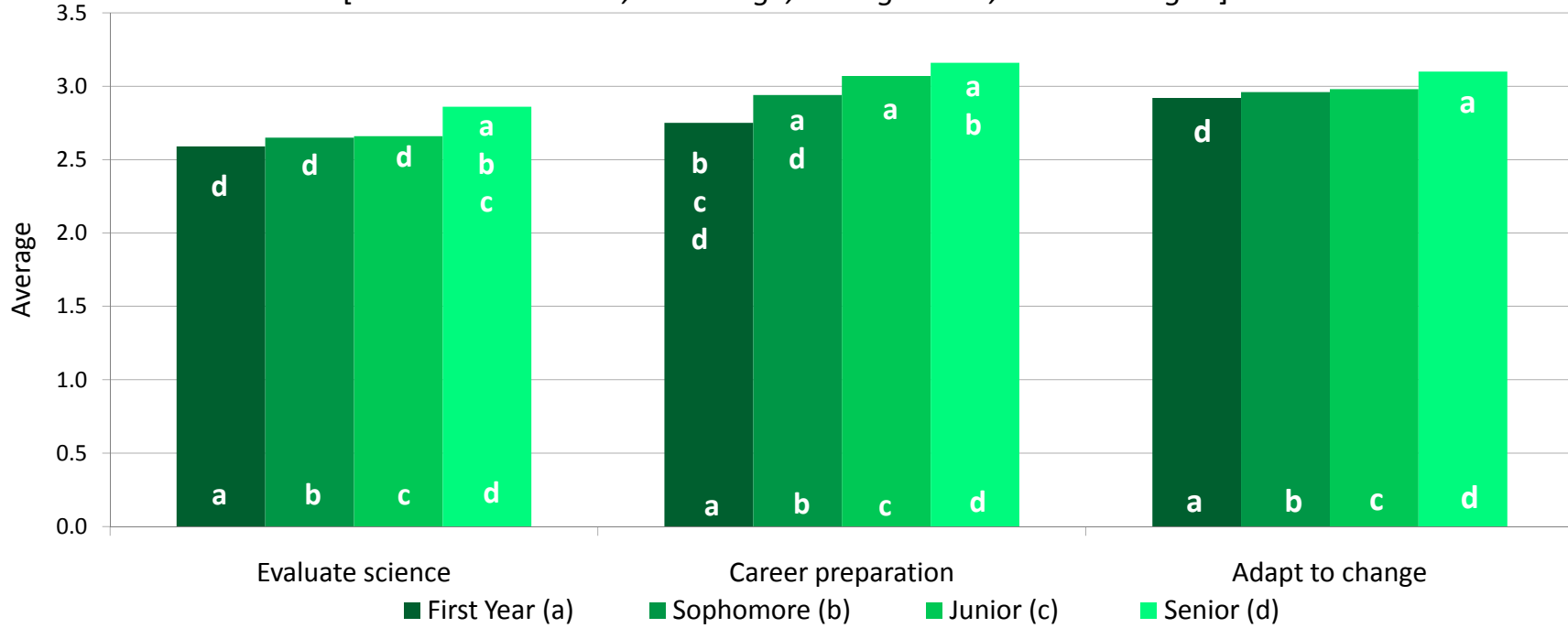
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Highlights

- Students perceived **increased strength for various skills** while at Dartmouth
- Dartmouth first-year students reported greater **change in elements of scientific inquiry** since entering college than first-year students at peer institutions
- The reported change for seniors' skills is not significantly different from that of our peers
- The majority of our students report coursework that emphasize **applying, synthesizing, and analyzing** information