

**Abilities and Types of Knowledge Gained at Whitman College:  
Analysis of the 2006 HEDS Senior Survey**

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The HEDS Senior Survey was administered to all students graduating from Whitman College in May of 2006. The survey asked questions about anticipated future plans, satisfaction with the college, and skills and knowledge acquired while in school. It was administered to 385 students, and had a response rate of 85% (N=327). This survey was also distributed to other liberal arts colleges across the United States, providing peer data for comparison with a reference group of schools. For this survey, Whitman's peer groups is Colby, Haverford, Occidental, Macalester, Lewis and Clark, and the University of Puget Sound. The following report will focus on questions relating to skills, abilities, and areas of knowledge gained while at Whitman College and will also show which learning areas contribute most to overall student satisfaction.

*Abilities and Types of Knowledge*

One series of questions on the HEDS Senior Survey focused on abilities and types of knowledge that are often gained through a college education. For many schools, these represent key learning outcomes for their students. Students were asked to estimate whether each they improved "not at all," "a little," "moderately," or "greatly" in each area. **Table 1** shows the top and bottom skills/knowledge areas for Whitman based on the percentage of students who said they improved "greatly." A complete list is presented in Table 2.

**Table 1: 2006 Senior Assessment of Abilities and Knowledge Areas Gained**

Ability/Knowledge	% "Improved Greatly"
<b>The Top Six</b>	
Think Analytically and Logically	70.9%
Gain In-Depth Knowledge of a Subject	70.8%
Work Under Pressure	67.1%
Write Effectively	61.1%
Understand Myself	60.0%
Function Independently	59.7%
<b>The Bottom Five</b>	
Evaluate and Choose Alternatives	29.0%
Relate to People of Different Races, Nations, or Religions	26.3%
Use Quantitative Tools	25.7%
Use Technology	20.2%
Read or Speak Foreign Language	18.3%

Students responded that the most improved skill while in college was the ability to “think analytically and logically,” followed closely by “gain in-depth knowledge of a subject. This shows Whitman’s commitment to teaching critical thinking across the curriculum, as well as the benefit of Whitman’s comprehensive senior major assessment.

Despite the high levels of improvement for the previous two questions, there were some areas where Whitman students did not note as much enhancement. For example, the ability to “read or speak a foreign language” only improved significantly in 18.3% of respondents. This is probably due to the fact that students are not required to enroll in a foreign languages course, and not every student takes the opportunity to improve in this particular area. Relatively few Whitman students also noted improvement in their ability to “use technology,” with only 20.2% of respondents indicating a great amount of improvement. Although the lack of improvement in this area is surprising given the availability of computers and other electronic media on campus, it is possible that technology skills among Whitman students were already high, making any improvement more difficult in this area.

Also interesting is the low score for “related to people of different races, nations, or religions.” This is likely due to Whitman’s relatively homogeneous population, but it is also likely due to student cynicism and perceptions regarding diversity on campus. However, it is important to note on the 2002 Senior Survey, only 14.5% of students said their ability to “relate to people of different races, nations, or religions” had improved “greatly while at Whitman; for 2006 graduates this number increased to 26.3%. This improvement could be related to the increase in minority students at Whitman over the last 10 years, and could also be related to the new Alternative Voices distribution requirement, which applied to most 2006 graduates, but not to 2002 graduates.

#### *Peer Comparisons: Abilities and Knowledge*

The HEDS Senior Survey allows for comparisons between liberal arts colleges throughout the nation. Whitman received a report detailing both its students’ responses, as well as the responses of students at Colby, Haverford, Occidental, Macalester, Lewis and Clark and the University of Puget Sound. Three schools (Colby, Haverford, and Occidental) are in the Panel of 14, one school is a large admissions overlap school (Macalester) and two are regional liberal arts schools which also have a large admissions overlap (Lewis and Clark and University of Puget Sound).

Peer comparison is important because it shows whether our seniors rate their educational outcomes differently than seniors at other schools. While there are some areas where fewer Whitman graduates do not feel they have made much progress, do other schools show the same results? As shown in **Table 2**, Whitman ranked first in the number of graduates saying they improved “greatly” for ten of the 26 skills listed in the survey, and second in three others. However, Whitman did not rank well in all areas. The college ranked fifth among the seven schools in the abilities to acquire new skills and knowledge, to read or write a foreign language, and to formulate creative ideas and solutions. That said, it is important to note that Whitman is not that different from peers on any of our “bottom five” areas in Table 1.

**Table 2: Percent Indicating Improved “Greatly” on Abilities and Types of Knowledge at Whitman and Peer Schools**

	<b>Whitman</b>	<b>Peer Group Median</b>	<b>Peer Group Max</b>	<b>Whitman Rank</b>
Think Analytically and Logically	70.9	61.6	71.9	2
Gain In-Depth Knowledge of a Subject	70.8	60.3	70.8	1
Work Under Pressure	67.1	56.7	67.1	1
Write Effectively	61.1	57.6	66.4	2
Understand Myself	60.0	54.6	60.0	1
Function Independently	59.7	56.2	59.7	1
Acquire New Skills and Knowledge	53.8	55.2	63.0	5
Engage in Pursuit of Knowledge and Truth	47.6	38.1	47.6	1
Communicate Well Orally	45.9	33.8	45.9	1
Develop Awareness of Social Problems	44.5	43.1	53.5	3
Plan and Execute Projects	44.2	43.6	46.2	3
Place Problems in Historical Perspective	43.9	40.4	52.9	3
Establish Course of Action	43.8	38.7	47.9	3
Appreciate Art	42.9	27.8	42.9	1
Formulate Creative Ideas and Solutions	38.9	39.8	48.6	5
Develop Self-Esteem	38.9	32.2	38.9	1
Understand Moral and Ethical Issues	34.9	33.7	41.4	3
Lead and Supervise Groups	34.0	28.4	39.7	3
Function Effectively as Team Member	32.2	31.2	39.8	2
Understand Process of Science	31.9	26.5	31.9	1
Evaluate Role of Science and Technology	29.5	17.5	29.5	1
Evaluate and Choose Alternatives	29.0	27.6	35.6	3
Relate to People of Different Races	26.3	25.1	44.2	3
Use Quantitative Tools	25.7	25.7	29.8	4
Use Technology	20.2	20.2	23.7	4
Read or Speak a Foreign Language	18.3	19.9	33.9	5

The Peer Group includes Colby College, Haverford College, Occidental College, Macalester College, Lewis and Clark College, the University of Puget Sound, and Whitman College.

*Relationship to Satisfaction*

Two questions on the survey addressed student satisfaction: 1) “If you had the chance to relieve your college experience, would you choose to attend the same institution again?” and 2) “Overall, how satisfied have you been with your undergraduate education at this institution?” Nearly 96% of the class of 2006 said they were “generally” or “very” satisfied with their education, and about 72% said they “probably” or “definitely” would attend Whitman again.

**Table 3: Satisfaction Measures**

<b>Relive Experience</b>	<b>%</b>
Definitely Not	1.2%
Probably Not	4.0%
Maybe	17.6%
Probably Would	31.6%
Definitely Would	45.5%

<b>Overall Satisfaction</b>	<b>%</b>
Very Dissatisfied	0.9%
Generally Dissatisfied	3.1%
Generally Satisfied	39.4%
Very Satisfied	56.5%

These questions were combined to form a single measure of student satisfaction<sup>i</sup>, which was then correlated with the 26 educational goals discussed in the previous sections to determine how improvement (or non-improvement) on different abilities and types of knowledge might affect overall college satisfaction. **Table 4** shows the correlation to satisfaction for each item, as well as the % of students marking “improved greatly” and the mean score<sup>ii</sup> for each item. Each educational goal was classified as more important, moderately important, or less important for student satisfaction, and as something Whitman does well, does moderately well, or does not do well. The attached chart also provides a graphical representation of these relationships.

**Table 4: Mean Score and Correlation with Satisfaction: Skills Acquired at Whitman**

<b>More Important for Student Satisfaction and Whitman Does Well:</b>	<b>Correlation with Satisfaction</b>	<b>% Improved “Greatly”</b>	<b>Mean Score</b>
Understand Myself	0.352	60.0%	3.51
Gain In-Depth Knowledge of a Subject	0.305	70.8%	3.65
Work Under Pressure	0.303	67.1%	3.59
Think Analytically and Logically	0.297	70.9%	3.68
Function Independently	0.269	59.7%	3.46
Write Effectively	0.240	61.1%	3.55
<b>More Important for Student Satisfaction and Whitman Does Moderately Well:</b>			
Engage in Pursuit of Knowledge and Truth	0.384	47.6%	3.25
Develop Self-Esteem	0.353	38.9%	3.06
Communicate Well Orally	0.348	45.9%	3.27
Establish Course of Action	0.321	43.8%	3.27
Formulate Creative Ideas and Solutions	0.288	38.9%	3.25
<b>Important or Moderately Important for Student Satisfaction and Whitman Does Not Do Well:</b>			
Understand Moral and Ethical Issues	0.324	34.9%	3.09
Function Effectively as Team Member	0.315	32.2%	2.97
Relate to People of Different Races, Nations, or Religions	0.284	26.3%	2.83
Evaluate and Choose Alternatives	0.243	29.0%	3.03
Evaluate Role of Science and Technology	0.222	29.5%	2.75
<b>Moderately Important for Student Satisfaction and Whitman Does Moderately Well:</b>			
Plan and Execute Projects	0.259	44.2%	3.24
Appreciate Art	0.258	42.9%	3.18
Develop Awareness of Social Problems	0.241	44.5%	3.22
Acquire New Skills and Knowledge	0.233	53.8%	3.46
Place Problems in Historical Perspective	0.205	43.9%	3.22
<b>Less Important for Student Satisfaction and Whitman Does Not Do Well:</b>			
Lead and Supervise Groups	0.191	34.0%	2.92
Understand Process of Science	0.140	31.9%	2.79
Use Quantitative Tools	0.125	25.7%	2.60
Use Technology	0.124	20.2%	2.64
Read or Speak a Foreign Language	0.077	18.3%	2.13

The third group, “important or moderately important for student satisfaction and Whitman does not do well,” might represent key areas for improvement. These are areas where one-third or fewer graduating students say they improved “greatly,” yet they tend to be more strongly correlated with student satisfaction. In particular, “understand moral and ethical issues” and “function effectively as a team member” are standouts. Whitman has already addressed the area of “relate to people of different races, nations, or religions” through the new alternative voices distribution requirement, as well as through the recruitment of more minority students and faculty. As discussed above, has seen improvements in this area since 2002.

### *Conclusion*

The HEDS Senior Survey provides a good tool assessing Whitman’s overall educational program from a student perspective. The College can use this student feedback as an aid in making decisions that will improve the quality of life and education for future generations of students, as well as to see what areas may need improvement, or what to emphasize in the future. In general, when evaluating student feedback about educational goals, it is important to keep in mind the education mission of the college. Because of our education mission and general studies requirements, it is expected that many students will not improve much in learning a foreign language, but it is expected that many students will improve in their ability to think analytically and logically. In that sense, the college appears to be doing what it claims to do.

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<sup>i</sup> Because of the different scales of the two questions, each satisfaction measure was standardized. The standardized variables were then combined to create the overall satisfaction measure.

<sup>ii</sup> The scale for these questions is as follows: 1=not at all, 2=A little, 3=moderately, 4=greatly.