

## **EXECUTIVE SUMMARY COLLEGE STUDENT EXPERIENCES QUESTIONNAIRE 2005-2006**

### **Introduction**

The College Student Experiences Questionnaire (CSEQ) assesses how students use their time and the opportunities offered to them by colleges and universities. It is also a self-report assessment of knowledge gained in specific areas. The questionnaire is grounded in the belief that the important outcomes of a college education are the result of the extent to which students are engaged in their own learning and personal development rather than the institution they attend or their initial qualifications. The CSEQ attempts to capture the processes and outcomes of processes most likely to result in students gaining the knowledge, values, attitudes and competencies appropriate to a college education.

The questionnaire is organized into thirteen Quality of Effort scales containing over half of the questionnaire items, ten Measures of College Environment and twenty-five Estimate of Gains items. Quality of Effort scales measure the effort students expend in activities associated in the literature with the desired outcomes of a higher education. The items that follow the Quality of Effort scales focus on reading, writing, and satisfaction with college.

The ten Measures of College Environment consist of continua along which students indicate the emphasis they perceive were placed on a variety of qualities and relationships within their collegiate environment. Thus, it measures the quality of the learning environment as students perceive it.

The Estimate of Gains items examine self-reported progress in areas widely believed to be important outcomes of a college education such as the ability to write, think analytically and understand the importance of history. The items measure the perception of value added by the students' college matriculation.

At the University of Montevallo, the CSEQ is one of two assessments seniors complete in their last semester prior to graduation. A special senior peer sample is used to make comparisons meaningful.

### **Background Characteristics**

Seniors at the University of Montevallo are more likely to be female (69% UM; 59% comparison group) which may affect some responses, and they are also more homogeneous in terms of age than the comparison group with 90% of them

between 20 and 29 years old. The comparison group is younger with some 17 percent of the seniors 19 years old or younger and 72 percent between 20 and 29 years old. UM seniors are more likely to have parents who have both graduated from college (26% UM; 21% comparison group), although for both groups the majority of graduates were from homes in which neither parent was a college graduate (45% UM; 49% comparison group). The seniors at UM were more likely than the comparison group to pay little or none of their college expenses from their own resources (59% UM; 42% comparison group). They are less likely to meet all or the majority of their college expenses from scholarships and grants (21% UM; 38% comparison group) and more likely to be using loans to pay half or more of their expenses (50% UM; 44% comparison group).

Twenty-five (25) percent of UM seniors indicated that most of their grades at UM were "A"s which was a larger percentage than in the comparison group (15%). The comparison group was more likely to indicate that their predominant grade was a "B-", "C+" (17% UM; 27% comparison group), although for both groups the modal response was "A-", "B+" (37% UM; 31% comparison group). Use some caution in understanding these results however since males as a group tend to make lower grades than females. At UM among females, 29% indicated that most of their grades were "A"s (15% UM males); 17% were "B"s (21% UM males), and 14% were "B-" or "C+" (25% UM males). Among those same UM seniors, the percentage that spent 10 or fewer hours a week on out-of-class academic work rose to 51 percent (59%-comparison group).

### **Quality of Effort Scales**

#### **Library Experiences**

UM seniors are significantly more likely to use the library in the ways measured by the scale. It is interesting to note that 48 percent of UM seniors had never read basic references or documents that were referenced by other authors, and 34 percent had done so occasionally. About a fifth of UM seniors had never made a judgment about the quality of information they obtained in the library, over the World Wide Web, or from other sources. Overall, 64 percent of seniors had never or only occasionally made a judgment about the quality of information they obtained from the library, the World Wide Web, or from other sources.

#### **Course Learning Experiences**

The activities enumerated in the course learning scale have been shown to contribute to learning a body of knowledge. UM seniors were significantly more likely to have performed these actions than were the members of the comparison group. UM seniors are significantly more likely to have contributed to class discussions, developed a role play/case study for class, tried to see how different facts and ideas fit together, summarized major points and information, applied class material to other areas in class, and worked on a project integrating ideas.

#### **Experience in Writing**

In 2005-06 UM seniors were more likely than the comparison group to think about grammar, sentence structure, word choice, and sequence of ideas or

points while writing, to have asked others to read their writing, to have referred to a style manual, revised a paper two or more, asked for writing advice, and prepared a major report for a class (20 pages or more). About 26 percent of UM seniors (20% comparison group) indicated that they “often” or “very often” prepared a major report for a class that was 20 or more pages long.

### **Faculty**

UM seniors show significantly more interaction with faculty members than do the comparison group seniors. One of the more interesting items was how often students had worked with a faculty member on research. In 2001-2002 the percentage of UM seniors who had ever worked with a faculty member on research stood at 42 percent. In 2005-2006, the percentage of UM seniors who had ever worked with a faculty member on research had risen to 48 percent. While about half of the UM seniors in 2005-2006 have never worked with a faculty member on research, it is instructive to realize that about two-thirds of the comparison group seniors indicate that they have never worked with a faculty member in conducting research.

It is apparent that UM seniors feel that they work very closely with faculty members and that faculty members affect student behavior in important ways when UM seniors and peer group members are compared. Sixty-three (63) percent of UM seniors in 2005-06 indicated that they have “often” or “very often” discussed a term paper with a faculty member (43% comparison group); 50 percent report asking an instructor “often” or “very often” about their performance (31% comparison group); 55 percent indicated that they “often” or “very often” discussed career plans with a faculty member; 73 percent of the UM seniors indicated that they “often” or “very often” worked harder due to instructor feedback; and 60 percent reported that they “often” or “very often” worked to meet faculty expectations (47% comparison group).

### **Reading, Writing and College Opinion**

As in the prior year,

- UM seniors were significantly more likely than the comparison group seniors to have written term papers and reports in the current year.
- UM seniors were significantly more favorable about college than were seniors in the comparison group.

### **Measures of College Environment**

The Measures of College Environment consist of an examination of student perceptions of the elements of the collegiate environment that have been identified in the literature as being related to student learning. The 2005-06 UM seniors were significantly more likely to express the belief that UM emphasized academic, scholarly, intellectual qualities; aesthetic, expressive and creative qualities; critical, evaluative and analytical qualities; understanding and appreciating human diversity; and the personal relevance and practical value of

courses than were comparison group seniors in relation to their development at their institutions. UM seniors were also significantly more likely than comparison group seniors to rate their relationships with faculty members and administrative personnel more positively.

### **Estimate of Gains Scales**

The 2005-06 seniors at Montevallo had significantly higher mean scores on twenty-one items and no significant difference between means on the other items. The significant items were:

- Acquiring knowledge and skills applicable to a specific job or type of work (vocational preparation);
- Developing the background and specialization for further education in a professional, scientific, or scholarly field;
- Gaining a broad general education about different fields of knowledge;
- Gaining a range of information that may be relevant to a career;
- Developing an understanding and enjoyment of art, music, and drama;
- Gaining an acquaintance with literature;
- Understanding history;
- Gaining knowledge about other parts of the world;
- Writing clearly and effectively;
- Speaking effectively;
- Using computers and other information technologies;
- Becoming aware of other philosophies, cultures and ways of life;
- Developing their own personal values and ethical standards;
- Understanding themselves-their abilities, interests and personality;
- Developing the ability to get along with different kinds of people;
- Developing the ability to function as a member of a team;
- Understanding the nature of science and experimentation;
- Thinking analytically and logically;
- Putting ideas together, seeing relationships, similarities, and differences between ideas;
- Learning on your own, pursuing ideas, and finding information you need;
- Learning to adapt to change (new technologies, different jobs or personal circumstances, etc.).

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# **COLLEGE STUDENT EXPERIENCES QUESTIONNAIRE**

**2005-2006**

## **DESCRIPTION OF THE INSTRUMENT**

The College Student Experiences Questionnaire (CSEQ) was developed in 1979 as a way to assess how college students use their time and educational opportunities, as well as a self-report of knowledge gained in specific areas. The questionnaire underwent significant revision in 2001-02 making comparisons with previous years difficult. Information from 2000-2001 is included to provide data where such data is comparable across instrument versions. The CSEQ is now in its fourth edition.

The instrument consists of thirteen Quality of Effort scales, a series of five questions on reading and writing, three questions on opinions about college, ten Measures of College Environment and twenty-five Estimates of Gains items. The questionnaire is predicated on the belief that the most important outcomes of a college education are the result of student engagement in the educational process rather than where they attend or who they are. In 1991 the National Center for Educational Statistics recommended that colleges and universities examine student experiences and behaviors as well as learning outcomes. Therefore, the CSEQ attempts to capture the processes and the outcomes of processes most likely to result in students gaining the knowledge, values, attitudes and competencies appropriate to a college education. Extensive study and statistical information indicates high levels of both validity and reliability for the instrument and its various components (Gonyea, et al, 2003: 15-27). For faculty and staff, it offers the opportunity to understand how students take advantage of what the institution offers and thus, allows institutions to arrange opportunities and resources in ways that maximize student effort in those areas most likely to be of educational benefit (Gonyea, et al, 2003).

## **QUALITY OF EFFORT SCALES**

Research has indicated that quality of effort is related to such outcomes as academic achievement, student satisfaction, and retention and it is often linked to learning and development in the higher education research literature. The Quality of Effort scales measure the engagement of students in activities associated in the higher education research literature with the desired outcomes of a college education. The number of items in each effort scale ranges from five to eleven, and most are constructed as Guttman scales in that items appearing early in the scale require less skill and/or effort than those appearing later in the scale. It is normally assumed that students who engage in more complex activities have either performed or are capable of performing the less complex activities that come earlier in the scale. Each activity scale is built around a scoring system using “very often” = 4 points, “often” = 3 points, “occasionally” = 2

points, “never” = 1 point. The higher the scale score, the more effort a student is expending in the activity examined.

## **READING, WRITING, AND COLLEGE ATTITUDES**

The items that follow the effort scales examine the amount of reading and writing reported as completed by the student in the current year. Three additional questions examine the student’s opinion of college. Since the students who take the survey at the University of Montevallo are seniors, the reading and writing items are focused predominantly on reading and writing within their majors.

## **MEASURES OF COLLEGE ENVIRONMENT**

The Measures of College Environment consist of an examination of student perceptions of the elements of the collegiate environment that have been identified in the literature as being related to student learning. The first seven items ask students to rate the extent to which the University emphasizes: 1) academic, scholarly qualities; 2) aesthetic, expressive qualities; 3) critical, evaluative, analytical qualities; 4) understanding human diversity; 5) information literacy skills; 6) vocational, occupational competencies; and 7) practical value of courses in their student development. The responses for these items range along a seven point scale from “strong emphasis” = 7 to “weak emphasis” = 1. The final three scales rate the quality of a student’s experiences with other students, administrators and faculty members. Relationships with other students range along a seven-point scale from “friendly” = 7 to “competitive” = 1. The student - administrator relationship scale ranges from 7 = “helpful” to 1 = “rigid.” The faculty-student relationship scale is also a 7 point range from “remote” = 1 to “approachable” = 7.

## **ESTIMATE OF GAINS**

These scales examine self-reported progress in areas believed to be important outcomes of a college education such as the ability to write, think analytically and understand the importance of history. A four point scale is used in the assessment: “very much” = 4, “quite a bit” = 3, “some” = 2 and “very little” = 1.

## **THE CSEQ AT THE UNIVERSITY OF MONTEVALLO**

Senior students are asked to complete the Senior Survey and the CSEQ prior to graduation, thus the entire sample consists of seniors. Seniors are sent a letter and an e-mail at the beginning of the term in which they are scheduled to graduate and asked to pick up a packet containing the surveys at the Office of Institutional Research, Planning and Assessment. They return the surveys to the office in person or through the mail. The response rate was 95 percent of the graduating senior class for summer 2005, fall 2005 and spring 2006.

A special request for an all-senior peer group is made each year to make comparisons with the University of Montevallo's seniors meaningful. The comparison group in 2005-06 was formed from 500 randomly selected seniors at College of New Jersey, Carson-Newman College, Humboldt State University, Evergreen State College, Northeastern State University, Mary Baldwin College, West Virginia State University, Fort Lewis College, Huntington College, University of Wisconsin-Whitewater, University of Wisconsin-River Falls, Sonoma State University, East Tennessee State University, University of Michigan-Dearborn, University of Scranton, and Jacksonville State University.

## **ANALYSIS OF RESULTS**

In analyzing the results of the CSEQ, the significance of comparisons between University of Montevallo seniors and comparison group seniors on both scale means and item means was estimated using a non-directional t-test and a minimum 0.05 confidence interval. UM item means by year within scales were analyzed using a difference of 0.2 or greater as the criteria for a notable difference (Gonyea, 2003). These tests and approximations of significance are used throughout the report to indicate item and scale results worthy of special attention.

## **BACKGROUND CHARACTERISTICS**

Overall, UM seniors are more likely than the comparison group to be female (69% UM, 59% comparison group) which may affect some responses. They are slightly more likely to have had both parents graduate from college although almost half of the seniors in both groups were from homes in which neither parent had a college degree. UM seniors are also slightly older than the comparison group and less ethnically diverse (see Table 1). UM seniors were also more likely to have obtained half or more of their college expenses from loans. The seniors in the comparison group are more likely to be living in a dormitory (18% UM, 23% comparison group), and more likely to have scholarships and grants that covered more than half to nearly all of their college expenses (21% UM, 38% comparison group).

Twenty-five (25) percent of UM seniors indicated that most of their grades at UM were "A"s which was a much larger percentage than in the comparison group (15%). The comparison group was much more likely to report that their most common grade in college was a "B-" or "C+" (17% UM, 27% comparison group); for both groups the modal response was "A-", "B+" (37% UM, 31% comparison group). The interpretation of the responses to the grades question may be somewhat confounded by the greater predominance of males in the comparison group. Among UM males only 15% indicated that an "A" was their most common grade at UM while among females 29% indicated that an "A" was their most common grade. Interestingly, males and females at UM indicate very similar percentages of time spent on out of class academic work.

UM seniors tended to carry fewer credit hours in their last term than did the peer group. Seventy-two (72) percent carried fewer than 14 hours. Among the comparison group 53 percent were taking 15 or more semester credit hours, however they tended to study somewhat less than did their UM colleagues. Among UM seniors, 51 percent spent 10 or fewer hours a week on out-of-class academic work, while among the comparison group that percentage rose to 59 percent.

## **QUALITY OF EFFORT SCALES**

### **LIBRARY EXPERIENCES**

Using a t-test to determine significance, in 2005-2006 there was a significant difference between the ways in which UM seniors and the comparison group seniors used the library (see Table 2). UM seniors were more likely to have used the library to study, found something interesting while browsing and read assigned materials that were not texts. It is interesting to note that 48 percent of UM seniors had never read basic references or documents that were referenced by other authors, and only 34 percent had done so occasionally. Another interesting finding, is that 21 percent of the UM seniors had never made a judgment about the quality of information they obtained in the library, over the World Wide Web, or from other sources. Overall, 64 percent of seniors had never or only occasionally made a judgment about the quality of information they obtained from the library, the World Wide Web, or from other sources.

## **COMPUTER AND INFORMATION TECHNOLOGY ACTIVITIES**

The items in this scale include the use of e-mail to communicate with instructors or students; participation in electronic class discussions; use of a computer to generate a visual display or use of a computer to analyze data or develop a web page/multimedia presentation (see Table 3). There was a significant difference between Montevallo's seniors and the seniors in the comparison group on this scale in 2005-06.

Several item means were also significant. UM seniors were significantly more likely to have used e-mail to communicate with an instructor or classmates, used a computer tutorial to learn material, searched the internet for course material, used a computer to make visual displays (charts, graphs, spreadsheets, etc.) and developed a Web page or multimedia presentation.

## **COURSE LEARNING**

The Course Learning Scale includes a number of activities that contribute directly to learning a body of knowledge (see Table 4). Since the respondents are seniors and the questions refer to the "current school year," the majority of the courses in which these activities take place are in upper level courses in the student's major.

In 2005-06, the University of Montevallo scale mean was significantly different from the peer group scale mean using a t-test of equality of means. UM seniors were significantly more likely to have contributed to class discussions, developed a role play/case study for class, tried to see how different facts and ideas fit together, summarized major points and information, applied class material to other areas in class, and worked on a project integrating ideas.

## **EXPERIENCE IN WRITING**

The Writing Scale examines activities that range from using a dictionary or thesaurus to submitting a major class report (see Table 5). The scale means of the UM seniors and the peer group seniors were significantly different in 2003-04, 2002-03 and in 2001-02, and reached significance in 2005-06. In addition, six of the seven items also showed a significant difference at the 0.05 confidence level or better.

In 2005-06 UM seniors were more likely than the comparison group to think about grammar, sentence structure, word choice, and sequence of ideas or points while writing, to have asked others to read their writing, to have referred to a style manual, revised a paper two or more times, asked for writing advice, and prepared a major report for a class (20 pages or more). About 26 percent of UM seniors (20% comparison group) indicated that they "often" or "very often" prepared a major report for a class that was 20 or more pages long.

## **EXPERIENCES WITH FACULTY**

As in a number of other years including 2000-01, 2001-02, 2002-03, 2003-04, 2004-05 and again in 2005-06. UM seniors were significantly more likely to have performed the activities shown in the scale than were the comparison group seniors (see Table 6). The UM seniors were significantly more likely than the peer group seniors to have interacted with faculty members in the ways described on every scale item including having discussed a term paper or project with a faculty member, discussed career plans with a faculty member, and worked with a faculty member on a research project. This scale continues to show very strong interaction between students and faculty at the University of Montevallo.

One of the more interesting items was how often students had worked with a faculty member on research. In 2001-2002 the percentage of UM seniors who had ever worked with a faculty member on research stood at 42 percent. In 2005-2006, the percentage of UM seniors who had ever worked with a faculty member on research had risen to 48 percent. While about half of the UM seniors in 2005-2006 have never worked with a faculty member on research, it is instructive to realize that about two-thirds of the comparison group seniors indicate that they have never worked with a faculty member in conducting research. The long-term undergraduate research planning thrust in the College of Arts and Sciences has brought a rapid change in this item on the CSEQ.

It is apparent that UM seniors feel that they work very closely with faculty members and that faculty members affect student behavior in important ways when UM seniors and peer group members are compared. Sixty-three (63) percent of UM seniors in 2005-06 indicated that they have “often” or “very often” discussed a term paper with a faculty member (43% comparison group); 50 percent report asking an instructor “often” or “very often” about their performance (31% comparison group); 55 percent indicated that they “often” or “very often” discussed career plans with a faculty member; 73 percent of the UM seniors indicated that they “often” or “very often” worked harder due to instructor feedback; and 60 percent reported that they “often” or “very often” worked to meet faculty expectations (47% comparison group).

## **EXPERIENCES WITH ART, MUSIC AND THEATER**

The scale means for UM seniors and comparison group seniors were not significantly different again in 2005-06 (see Table 7). No item means showed a significant difference.

## **CAMPUS FACILITIES**

In 2005-06, there was not a significant difference between the overall scale means of the UM and comparison group seniors (see Table 8). UM seniors were however significantly more likely to have used a campus lounge to relax or study by themselves, attended a cultural or social event in the campus center or other campus location; went to a lecture or panel discussion and used campus learning laboratory or center.

## **CLUBS AND ORGANIZATIONS**

In 2005-06, as in prior years, University of Montevallo seniors were significantly more likely to have participated in clubs and organizations (see Table 9). The UM seniors were significantly more likely to have attended a meeting of a campus organization; worked on a campus committee or organization; met with a faculty member to discuss a campus group; and managed an organization on- or off-campus.

## **PERSONAL EXPERIENCES**

The University of Montevallo scale mean was not significantly different from the peer group scale mean in 2005-06 (see Table 10). In 2005-06, UM seniors were significantly more likely to have discussed why some people get along; asked for help with a personal problem; and talked with a faculty or staff member about a personal concern.

## **STUDENT ACQUAINTANCES**

The scale examines student interactions with others who may differ from them in a variety of ways ranging from making friends with another student with different interests to having discussions with someone from a different country (see Table 11). In 2005-06 the scale mean for University of Montevallo seniors was significantly different when compared to the comparison group scale mean. UM seniors were significantly more likely to become acquainted with students with different interests; to have discussions with students with different philosophies or values, political opinions, religious orientations and/or different racial groups.

## **SCIENCE AND QUANTITATIVE EXPERIENCES**

The scale mean for 2005-06 University of Montevallo seniors was not significantly different from that of the peer group (see Table 12). None of the items was significantly different from the comparison group.

## **TOPICS OF CONVERSATION**

This ten-item scale examines a number of conversational topics ranging from current events to international relations (see Table 13). The scale means for the 2005-06 University of Montevallo seniors and the comparison group seniors was significantly different. UM seniors were significantly more likely to have talked about different lifestyles, the ideas of writers, and the economy.

## **INFORMATION IN CONVERSATIONS**

This six item scale asks how often students interact in various ways with information presented in conversations with other students (see Table 14). The scale means for the 2005-06 University of Montevallo seniors and the comparison group seniors were significantly different. By comparison to the comparison group, UM seniors were significantly more likely to have referred to readings or classes; explored different ways of thinking; referred to something that an instructor said; and subsequently read something on a topic outside the classroom in the current year.

## READING, WRITING AND COLLEGE OPINION

Eight items examine the amount and kind of reading and writing students have done in the current school year and their opinion of college (see Table 15). The first item asks about the number of assigned textbooks and books read. About 43 percent (39%-comparison group) of 2005-2006 University of Montevallo seniors had read either none or fewer than five textbooks and assigned books in the current year. About 36 percent of UM seniors (37%-comparison group) had read between five and ten textbooks and assigned books. About 21 percent of the University of Montevallo and 23 percent the comparison group seniors had read ten or more textbooks and assigned books during the year. There is no significant difference between the UM and the comparison group seniors.

Fifty-seven (57) percent of UM seniors had read fewer than five course packets as had 63 percent of the comparison group seniors. UM seniors read significantly more course packs of assigned readings during the year.

Eighteen (18) percent of UM seniors and 13 percent of comparison group seniors had read ten or more non-assigned books. However, 35 percent of UM seniors had read five or more non-assigned books compared to 25 percent of the comparison group. The difference in means was significant for this item.

Two items designed to identify writing activities for the year asked for the number of essay examinations in courses and the number of term papers and written reports assigned to the student during the current school year. While the number of essay examinations in courses was similar for the two groups of seniors, the UM seniors were significantly more likely to have written term papers or other written reports in the current school year. Thirty-six (36) percent of the University of Montevallo seniors report fewer than five essay examinations during the year (37%-comparison group). Twenty-seven (27) percent of UM seniors report between five and ten essay examinations (35%-comparison group), and another 26 percent of UM seniors reported ten or more essay examinations during the year (20%-comparison group). Forty-seven (47) percent of comparison group seniors wrote from none to four term papers and other written reports (38% UM seniors). Fifty-three (53) percent of the University of Montevallo seniors wrote between five and twenty term papers and other written reports (45% comparison group), while 10 percent of the University of Montevallo seniors wrote more than twenty term papers and/or other written reports (7%-comparison group).

UM seniors and comparison group seniors both had favorable opinions about college, however UM seniors were significantly more positive about college than were comparison group seniors. Eighty-nine (89) percent of UM seniors either liked college or were enthusiastic about it (82% comparison group). Forty-nine percent of UM seniors would definitely attend the same institution (35% comparison group), and 58 percent had an overall opinion of college that fell into the highest two categories (39% comparison group).

## **MEASURES OF COLLEGE ENVIRONMENT**

The Measures of College Environment examine the emphasis seniors perceive their institution places on their intellectual and social development along ten environmental dimensions (see Table 16). The dimensions are: 1) academic, scholarly, intellectual qualities; 2) aesthetic, expressive and creative qualities; 3) critical, evaluative and analytical qualities; 4) understanding and appreciating human diversity; 5) information literacy skills; 6) vocational and occupational competence; 7) personal relevance and practical value of courses; 8) relationship with other students, student groups and activities; 9) relationships with faculty members and 10) relationships with administrative personnel and offices. These scales assess perceptions of the “psychological climate for learning that exists on the campus” (Gonyea, et al, 2003: 5)

Seven of the ten questions showed differences between means of the 2005-06 UM seniors and the comparison group that were significant at the 0.05 confidence interval or higher using a t-test to estimate equality of means. The 2005-06 UM seniors were significantly more likely to express the belief that UM emphasized academic, scholarly, intellectual qualities; aesthetic, expressive and creative qualities; critical, evaluative and analytical qualities; understanding and appreciating human diversity; and the personal relevance and practical value of courses than were comparison group seniors in relation to their development at their institutions. UM seniors were also significantly more likely than comparison group seniors to rate their relationships with faculty members and administrative personnel more positively.

## **ESTIMATE OF GAINS**

The Estimate of Gains scale consists of twenty-five self-reported estimates of progress on generally accepted outcomes of a college education (see Table 17). Students have perceptions of their knowledge, values, attitudes and skills at entry and they have perceptions of those same attributes as they complete their undergraduate work. The difference in those beliefs about what they know, what they can do and what they believe constitutes an indirect, but reasonably reliable measure of the value that their college education has added to their lives. The 2005-06 seniors at Montevallo had significantly higher mean scores on twenty-one items and no significant difference between means on the other items. The significant items were:

- Acquiring knowledge and skills applicable to a specific job or type of work (vocational preparation);
- Developing the background and specialization for further education in a professional, scientific, or scholarly field;
- Gaining a broad general education about different fields of knowledge;
- Gaining a range of information that may be relevant to a career;
- Developing an understanding and enjoyment of art, music, and drama;
- Gaining an acquaintance with literature;
- Understanding history;
- Gaining knowledge about other parts of the world;
- Writing clearly and effectively;
- Speaking effectively;
- Using computers and other information technologies;

- Becoming aware of other philosophies, cultures and ways of life;
- Developing their own personal values and ethical standards;
- Understanding themselves-their abilities, interests and personality;
- Developing the ability to get along with different kinds of people;
- Developing the ability to function as a member of a team;
- Understanding the nature of science and experimentation;
- Thinking analytically and logically;
- Putting ideas together, seeing relationships, similarities, and differences between ideas;
- Learning on your own, pursuing ideas, and finding information you need
- Learning to adapt to change (new technologies, different jobs or personal circumstances, etc.)

In 2005-06, 80 percent or more of University of Montevallo seniors felt they gained “quite a bit” or “very much” as the result of their college education on nine items: gaining information relevant to a career; writing effectively; speaking effectively; understanding themselves; getting along with others; thinking analytically; synthesizing ideas; learning on one’s own; and adapting to change. The items on which 50 percent or more of University of Montevallo seniors felt they had gained only “very little” or “some information” were: understanding science and experimentation; understanding new technology; and becoming aware of the consequences of new applications of science and technology.

**Table 1**  
**BACKGROUND CHARACTERISTICS**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Age of Student</b>												
19 or Younger	0	0	3	1	0	0	0	0	0	0	85	17
20-23	323	72	346	77	306	74	309	72	334	70	288	58
24-29	95	21	78	17	80	19	87	20	93	20	72	14
30-39	23	5	15	3	14	3	24	6	27	6	30	6
40-55	8	2	7	2	11	3	11	3	17	4	25	5
55+							1	0	3	1	0	0
<b>Gender</b>												
Male	132	29.8	129	29	122	30	128	29	138	29	201	41
Female	311	70.2	315	70	289	70	302	70	330	69	295	59
<b>Marital Status</b>												
Not Married	356	80	365	81	330	80	341	79	377	80	414	83
Married	78	17	73	16	76	18	78	18	74	16	68	14
Divorced	13	3	10	2	5	1	8	2	13	3	12	2
Separated			1	0	0	0	1	0	9	2	3	1
Widowed					1	0	1	0	0	0	0	0
<b>Transfer Status</b>												
Original student	224	50	257	57	233	56	228	53	271	57	276	56
Transfer student	225	50	192	43	180	44	203	47	203	43	221	44
<b>Where Living Now</b>												
Dorm, Other Housing	85	19	82	18	81	20	85	20	84	18	116	23
Reside in Walking Distance	102	23	103	23	101	25	78	18	101	21	101	20
Reside in Driving Distance	260	58	262	58	230	56	264	61	285	60	277	56
Fraternity-Sorority	1	0	1	0	0	0	3	1	3	1	1	0
<b>Live with No One</b>												
No	351	79	336	76	337	82	339	80	390	83	423	85
Yes	93	21	107	24	72	18	86	20	79	17	73	15
<b>Live with Spouse or Partner</b>												
No	361	81	355	80	317	78	345	81	379	81	406	82
Yes	83	19	88	20	92	22	80	19	90	19	90	18
<b>Live with My Child</b>												
No	413	93	423	95	383	94	396	93	431	92	452	91
Yes	31	7	20	5	26	6	29	7	38	8	44	9
<b>Live with My Parents</b>												
No	359	81	364	82	332	81	337	79	361	77	418	84
Yes	85	19	79	18	77	19	88	21	108	23	78	16
<b>Live with Other Relatives</b>												
No	428	96	427	96	401	98	412	97	452	96	482	97
Yes	16	4	16	4	8	2	13	3	17	4	14	3

## BACKGROUND CHARACTERISTICS

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Live with Friends Not Students Here</b>												
No	429	97	426	96	381	93	406	96	445	95	481	97
Yes	15	3	17	4	28	7	19	4	24	5	15	3
<b>Access to a Computer</b>												
Yes	437	97	434	97	400	97	420	97	465	98	475	95
No	12	3	15	3	12	3	12	3	9	2	24	5
<b>Most College Grades</b>												
C-, C- or Lower	13	3	11	2	12	3	10	2	12	3	25	5
B-, C+	101	23	114	25	76	18	94	22	82	17	136	27
B	90	20	90	20	88	21	74	17	85	18	109	22
A-, B+	144	32	143	32	134	33	150	35	172	37	154	31
A	98	22	91	20	102	25	103	24	119	25	73	15
<b>Parent (s) College Grad</b>												
No	203	45	189	42	188	46	198	46	214	45	246	49
Yes, Both	136	30	137	31	103	25	101	23	124	26	105	21
Yes, Father Only	64	14	62	14	60	15	72	17	68	14	69	14
Yes, Mother Only	45	10	57	13	60	15	58	13	65	14	76	15
Don't Know	1	0	3	1	1	0	3	1	3	1	4	1
<b>Enroll for Adv Degree</b>												
Yes	302	68	306	68	279	68	285	67	307	66	344	69
No	144	32	142	32	133	32	143	33	161	34	152	31
<b>Number of Term Credit Hours</b>												
6 or Fewer	51	11	46	10	45	11	37	9	48	10	21	4
7-11	56	13	45	10	44	11	56	13	66	14	41	8
12-14	212	47	210	47	175	42	201	47	228	48	175	35
15-16	69	15	89	20	98	24	84	19	84	18	178	36
17 or More	60	13	58	13	51	12	53	12	48	10	84	17
<b>Hours on Out of Class Academic Work</b>												
5 or less hrs weekly	91	20	76	17	82	20	97	22	92	19	133	27
6-10 hrs weekly	137	31	162	36	150	36	145	34	153	32	162	32
11-15 hrs weekly	86	19	82	18	83	20	68	16	99	21	82	16
16-20 hrs weekly	70	16	75	17	40	10	57	13	60	13	65	13
21-25 hrs weekly	37	8	27	6	20	5	33	8	29	6	26	5
26-30 hrs weekly	11	2	13	3	10	2	14	3	13	3	20	4
More than 30 hours	16	4	12	3	27	7	18	4	26	6	12	2

## BACKGROUND CHARACTERISTICS

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Hours Working on Campus for Pay</b>												
None; no job	361	81	348	78	307	75	329	77	354	75	313	75
1- 10 hrs weekly	44	10	44	10	49	12	54	13	54	12	38	9
11-20 hrs weekly	27	6	39	9	37	9	38	9	42	9	45	11
21-30 hrs weekly	7	2	8	2	11	3	4	1	9	2	17	4
31-40 hrs weekly	3	1	3	1	2	0	3	1	9	2	2	0
More than 40 Hours	2	0	4	1	1	0	1	0	1	0	0	0
<b>Hours Working Off Campus for Pay</b>												
None; no job	175	39	158	35	167	41	148	34	155	33	183	40
1- 10 hrs weekly	41	9	45	10	29	7	46	11	57	12	37	8
11-20 hrs weekly	96	22	88	20	86	21	94	22	80	17	86	19
21-30 hrs weekly	77	17	97	22	73	18	90	21	102	22	72	16
31-40 hrs weekly	45	10	42	9	47	11	38	9	62	13	55	12
More than 40 Hours	10	2	16	4	8	2	14	3	11	2	27	6
<b>How Job Affects School Work</b>												
No job	124	28	105	23	102	25	92	21	85	18	130	26
Does not interfere	123	27	129	29	116	28	138	32	141	30	113	23
Takes some time	165	37	178	40	155	38	165	38	185	39	194	40
Takes lots of time	36	8	37	8	38	9	37	9	58	12	54	11
<b>Meet Expenses: Self</b>												
None	63	17	65	18	53	16	79	23	79	20	61	15
Very Little	150	40	136	37	139	42	126	36	153	39	113	27
Less than half	79	21	79	22	70	21	73	21	67	17	89	21
About half	37	10	31	8	32	10	27	8	40	10	57	14
More than half	19	5	21	6	23	7	19	5	27	7	33	8
All or nearly all	27	7	33	9	16	5	27	8	28	7	62	15
<b>Meet Expenses: Parents</b>												
None	72	18	63	16	54	15	76	20	79	19	87	22
Very Little	63	16	65	17	64	18	63	17	80	19	76	19
Less than half	48	12	64	16	57	16	54	14	59	14	45	11
About half	45	11	42	11	47	13	43	11	47	11	48	12
More than half	51	13	43	11	36	10	37	10	47	11	44	11
All or nearly all	114	29	116	30	99	28	105	28	111	26	100	25
<b>Meet Expenses: Spouse or Partner</b>												
None	255	84	266	83	231	82	263	84	302	85	282	87
Very Little	18	6	30	9	22	8	14	4	30	8	15	5
Less than half	17	6	15	5	13	5	12	4	8	2	8	2
About half	6	2	4	1	8	3	6	2	6	2	4	1
More than half	6	2	1	0	3	1	5	2	2	1	5	2
All or nearly all	3	1	4	1	6	2	14	4	9	3	10	3

## BACKGROUND CHARACTERISTICS

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Meet Expenses: Employer</b>												
None	268	91	271	89	239	87	278	91	313	89	265	84
Very Little	15	5	22	7	18	7	9	3	13	4	22	7
Less than half	5	2	3	1	7	3	7	2	9	3	7	2
About half	2	1	6	2	8	3	4	1	5	1	8	3
More than half	3	1	2	1	2	1	3	1	1	0	7	2
All or nearly all	2	1	2	1	2	1	3	1	10	3	5	2
<b>Meet Expenses: Scholarships and Grants</b>												
None	134	37	130	36	93	29	112	31	126	31	125	32
Very Little	47	13	39	11	41	13	52	14	64	16	45	12
Less than half	42	12	47	13	37	11	58	16	66	16	42	11
About half	45	12	50	14	62	19	43	12	60	15	32	8
More than half	41	11	48	13	47	14	50	14	39	10	61	16
All or nearly all	54	15	49	13	45	14	46	13	46	11	85	22
<b>Meet Expenses: Loans</b>												
None	136	37	128	36	117	36	134	38	134	34	148	39
Very Little	20	6	20	6	19	6	14	4	23	6	20	5
Less than half	29	8	28	8	39	12	33	9	43	11	43	11
About half	39	11	44	13	43	13	51	15	59	15	43	11
More than half	50	14	52	15	53	16	50	14	58	15	49	13
All or nearly all	89	25	80	23	53	16	69	20	77	20	78	20
<b>Meet Expenses: Other Sources</b>												
None	263	87	256	85	229	86	259	85	293	87	255	86
Very Little	20	7	18	6	11	4	15	5	19	6	16	5
Less than half	2	1	8	3	8	3	6	2	5	1	7	2
About half					2	1	2	1	8	2	7	2
More than half	8	3	4	1	6	2	6	2	3	1	3	1
All or nearly all	8	3	8	3	10	4	15	5	9	3	10	3
<b>Race: American Indian or Other Native</b>												
No	439	99	435	99	398	98	417	99	463	99	545	94
Yes	5	1	6	1	8	2	4	1	4	1	31	6
<b>Race: Asian or Pacific Islander</b>												
No	442	100	441	100	402	99	419	100	459	98	468	96
Yes	2	0	0	0	4	1	2	0	8	2	17	4

## BACKGROUND CHARACTERISTICS

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Race: Black or African American												
No	386	87	371	84	359	88	359	85	413	88	432	89
Yes	58	13	70	16	47	12	62	15	54	12	53	11
Race: Caucasian												
No	82	18	81	18	62	15	72	17	70	15	119	25
Yes	362	82	360	82	344	85	349	83	397	85	366	75
Race: Mexican American												
No	442	100	440	100	405	100	421	100	465	100	475	98
Yes	2	0	1	0	1	0	0	0	2	0	10	2
Race: Puerto Rican												
No	444	100	440	100	406	100	419	100	466	100	483	100
Yes	0	0	1	0	0	0	2	0	1	0	2	0
Race: Other Hispanic												
No	436	98	440	100	402	99	419	100	464	99	479	99
Yes	8	2	1	0	4	1	2	0	3	1	6	1
Race: Other												
No	433	98	434	98	395	97	419	100	464	99	469	97
Yes	11	2	7	2	11	3	2	0	3	1	16	3
No. of Racial/Ethnic Groups of Student												
Belongs to 1 Group	440	99	436	99	396	98	419	100	462	99	0	0
Belongs to 2 Groups	4	1	5	1	7	2	2	0	5	1	0	0
Belongs to 3 Groups					3	1	0	0				
Ethnic Identification												
American Indian	3	1	3	1	1	0	3	1	2	0	0	0
Asian or Pacific Islander	2	0	0	0	2	0	2	0	6	1	0	0
Black, African-American	58	13	68	15	45	11	60	14	53	11	0	0
White, Caucasian	358	81	356	81	335	83	348	83	392	84	0	0
Mexican-American	1	0	1	0	1	0	0	0	2	0	0	0
Other Hispanic	8	2	2	0	4	1	4	0	1	0	0	0
Other	10	2	6	1	8	2	2	0	3	1	0	0
Multiracial	4	1	5	1	10	2	2	0	5	1	0	0

**Table 2**  
**LIBRARY EXPERIENCES**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Used the Library to Study</b>												
Never	96	21	90	20	93	23	0	0	96	20	162	32
Occasionally	225	50	235	53	210	51	204	47	234	49	220	44
Often	79	18	82	18	69	17	67	16	87	18	79	16
Very Often	49	11	40	9	41	10	52	12	57	12	38	8
Item Mean	2.18		2.16		2.14		2.53		2.22		1.99	
<b>Found Something Interesting by Browsing</b>												
Never	104	23	94	21	102	25	119	28	125	26	162	33
Occasionally	213	48	212	47	189	46	209	48	223	47	234	47
Often	93	21	96	21	80	19	65	15	77	16	73	15
Very Often	37	8	45	10	41	10	39	9	49	10	29	6
Item Mean	2.14		2.21		2.15		2.06		2.11		1.94	
<b>Asked Librarian/Staff Member for Help</b>												
Never	57	13	50	11	53	13	90	21	79	17	98	20
Occasionally	227	51	229	51	220	54	213	49	243	51	232	47
Often	119	27	120	27	104	25	88	20	100	21	114	23
Very Often	44	10	48	11	32	8	41	9	50	11	52	10
Item Mean	2.34		2.37		2.28		2.19		2.26		2.24	
<b>Read assigned material not texts</b>												
Never	81	18	82	18	67	16	109	25	105	22	155	31
Occasionally	214	48	202	45	207	50	185	43	217	46	220	44
Often	106	24	119	27	98	24	93	22	101	21	76	15
Very Often	47	10	44	10	39	9	44	10	49	10	45	9
Item Mean	2.27		2.28		2.27		2.17		2.20		2.02	
<b>Used Index or database to find material</b>												
Never	32	7	34	8	43	10	55	13	42	9	66	13
Occasionally	172	39	177	40	150	36	151	35	202	43	170	34
Often	141	32	151	34	141	34	128	30	130	27	139	28
Very Often	101	23	85	19	77	19	98	23	100	21	118	24
Item Mean	2.70		2.64		2.61		2.62		2.61		2.63	
<b>Wrote bibliography for a term paper</b>												
Never	54	12	48	11	64	16	68	16	64	14	108	22
Occasionally	154	35	163	37	145	35	140	33	173	37	163	33
Often	141	32	150	34	120	29	124	29	138	29	145	29
Very Often	96	22	85	19	83	20	98	23	96	20	81	16
Item Mean	2.63		2.61		2.54		2.59		2.56		2.40	

## LIBRARY EXPERIENCES

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Read Basic References / Documents												
Never	219	49	203	46	198	48	226	52	228	48	268	54
Occasionally	144	32	155	35	138	33	135	31	159	34	165	33
Often	60	13	60	13	55	13	48	11	57	12	46	9
Very Often	24	5	28	6	21	5	22	5	27	6	17	3
Item Mean	1.75		1.80		1.75		1.69		1.75		1.62	
Made a judgment about quality of information												
Never	79	18	92	21	97	24	102	24	99	21	137	28
Occasionally	193	43	189	42	161	39	185	43	205	43	192	39
Often	110	25	103	23	98	24	94	22	108	23	112	23
Very Often	65	15	63	14	55	13	49	11	60	13	55	11
Item Mean	2.36		2.31		2.27		2.21		2.27		2.17	
Scale Mean	18.35		18.35		18.02		17.62		17.97		16.99	
Standard Deviation	4.957		4.861		5.079		5.073		5.113		4.913	
t-test for Equality of Means	2.963		3.430		1.717		0.770		2.998			
df	881		875		829		863		946			
sig (2-tailed)	0.003		0.001		0.087		0.441		0.003			

**Table 3**  
**COMPUTER AND INFORMATION TECHNOLOGY**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Used Computer/Word Processor for Paper</b>												
Never	8	2	7	2	7	2	6	1	6	1	17	3
Occasionally	45	10	49	11	31	8	42	10	41	9	41	8
Often	69	15	63	14	67	16	60	14	80	17	91	18
Very Often	327	73	329	73	308	75	324	75	347	73	350	70
Item Mean	3.59		3.59		3.64		3.63		3.62		3.55	
<b>Used E-Mail to Communicate with Class</b>												
Never	36	8	31	7	19	5	10	2	10	2	55	11
Occasionally	130	29	125	28	99	24	87	20	70	15	127	26
Often	106	24	101	23	81	20	110	25	108	23	103	21
Very Often	176	39	191	43	214	52	225	52	286	60	213	43
Item Mean	2.94		3.01		3.19		3.27		3.41		2.95	
<b>Used Computer Tutorial to Learn Material</b>												
Never	210	47	169	38	170	41	191	44	148	31	206	41
Occasionally	136	31	161	36	122	30	147	34	165	35	173	35
Often	47	11	54	12	59	14	40	9	93	2	60	12
Very Often	52	12	64	14	61	15	53	12	68	14	59	12
Item Mean	1.87		2.03		2.03		1.90		2.17		1.94	
<b>Joined in Electronic Class Discussions</b>												
Never	296	66	273	61	239	58	245	57	211	45	281	56
Occasionally	82	18	101	23	87	21	104	24	142	30	109	22
Often	30	7	38	8	39	9	40	9	64	14	54	11
Very Often	39	9	36	8	48	12	42	10	56	12	54	11
Item Mean	1.58		1.64		1.75		1.72		1.93		1.76	
<b>Searched Internet for Course Material</b>												
Never	15	3	12	3	6	1	9	2	6	1	22	4
Occasionally	79	18	62	14	50	12	62	14	68	14	94	19
Often	108	24	117	26	93	23	96	22	116	24	123	25
Very Often	245	55	257	57	264	64	265	61	284	60	259	52
Item Mean	3.30		3.38		3.49		3.43		3.43		3.24	
<b>Retrieved Off-Campus Library Materials</b>												
Never	150	34	143	32	140	34	151	35	146	31	197	40
Occasionally	132	30	161	36	126	31	151	35	171	36	141	28
Often	87	20	57	13	57	14	48	11	68	14	74	15
Very Often	75	17	86	19	88	21	82	19	89	19	86	17
Item Mean	2.20		2.19		2.23		2.14		2.21		2.10	

## COMPUTER AND INFORMATION TECHNOLOGY

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Made Visual Displays with Computer												
Never	68	15	61	14	56	14	44	10	53	11	105	21
Occasionally	147	33	148	33	122	30	165	38	166	35	175	35
Often	115	26	113	25	104	25	93	22	116	25	110	22
Very Often	116	26	126	28	129	31	130	30	138	29	109	22
Item Mean	2.63		2.68		2.74		2.72		2.72		2.45	
Used a Computer to Analyze Data												
Never	167	37	137	31	135	33	140	32	139	30	162	33
Occasionally	148	33	167	37	139	34	152	35	169	36	177	36
Often	69	15	80	18	75	18	61	14	79	17	82	16
Very Often	62	14	62	14	64	15	78	18	84	18	76	15
Item Mean	2.06		2.15		2.16		2.18		2.23		2.14	
Developed Web page, multimedia presentation												
Never	143	32	142	32	125	30	144	33	127	27	271	55
Occasionally	161	36	175	39	139	34	165	38	191	40	127	26
Often	69	15	71	16	77	19	62	14	83	18	53	11
Very Often	74	17	59	13	71	17	61	14	72	15	46	9
Item Mean	2.17		2.11		2.23		2.09		2.21		1.75	
Scale Mean	22.32		22.78		23.50		23.05		23.94		21.92	
Standard Deviation	5.807		5.504		5.767		5.477		5.417		5.821	
t-test for Equality of Means	-1.46		0.738		1.071		1.098		5.562			
df	882		882		836		864		959			
significance (2-tailed)	0.144		0.461		0.284		0.272		0.000			

**Table 4**  
**COURSE LEARNING**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Completed assigned readings</b>												
Never	10	2	3	1	8	2	7	2	7	1	12	2
Occasionally	81	18	87	19	84	20	101	23	92	19	108	22
Often	178	40	163	36	156	38	175	40	170	36	205	41
Very Often	179	40	195	44	168	40	151	35	204	43	173	35
Item Mean	3.17		3.23		3.16		3.08		3.21		3.08	
<b>Took Detailed Notes in Class</b>												
Never	6	1	4	1	8	2	4	1	6	1	9	2
Occasionally	30	7	30	7	30	7	47	11	45	10	43	9
Often	116	26	114	26	110	26	104	24	102	22	149	30
Very Often	296	66	298	67	268	64	277	64	319	68	294	59
Item Mean	3.57		3.58		3.53		3.51		3.56		3.47	
<b>Contributed to Class Discussions</b>												
Never	12	3	5	1	6	1	3	1	5	1	10	2
Occasionally	83	19	89	20	90	22	106	25	108	23	147	30
Often	177	40	142	32	146	36	143	33	146	31	173	36
Very Often	173	39	211	47	169	41	178	41	209	45	157	32
Item Mean	3.15		3.25		3.16		3.15		3.19		2.98	
<b>Developed role play/case study for class</b>												
Never	92	21	89	20	72	17	85	20	86	18	143	29
Occasionally	165	37	172	38	160	39	192	44	186	39	189	38
Often	111	25	103	23	95	23	86	20	105	22	100	20
Very Often	80	18	84	19	88	21	69	16	95	20	65	13
Item Mean	2.40		2.41		2.48		2.32		2.44		2.18	
<b>Put Together Different Facts and Ideas</b>												
Never	22	5	13	3	17	4	11	3	19	4	32	6
Occasionally	90	20	92	21	100	24	102	24	105	22	162	33
Often	193	43	182	159	152	37	186	43	164	35	174	35
Very Often	143	32	160	36	146	35	135	31	184	39	129	26
Item Mean	3.02		3.09		3.03		2.96		3.09		2.80	
<b>Summarized Major Points and Information</b>												
Never	17	4	14	3	18	4	17	4	10	2	36	7
Occasionally	85	19	88	20	74	18	98	23	110	23	119	24
Often	164	37	159	35	162	39	161	37	152	32	203	41
Very Often	181	40	187	42	161	39	156	36	201	42	139	28
Item Mean	3.14		3.16		3.12		3.06		3.15		2.90	

### COURSE LEARNING SCALE

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Worked with Others on Class Project</b>												
Never	6	1	8	2	4	1	9	2	9	2	12	2
Occasionally	101	23	98	22	100	24	108	25	117	25	141	28
Often	179	40	160	36	141	34	157	36	177	38	186	38
Very Often	160	36	181	40	171	41	159	37	169	36	157	32
Item Mean	3.11		3.15		3.15		3.08		3.07		2.98	
<b>Applied Class Material to Other Areas</b>												
Never	8	2	4	1	5	1	6	1	4	1	15	3
Occasionally	93	21	81	18	71	17	92	21	93	20	136	27
Often	167	37	161	36	140	34	156	36	159	34	186	38
Very Often	180	40	202	45	198	48	180	41	217	46	159	32
Item Mean	3.16		3.25		3.28		3.18		3.25		2.99	
<b>Used Information from Other Areas in Class</b>												
Never			6	1	6	1	8	2	4	1	23	5
Occasionally			80	18	81	20	109	25	125	26	145	29
Often			182	41	141	34	160	37	154	33	180	36
Very Often			180	40	187	45	157	36	190	40	149	30
Item Mean			3.20		3.23		3.07		3.12		2.92	
<b>Explained Material to Another Student</b>												
Never	5	1	2	0	2	0	5	1	6	1	9	2
Occasionally	95	21	78	17	72	17	94	22	109	23	131	26
Often	182	41	178	40	164	40	165	38	175	37	194	39
Very Often	165	37	190	42	177	43	170	39	183	39	162	33
Item Mean	3.13		3.24		3.24		3.15		3.13		3.03	
<b>Worked on Project Integrating Ideas</b>												
Never	7	2	0	0	1	0	5	1	2	0	18	4
Occasionally	68	15	59	13	49	12	65	15	91	19	115	23
Often	159	36	178	40	147	36	171	39	152	32	188	38
Very Often	211	47	208	47	215	52	192	44	227	48	171	35
Item Mean	3.29		3.33		3.40		3.27		3.28		3.04	
Scale Mean	34.21		34.98		34.85		33.91		34.56		32.41	
Standard Deviation	6.016		5.512		5.803		5.692		6.088		6.000	
t-test for Equality of Means	-0.105		3.400		2.410		0.399		5.465			
df	869		857		816		848		936			
significance (2-tailed)	0.916		0.001		0.016		0.690		0.000			

**Table 5**  
**EXPERIENCE IN WRITING**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Used Dictionary or Thesaurus</b>												
Never	9	2	15	3	11	3	24	6	13	3	30	6
Occasionally	110	25	115	26	99	24	120	28	139	29	136	28
Often	152	34	141	31	133	32	134	31	135	29	156	32
Very Often	177	40	177	40	172	41	156	36	186	39	172	35
Item Mean	3.11		3.07		3.12		2.97		3.04		2.95	
<b>Thought About Grammar Etc., While Writing</b>												
Never	5	1	3	1	2	0	8	2	5	1	13	3
Occasionally	35	8	45	10	35	8	51	12	52	11	74	15
Often	133	30	142	32	123	30	140	32	137	29	166	33
Very Often	275	61	258	58	255	61	235	54	279	59	243	49
Item Mean	3.51		3.46		3.52		3.39		3.46		3.29	
<b>Asked Others to Read Your Writing</b>												
Never	18	4	18	4	14	3	20	5	14	3	31	6
Occasionally	80	18	87	19	90	22	126	29	106	22	150	30
Often	144	32	150	33	127	31	114	26	142	30	151	31
Very Often	206	46	193	43	184	44	174	40	211	45	163	33
Item Mean	3.20		3.16		3.16		3.02		3.16		2.90	
<b>Referred to Style Manual</b>												
Never	27	6	28	6	23	6	35	8	30	6	48	10
Occasionally	111	25	116	26	113	27	150	35	134	28	172	35
Often	143	32	151	34	120	29	116	27	150	32	154	31
Very Often	167	37	152	34	159	38	132	30	158	33	122	25
Item Mean	3.00		2.96		3.00		2.80		2.92		2.71	
<b>Revised Paper Two or More Times</b>												
Never	29	7	21	5	31	7	42	10	24	5	50	10
Occasionally	110	25	118	26	111	27	120	28	129	27	161	33
Often	141	32	153	34	132	32	137	32	144	31	148	30
Very Often	166	37	154	35	141	34	133	31	175	37	136	27
Item Mean	3.00		2.99		2.92		2.84		3.00		2.75	
<b>Asked for Writing Advice</b>												
Never	75	17	53	12	74	18	68	16	66	14	109	22
Occasionally	157	35	187	42	153	37	190	44	186	39	194	39
Often	115	26	118	26	92	22	102	24	122	26	116	23
Very Often	100	22	89	20	96	23	74	17	97	21	75	15
Item Mean	2.54		2.54		2.51		2.42		2.53		2.32	

## EXPERIENCE IN WRITING SCALE

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Prepared major report for class												
Never	171	38	162	36	160	39	187	43	185	39	278	56
Occasionally	128	29	143	32	130	31	147	34	167	35	120	24
Often	79	18	68	15	58	14	52	12	64	14	50	10
Very Often	70	16	74	17	67	16	47	11	56	12	49	10
Item Mean	2.11		2.12		2.08		1.91		1.98		1.74	
Scale Mean	20.46		20.31		20.31		19.35		20.11		18.64	
Standard Dev	4.314		4.326		4.610		4.545		4.437		4.532	
t-test for Equality of Means	4.633		5.004		4.877		1.857		5.08			
df	882		876		843		866		953			
significance (2-tailed)	0.000		0.000		0.000		0.640		0.000			

**Table 6**  
**EXPERIENCES WITH FACULTY**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Asked for Course Information</b>												
Never	3	1	3	1	5	1	3	1	2	0	14	3
Occasionally	91	20	80	18	77	19	97	22	95	20	167	34
Often	168	38	176	39	144	35	163	38	176	37	182	37
Very Often	184	41	187	42	186	45	169	39	199	42	134	27
Item Mean	3.20		3.23		3.24		3.15		3.21		2.88	
<b>Discussed Academic Program with Faculty</b>												
Never	18	4	11	2	9	2	13	3	9	2	29	6
Occasionally	100	22	130	29	107	26	134	31	126	27	196	40
Often	176	39	174	39	137	33	155	36	191	40	164	33
Very Often	153	34	132	30	160	39	128	30	146	31	105	21
Item Mean	3.04		2.96		3.08		2.93		3.00		2.70	
<b>Discussed Term Paper</b>												
Never	25	6	19	4	22	5	23	5	22	5	77	15
Occasionally	153	34	133	30	122	30	165	38	152	32	209	42
Often	148	33	177	40	156	38	149	35	180	38	138	28
Very Often	120	27	116	26	112	27	93	22	118	25	73	15
Item Mean	2.81		2.88		2.87		2.73		2.83		2.42	
<b>Discussed Career Plans with Faculty</b>												
Never	49	11	34	8	26	6	43	10	44	9	95	19
Occasionally	159	36	158	35	144	35	171	40	170	36	203	41
Often	126	28	138	31	124	30	118	27	131	28	126	25
Very Often	112	25	116	26	117	28	98	23	126	27	72	15
Item Mean	2.67		2.75		2.81		2.63		2.72		2.35	
<b>Worked Harder Due to Instructor Feedback</b>												
Never	20	4	14	3	18	4	22	5	15	3	50	10
Occasionally	122	27	116	26	88	21	121	28	116	25	179	36
Often	150	34	172	39	165	40	161	37	187	40	172	35
Very Often	155	35	144	32	140	34	127	29	154	33	94	19
Item Mean	2.98		3.00		3.04		2.91		3.02		2.63	
<b>Socialized with Faculty Outside of Class</b>												
Never	157	35	140	31	127	31	149	35	138	29	251	51
Occasionally	154	34	174	39	160	39	160	37	177	38	153	31
Often	64	14	62	14	58	14	68	16	86	18	55	11
Very Often	72	16	71	16	67	16	53	12	71	15	38	8
Item Mean	2.11		2.14		2.16		2.06		2.19		1.76	

## EXPERIENCES WITH FACULTY

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Discussed with Others Outside of Class</b>												
Never	98	22	78	17	69	17	77	18	82	17	197	40
Occasionally	148	33	181	41	157	38	195	45	204	43	173	35
Often	113	25	101	23	112	27	96	22	105	22	74	15
Very Often	88	20	86	19	73	18	64	15	81	17	53	11
Item Mean	2.43		2.44		2.46		2.34		2.39		1.97	
<b>Asked Instructor About Performance</b>												
Never	35	8	67	15	66	16	91	21	87	18	142	29
Occasionally	126	28	164	37	139	34	165	39	150	32	197	40
Often	147	33	132	30	124	30	111	26	136	29	105	21
Very Often	139	31	83	19	81	20	60	14	99	21	51	10
Item Mean	2.87		2.52		2.54		2.33		2.52		2.13	
<b>Worked to Meet Faculty Expectations</b>												
Never	35	8	27	6	31	8	45	10	36	8	81	16
Occasionally	126	28	138	31	116	28	124	29	152	32	183	37
Often	147	33	166	37	153	37	158	37	155	33	152	31
Very Often	139	31	116	26	112	27	105	24	129	27	81	16
Item Mean	2.87		2.83		2.84		2.75		2.80		2.47	
<b>Worked with Faculty Member on Research</b>												
Never	258	58	256	57	231	56	248	57	242	51	324	66
Occasionally	79	18	91	20	78	19	116	27	132	28	113	23
Often	59	13	59	13	47	11	31	7	49	10	33	7
Very Often	51	11	41	9	56	14	37	9	49	10	24	5
Item Mean	1.78		1.74		1.83		1.67		1.80		1.51	
Scale Mean	26.45		26.47		26.91		25.53		26.48		22.77	
Standard Deviation	7.069		6.486		6.741		6.523		6.740		6.524	
t-test for Equality of Means			7.216		7.374		4.412		2.988			
df			867		826		853		940			
significance (2-tailed)			0.000		0.000		0.000		0.000			

**Table 7**  
**EXPERIENCES WITH ART, MUSIC, THEATRE**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Talked About Art or Theater with Other Students</b>												
Never	160	36	138	31	130	31	136	31	147	31	157	32
Occasionally	140	31	147	33	147	36	160	37	162	34	156	32
Often	51	11	65	15	55	13	52	12	74	16	87	18
Very Often	96	21	97	22	82	20	84	19	89	19	92	19
Item Mean	2.19		2.27		2.21		2.19		2.22		2.23	
<b>Went to Exhibit or Performance</b>												
Never	103	23	101	23	71	17	91	21	107	23	139	28
Occasionally	193	43	174	39	206	50	202	47	203	73	199	40
Often	64	14	82	18	67	16	68	16	83	18	85	17
Very Often	87	19	90	20	69	17	71	16	79	17	70	14
Item Mean	2.30		2.36		2.32		2.28		2.28		2.17	
<b>Participated in Art or Theater Activity</b>												
Never	234	52	216	48	204	49	246	57	241	51	260	53
Occasionally	93	21	98	22	101	24	98	23	114	24	110	22
Often	43	10	60	13	32	8	35	8	52	11	64	13
Very Often	77	17	72	16	76	18	53	12	65	14	58	12
Item Mean	1.92		1.97		1.95		1.76		1.88		1.84	
<b>Talked About Music or Musicians</b>												
Never	119	27	86	19	83	20	96	22	100	21	90	18
Occasionally	114	26	145	32	130	32	138	32	152	32	155	31
Often	98	22	89	20	86	21	89	21	101	21	114	23
Very Often	115	26	127	28	112	27	108	25	118	25	136	27
Item Mean	2.47		2.57		2.55		2.48		2.50		2.60	
<b>Attended a Concert or Other Music Event</b>												
Never	93	21	78	17	66	16	80	19	90	19	103	21
Occasionally	176	40	167	37	172	42	194	45	190	40	187	38
Often	84	19	105	23	86	21	77	18	102	22	105	21
Very Often	90	20	97	22	86	21	78	18	88	19	98	20
Item Mean	2.39		2.49		2.47		2.36		2.40		2.40	
<b>Participated in Some Music Activity</b>												
Never	261	59	240	54	237	57	256	59	271	58	277	56
Occasionally	81	18	104	23	88	21	98	23	112	24	104	21
Often	38	9	38	9	28	7	28	6	42	9	45	9
Very Often	65	15	65	15	60	15	49	11	45	10	69	14
Item Mean	1.79		1.84		1.78		1.70		1.70		1.81	

## EXPERIENCES WITH ART, MUSIC, THEATRE

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Read/Discussed Opinions of Critics												
Never	229	51	203	45	181	44	221	51	220	47	240	49
Occasionally	95	21	131	29	117	28	123	28	134	28	141	29
Often	51	11	52	12	51	12	28	6	52	11	56	11
Very Often	70	16	61	14	64	15	60	14	65	14	55	11
Item Mean	1.91		1.94		2.00		1.83		1.92		1.85	
Scale Mean	14.96		15.45		15.29		14.58		14.94		14.9	
Standard Deviation	6.482		6.027		5.958		5.696		5.752		5.730	
t-test for Equality of Means	0.691		1.927		1.258		-0.113		0.100			
df			875		811		857		949			
significance (2-tailed)	0.489		0.054		0.209		0.910		0.921			

**Table 8  
CAMPUS FACILITIES**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Used a Campus Lounge to Relax or Study</b>												
Never	121	27	114	26	103	25	76	18	80	17	142	29
Occasionally	188	42	164	37	160	39	193	45	225	47	199	40
Often	78	17	98	22	90	22	98	23	82	17	96	19
Very Often	61	14	71	16	60	15	65	15	87	18	58	12
Item Mean	2.18		2.28		2.26		2.35		2.37		2.14	
<b>Met Other Students for Discussion</b>												
Never	66	15	56	13	52	13	50	12	59	12	96	19
Occasionally	202	45	184	41	180	44	214	50	218	46	189	38
Often	116	26	139	31	115	28	114	26	134	28	135	27
Very Often	64	14	68	15	65	16	54	13	62	13	75	15
Item Mean	2.40		2.49		2.47		2.40		2.42		2.38	
<b>Attended Cultural/Social Event</b>												
Never	122	27	103	23	108	26	112	26	112	24	190	38
Occasionally	193	43	188	42	169	41	205	48	229	48	186	38
Often	81	18	101	23	88	21	82	19	81	17	71	14
Very Often	51	11	53	12	48	12	32	7	52	11	47	10
Item Mean	2.14		2.23		2.18		2.08		2.15		1.95	
<b>Went to Lecture or Panel Discussion</b>												
Never	122	27	115	26	121	30	167	39	146	31	229	46
Occasionally	215	48	225	51	203	50	187	44	237	50	179	36
Often	71	16	73	16	50	12	54	13	56	12	49	10
Very Often	37	8	30	7	32	8	21	5	32	7	36	7
Item Mean	2.05		2.04		1.98		1.83		1.94		1.78	
<b>Used a Campus Learning Lab or Center</b>												
Never	156	35	175	39	151	37	184	43	166	35	248	50
Occasionally	186	42	158	35	153	37	153	35	196	41	135	27
Often	68	15	80	18	72	17	59	14	62	13	71	14
Very Often	37	8	33	7	37	9	35	8	50	11	38	8
Item Mean	1.97		1.93		1.99		1.87		1.99		1.79	
<b>Used Campus Recreational Facilities</b>												
Never	155	35	145	33	141	34	115	27	112	24	161	33
Occasionally	180	40	169	38	169	41	165	38	187	39	152	31
Often	68	15	85	19	62	15	83	19	96	20	85	17
Very Often	44	10	47	11	41	10	69	16	79	17	93	19
Item Mean	2.00		2.08		2.01		2.25		2.30		2.22	

## CAMPUS FACILITIES

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Played a Team Sport												
Never	251	56	230	52	245	59	269	62	286	60	286	58
Occasionally	69	15	76	17	61	15	70	16	83	18	70	14
Often	58	13	57	13	36	9	38	9	46	10	53	11
Very Often	69	15	83	19	71	17	55	13	59	12	84	17
Item Means	1.88		1.98		1.84		1.72		1.74		1.87	
Followed Regular Exercise Schedule												
Never	199	45	174	39	173	42	164	38	170	36	172	35
Occasionally	114	26	126	28	130	31	141	33	166	35	157	32
Often	64	14	77	17	56	14	58	13	67	14	83	17
Very Often	69	15	68	15	54	13	67	16	70	15	80	16
Item Means	2.01		2.09		1.98		2.07		2.08		2.14	
Scale Mean	16.62		17.14		16.67		16.56		16.98		16.29	
Standard Deviation	4.951		4.869		4.773		4.54		4.789		5.371	
t-test for Equality of Means	3.051		3.639		1.609		1.674		2.093			
df	879		868		832		849		950			
sig (2-tailed)	0.002		0.000		0.108		0.094		0.037			

**Table 9**  
**CLUBS AND ORGANIZATIONS**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Attended a Meeting of Campus Organization</b>												
Never	147	33	137	31	126	30	161	37	143	30	234	48
Occasionally	125	28	114	26	120	29	119	28	150	32	100	20
Often	68	15	76	17	66	16	69	16	78	16	70	14
Very Often	107	24	120	27	103	25	82	19	102	22	87	18
Item Mean	2.30		2.40		2.35		2.17		2.29		2.02	
<b>Worked on Campus Committee/Organization</b>												
Never	240	54	207	46	202	49	234	54	245	52	320	65
Occasionally	89	20	105	23	100	24	99	23	106	22	62	13
Often	44	10	55	12	39	9	49	11	52	11	45	9
Very Often	75	17	80	18	72	17	50	12	70	15	65	13
Item Mean	1.90		2.02		1.95		1.80		1.89		1.71	
<b>Worked on Off-Campus Committee/Organization</b>												
Never	206	46	193	43	175	42	176	41	203	43	259	53
Occasionally	108	24	101	23	118	29	122	28	137	29	99	20
Often	60	13	69	15	54	13	65	15	54	11	58	12
Very Often	74	17	83	19	67	16	67	16	78	17	75	15
Item Mean	2.00		2.09		2.03		2.05		2.01		1.90	
<b>Met with Faculty to Discuss Campus Group</b>												
Never	239	53	220	49	201	49	234	54	243	52	322	65
Occasionally	106	24	117	26	109	26	129	30	133	28	85	17
Often	64	14	60	13	55	13	43	10	59	13	41	8
Very Often	39	9	50	11	49	12	26	6	35	7	45	9
Item Mean	1.78		1.87		1.88		1.68		1.76		1.61	
<b>Managed an Organization On or Off Campus</b>												
Never	209	47	207	46	193	47	210	49	219	47	289	59
Occasionally	80	18	71	16	74	18	81	19	101	22	72	15
Often	79	18	71	16	63	15	61	14	58	12	61	12
Very Often	78	17	97	22	82	20	77	18	90	19	69	14
Item Mean	2.06		2.13		2.08		2.01		2.04		1.82	
Scale Mean	10.04		10.49		10.30		9.71		9.98		9.03	
Standard Deviation	4.537		4.620		4.589		4.137		4.343		4.44	
t-test for Equality of Means	4.192		4.293		5.006		2.230		3.351			
df	885		881		822		857		952			
significance (2-tailed)	0.000		0.000		0.000		0.026		0.001			

**Table 10**  
**PERSONAL EXPERIENCES**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Told Friend About Reaction to Another</b>												
Never	16	4	15	3	24	6	23	5	20	4	21	4
Occasionally	119	27	89	20	117	28	110	26	149	32	116	24
Often	125	28	151	34	118	29	136	32	133	28	163	33
Very Often	188	42	192	43	153	37	162	38	170	36	193	39
Item Mean	3.08		3.16		2.97		3.01		2.96		3.07	
<b>Discussed Why Some People Got Along</b>												
Never	26	6	23	5	32	8	30	7	26	6	26	5
Occasionally	141	31	97	22	130	32	129	30	170	36	129	26
Often	130	29	167	37	108	26	142	33	138	29	172	35
Very Often	151	34	160	36	142	34	131	30	138	29	163	33
Item Mean	2.91		3.04		2.87		2.87		2.82		2.96	
<b>Asked for Help of Friend with Personal Problem</b>												
Never	31	7	25	6	25	6	27	6	39	8	32	7
Occasionally	127	28	117	26	125	30	136	32	155	33	143	29
Often	128	29	130	29	108	26	133	31	135	29	141	29
Very Often	161	36	174	39	154	37	135	31	143	30	176	36
Item Mean	2.94		3.02		2.95		2.87		2.81		2.94	
<b>Read About Personal Growth/Self-Improvement</b>												
Never	106	24	92	21	80	19	104	24	111	24	120	24
Occasionally	174	39	175	39	160	39	175	41	201	43	181	37
Often	93	21	103	23	96	23	84	19	92	20	111	23
Very Often	74	17	77	17	77	19	69	16	66	14	81	16
Item Mean	2.30		2.37		2.41		2.27		2.24		2.31	
<b>Identified With Character in Book/Movie</b>												
Never	45	10	30	7	42	10	38	9	47	10	39	8
Occasionally	147	33	152	34	152	37	171	40	169	36	175	36
Often	127	28	132	30	111	27	120	28	132	28	141	29
Very Often	129	29	133	30	108	26	103	24	124	26	137	28
Item Mean	2.76		2.82		2.69		2.67		2.71		2.76	
<b>Took Ability/Interest/Attitude Test</b>												
Never	75	17	50	11	64	15	78	18	79	17	96	20
Occasionally	210	47	205	46	189	46	208	48	223	47	242	49
Often	94	21	111	25	87	21	82	19	96	20	89	18
Very Often	69	15	81	18	73	18	62	14	74	16	65	13
Item Mean	2.35		2.50		2.41		2.30		2.35		2.25	

## PERSONAL EXPERIENCES

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Asked Friend His/Her Opinion of You												
Never	82	18	78	17	87	21	98	23	94	20	92	19
Occasionally	169	38	172	38	168	41	193	45	204	43	181	37
Often	106	24	118	26	82	20	76	18	99	21	132	27
Very Often	91	20	79	18	75	18	63	15	75	16	87	18
Item Mean	2.46		2.44		2.35		2.24		2.33		2.43	
Talked with Faculty/Staff About Personal Concern												
Never	177	40	152	34	147	36	176	41	187	40	241	49
Occasionally	160	36	179	40	174	42	156	36	171	36	166	34
Often	69	15	72	16	50	12	65	15	66	14	50	10
Very Often	42	9	44	10	41	10	33	8	48	10	32	7
Item Mean	1.95		2.02		1.96		1.90		1.95		1.74	
Scale Mean	20.75		21.37		20.66		20.13		20.13		20.47	
Standard Deviation	5.730		5.258		5.786		5.417		5.453		5.315	
t-test for Equality of Means	1.072		3.202		1.232		-0.115		-0.958			
df	884		875		831		853		950			
significance (2-tailed)	0.284		0.001		0.218		0.909		0.338			

**Table 11**  
**STUDENT ACQUAINTANCES**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Became Acquainted with Students with Different Interests</b>												
Never	9	2	18	4	12	3	10	2	11	2	19	4
Occasionally	178	40	150	34	164	40	163	38	177	37	209	42
Often	152	34	165	37	150	36	167	39	176	37	171	35
Very Often	110	24	114	26	89	21	93	21	109	23	93	19
Item Mean	2.81		2.84		2.76		2.79		2.81		2.69	
<b>Became Acquainted with Students with Different Backgrounds</b>												
Never	6	1	13	3	7	2	12	3	15	3	19	4
Occasionally	136	30	121	27	138	33	133	31	148	31	172	35
Often	188	42	188	42	164	40	173	40	177	37	183	36
Very Often	119	27	124	28	106	26	114	26	134	28	114	23
Item Mean	2.94		2.95		2.89		2.90		2.91		2.80	
<b>Became Acquainted with Students of Different Ages</b>												
Never	4	1	12	3	7	2	5	1	7	1	9	2
Occasionally	123	27	104	23	104	25	96	22	120	25	133	27
Often	174	39	190	43	166	40	169	39	185	39	194	40
Very Often	147	33	140	31	137	33	163	38	160	34	152	31
Item Mean	3.04		3.03		3.05		3.13		3.06		3.00	
<b>Became Acquainted with Students of Different Races and Ethnic Groups</b>												
Never	10	2	10	2	10	2	9	2	9	2	18	4
Occasionally	135	30	124	28	120	29	130	30	148	31	169	35
Often	186	42	183	41	172	41	169	39	176	37	175	36
Very Often	117	26	129	29	113	27	125	29	141	30	127	26
Item Mean	2.92		2.97		2.93		2.95		2.95		2.84	
<b>Became Acquainted with Students from Other Countries</b>												
Never	50	11	53	12	41	10	59	14	59	12	68	14
Occasionally	204	46	185	41	205	49	215	50	250	53	229	47
Often	111	25	118	26	89	21	89	21	87	18	111	23
Very Often	82	18	90	20	80	19	70	16	78	16	80	16
Item Mean	2.50		2.55		2.50		2.39		2.39		2.42	
<b>Discussions-Different Philosophy/Values</b>												
Never	9	2	45	10	34	8	56	13	50	11	81	17
Occasionally	178	40	163	36	172	41	191	44	184	39	199	41
Often	152	34	148	33	125	30	106	24	146	31	123	25
Very Often	110	24	91	20	84	20	80	18	93	20	86	18
Item Mean	2.81		2.64		2.62		2.48		2.60		2.44	

## STUDENT ACQUAINTANCES

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Discussions-Different Political Opinions												
Never	80	18	53	12	68	16	62	14	62	13	118	24
Occasionally	161	36	176	39	168	40	188	43	194	41	176	36
Often	123	27	138	31	99	24	111	26	119	25	112	23
Very Often	85	19	80	18	80	19	72	17	98	21	85	17
Item Mean	2.47		2.55		2.46		2.45		2.53		2.33	
Discussions-Different Religious Orientations												
Never	58	13	48	11	46	11	78	18	67	14	99	20
Occasionally	170	38	160	36	167	40	172	40	190	40	192	39
Often	121	27	140	31	114	27	105	24	125	26	113	23
Very Often	99	22	99	22	88	21	78	18	91	19	84	17
Item Mean	2.58		2.65		2.59		2.42		2.51		2.37	
Discussions- Students from Different Racial Groups												
Never	77	17	57	13	51	12	65	15	56	12	105	21
Occasionally	172	38	163	36	170	41	191	44	199	42	174	35
Often	120	27	149	33	107	26	101	23	124	26	125	25
Very Often	80	18	78	17	87	21	74	17	95	20	88	18
Item Mean	2.45		2.55		2.55		2.43		2.54		2.4	
Discussions- Students of Different Countries												
Never	141	31	114	26	101	24	136	31	141	30	152	31
Occasionally	175	39	183	41	186	45	196	45	203	43	198	40
Often	73	16	81	18	70	17	56	13	79	17	80	16
Very Often	59	13	69	15	58	14	45	10	51	11	59	12
Item Mean	2.11		2.23		2.20		2.02		2.08		2.09	
Scale Mean	26.38		26.97		26.58		25.97		20.13		20.47	
Standard Deviation	7.025		6.903		6.913		6.855		5.453		5.315	
t-test for Equality of Means	1.807		2.407		2.053		0.929		2.374			
df	882		874		843		859		946			
significance (2-tailed)	0.071		0.016		0.040		-0.089		0.018			

**Table 12**  
**SCIENCE AND QUANTITATIVE EXPERIENCES**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Memorized Formulas, Definitions, Terms</b>												
Never	29	6	26	6	22	5	23	5	31	7	35	7
Occasionally	131	29	125	28	127	31	131	30	112	24	134	27
Often	137	31	135	30	133	32	133	31	166	35	155	32
Very Often	152	34	161	36	134	32	146	34	165	35	167	34
Item Mean	2.92		2.96		2.91		2.93		2.98		2.92	
<b>Expressed Relationships in Math Terms</b>												
Never	87	19	69	15	67	16	72	17	79	17	91	19
Occasionally	178	40	187	42	172	41	202	47	195	41	186	38
Often	98	22	106	24	99	24	92	21	114	24	111	23
Very Often	86	19	85	19	78	19	64	15	85	18	102	21
Item Mean	2.41		2.46		2.45		2.34		2.43		2.46	
<b>Explained Scientific Concept to Others</b>												
Never	98	22	96	21	84	20	91	21	100	21	108	22
Occasionally	192	43	170	38	179	43	180	42	203	43	181	37
Often	96	21	114	26	92	22	98	23	99	21	124	25
Very Often	63	14	67	15	61	15	64	15	72	15	79	16
Item Mean	2.28		2.34		2.31		2.31		2.3		2.35	
<b>Read Articles About Science Not Assigned</b>												
Never	209	47	206	46	185	45	210	48	217	46	200	41
Occasionally	160	36	154	34	141	34	141	33	152	32	167	34
Often	55	12	54	12	48	12	56	13	62	13	69	14
Very Often	25	6	33	7	41	10	26	6	43	9	54	11
Item Mean	1.77		1.81		1.87		1.76		1.85		1.95	
<b>Completed an Experiment Using Scientific Method</b>												
Never	127	28	113	25	102	25	123	28	121	26	140	29
Occasionally	205	46	200	45	189	45	193	45	218	46	193	39
Often	74	17	89	20	84	20	79	18	80	17	102	21
Very Often	42	9	43	10	41	10	38	9	55	12	56	11
Item Mean	2.07		2.14		2.15		2.07		2.15		2.15	
<b>Practiced Using Lab Equipment</b>												
Never	179	40	172	38	162	39	201	46	176	37	204	42
Occasionally	185	41	187	42	176	42	166	38	202	43	161	33
Often	49	11	54	12	42	10	44	10	51	11	69	14
Very Often	35	8	34	8	35	8	22	5	45	9	57	12
Item Mean	1.87		1.89		1.88		1.74		1.93		1.96	

## SCIENCE AND QUANTITATIVE EXPERIENCES

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Showed How to Use Scientific Equipment</b>												
Never	191	43	188	42	173	42	193	45	190	40	212	43
Occasionally	183	41	174	39	168	40	175	41	189	40	156	32
Often	47	10	53	12	41	10	43	10	56	12	77	16
Very Often	27	6	32	7	33	8	21	5	38	8	45	9
Item Mean	1.80		1.84		1.84		1.75		1.88		1.91	
<b>Explained Experimental Procedure</b>												
Never	166	37	147	33	130	31	163	38	149	32	170	35
Occasionally	196	44	206	46	205	50	192	44	225	48	179	37
Often	49	11	60	13	44	11	59	14	57	12	87	18
Very Often	36	8	33	7	35	8	19	4	42	9	51	10
Item Mean	1.90		1.95		1.96		1.85		1.98		2.04	
<b>Compared Scientific Method with Other Methods</b>												
Never	205	46	190	43	163	39	201	47	174	37	205	42
Occasionally	167	37	179	40	172	41	162	38	209	44	175	36
Often	46	10	54	12	50	12	56	13	57	12	67	14
Very Often	31	7	24	5	31	7	13	3	34	7	44	9
Item Mean	1.78		1.80		1.88		1.72		1.90		1.90	
<b>Explained Scientific Basis for Concerns</b>												
Never	181	40	175	39	147	35	187	43	169	36	179	36
Occasionally	176	39	172	38	179	43	169	39	198	42	182	37
Often	56	13	63	14	58	14	56	13	69	15	78	16
Very Often	35	8	55	13	31	7	20	5	37	8	52	11
Item Mean	1.88		2.00		1.93		1.79		1.95		2.01	
Scale Mean	20.6		21.13		21.13		20.28		21.35		21.69	
Standard Deviation	6.915		7.068		7.173		6.551		7.165		7.632	
t-test for Equality of Means	-2.652		-1.009		-1.463		-2.940		-0.711			
df	876		871		831		831		942			
significance (2-tailed)	0.008		0.313		0.144		0.003		0.477			

**Table 13**  
**TOPICS OF CONVERSATION**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Topic-Current Events in the News												
Never	2	0	6	1	8	2	9	2	4	1	8	2
Occasionally	99	22	83	19	91	22	113	26	127	27	141	29
Often	177	40	190	43	164	40	151	35	172	36	187	38
Very Often	167	38	166	37	149	36	160	37	170	36	156	32
Item Mean	3.14		3.16		3.10		3.07		3.07		3.00	
Topic-Major Social Issues-Peace, Justice, etc.												
Never	19	4	16	4	23	6	28	6	19	4	34	7
Occasionally	151	34	160	36	145	35	159	37	177	38	177	36
Often	145	33	152	34	144	35	132	31	146	31	166	34
Very Often	130	29	118	26	101	24	113	26	130	28	114	23
Item Mean	2.87		2.83		2.78		2.76		2.82		2.73	
Topic-Different Lifestyles, etc.												
Never	10	2	12	3	8	2	14	3	17	4	26	5
Occasionally	130	29	120	27	140	34	141	33	158	33	175	36
Often	166	37	184	41	141	34	158	37	168	35	185	38
Very Often	139	31	129	29	123	30	119	28	131	28	104	21
Item Mean	2.98		2.97		2.92		2.88		2.87		2.75	
Topic-Ideas of Writers, etc.												
Never	66	15	68	15	63	15	74	17	71	15	96	20
Occasionally	176	40	201	45	166	40	187	43	192	41	207	42
Often	116	26	106	24	109	26	106	25	122	26	118	24
Very Often	87	20	71	16	75	18	64	15	88	19	70	14
Item Mean	2.50		2.40		2.47		2.37		2.48		2.33	
Topic-Fine Arts												
Never	78	18	74	17	73	18	64	15	67	14	98	20
Occasionally	173	39	188	42	159	38	179	41	204	43	197	40
Often	92	21	97	22	93	23	113	26	111	23	117	24
Very Often	102	23	87	20	88	21	77	18	91	19	80	16
Item Mean	2.49		2.44		2.47		2.47		2.48		2.36	
Topic-Science-Theories, Experiments, Etc.												
Never	151	34	163	36	141	34	156	36	160	34	173	35
Occasionally	199	45	191	43	190	46	195	45	201	42	198	40
Often	60	14	53	12	46	11	60	14	73	15	80	16
Very Often	34	8	40	9	37	9	21	5	40	8	40	8
Item Mean	1.95		1.93		1.95		1.88		1.99		1.97	

## TOPICS OF CONVERSATION

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Topic-Computers and Other Technologies												
Never	49	11	52	12	50	12	50	12	67	14	67	14
Occasionally	226	51	200	45	205	50	211	49	209	44	214	44
Often	99	22	133	30	105	25	119	28	131	28	127	26
Very Often	70	16	62	14	54	13	50	12	67	14	82	17
Item Mean	2.43		2.46		2.39		2.39		2.42		2.46	
Topic-Social/Ethical Issues Rel to Sci												
Never	68	15	66	15	75	18	75	17	64	14	87	18
Occasionally	207	47	204	46	193	47	195	45	212	45	208	42
Often	104	23	108	24	87	21	104	24	115	24	125	25
Very Often	64	14	68	15	59	14	58	13	83	18	71	14
Item Mean	2.37		2.40		2.31		2.34		2.46		2.37	
Topic-Economy												
Never	28	6	22	5	27	7	25	6	21	4	41	8
Occasionally	156	35	147	33	162	39	154	36	162	34	180	37
Often	158	36	164	37	133	32	164	38	166	35	177	36
Very Often	103	23.0	113	25.0	92	22.0	90	21	125	26	93	19
Item Mean	2.76		2.83		2.70		2.74		2.83		2.66	
Topic-International Relations												
Never	55	12	37	8	51	12	45	10	47	10	71	14
Occasionally	160	36	171	38	159	38	169	39	185	39	185	38
Often	125	28	132	30	98	24	126	29	134	28	137	28
Very Often	105	24	107	24	106	26	93	21	108	23	97	20
Item Mean	2.63		2.69		2.63		2.52		2.64		2.53	
Scale Mean	26.11		26.13		25.75		25.51		26.08		25.18	
Standard Deviation	6.561		6.092		6.534		6.219		6.405		6.212	
t-test for Equality of Means	0.522		0.361		0.095		0.162		2.205			
df	874		874		819		852		948			
significance (2-tailed)	0.602		0.178		0.924		0.162		0.028			

**Table 14**  
**INFORMATION IN CONVERSATIONS**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Referred to Readings or Classes</b>												
Never	10	2	8	2	12	3	6	1	7	2	21	4
Occasionally	120	27	115	26	111	27	121	28	138	30	149	31
Often	186	42	184	42	166	41	185	43	183	40	199	41
Very Often	124	28	131	30	118	29	116	27	135	29	112	23
Item Mean	2.96		3.00		2.96		2.96		2.96		2.84	
<b>Explored Different Ways of Thinking</b>												
Never	10	2	12	3	14	3	12	3	10	2	21	4
Occasionally	149	34	148	34	129	32	150	35	148	32	178	37
Often	173	39	183	42	172	42	185	43	176	38	184	38
Very Often	107	24	94	22	92	23	81	19	129	28	97	20
Item Mean	2.86		2.82		2.84		2.78		2.92		2.74	
<b>Referred to Something Instructor Said</b>												
Never	11	3	6	1	15	4	4	1	9	2	18	4
Occasionally	136	31	133	30	130	32	146	34	145	31	176	37
Often	174	40	189	43	154	38	185	43	186	40	184	38
Very Often	118	27	110	25	108	27	93	22	123	27	103	21
Item Mean	2.91		2.92		2.87		2.86		2.91		2.77	
<b>Subsequently Read Something on a Topic</b>												
Never	35	8	21	5	22	5	24	6	22	5	41	9
Occasionally	159	36	182	42	148	36	180	42	209	45	205	43
Often	155	35	160	37	153	38	147	34	138	30	167	35
Very Often	91	21	75	17	84	21	77	18	95	20	68	14
Item Mean	2.69		2.66		2.73		2.65		2.66		2.54	
<b>Changed Opinion Because of Others</b>												
Never	33	8	39	9	37	9	37	9	33	7	40	8
Occasionally	240	55	256	58	216	53	269	63	294	63	265	55
Often	106	24	104	24	101	25	84	20	91	20	128	27
Very Often	61	14	39	9	51	13	38	9	46	10	49	10
Item Mean	2.44		2.33		2.41		2.29		2.32		2.39	

## INFORMATION IN CONVERSATIONS

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Persuaded Others to Change Their Minds												
Never	55	13	33	8	38	9	42	10	46	10	43	9
Occasionally	222	50	224	51	203	50	244	57	254	55	241	50
Often	100	23	131	30	106	26	93	22	118	25	133	28
Very Often	63	14	49	11	58	14	49	11	45	10	64	13
Item Mean	2.39		2.45		2.45		2.35		2.35		2.45	
Scale Mean	26.11		16.17		16.28		15.88		16.10		15.72	
Standard Deviation	6.561		3.723		4.106		3.652		3.795		3.822	
t-test for Equality of Means	1.013		1.637		0.481		-0.006		2.205			
df	866		865		796		849		948			
significance (2-tailed)	0.311		0.102		0.630		0.995		0.030			

**Table 15**

## READING, WRITING, AND COLLEGE OPINION

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Number of Texts Read												
None	23	5	13	3	19	5	25	6	25	5	16	3
Fewer than 5	145	33	167	38	160	30	185	43	179	38	177	36
Between 5 and 10	162	36	150	34	136	33	125	29	168	36	183	37
Between 10 and 20	82	18	67	15	64	15	64	15	68	14	83	17
More than 20	33	7	47	11	35	8	33	8	31	7	30	6
Item Mean	2.93		3.14		2.76		2.79		2.87			
t-test	1.326				-1.076		-1.211					
df	879				865		953					
significance	0.185				0.282		0.226					
Number of Course Packets Read												
None	67	15	56	13	61	15	74	17	65	14	79	17
Fewer than 5	179	41	205	47	177	43	178	42	198	43	218	46
Between 5 and 10	109	25	111	25	90	22	101	24	120	26	115	24
Between 10 and 20	54	12	39	9	39	10	42	10	46	10	45	9
More than 20	27	6	27	6	41	10	30	7	35	8	21	4
Item Mean	2.49		2.56		2.47		2.54		2.40			
t-test	1.540				1.245		2.157					
df	864				848		930					
significance	0.124				0.213		0.031					
Number of Non-Assigned Books Read												
None	76	17	82	19	64	16	78	18	101	22	145	30
Fewer than 5	197	45	181	41	191	47	201	47	203	44	219	45
Between 5 and 10	79	18	89	20	83	20	82	19	78	17	67	14
Between 10 and 20	45	10	47	11	48	12	44	10	46	10	33	7
More than 20	39	9	38	9	24	6	22	5	37	8	18	4
Item Mean	2.49		2.46		2.37		2.39		2.09			
t-test	3.066				1.31		4.213					
df	867				847		920					

significance			0.002				0.191			0.000		
Number of Essay Exams in Courses												
None	19	4	24	5	25	6	32	7	38	8	35	7
Fewer than 5	114	26	120	27	111	27	135	32	129	28	146	30
Between 5 and 10	135	31	150	34	122	30	126	29	128	27	169	35
Between 10 and 20	111	25	82	18	104	25	81	19	123	26	95	20
More than 20	62	14	68	15	50	12	54	13	51	11	42	9
Item Mean			3.11		3.10		2.98		3.04		2.92	
t-test			3.482				1.813		1.665			
df			874				851		943			
significance			0.002				0.070		0.096			

## READING, WRITING, AND COLLEGE OPINION

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
Number of Term Papers/Written Reports												
None	16	4	14	3	13	3	13	3	26	6	40	8
Fewer than 5	131	30	159	36	127	31	147	35	146	32	186	39
Between 5 and 10	152	35	126	29	120	29	132	31	142	31	124	26
Between 10 and 20	86	20	85	19	82	20	77	18	100	22	91	19
More than 20	48	11	56	13	65	16	52	12	47	10	35	7
Item Mean			3.01		3.14		3.02		2.99		2.78	
t-test			3.613				3.793		3.001			
df			863				844		934			
significance			0.000				0.000		0.003			

### How Well College is Liked

Do not Like It			13	3	7	2	6	1	11	2	12	2
More or Less Neutral			54	12	40	10	51	12	43	9	77	16
Like It			233	52	200	48	196	45	210	45	263	54
Enthusiastic			147	33	167	40	179	41	206	44	138	28
Item Mean			3.15		3.27		3.27		3.30		3.08	
t-test			0.319				3.839		4.761			
df			881				862		956			
significance			0.750				0.000		0.000			

### Would Attend Same Institution Again

No, Definitely			27	6	14	3	11	3	22	5	27	6
Probably No			60	13	44	11	47	11	50	11	88	18
Probably Yes			172	39	176	43	163	38	165	35	198	41
Yes, Definitely			187	42	180	43	210	49	232	49	172	35
Item Mean			3.16		3.26		3.33		3.29		3.06	
t-test			1.935				5.758		4.201			
df			882				845		952			
significance			0.053				0.000		0.000			

### Overall Opinion of College

1		0	0	0	0	0	0	0	0	0	0	0	
2	Low	7	2	9	2	3	1	3	1	7	1	6	1
3		14	3	4	1	7	2	4	1	10	2	12	2
4		16	4	32	7	14	3	23	5	18	4	42	9
5		49	11	58	13	50	12	39	9	47	10	75	15
6		129	29	135	30	123	30	112	26	117	25	159	33
7		125	28	106	24	102	25	133	31	120	26	97	20
8	High	106	24	102	23	115	28	117	27	149	32	93	19
Scale Mean		6.42		6.31		6.53		6.60		6.59		6.13	
t-test				1.381				5.797		5.179			
	df			877				849		949			
	significance			0.168				0.000		0.000			

**Table 16**  
**MEASURES OF COLLEGE ENVIRONMENT**

	01-02		02-03		03-04		04-05		05-06		Peer Group		
	#	%	#	%	#	%	#	%	#	%	#	%	
<b>Academic, Scholarly, Intellectual Qualities</b>													
Weak Emphasis	1	4	1	3	1	0	0	1	0	0	0	3	1
	2	6	1	7	2	3	1	0	0	3	1	10	2
	3	13	3	10	2	7	2	8	2	4	1	25	5
	4	49	11	50	11	38	9	51	12	49	10	73	15
	5	90	20	103	23	91	22	96	22	107	23	174	36
	6	148	33	147	33	150	36	144	33	155	33	111	23
Strong Emphasis	7	136	30	123	28	127	31	133	31	155	33	88	18
Scale Mean		5.70		5.65		5.82		5.78		5.84		5.25	
Standard Deviation		1.249		1.213		1.062		1.086		1.060		1.240	
<b>Aesthetic, Expressive, and Creative Qualities</b>													
Weak Emphasis	1	2	0	3	1	0	0	1	0	2	0	8	2
	2	7	2	5	1	6	1	5	1	4	1	14	3
	3	26	6	9	2	13	3	15	3	22	5	52	11
	4	64	14	55	12	54	13	58	13	52	11	116	24
	5	86	19	116	26	98	24	113	26	111	23	128	27
	6	125	28	134	30	127	31	113	26	147	31	100	21
Strong Emphasis	7	136	30	121	27	118	28	128	30	135	29	65	13
Scale Mean		5.70		5.62		5.64		5.61		5.64		4.87	
Standard Deviation		1.249		1.194		1.193		1.222		1.221		1.389	
<b>Critical, Evaluative and Analytical</b>													
Weak Emphasis	1	2	0	1	0	1	0	1	0	1	0	3	1
	2	9	2	5	1	2	0	3	1	3	1	9	2
	3	14	3	23	5	12	3	8	2	19	4	43	9
	4	62	14	59	13	51	12	60	14	54	11	109	23
	5	96	22	110	25	115	28	104	24	111	23	132	27
	6	144	32	147	33	128	31	137	32	149	32	110	23
Strong Emphasis	7	118	27	95	22	106	26	120	28	136	29	75	16
Scale Mean		5.57		5.48		5.61		5.67		5.67		5.05	
Standard Deviation		1.256		1.204		1.130		1.139		1.178		1.306	

## MEASURES OF COLLEGE ENVIRONMENT

	01-02		02-03		03-04		04-05		05-06		Peer Group		
	#	%	#	%	#	%	#	%	#	%	#	%	
<b>Understanding and Appreciating Human Diversity</b>													
Weak Emphasis	1	13	3	4	1	4	1	4	1	2	0	11	2
	2	5	1	7	2	12	3	8	2	8	2	19	4
	3	27	6	32	7	19	5	22	5	28	6	38	8
	4	66	15	71	16	64	15	75	17	72	15	106	22
	5	91	20	117	26	90	22	84	19	102	22	115	24
	6	119	27	110	25	120	29	118	27	125	26	99	20
Strong Emphasis	7	123	28	103	23	107	26	122	28	135	29	96	20
Scale Mean	5.40		5.32		5.43		5.47		5.50		5.02		
Standard Deviation	1.477		1.345		1.373		1.369		1.332		1.501		
<b>Information Literacy</b>													
Weak Emphasis	1	4	1	2	0	2	0	1	0	0	0	4	1
	2	11	2	9	2	8	2	8	2	6	1	9	2
	3	26	6	18	4	17	4	11	3	18	4	28	6
	4	59	13	57	13	53	13	65	15	68	14	66	14
	5	112	25	108	24	101	24	105	24	124	26	128	26
	6	112	25	144	32	118	28	124	29	122	26	134	28
Strong Emphasis	7	122	27	106	24	117	28	119	27	133	28	115	24
Scale Mean	5.44		5.51		5.56		5.57		5.56		5.41		
Standard Deviation	1.374		1.251		1.281		1.232		1.218		1.315		
<b>Vocational and Occupational Competence</b>													
Weak Emphasis	1	10	2	12	3	12	3	6	1	8	2	13	3
	2	24	5	16	4	16	4	18	4	23	5	18	4
	3	33	7	34	8	45	11	42	10	49	10	46	10
	4	91	20	98	22	84	20	102	24	95	20	122	25
	5	124	28	117	26	112	27	102	24	113	24	108	22
	6	93	21	108	24	79	19	85	20	100	21	107	22
Strong Emphasis	7	71	16	59	13	68	16	78	18	85	18	70	14
Scale Mean	4.92		4.92		4.87		4.95		4.95		4.85		
Standard Deviation	1.479		1.434		1.508		1.462		1.502		1.476		
<b>Personal Relevance and Practical Values of Courses</b>													
Weak Emphasis	1	8	2	10	2	5	1	8	2	4	1	7	1
	2	13	3	11	2	17	4	6	1	21	4	15	3
	3	25	6	30	7	28	7	26	6	25	5	35	7
	4	74	17	82	18	71	17	82	19	76	16	99	20
	5	111	25	114	26	100	24	90	21	116	25	145	30
	6	118	26	124	28	107	26	125	29	140	30	96	20
Strong Emphasis	7	97	22	73	16	88	21	96	22	90	19	87	18
Scale Mean	5.26		5.12		5.20		5.31		5.24		5.06		
Standard Deviation	1.418		1.402		1.438		1.391		1.383		1.386		

## MEASURES OF COLLEGE ENVIRONMENT

	01-02		02-03		03-04		04-05		05-06		Peer Group		
	#	%	#	%	#	%	#	%	#	%	#	%	
Relationship with Other Students, Student Grps, and Activities													
Competitive	1	4	1	5	1	3	1	5	1	2	0	3	1
	2	6	1	5	1	7	2	5	1	12	3	9	2
	3	12	3	9	2	7	2	12	3	13	3	16	3
	4	26	6	41	9	24	6	40	9	41	9	53	11
	5	60	13	61	14	63	15	58	13	73	15	100	21
	6	158	35	159	36	155	37	148	34	180	38	154	32
Friendly	7	180	40	164	37	155	37	165	38	152	32	150	31
Scale Mean		5.97		5.89		5.95		5.88		5.79		5.68	
Standard Deviation		1.206		1.229		1.168		1.263		1.241		1.266	
Relationship with Faculty Members													
Remote	1	5	1	3	1	2	0	3	1	1	0	9	2
	2	6	1	7	2	5	1	3	1	9	2	15	3
	3	11	2	12	3	5	1	9	2	13	3	28	6
	4	42	9	32	7	26	6	36	8	32	7	62	13
	5	62	14	87	20	62	15	69	16	76	16	116	24
	6	163	37	163	37	171	41	140	32	162	34	135	28
Approachable	7	157	35	140	32	144	35	173	40	180	38	118	24
Scale Mean		5.84		5.80		5.96		5.95		5.92		5.36	
Standard Deviation		1.250		1.194		1.082		1.168		1.188		1.439	
Relationship with Admin Personnel and Offices													
Rigid	1	14	3	12	3	14	3	9	2	19	4	12	2
	2	14	3	14	3	14	3	20	5	22	5	21	4
	3	20	4	19	4	19	5	25	6	25	5	46	10
	4	72	16	62	14	46	11	50	12	51	11	79	16
	5	101	23	108	24	101	24	90	21	108	23	113	23
	6	141	32	144	32	136	33	135	31	142	30	129	27
Helpful	7	84	19	85	19	85	20	103	24	106	22	84	17
Scale Mean		5.22		5.28		5.30		5.34		5.23		5.03	
Standard Deviation		1.466		1.430		1.483		1.502		1.590		1.515	

**Table 17**  
**ESTIMATE OF GAINS**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Vocational Preparation</b>												
Very Little	23	5	19	4	19	5	13	2	20	4	29	6
Some	87	20	98	22	67	16	90	21	93	20	138	29
Quite a Bit	180	40	173	39	178	43	167	39	187	40	199	41
Very Much	156	35	154	35	151	36	163	38	173	37	116	24
Item Mean	3.05		3.04		3.11		3.11		3.08		2.83	
t-test	0.780		0.589		1.029		1.997		4.519			
significance	0.436		0.556		0.304		0.046		0.000			
<b>Skills for Professional Career</b>												
Very Little	12	3	14	3	11	3	11	3	14	3	27	6
Some	110	25	111	25	85	20	88	20	100	21	161	33
Quite a Bit	198	44	181	41	184	44	191	44	196	41	191	40
Very Much	126	28	139	31	135	33	143	33	164	35	102	21
Item Mean	2.98		3.00		3.07		3.08		3.08		2.77	
t-test	1.569		0.900		2.349		2.366		5.766			
significance	0.117		0.369		0.019		0.018		0.000			
<b>Broad General Education</b>												
Very Little	8	2	7	2	4	1	5	1	12	3	16	3
Some	88	20	92	21	73	18	85	20	88	19	138	29
Quite a Bit	213	48	217	49	203	49	205	48	219	46	232	48
Very Much	136	31	128	29	133	32	136	32	155	33	95	20
Item Mean	3.07		3.05		3.13		3.10		3.09		2.84	
t-test	3.165		1.360		4.968		2.982		4.917			
significance	0.002		0.174		0.000		0.003		0.000			
<b>Career Information</b>												
Very Little	13	3	12	3	9	2	8	2	11	2	14	3
Some	75	17	73	16	64	15	68	16	79	17	109	23
Quite a Bit	183	41	203	46	170	41	186	43	197	42	217	45
Very Much	173	39	155	35	170	41	168	39	186	39	137	29
Item Mean	3.16		3.13		3.21		3.20		3.18		3.00	
t-test	1.701		-0.291		2.144		2.122		3.494			
significance	0.089		0.771		0.032		0.034		0.000			
<b>Enjoyment of Art, Music, and Drama</b>												
Very Little	84	19	64	14	60	14	74	17	69	15	99	21
Some	146	33	180	41	120	29	151	35	161	34	192	40
Quite a Bit	108	24	103	23	120	29	116	27	134	28	128	27
Very Much	107	24	96	22	114	28	91	21	109	23	60	13
Item Mean	2.53		2.52		2.70		2.52		2.60		2.31	
t-test	3.975		2.899		5.565		3.447		4.576			
significance	0.000		0.004		0.000		0.001		0.000			

**ESTIMATE OF GAINS**

	01-02		02-03		03-04		04-05		05-06		Peer Group	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Acquaintance with Literature</b>												
Very Little	59	13	50	11	54	13	65	15	60	13	84	17
Some	130	29	166	37	130	31	162	38	171	36	188	39
Quite a Bit	164	37	136	31	126	30	127	30	140	30	137	28
Very Much	93	21	92	21	104	25	76	18	102	22	72	15
Item Mean	2.65		2.61		2.68		2.50		2.60		2.41	
t-test	5.171		3.957		5.134		1.764		3.090			
significance	0.000		0.000		0.000		0.078		0.002			
<b>Understanding History</b>												
Very Little	38	9	27	6	26	6	44	10	46	10	64	13
Some	119	27	149	34	107	26	134	31	130	27	174	36
Quite a Bit	168	38	144	32	165	40	154	36	159	34	157	33
Very Much	121	27	124	28	116	28	99	23	139	29	86	18
Item Mean	2.83		2.82		2.90		2.71		2.82		2.55	
t-test	4.833		4.690		5.378		1.323		4.462			
significance	0.000		0.000		0.000		0.186		0.000			
<b>Knowledge About World</b>												
Very Little	50	11	49	11	51	12	55	13	62	13	106	22
Some	154	35	160	36	152	37	160	37	165	35	181	38
Quite a Bit	157	35	148	33	124	30	131	30	151	32	130	27
Very Much	85	19	87	20	85	21	85	20	94	20	63	13
Item Mean	2.62		2.61		2.59		2.57		2.59		2.31	
t-test	5.191		5.297		4.319		3.737		4.429			
significance	0.000		0.000		0.000		0.000		0.000			
<b>Writing Effectively</b>												
Very Little	3	1	9	2	12	3	8	2	8	2	21	4
Some	73	16	80	18	71	17	76	18	88	19	145	30
Quite a Bit	192	43	206	47	168	41	176	41	187	40	203	42
Very Much	176	40	145	33	162	39	168	39	188	40	112	23
Item Mean	3.22		3.11		3.16		3.18		3.18		2.84	
t-test	5.417		2.774		5.108		4.304		6.374			
significance	0.000		0.006		0.000		0.000		0.000			
<b>Speaking Effectively</b>												
Very Little	7	2	6	1	10	2	8	2	4	1	15	3
Some	72	16	76	17	68	16	66	15	85	18	140	29
Quite a Bit	201	45	216	49	183	44	209	48	198	42	226	47
Very Much	165	37	146	33	152	37	148	34	186	39	101	21
Item Mean	3.18		3.13		3.15		3.15		3.20		2.86	
t-test	3.709		2.958		3.120		3.522		6.851			
significance	0.000		0.003		0.002		0.000		0.000			

### ESTIMATE OF GAINS

	01-02	02-03	03-04	04-05	05-06	Peer Group
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	#	%	#	%	#	%	#	%	#	%	#	%
<b>Using Computers, Other Info Tech</b>												
Very Little	20	4	11	2	13	3	10	2	12	3	17	4
Some	88	20	77	17	65	16	82	19	99	21	124	26
Quite a Bit	163	37	185	42	158	38	172	40	179	38	191	40
Very Much	174	39	171	39	178	43	166	39	183	39	149	31
Item Mean	3.10		3.16		3.21		3.15		3.13		2.98	
t-test	-0.277		2.742		2.414		1.520		2.694			
significance	0.782		0.006		0.016		0.129		0.007			
<b>Philosophies, Cultures, and Ways of Life</b>												
Very Little	21	5	11	2	14	3	18	4	16	3	41	9
Some	105	24	133	30	102	25	130	30	120	25	165	34
Quite a Bit	197	44	188	42	167	40	163	38	206	43	176	37
Very Much	122	27	112	25	130	31	119	28	132	28	99	21
Item Mean	2.94		2.90		3.00		2.89		2.96		2.69	
t-test	4.617		4.741		4.651		3.562		4.798			
significance	0.000		0.000		0.000		0.000		0.000			
<b>Values and Ethical Standards</b>												
Very Little	17	4	12	3	16	4	14	3	12	3	23	5
Some	83	19	92	21	70	17	86	20	91	19	124	26
Quite a Bit	171	38	177	40	155	38	160	37	176	37	187	39
Very Much	175	39	163	37	171	42	170	40	195	41	147	31
Item Mean	3.13		3.11		3.17		3.13		3.17		2.95	
t-test	4.216		3.378		3.004		2.790		3.956			
significance	0.000		0.001		0.003		0.005		0.000			
<b>Understanding Self</b>												
Very Little	12	3	2	0	6	1	6	1	3	1	13	3
Some	47	11	51	11	37	9	52	12	67	14	84	17
Quite a Bit	167	37	166	37	161	39	161	37	166	35	220	46
Very Much	220	49	225	51	210	51	212	49	237	50	164	34
Item Mean	3.33		3.38		3.39		3.34		3.35		3.11	
t-test	3.653		3.562		4.734		3.091		4.752			
significance	0.000		0.000		0.000		0.002		0.000			
<b>Getting Along with Others</b>												
Very Little	14	3	8	2	8	2	9	2	6	1	19	4
Some	63	14	52	12	50	12	64	15	72	15	86	18
Quite a Bit	171	38	191	43	156	38	168	39	191	40	213	44
Very Much	197	44	193	43	200	48	190	44	203	43	163	34
Item Mean	3.24		3.28		3.32		3.25		3.25		3.08	
t-test	3.171		3.654		4.926		2.625		3.352			
significance	0.002		0.000		0.000		0.009		0.001			

## ESTIMATE OF GAINS

01-02		02-03		03-04		04-05		05-06		Peer Group	
#	%	#	%	#	%	#	%	#	%	#	%

**Function as a Team Member**

Very Little	11	2	10	2	7	2	12	3	11	2	24	5
Some	80	18	76	17	69	17	72	17	89	19	124	26
Quite a Bit	161	36	186	42	151	37	171	40	165	35	177	37
Very Much	194	43	171	39	186	45	176	41	206	44	152	32
Item Mean	3.21		3.17		3.25		3.19		3.20		2.96	
t-test	2.230		1.560		3.176		1.817		4.390			
significance	0.026		0.119		0.002		0.07		0.000			

**Personal Health and Physical Fitness**

Very Little	64	14	49	11	47	11	60	14	64	14	50	10
Some	137	31	135	30	130	31	124	29	158	33	168	35
Quite a Bit	135	30	159	36	129	31	142	33	145	31	165	34
Very Much	108	24	101	23	107	26	104	24	105	22	97	20
Item Mean	2.65		2.70		2.72		2.67		2.62		2.64	
t-test	0.919		1.129		1.466		0.808		-0.443			
significance	0.358		0.259		0.143		0.419		0.658			

**Understanding Science**

Very Little	70	16	58	13	54	13	65	15	74	16	83	17
Some	179	40	182	41	169	41	176	41	168	36	186	39
Quite a Bit	133	30	138	31	112	27	122	28	132	28	142	30
Very Much	63	14	64	14	78	19	66	15	99	21	70	15
Item Mean	2.42		2.47		2.52		2.44		2.54		2.41	
t-test	-0.078		-0.141		1.058		-0.212		2.040			
significance	0.938		0.888		0.290		0.832		0.042			

**Understanding New Technology**

Very Little	77	17	65	15	67	16	71	17	68	14	83	17
Some	168	38	174	39	152	37	172	40	180	38	184	38
Quite a Bit	136	31	146	33	114	28	121	28	139	29	141	29
Very Much	63	14	59	13	81	20	64	15	85	18	71	15
Item Mean	2.42		2.47		2.50		2.42		2.51		2.42	
t-test	-0.174		-0.168		0.490		-0.548		1.517			
significance	0.862		0.866		0.625		0.584		0.130			

**Consequences of Science, Technology**

Very Little	71	16	59	13	57	14	59	14	66	14	62	13
Some	150	34	162	36	134	32	179	42	175	37	177	37
Quite a Bit	154	35	149	34	146	35	122	28	124	26	153	32
Very Much	69	16	74	17	77	19	70	16	108	23	88	18
Item Mean	2.50		2.54		2.59		2.47		2.58		2.56	
t-test	-0.107		-0.723		0.401		-1.753		0.369			
significance	0.915		0.470		0.688		0.080		0.712			

**ESTIMATE OF GAINS**

01-02		02-03		03-04		04-05		05-06		Peer Group	
#	%	#	%	#	%	#	%	#	%	#	%

**Thinking Analytically**

Very Little	12	3	12	3	16	4	8	2	13	3	20	4
Some	82	19	79	18	73	18	76	18	74	16	127	27
Quite a Bit	190	43	198	45	182	44	191	45	192	41	204	43
Very Much	159	36	155	35	143	35	151	35	190	41	125	26
Item Mean	3.12		3.12		3.09		3.14		3.19		2.91	
t-test	1.443		2.292		0.989		2.005		5.282			
significance	0.150		0.022		0.323		0.045		0.000			

**Analyzing Quantitative Problems**

Very Little	69	16	59	13	45	11	62	14	55	12	52	11
Some	151	34	153	35	139	34	147	34	150	32	183	38
Quite a Bit	137	31	151	34	144	35	143	33	158	33	152	32
Very Much	88	20	80	18	86	21	78	18	110	23	94	20
Item Mean	2.55		2.57		2.65		2.55		2.68		2.6	
t-test	-0.683		-0.102		0.127		-0.716		1.383			
significance	0.495		0.919		0.899		0.474		0.167			

**Synthesizing Ideas**

Very Little	15	3	8	2	8	2	8	2	6	1	11	2
Some	70	16	71	16	65	16	84	20	76	16	126	26
Quite a Bit	199	45	204	46	192	46	185	43	198	42	210	44
Very Much	160	36	160	36	148	36	152	35	192	41	129	27
Item Mean	3.14		3.16		3.16		3.12		3.22		2.96	
t-test	2.630		2.931		2.489		2.579		5.175			
significance	0.009		0.003		0.013		0.010		0.000			

**Learning on One's Own**

Very Little	12	3	4	1	5	1	4	1	4	1	17	4
Some	48	11	52	12	50	12	53	12	57	12	103	22
Quite a Bit	181	41	191	43	159	38	177	41	165	35	197	41
Very Much	204	46	197	44	199	48	196	46	246	52	160	34
Item Mean	3.30		3.31		3.34		3.31		3.38		3.05	
t-test	2.616		3.210		3.791		3.804		6.606			
significance	0.009		0.001		0.000		0.000		0.000			

**Adapting to Change**

Very Little	13	3	6	1	8	2	7	2	7	1	20	4
Some	65	15	64	14	65	16	64	15	80	17	113	24
Quite a Bit	167	38	178	40	150	36	164	38	179	38	197	41
Very Much	200	45	196	44	191	46	195	45	207	44	148	31
Item Mean	3.24		3.27		3.27		3.27		3.24		2.99	
t-test	3.131		3.715		2.981		3.767		4.725			
significance	0.002		0.000		0.003		0.000		0.000			

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