

**Transitions During the Freshman and Sophomore Years of College:
Year Two of CSUN's Learning Habits Project***

by

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Highlights from

Transitions During the Freshman and Sophomore Years of College: Year Two of CSUN's Learning Habits Project

The Learning Habits Project

- The Learning Habits Project is designed to track, over a four-to-six-year period, several groups of promising CSUN freshmen in the hope of gaining insight into their characteristics and practices.

- Four cohorts of incoming freshmen have agreed to participate in the Project since its inception in Fall 2007. Of these participants, 225 entered CSUN in Fall 2007 or Fall 2008, while 415 entered in Fall 2010 or Fall 2011. All have high school GPAs of at least 3.5 and/or are fully prepared for college-level work in math and English. Thus, they are among CSUN's most highly qualified incoming students.

- Learning Habits students provide responses to a brief set of open-ended questions at the end of each semester. This report focuses on the first two cohorts' responses to these questions during their first two years at CSUN. In addition to summarizing their responses, the report highlights transitions in these students' *learning habits* during their initial college years.

- In addition to the end-of-term surveys, students participate in several face-to-face interviews. Thus far, we have completed 626 in-depth interviews with freshmen and 182 similar interviews with juniors.

Characteristics of the Learning Habits Students

- In keeping with the entry requirements of the Project, a clear majority of the Learning Habits students in the first two cohorts had high school GPAs of 3.5 or higher, while close to three-quarters were proficient in math and English at entry. Approximately two-thirds are women and 44% stem from traditionally underserved backgrounds. Well over half attempted 14 or more units during their first term.

- Even though English is the native language of four in five Project participants, half grew up in homes in which a language other than English was spoken. Of these, three-fifths heard one of two languages: Spanish or Armenian.

Reasons for Coming to and Remaining at CSUN

- CSUN's broad range of degree programs, location, and low cost were the key factors driving most Learning Habits decision to attend this university.

- The above factors play little role in participants' thinking about whether to return to CSUN for a second year of study. Rather, four in five respondents identified their caring and knowledgeable professors and/or the character of the campus community as the important considerations.

- In short, the findings suggest that students decide to attend CSUN because the campus can accommodate both their socio-economic circumstances and their academic interests, but stay because of the campus relationships they form during their first year of college, especially with their instructors.

Reflections on Productive Classroom Contexts

- Most respondents identified at least one element of an instructor's approach to teaching as important contributors to their outstanding learning experiences (e.g., clear, well-organized, and/or interesting class presentations; attention to student learning; enthusiasm for the subject under study).

- If students arrive at a class eager to learn about its subject matter, either because it is new or they are challenged by it, the instructor's ability or inability as a teacher is of little consequence. Students invariably consider such classes exceptional learning experiences.
- Numerous respondents discussed the importance of instructors engaging in two practices: explicitly relating course material to ongoing events or students' lives and drawing students into class discussions.
- When examined through time, the data indicate that the importance students initially place on being encouraged to learn, and on receiving guidance about completing assignments, is gradually replaced by a desire to become involved in class discussions relating to ongoing events relevant to their lives. This shift is in keeping with respondents' gradually increasing emphasis on the challenges posed by class content.

Classroom Contexts that Strengthen Respondents' Writing and Reading Skills

- When the Learning Habits students were asked, at the end of their third semester after entry, whether their approach to reading or writing assignments had changed since they entered college, one-third to two-fifths said no, with the response more frequent in the case of reading. Two reasons were given for the lack of change: approaches used in high school continue to work and there is no need for change ("I know what works for me!").

Changes in Approaches to Writing

- Among the two-thirds of respondents who said that their approach to writing had changed, respondents most frequently grounded the change in either exposure to new techniques and procedures in college classes or the development of a new approach to writing (e.g., starting essay assignments well in advance, carefully organizing background materials before beginning to write).
- Of the Learning Habits students specifying a change in approach, seven in ten said that they had taken courses at CSUN that were particularly helpful in strengthening their writing skills. Students mentioned an array of things that made these courses so helpful: their exceptional instructors, the writing practice required, and the new knowledge about academic writing that they had acquired (e.g., the importance of organizing one's thoughts or considering one's audience before beginning to write).

Changes in Approaches to Reading

- When the Learning Habits respondents were asked about changes in the way they approach reading assignments, three-fifths reported that they had adopted new strategies. Almost one in three said that the change was necessitated by the increased volume of reading at CSUN and/or by the higher level of mastery required in college. Close to half of the respondents described their changed reading practices (e.g., mastering the art of taking notes, the importance of reading for understanding), often in addition to comments about the challenges of dealing with the volume of required reading.
- When asked about CSUN courses that were particularly helpful in strengthening their reading skills, a little more than a third of the respondents explicitly discussed particular courses. Some of the courses identified required unusual amounts of reading, while others included class activities that required timely completion of reading assignments (e.g., quizzes, in-class discussion).

Differences in Perceptions of Reading and Writing Assignments

- Among students who have changed their approaches to either reading or writing, close to one ten reported doing so because the procedures that worked for them in high school have proved inadequate to the demands of college work. It is only in the case of reading, however, that a significant number of respondents mention how much more reading is required at CSUN than in high school.
- Students' responses indicate that they have more frequently worked out new approaches to their reading assignments on their own than is the case for their writing assignments. Part of the explanation for the difference may lie in class content: a quarter of the writing comments deal with new techniques and approaches discussed in college classes, but few of the reading responses point to such matters.

Strengthening Critical Thinking and Quantitative Reasoning Skills

Changes in Approaches to Critical Thinking

- Almost all of the Learning Habits students agreed that their "ability to think critically and analyze intellectual problems" had improved since their arrival at CSUN. Most ascribed the change to their challenging coursework and/or professors' ability to challenge them to think critically.
- When asked whether any of the courses respondents had taken were particularly helpful in strengthening their critical thinking skills, more than four in five said yes. Two emphases emerged in their descriptions of what proved so helpful: the role of instructors in fostering critical thinking and the nature of class work (e.g., the importance of small-group discussion during class and essay assignments).

Changes in Approaches to Quantitative Reasoning

- Only a third of the Learning Habits respondents reported that their approaches to assignments involving mathematics or quantitative reasoning had changed during their first two years at CSUN. Within this minority, the most frequent change involved striving to arrive at a better understanding of math assignments. In addition, a fair number of respondents talked about working harder to understand concepts and problems and/or being more likely to seek help when assignments proved difficult.
- Two-thirds of the respondents reported no change in their approach to quantitative reasoning assignments. The most frequently cited reasons are familiar: no need for change and strategies developed prior to college entry have proved adequate for CSUN coursework. In addition, a quarter of the respondents reported taking few, if any, math courses, none of which were challenging.
- Complaints about the quality of CSUN's quantitative reasoning courses were infrequent, but stand out because of their absence in the responses to the other questions about specific skills. At the same time, some respondents reported actively avoiding math courses, another response not seen elsewhere.
- Among the relatively few responses describing courses that proved particularly helpful in enhancing quantitative skills, two emphases emerged: how courses enabled students to develop systematic procedures for approaching math problems and instructors' adeptness at handling difficult content.
- A subset of respondents discussed how their particularly helpful courses had provided insight into how the everyday world functions or, more abstractly, the dynamics of the world. Such responses provide a stark contrast to the complaints about the limited value of CSUN math courses and suggest a complex interplay between students' entry-level skills and the perceived value of their college coursework.

Contrasting Approaches to Critical Thinking and Quantitative Reasoning

- Despite the common features of critical thinking and quantitative reasoning skills, the Learning Habits students approach the two skill sets quite differently. Almost all have changed their approaches to the first, but less than a third report altering how they deal with quantitative reasoning assignments.

- There is surprising commonality in students' reports of their particularly helpful courses. Three common themes stand out: the excellence of CSUN instructors, the useful emphasis on teaching about real-world challenges, and the importance of using logical procedures to evaluate problems. The two sets of responses diverge most clearly in one area; the value of class discussions and assignments in building skills is central to the critical thinking responses, but absent from those for quantitative reasoning.

Areas of Needed Curricular Change

- The data reviewed in this report suggest that the lower division coursework completed by the university's Learning Habits students allows many of them to strengthen their writing and critical thinking skills in significant ways. Clearly, these are areas of strength at CSUN.

- Although some instructors provide guidance about how to approach required reading assignments, virtually no one appears to address the volume of reading that beginning college students are expected to master, presumably because the issue transcends the individual college classroom. Addressing the issue, therefore, may require a multi-faceted initiative involving a wide range of programs and offices.

- Quantitative reasoning is a second area where many of even the promising Learning Habits students struggle. Here, however, effective means of assisting poorly prepared students remain elusive. The responses suggest that the challenge lies in helping students with both a strong aversion to mathematical reasoning and inadequate preparation for college-level work. This may be an area where collaboration with area high schools to strengthen students' entry-level skills proves most effective.

Transitions During the Freshman and Sophomore Years of College: Year Two of CSUN's Learning Habits Project

The Learning Habits Project, which was launched in Fall 2007, is designed to track, over a four-to-six-year period, several groups of newly enrolled students likely to succeed at the university in the hope of gaining insight into their characteristics and practices. That is, we seek to find out about their *learning habits*. The Project is an integral part of the university's ongoing efforts to assess the success of its varied academic and co-curricular programs in fostering student learning. Thus, it serves as a complement to the many ongoing campus initiatives for at-risk students.

Since the Learning Habits Project was launched in Fall 2007, we have gathered responses to 8-10 end-of-term surveys from approximately 225 students who entered CSUN as freshman in Fall 2007 (n=76) or Fall 2008 (n=151). Each of the surveys poses several open-ended questions. We have also conducted in-depth interviews with most of these participants during their first and third years of college (211 and 182 interviews respectively). In addition, we completed first-year interviews with another 415 incoming freshmen who entered CSUN in Fall 2010 (n=207) or Fall 2011 (n=275). For 427 of these more recent entrants, we collected responses to a second or fourth end-of-term survey in Spring 2012. Primary responsibility for the end-of-term surveys rests with the Office of Institutional Research, which also compiles background information on the student participants. Most face-to-face interviews, which are tape recorded, are conducted by the group of faculty and staff involved in an ongoing Learning Habits Seminar that meets regularly during the Fall and Spring semesters.

In the summer of 2008, the end-of-term survey data provided by the initial cohort of Learning Habits students during their first year at CSUN were summarized in a report entitled, *Freshmen Views of Their Initial Learning Experiences at CSUN: Selected Findings From Year One of the Learning Habits Project*.¹ The current report builds on this first report by summarizing the end-of-term survey data

¹ Copies of the full September 2008 report are available, on request, from CSUN's Office of Institutional Research. An abbreviated version is available in the Special Reports section of the IR Web site (<http://www.csun.edu/~instrsch/learninghabitsreport.html>).

provided by the Fall 2007 and Fall 2008 freshman participants during their first two years at CSUN. In particular, it highlights student transitions during the first two years of college by examining shifts in responses to several questions that have been repeated each term (e.g., reasons why specific courses provided unusually good learning experiences) and by summarizing responses to a set of questions that asked about changes in students' approaches to different types of assignments (e.g., writing, critical thinking). All of the latter were posed at the end of students' third or fourth semester at CSUN.

Responses to the open-ended questions relating to transitions were coded with the aid of a software program designed to handle qualitative data.² Content analysis procedures guided identification of the major categories of response used to organize responses in each case. Although several people participated in the development and application of the coding categories used, only one person handled each phase in an effort to maximize reliability. Initially, one person used a random sample of responses to identify a preliminary set of codes. Then, a second person used and expanded the initial set while coding all responses to a given question or sub-question. In most instances, a third person reviewed all coded excerpts for accuracy and consistency. The final set of categories used to summarize responses to various open-ended questions appear in Tables 8-26, along with the percentage of respondents mentioning each. Responses dealing with more than one of the categories or sub-categories identified are counted as many times as appropriate; all percentages, however, are based on the number of respondents shown at the bottom of each table.

Characteristics of the Learning Habits Students

The top rows of Table 1 indicate that the Fall 2007 Learning Habits student group is only half the size of the second. This difference in size is largely a result of the fact that we restricted the first set of invitations to potential participants in the Project to three groups of entering freshmen: those undecided

² We are using *Dedoose*, a relatively new product developed by scholars at UCLA and SocioCultural Research Consultants, LLC (an early version of the software was known as *EthnoNotes*; the current version is available at <http://www.dedoose.com/>).

about their majors and those planning to pursue majors housed in Colleges with the highest one-year continuation rates (i.e., Humanities or Science and Mathematics). These restrictions seemed less vital by the time the Fall 2008 Project participants were recruited and were, thus, abandoned.

Participants in the Learning Habits Project are among CSUN's most highly qualified incoming students: at entry, all have high school GPAs of at least 3.5 and/or are fully prepared for college-level work in mathematics and English. Table 1 compares the participants entering in Fall 2007 and Fall 2008 to their counterparts in the larger cohorts from which they are drawn. As its first four sections indicate, a clear majority (55%-56%) had high school GPAs of 3.5 or higher and close to three-quarters were fully proficient in mathematics and English at entry. Of the latter, most were considered proficient thanks to their relatively high SAT or ACT scores. Among the few students needing remediation at entry, three-fifths or more (61%-66%) need extra work in one subject only.

Approximately two-thirds of the Learning Habits freshmen in the two cohorts are women and 44% stem from minority backgrounds, with just over a fifth claiming a Latina/o heritage (see sections 5 and 6 of Table 1). Between 55% and 67% attempted 14 or more units during their first college term. Such unit loads are similar to those for the larger cohorts from which the Learning Habits students are drawn, with 40%-50% in each grouping attempting 12-13 units (see section 7 of Table 1). For all other characteristics, however, the Learning Habits students differ from the larger cohorts of which they are a part. In addition to the expected differences in high school GPA and proficiency at entry evident in Table 1, the Learning Habits students are more likely than others to be women. They are also less likely to stem from minority backgrounds in general and from Latina/o backgrounds in particular.

The two sets of participants differ most sharply in their initial choices of major, largely because of differences in the way that they were recruited. In keeping with the restrictions on the first set of Learning Habits invitations, students in the initial group of participants are far more likely than others in their entry cohort to have declared no major at entry (42% vs. 24%) or to expect to major in a Humanities

or Science and Mathematics discipline (53% vs. 14%; see section 8 of Table 1). They are also more likely to have expressed such initial preferences than students belonging to the Fall 2008 participants, on whom no restrictions by major were placed. In fact, the Fall 2008 participants are less likely than students in their larger entry cohort to be undecided about their majors at entry (13% vs. 23%). They are also less likely than others to anticipate specializing in the Social & Behavioral Sciences (8% vs. 13%), but more likely to plan majors in one of three Colleges: Arts, Media, & Communication; Business & Economics, or Science & Mathematics (55% vs. 40%).

Additional information provided by Learning Habits participants when they formally join the Project indicates that close to nine in ten attended the mandatory Orientation sessions offered for new first time freshmen in August 2007 or August 2008 (see the first section of Table 2). Even though English is the native language of four in five Project participants, Table 2 indicates that close to three-fifths have at least one parent who grew up in another country. In keeping with this, half of the participants grew up in homes in which a language other than English was spoken. Of those who heard non-English languages at home, three-fifths heard one of two languages: Spanish or Armenian (see the last section of Table 2). There is no reason to think that the Learning Habits respondents differ from others in their entry cohorts in these respects.

Reasons for Coming To and Remaining at CSUN

In addition to providing the supplementary background information summarized above, freshmen registering for the Learning Habits Project indicated why they decided to attend Cal State Northridge. In their first Spring end-of-term survey, a companion question is posed: participants are asked whether they plan to return to CSUN the following Fall and to enumerate the “aspects of your CSUN experience over the past year [that] contributed to your decision about returning...” As the first section of Table 4 indicates, all but three of the 209 participants completing the Spring surveys planned to return to CSUN in the following Fall. This suggests that the one-year continuation rate for the two groups will be 91% (67

out of 76 Fall 2007 participants and 139 out of 151 Fall 2008 participants), well above the equivalent rate for all first time freshmen entering in the same two terms (71%-73%). In the event, the actual one-year continuation rates were 90% for the active participants entering in Fall 2007 and 94% for those entering in Fall 2008.³

Tables 3 and 5 indicate that the considerations underlying participants' decisions to enter or return to CSUN are largely distinct. For half of the participants (49%), availability of training in the career fields they were considering was a key consideration in their decision to attend the university, with training in education, the arts, or business most frequently mentioned (see category I in Table 3). Another important consideration in the decisions of just over a quarter of the respondents (28%) was the convenience of CSUN's location (see category II in Table 3). While just under one-fourth of the Learning Habits respondents (23%) dealt explicitly with CSUN's modest cost in explaining their decision to attend (see category IV in Table 3), many of those who focused on location did so implicitly, since living at home while attending college saves money. If one combines the three sets of responses, it appears that CSUN's broad range of degree programs, location, and low cost are the key factors in most participants' decisions to attend the university. Campus setting and location also play a role for some students (27%), as do the recommendations of family and friends (16%; see categories III and V in Table 3).

The key factors inducing the Learning Habits participants to initially enroll at CSUN (see categories IV and VI in Table 5) played little role in their thinking about whether to return to the university for a second year of study. Uppermost in their minds, according to Table 5, appear to be the character of the campus community and the quality of the quality of the learning environment (see categories I and II). More specifically, four in five respondents identified their caring and knowledgeable professors and/or the

³ These rates exclude students who initially signed up for the Learning Habits Project, but completed none of the first-year assignments (6 in the Fall 2007 cohort and 7 in the Fall 2008 cohort).

campus atmosphere as important considerations in their decisions. As two respondents commented:

The teachers have been very helpful and dedicated; the students are interested and involved; the campus is beautiful and local.

The professors and students are wonderful, and the campus itself provides a great atmosphere overall.

In short, the findings suggest that students decide to attend CSUN because the campus can accommodate both their socio-economic circumstances and their academic interests, but stay because of the campus relationships they form during their first year of college, especially with their instructors. Such findings provide important insight into the relative importance of the campus's many strengths at different points in students' careers.

Respondents' Reflections on Productive Classroom Contexts

In each semester's end-of-term survey, Learning Habits participants are asked to identify specific courses in which they learned a great deal, along with the features "that made them such a good learning experience." The first section of Table 6 indicates that close to three-fifths of the students responding in any given term identified courses in which they learned an exceptional amount. Most students specified only one course, but a small number specified two or more.⁴

Table 7 lists the 63 courses mentioned by at least three respondents, along with the number mentioning a course in any given term; the full list of courses mentioned appears in Appendix A. In both instances, the course list is organized by level (e.g., remedial or upper division) and College, with the courses in each subgroup listed in order of frequency. The first of the two percentage columns on the right side of the table shows the proportion of all respondents naming a course, while the second shows

⁴ The percentage mentioning more than one course drops off sharply in terms three and four because of a change in question format. During the first year of the Learning Habits Project, students were invited to name several exceptional courses. Thereafter, however, respondents were asked to name the single course in which they had learned the most during any given term.

the proportion attempting any given course during students' first year of study.⁵ As one might expect, the second set of percentages is highest for the remedial and Basic Subjects courses, followed by the other lower division courses (88% and 55% respectively). In the case of the upper division courses, in contrast, relatively few Learning Habits participants attempted them during their first two terms at CSUN (13%).

Of all courses mentioned, nine in ten are lower division sections, with one in eight of the courses in this group GE Basic Subjects courses. This is not surprising, given that the students in question are all in their first two years of college. The more advanced lower division courses enumerated are most frequently offered by the College of Humanities or the College of Science and Mathematics. In part, the disproportionate representation of such courses reflects the fact that both Colleges offer the largest number of lower division course sections; taken together, they offer 43% of all such sections that do not count as Basic Subjects courses.⁶ The concentration of Humanities and Science and Math majors in the first Learning Habits cohort plays a role as well.

Despite the differences by College in terms of majors pursued and lower division class sections offered, the individual class sections named most frequently are likely to be exceptionally well-taught. Only eight courses were mentioned by as many as 10 respondents, with 13 mentioned by more than seven. These most frequently taught courses, only one of which is an upper division course, include the following: ENG 155 (n=37), PSY 150 (n=22), COMS 151 (n=20), ENG 205 (n=16), POLS 155 (n=15), SOC 150 (n=13), BIOL 106 (n=10), JOUR 100 (n=10), GEOG 101 (n=9), BIOL 107 (n=8), CHEM 101 (n=8), HUM 101 (n=8), and CHEM 303 (n=8). Even though the single upper division course among the most frequently named is housed in Science and Mathematics, the outstanding upper division courses are

⁵ Since the question about outstanding courses was repeated in each of the four terms considered, the base for the percentages shown in Table 7 is the sum of the total number of responses in each term.

⁶ In 2010-11, the College of Science and Mathematics offered 568 lower division course sections, while the College of Humanities offered 452, the College of Arts, Media, and Communication offered 388, the College of Health and Human Development offered 358, the College of Social and Behavioral Sciences offered 256, and the College of Engineering offered 243. (Basic Subjects courses have been excluded from all of these counts.)

most likely to be found in three other Colleges: Humanities, Social and Behavioral Sciences, and Health and Human Development (see the last section of Table 7).

Turning now to the features that made the courses in question exceptional, most respondents identified at least one element of an instructor's approach to teaching as contributing to their outstanding learning experiences. According to the first set of responses shown in Table 8, three elements were mentioned by one-fifth to one quarter of the respondents:

- clear and well organized class presentations and materials
- instructors' attention to student learning, which was most frequently articulated as a desire to foster that learning
- how the course material was presented, usually with an eye towards making it interesting to students

One of the best illustrations of an interesting presentation of course material is the following:

The class was trying to learn how to write a descriptive essay but not be overly descriptive. [The instructor] did an exercise where the class was put into groups of four and we had to make directions on how to make a peanut butter and jelly sandwich. When everyone was done she pulled out bread, peanut butter, jelly, and a plastic knife. Everyone in the class failed in at least one part of describing how to make a peanut butter and jelly sandwich. It really helped me understand how descriptive I had to be in something that you would think everyone knows how to do, such as making a peanut butter and jelly sandwich.

Clearly, the sort of teaching practice described above captures students' attention, while also being instructive. Just over a quarter of the respondents also mentioned course structure as a factor in making courses exceptional learning experiences, with the utility of tests, papers, and assignments most frequently singled out.

One of the most intriguing aspects of the responses to the question about exceptional learning experiences is how many students mentioned things that have nothing to do with the nature of the class or how it was taught (see category V in Table 8). Rather respondents pointed to their interest in the subject matter under study or their love of learning new things and acquiring new knowledge. Here are a few illustrations, one of which is very perceptive:

I love the subject matter itself because I love to write so this class was one of my favorites.

My two favorite subjects in school are music and English. I enjoyed my music class and my English class primarily because of the instructor's teaching style and because I love to write and I have a passion for music. **These two subjects interested me greatly and I had much more of a desire to learn in these classes.**

[In this] class, I feel I learned more because of, again, the small class size, as well as the way the professor dealt with the material. **In all fairness though, creative writing is my favorite subject so that may have made the class more enjoyable for me as a whole as well.**

Closely related to the above, are the responses in category III, which revolve around an aspect of the subject matter considered in a course: the value respondents placed on the challenge it posed to them. As one student noted, “the work that was required took all of my abilities and I learned a lot about myself this past semester.” It is also notable that, during their third or fourth semesters at CSUN, the Learning Habits participants are more likely to mention class content as an important factor in their learning than they are to mention their interest in a subject area, while the opposite is true during their initial semesters, suggesting a shift in emphasis during this period. Taken together, the responses in categories III and V provide the sense that if students arrive at a class eager to learn about its subject matter, either because it is new or they are challenged by it, the instructor’s ability or inability as a teacher is of little consequence.

Several of the themes emerging from responses to a question about the faculty practices that foster learning are similar to those emerging from the question about exceptional learning experiences. This second question was phrased as follows:

In the courses you attempted this past term (other than the one mentioned above), were there techniques, exercises, or approaches that your instructors used in one or more that made a significant contribution to your learning? If yes, please describe the techniques or exercises that were so helpful.

Half of the Learning Habits participants articulated such additional techniques or exercises, as the second section of Table 6 indicates. The importance of having instructors who care about student learning emerged again as a frequent comment in response to this additional question, as did the value of instructors’ enthusiasm for their subjects (see categories IV and VII in Table 9). The following are

illustrative of these responses:

The instructor was friendly, helpful, knowledgeable, and encouraged us to think outside the box. That intrigued me the most. **The teacher made the class environment comfortable, I was able to learn more and take in more information once she showed us that she cared.**

I have always enjoyed English classes, and [this class] did not disappoint. First and foremost this class was one in which I learned a great deal because the professor not only knew her stuff, but **she always came to class with this incredible enthusiasm that made students want to participate, to get in on the discussions and didn't leave time for any dull moments.**

Some new themes emerged as well, as the additional types of response delineated in Table 9 indicate.

A good many respondents commented appreciatively on the preparation and instruction they received in carrying out academic tasks, such as examinations or written assignments (see category I). In a related set of comments, others pointed to the value of in-class quizzes and exercises designed to strengthen their skills (see category V). Finally, a good many respondents discussed the importance of instructors explicitly relating course material to ongoing events or students' lives and drawing students into class discussion or lecture (see categories II and III). A few examples of these last two types of comments appear below.

The teacher was the best I had ever had. He taught us about many things in life, not just English. He also **taught us how important proper English and writing techniques are to having success in all aspects of our life.** He was always eager to help us out. Any questions we had, he would answer. He was tough when it came to writing essays, but he wanted us to become excellent writers. He made the class fun and exciting. Everybody looked forward to the class.

I really liked [this] class because it dealt with reading articles about racism and discrimination. Many of those articles were written by other college students in similar situations as mine, low income minority trying to survive in the American society. **I enjoyed the assigned readings as well as the topics for papers because I could personally relate to them.** I liked the experience of having a class that differed tremendously from regular English classes in high school.

I believe this class was very useful and helped me learn a lot about writing business letters, memos, reports, etc. My instructor was well organized and gave us **relevant assignments that will be used later in life because of our majors.**

She gave lectures with slide show presentations daily and had class discussions throughout her lecture. It was **very interactive and helped the students have one-on-one connection with the subject.**

One professor **encouraged students to participate by offering extra credit to those who answered questions** he would ask the class as a whole. These questions would be a review of material we covered in a previous class session. This made class more fun and also offered a great review of class material.

The first four categories of response in Table 9 suggest an interesting transition in students' concerns as they move from the first to the fourth term of study. The first semester's responses focus more heavily on the first and fourth categories of response (i.e., teaching students how to approach academic tasks and fostering student learning) than do the fourth semester's (43% vs. 23%). In contrast, the last semester's responses focus more heavily on drawing students into class discussion and relating course materials to their daily lives than do the first semester's (46% vs. 31%).

These findings suggest that the importance students initially place on being encouraged to learn and on receiving guidance in how to complete assignments is gradually replaced by a desire to become involved in class discussions that relate to ongoing events that affect their lives. This shift is in keeping with the increasing emphasis on the challenges posed by class content mentioned above.

Other Aspects of Learning Deemed Important by the Learning Habits Participants

In addition to the two questions about valuable course work considered above, to which Learning Habits participants responded each term, they were asked to respond to one additional question on a regular basis, beginning in Fall 2008: "Were there other aspects of your CSUN experience this term (e.g., co-curricular activities, paid employment) that made a significant contribution to your learning?" In addition, the following year-end question was added to the regularly posed questions in Spring 2009:

Is there anything else that was particularly important to your learning during the last year that we have not asked you about in either this or last Fall's end-of-term survey? If yes, could you please briefly describe it.

Both of these questions were designed to capture inadvertently overlooked aspects of learning deemed important by the Learning Habits participants.

Only about a third of the respondents identified other aspects of learning that were important to them, but not covered in the preceding year's end-of-term surveys, with such positive responses more frequent in the fourth than in the second term, according to the bottom row of Table 10. Among the responses provided, about a third discussed matters mentioned above: instructors' approaches to their courses and class content (see categories I and III in Table 10). Five or more mentioned instructors' enthusiasm for their subjects, their supportiveness, or students' own interest in course topics. The examples below are illustrative.

... the best types of professors are those who enjoy what they teach. ... they are always happy to be at school watching their students make the most of their classes.

....This last semester, my two professors for my two most difficult classes put so much of their own time aside to help me with the problems I was facing in those courses. They are two of the most dedicated professors at CSUN, and I am very thankful to have experienced classes with them. Their motivation and dedication helped me want to learn and do well in their classes.

.... Before I took this class I did not know much about these countries but now I have expanded my knowledge in every aspect. It was interesting to learn about the different political systems and how the majority of the underdeveloped countries export raw materials to developed countries like the U.S. or Europe.

Another fifth mentioned collaborative activities that fostered their learning, with the benefits of campus-provided services most frequently mentioned (e.g., tutoring services). Participation in study groups or dorm activities was also singled out with some frequency (see category II in Table 10). As one student noted, "I started to go to the different tutorials when I needed help. I found many great people that helped me when I did not understand the material presented in lecture. I also formed study groups in many of my classes. I spent a great deal of time with these groups and come finals week I felt much more prepared than I did last semester."

Almost three-tenths of the respondents mentioning other aspects of learning that they deemed important focused on personal strategies for mastering academic challenges. According to category IV in Table 10, these most frequently involved several three related concerns: the importance of good time

management, achieving a balance between personal and academic demands, and the utility of a heavy course load in focusing one's attention. The following examples are illustrative:

I made sure this last year, that I was doing my assignments as soon as I could. I did not procrastinate in any of my classes. That allowed me to relax when all the projects were due....

What truly helped me this semester with keeping on track and focusing on classes was being able to handle my personal life and to stabilize myself....

The course load I took was very important for me.... all the science classes I took really made me focus on nothing but school and didn't leave any time for me to get distracted....

Finally, a number of respondents described challenges in their personal lives that affected their learning, with the adverse effects of CSU budget shortfalls receiving some attention (see category V in Table 10).

Table 11 summarizes the responses of the Learning Habits students to the question about other aspects of each term's experience that made a difference to their learning. One category of response predominates: the importance of co-curricular or volunteer activities. These are most frequently said to be valuable in one of three ways: strengthening academic skills, providing a sense of community, and helping define a career direction. The responses below are typical.

...being part of clubs helps students become more involved with school and learn about their interests. Being part of the Chemistry and Biology club helped me learn more about certain topics covered in the science courses I was taking this semester.

The most important experience was tutoring in the Learning Resource Center. Explaining the material I tutored to other students reinforced that material in my mind, helped me understand it even better than I did before, and sometimes let me apply it in ways that I had not before.

I was part of the *Anything Goes* cast (Spring Musical here at CSUN) and I made so many new friends. I felt like it connected me with my major and the people whom I will be working with for the next few years. I had a blast doing what I love to do and making new friends.

One of the best experiences I had this term was participating in a "Service Learning Project" in which my Eng 355 teacher set up a program where we could volunteer to tutor high school students in their writing abilities.... Since many English majors aspire to become teachers, as myself, this project was especially important because it gave us real life experience in what it's like to be a high school teacher. It helped me make the decision to teach high school once I get my degree and credentials

Two other types of experiences are mentioned by close to a quarter of the respondents commenting on non-academic activities helpful to their learning: paid employment, often off-campus, or support networks. These second most frequently involved friendships or study groups, as the following examples illustrate.

I am part of a sorority and as the community service chair and secretary I have gained many new skills. My network of friends has expanded. It is also an academic sorority so I feel highly motivated to study with my sisters.

I joined an organization known as the Hermanas Unidas and they provided me with so much support and got me involved in community service and networking....

Getting together with friends to study before tests I think helped me understand more of the material.

Finally, some respondents mentioned how some of their courses had helped them resolve personal problems or career-related issues, while a few discussed the value of dorm life. As one commented, "Living in the dorms is probably one of the greatest learning experiences I have ever encountered. I have met so many different kinds of people of different backgrounds and became more accepting of other people while learning a great deal about myself."

Dealing with Academic Challenges

One of the questions in the second end-of-term survey asked respondents whether they performed less well than they would have liked in some of the courses they attempted during their first term at CSUN. Just over half answered in the affirmative, as the top section of Table 12 indicates. For those who attempted such unexpectedly challenging courses, an open-ended follow-up question was posed: "What changes did you make in your study habits or course-taking patterns to strengthen your academic performance during this past Spring term?"

As the bottom rows of Table 12 indicate, a few students made no changes in their study habits as a result of poor performance, while a number attributed their difficulties to family crises. As one noted, "it was because I had family problems, was sick, and had deaths in the family and missed class so they

lowered my grade..." Of the remainder, all of whom altered their approaches to their studies, most just studied harder (see category I.A. in Table 12), as the following examples illustrate.

More active reading and highlighting really furthered my understanding of the texts I was reading.

I really had to start studying for my classes, I was still stuck in high school mode where I didn't need to study for any tests.

I put more time into studying. I now know my weakest subjects, and I put more time into those classes.

One in five reported improving the way they managed their time, while a similar proportion changed their study habits, often by studying with others or turning to tutors when class material proved incomprehensible (see categories I.B. and I.C. in Table 12). The examples below are illustrative of improved study habits.

I started to study with groups so that if I did not know the answer, there was someone else that I could ask.

I also made an extra effort of visiting the professors during office hours to clear my doubts and ask questions.

...I joined a tutoring class and small study groups this semester which I did not participate in during the last term. I found that this change in study habits led to significant success in these difficult areas.

Taken together, the written-in responses are revealing and point to the value of encouraging students to form study groups. Unfortunately, the findings can only be suggestive because of the relatively small proportion of Learning Habits students encountering difficulties in their Fall term courses.

Classroom Contexts that Strengthen Respondents' Writing and Reading Skills

Discussion in this section focuses on the responses provided by the Fall 2007 and Fall 2008 Learning Habits students to the following open-ended questions:

- Has the way you approach your writing assignments changed since you came to CSUN? Why or why not?
- If you have taken courses here at CSUN that were particularly helpful in strengthening your writing skills, what was it about them that proved so helpful?

- Has the way you approach your reading assignments changed since you came to CSUN? Why or why not?
- If you have taken courses here at CSUN that were particularly helpful in strengthening your reading skills, what was it about them that proved so helpful?

All were posed in the end-of-term survey distributed at the end of participants' third term after entry. As previous discussion has indicated, when students named courses in which they had learned an unusual amount during each of their first four semesters at CSUN, they most frequently mentioned the required freshman composition course. The two runners-up were mentioned by significantly fewer students: the required public speaking course and an introductory psychology class (27 and 22 vs. 37). Thus, consideration of the questions relating to shifts in the way the Learning Habits students approach particular types of assignments may represent a change in data-gathering strategy, but not a dramatic shift in a key aspect of previous discussion: how students' learning habits evolve as they progress through college.

Changes in Approaches to Writing

When students were asked, at the end of their third semester after entry, whether their approach to writing had changed since they entered college, two-thirds of the respondents answered in the affirmative and one-third said no (see Table 13). Of those who said that their approach to writing had remained unchanged, one in three said that the approach they used in high school continued to work for them, while the remainder said that they saw no need to change – I know what works for me, a good many asserted.

Among those who said that their approach to writing had changed, in contrast, one in seven said the opposite: change was induced by the need to perform at a higher level in college than in high school. The following examples are typical of these responses.

I understand now that most professors do not want you to just fill up space with pointless or repetitive information, whereas in high school, it was never an issue.

I was very used to the typical five paragraph essays we are taught in high school that end up being the only way we know how to write. Since I've started CSUN, you realize that great papers don't need to stick to a certain format such as that.

I am not stuck in the high school format anymore. There are many different types of essays that require different approaches and I have to be able to write each one according to what it is calling for.

Higher expectations was not the most frequent reason given for change, however. Instead, most respondents pointed to either a new approach to writing that they had developed or to exposure to new techniques and procedures in their college classes (see categories I and II in Table 13). Three-fifths of the responses in this second category identified English classes as the site of that learning, though some of these also mentioned the value of other courses. Among respondents reporting a changed approach to writing, two behavioral changes were most frequently mentioned: an earlier start on essay assignments and carefully organizing needed materials before beginning to write. The examples below are illustrative.

I do a lot more brainstorming and prewriting whenever I approach an assignment now. This usually helps me get started and know how I am going to shape the whole piece...

I used to just start an essay and work my way through it. I've learned to organize my thoughts through outlines.

I am a lot more organized. It helps with the structure of my papers and in organizing ideas that may be pulled from different sources.

I'm generally tending to start them earlier these days and I'm more attentive in my revision process.

I have learned to allow myself more time to prepare for and think through my writing assignments.

Of the Learning Habits students responding to the question about changed approaches to writing, seven in ten also said that they had taken courses at CSUN that were particularly helpful in strengthening their writing skills. Students mentioned an array of things that made these courses so helpful, as Table 14 indicates. Close to half discussed the new things they had learned about academic writing, while approximately three in ten pointed to their instructors or mentioned the writing practice required of them. Half of the responses in this last category were simple: being required to write all the time is what made the course(s) so valuable. Two views predominated among students drawing attention to their instructors

(see category II in Table 14): they either described them as exceptional in some way or praised them for their ongoing involvement in and encouragement of students' efforts to improve their essay assignments.

The responses below reflect these views.

She took the time to make sure everyone understood what we were doing. She wrote comments on every assignment so we could see where we needed to improve.

This class was very difficult especially because I had very poor writing skills. However, my teacher believed in me, was strict, and with her help I was able to improve my writing.

Everything was read by the professor, evaluated and returned so we knew exactly where our strengths and weaknesses were. This allowed us to spend time on what was more important rather than wasting valuable time working on something we were already good at.

One course that I took that greatly increased my writing ability was one where the professor was very encouraging, and available to help in any way possible. She was able to criticize my work, but explain all the things that I did well, so that I could be confident in my writing ability but change the things that would make it so much better.

The instructor teaches with such passion that I always feel like, no matter what draft I am on and no matter what piece I am writing, it is a substantial and worthwhile piece of art.

One factor was the professor's willingness to help the students regardless of how great or poor of a writer they were. He would answer questions without making you feel embarrassed or inferior.

The responses focusing on the new approaches to writing that students had acquired were the most diverse (see category I in Table 14), though several stand out. The importance of organizing one's thoughts and essay topics before beginning to write is one, while the importance of considering one's audience is a second. Both of these, according to the respondents, were stressed in their English classes, as well as in their public speaking classes, where carefully organized outlines, in particular, proved to be essential. This is evident in the following examples.

This class helped me in my writing skills as well, because I had to do many outlines that required me to have a thesis, a specific purpose, and the general purpose. **I had to organize my speech in an outline that was very similar to writing an essay...**This helped me to write my English essays as well because I had to work on the thesis and in making a strong statement.

[My English class] at CSUN has really transformed me as a writer. In high school the main concern was length and grammar but now in college there are very high standards on content and a **huge emphasis on organization** and articulation.

My speech class has been the most beneficial of all my classes so far because I had to write speeches. **I had to keep in mind who my audience was**, and what would appeal to them. I think the same goes when writing a paper.

My...writing class this semester taught me that **writing is all based on audience** and purpose and when you understand the audience and purpose then you would know exactly how to write your essay, how to end it, the format, length, tone, and other important features of writing.

Respondents also reported benefitting from discussion in their composition classes of how to approach different types of essays. One respondent said, for example, that an English class

... served to be beneficial to growth in my writing ability because it captured different genres and aspects of writing.... we looked deeper into the writing process as well as into different methods and types of writing.

Another commented that the class in question "... really helped me to understand what a college research/persuasive essay should look like." The final theme that emerged with some frequency in the new approaches category dealt with critical thinking. As often as not, however, respondents commenting on the importance of learning how to develop logical or persuasive arguments mentioned classes other than those dealing with writing. This is evident from the examples below.

My [Religious Studies] class, which was a critical thinking class, has helped with my argumentative skills which has helped with my confidence in writing.

I took a philosophy class this last semester which has helped me look at my arguments and the claims I am making to see if they really are valid or not.

Changes in Approaches to Reading

As noted above, the two questions focusing on changes in students' approaches to writing were also posed in relation to their approaches to their college reading assignments. Thus, students were asked to indicate, at the end of their third semester at CSUN, whether the way they approach their reading assignments had changed. Three-fifths of the respondents affirmed that their approach had changed, while two-fifths said it had not (see Table 15). As was the case for writing, one response predominated among those who responded in the negative: the approach to reading assignments that worked at college entry or in high school continues to work; thus, there is no need for a different approach.

Among those who said that their approach to reading assignments had changed, an opposite pattern was again discernible: almost one in three respondents said that their changed approach to reading assignments was a consequence of the need to do more reading at CSUN and/or to the higher level of mastery required in college (see sections III and IV in Table 15). These views are evident in the following examples.

My classes require a significantly higher amount of reading than high school did.

I never had to read so much before I came to CSUN....

I have found better ways to approach [my reading assignments] because it seems that with every semester there is just more and more reading.

Yes, because I just didn't do [the reading assignments] before I came here....The assignments in college are much more in depth and would not allow for the laziness I used to have.

In high school, I was able to skim through my reading.... But at CSUN, you HAVE to read your assignments before the next class day.

Sometimes it just isn't feasible to read every single chapter that is assigned, there aren't enough hours in the day. You need to get smart about how to study and what to study.

Particularly interesting among the responses dealing with the importance of doing assigned reading in a timely manner is a subset describing how to use course structure or instructor preferences to determine reading priorities (section IV.A. in Table 15). The quote below provides a particularly apt illustration of these responses.

When I was in high school, you generally only got large chunks of reading from English classes....The trick to reading for 5 or more classes while you're in college is simply a matter of assessing each professor. Some professors focus entirely on their lectures when creating exams, while others may borrow from the textbooks and lectures collectively, and still others think their textbooks are the sacred text from which all knowledge will flow.

Closely related to the comments about the amount of reading required at CSUN is a set of responses focusing on the importance of efficiently managing one's assigned readings (see section VI of Table 15). The examples below illustrate the tenor of the responses.

It is always important to keep up with the reading that is assigned, even when it seems like it may be impossible to read so much and retain the information.

Instead of reading every word of the text, I skim through the paragraphs and summarize the main points.

Sometimes it's a simple matter of skimming through the book to find the sections you're not too sure about, reading those sections, and then moving on through the rest of it.

I try and make sure I do the reading before class. I didn't for one class and found that I struggled to catch up all semester.

I now read material before it is lectured on. This way, even if a concept is foggy when I read it, it solidifies when covered in lecture. Consequently, I retain information, having only to have read the material once.

Close to half of the respondents reporting changes in their approaches to reading provided descriptions of their changed practices (see section VII in Table 15), often in addition to comments about the challenges of dealing with the volume of required reading at CSUN. The most frequently mentioned new reading practices involve mastering the art of taking notes and appreciating the importance of reading for understanding (see section VI of Table 15). As one student noted, "I have learned since coming to CSUN how to dissect a reading assignment and how to pull out the important information for comprehension."

When asked about CSUN courses that were particularly helpful in strengthening their reading skills, two-thirds of the respondents in the two Learning Habits cohorts under study provided an answer to the question. But of those who responded, one-third simply stated that they had not taken courses at CSUN that improved their reading skills (see section VII in Table 16). Another 12% discussed changes in their approaches to reading, but mentioned no specific courses, as the following examples illustrate.

I started highlighting and taking notes on my own, because I realized it would help me remember the material much better.

I haven't really taken any classes that have been particularly helpful in developing my reading skills.... any development in my reading has come from my own analyzations [sic] of what I need to gain from reading. Over time, I've learned by trial and error....

By practicing, I was able to explore what kinds of note-taking strategies worked best for me so I could achieve maximum efficiency. Besides courses, being active in the writing labs helped me learn new ways of reading and examining text.

Among the students explicitly discussing helpful courses, 22% echoed an important theme in the responses to the more general question about changes in approaches to reading: the amount of reading assigned in various courses required a different approach (see section I in Table 16). A few such responses appear below.

[Courses in two disciplines] were some classes that involved testing over massive amounts of information. The difficulty of dedicating a lot of time solely to reading and note taking developed a natural strengthening of reading skills; since there was so much to learn....

There has been no course that I have taken that has greatly improved my reading skills. What has improved my reading skills is reading frequently.

All of the classes I have taken have a lot of reading assignments. This alone has helped with my reading skills.

According to another 15% of the respondents, courses with regular class activities focusing on reading assignments insure that these are completed in a timely way. The vehicles instructors use for this purpose, as section II of Table 16 indicates, include quizzes, tests, in-class discussions, and essay assignments. In addition, some instructors provide explicit guidance about how to approach certain types of reading assignments (e.g., literature, logical arguments). The following examples are drawn from the subset of responses focusing on instructor guidance about analytic and critical thinking; such comments account for the majority of responses in the larger category (15%; section III in Table 16).

The one class that has helped me strengthen my reading skills was [one in which] the professor would tell us to analyze the key points of the section as well as look for things that stood out and had value to what we were reading. By learning this tool it has helped me throughout the semester.

Now when I read anything from a novel to an article, I am able to pick out main points and supporting arguments and analyze them on the basis of strength....

[An English class] has helped in strengthening my reading skills by analyzing the deep issues authors may be commenting on when it comes to the political, social, and economic contexts in which they were written. Open discussion within the classroom and outside of the classroom moderated and guided by the instructor really helps in understanding reading assignments and finding deeper messages written between the lines.

Judging by the student responses, courses such as those described above are few and far between. This stands in contrast to the many courses mentioned in students' responses to the question about courses that were particularly helpful in strengthening their writing skills.

Differences in Students' Perceptions of Their College Reading and Writing Assignments

As is evident from the above summaries of students' comments about changes in their approaches to writing and reading, the amount of guidance provided for each in university classes differs, as do students' efforts to cope. These differences are summarized in Tables 17 and 18. One obvious difference in the two sets of responses is the percentage of students reporting that their approach has changed: respondents are somewhat more likely to say this about writing than about reading (68% vs. 60%). The primary reason for **not** making a change is similar in both instances, however: possession of an approach, sometimes developed in high school, that allows students to successfully accomplish their college work.

Among students who have changed their approaches to either reading or writing, close to one ten reports doing so because the procedures that worked for them in high school have proved inadequate to the demands of college work (see category IV in Table 17). It is only in the case of reading, however, that a significant number of respondents mention how much more reading is required at CSUN than in high school (14% for reading vs. 1.5% for writing). This differing response pattern suggests that the big change between high school and college may not be the amount of writing required, but the volume of reading required.

In addition to discussing the reasons for changed approaches, a good many respondents describe the changes themselves. Since these differ for writing and reading, the responses are shown in different categories in Table 17 (see categories II and VII), but they can be considered equivalent when attention focuses on frequency. Such a comparison suggests that respondents have more frequently worked out new approaches to their reading assignments on their own than is the case for their writing assignments (46% vs. 29%). In part, this may stem from differences in class content: a quarter of the writing

comments deal with the new techniques and approaches discussed in respondents' college classes. In contrast, as category I in Table 17 indicates, very few responses point to similarly useful classes in relation to reading (3.5% vs. 25% for writing). Instead, close to a quarter of the reading responses deal with the importance of keeping up with assigned readings (see category VI in Table 17), a concern that is virtually absent in the writing responses. This difference may well be another reflection of the challenge posed by the volume of reading required at CSUN.

In contrast to responses to the question about whether approaches to reading and writing had changed, responses to the question about courses that facilitated change differ not only in frequency, but also in emphasis. One of the clearest differences is two relatively large categories unique to the reading responses, which contain comments to the effect that no courses were helpful in strengthening such skills (see categories VI and VII on the right side of Table 18). The remaining reading categories, which serve to organize comments made by 55% of the respondents, contain at least some information about courses that enhanced students' approaches to their assignments. This percentage is significantly lower than the 78% of students providing information about courses that strengthened their writing skills.

Four of the response categories dealing with changed approaches are similar in some respects, as Table 18 indicates.⁷ The pair of categories shown at the top of the table are similar in that both deal with changes in approach fostered by the need to complete multiple reading or writing assignments. Although each is mentioned with similar frequency (28% for writing and 22% for reading), their tone tends to differ. Underlying a good many of the reading comments in this category is a sense of crisis: becoming a more efficient reader, they imply, is a necessary response to the mountain of reading required by the four-to-five college courses so many students are attempting. The writing comments, in contrast, tend to focus on the positive value of the repeated practice that multiple writing assignments provide. As one student noted, "Doing multiple drafts and watching the revision of the same piece evolving was a big help to me."

⁷ The residual "Other" categories are also similar, but are not discussed further.

The second pair of similar categories appears in the middle of Table 18 (see categories I and III). Both deal with the types of guidance courses provide. The version on the writing side, however, is almost three times as large as the one on the reading side (47% vs. 17%). Moreover, the former is coupled with a smaller set of responses focusing on the technical aspects of writing discussed in some classes and a larger set about the important role instructors played in helping students strengthen their writing. Taken together, these three categories account for at least some portion of the responses provided by almost all of the Learning Habits respondents.

The figure of the caring instructor, which underlies a good many of the comments about writing, is virtually absent from the reading comments. It appears no more than a few times among the responses in category III (see Table 16 and the right side of Table 18), which, as previous discussion has indicated, tend to focus on techniques for handling different types of reading. Coupled with this response category is another that focuses on the means instructors use to integrate reading material into their particular courses (see category II on the right side of Table 18). As noted previously, these involve quizzes, tests, and essay assignments, which function effectively within a particular course, but do not generally have utility beyond its confines.

Strengthening Critical Thinking and Quantitative Reasoning Skills

The questions about changes in students' approaches to reading and writing assignments were followed, one semester later (i.e., at the end of their second Spring term), by a set of four questions focusing on changes in their approaches to assignments involving two other fundamental and similarly linked skills: critical thinking and quantitative reasoning. The exact wording of each question appears below:

- Do you think your ability to think critically and analyze intellectual problems has improved since you came to CSUN? Why or why not?
- If you have taken courses here at CSUN that were particularly helpful in strengthening your critical thinking skills, what was it about those courses that proved so helpful?

- Since coming to CSUN, have you changed the way you approach assignments involving mathematics or quantitative reasoning? Why or why not?
- If you have taken courses here at CSUN that were particularly helpful in strengthening your quantitative reasoning skills, what was it about them that proved so helpful?

Responses to each of these questions are discussed in turn below.

Changes in Approaches to Critical Thinking

Almost all of the Fall 2007 and Fall 2008 Learning Habits students agreed that their “ability to think critically and analyze intellectual problems” had improved since their arrival at college. No response stands out among the few who said that their ability to think critically remained unchanged, as is evident from the bottom section of Table 19.

Of those whose critical thinking abilities had evolved, the majority ascribed the change to their challenging coursework at CSUN (see top section of Table 19). Some of these responses are quite short, simply asserting that CSUN classes have forced students to think critically and analytically. Others are more detailed, as the examples below illustrate.

By taking more classes and being exposed to the more challenging courses, I have seen my critical thinking skills fire up. I believe that the more difficult your classes get, the more your critical thinking skills in particular flourish because of the level of difficulty and what your teacher expects of you.

Through my various classes, I have been encouraged to look at issues from both sides and from multiple perspectives. This has improved my ability to think critically about and understand a problem, both in the classroom and in the rest of life.

I have taken courses that have challenged me as a student and made me start finding ways to learn about subjects for myself rather than having professors tell me how to do everything. I am now able to look at a problem and find a way to solve it by analyzing and thinking about the task at hand.

I have taken a few courses that really pride themselves on the exercise of reasoning, thinking, and application. These courses have encouraged me to think differently; to arrive at conclusions that may vary from my peers and classmates; and to apply what I know to different situations or scenarios....

A closely related response focused on the role of professors in challenging students to think critically. As one remarked, “The professors have challenged me to think outside the box and question everything.”

Commented another, “the professors at CSUN really push you to find a deeper meaning in what you're learning and encourage active participation.” Finally, close to one in six respondents replied more generally, outlining how their analytic abilities had improved. The examples below give a sense of these responses.

I have learned that there aren't any road maps, so when a problem arises I have to figure it out myself.

...I have learned to look at problems from many perspectives even if they are contrary to the world view I possess.

I have more information on specific subjects that I did not have before. Also I have had to analyze material and write about it or answer questions in ways I have not done before.

I have been inspired to think critically and analyze situations, problems and tasks. I have learned to comprehend a situation in its entirety and view the many different aspects that contribute to the problem.

When asked whether any of the courses respondents had taken were particularly helpful in strengthening their critical thinking skills, more than four in five (85%) said yes. In their descriptions of what proved so helpful, two emphases emerged, as Table 20 indicates. One highlights the role of instructors in fostering critical thinking, while the other focuses on the nature of class work. One third of the first simply mentioned the instructor's style (e.g., “The professor's teaching style,” “Because of the professor”). Most of the remainder described how their instructors fostered critical evaluation, as the following examples indicate.

[The instructor] presented many things in a new light and encouraged his students to think outside of the box. He encouraged us to redefine what Western civilization means.

In a recent English course, our professor's high expectations is what motivated us to analyze what we were learning more critically. In that it was a literature course, we learned about the many theories applied to literature and then utilized what we learned to further understand what we were reading.... Also, the professor would ask provocative questions to encourage further analysis and persuade us to go think deeper.

The professors made the biggest impact in strengthening my critical thinking skills. The topics alone were not enough to actually motivate me to learn if I was given the

choice to study on my own. The professors I've had made these topics interesting and related certain topics to current events.

A relatively small segment of the responses focusing on the importance of faculty in strengthening critical thinking skills dealt with how their instructors encouraged consideration of multiple points of view. The following examples illustrate the responses in this subcategory.

The courses that helped strengthen my skills were very dynamic in the sense that the professor would use several methods to teach.... Working in groups during class time also helped me **see the material** that the professor was teaching **from several other students' perspectives, which helped expand my understanding** of what the professor was teaching.... (B)

...the teacher taught us the material but also had discussions with us about various theories and perspectives which allowed us to see outside the box and view things in a variety of different lights.

As was the case for writing, these responses, once again, highlight the importance of the caring instructor in fostering student learning.

The responses in the second major category of response mentioned above, which focused on the importance of class work, were diverse. But, two themes are evident: the importance of in-class discussion, usually in small groups, and essay assignments. The examples below are illustrative of each.

After the professor finished lecture, we the students were given 10 minutes to get into groups of our own choosing and discuss questions that were assigned. Afterwards we would report back to the class and present our ideas.

We had to debate every week in class about our opinions on important political subjects, and from being constantly put on the spot, my critical thinking was quickly sharpened.

...we were required to present all sides of the issue fairly in each of our three essays. We then had to argue both for our point of view and against the other point(s) of view. This process forced me to think critically about the issue from multiple perspectives, improving my understanding of that issue....

In addition to the above, about one-fifth of the respondents described how their coursework helped them either in evaluating the logic of arguments and/or provided insight into real world challenges. Illustrative

examples of each appear, in turn, below.

....They were helpful because I learned a lot about fallacies and how to deductively and inductively analyze things.

...because I had to gather my own data and analyze it critically, coming up with any possible confounding factors or outliers present.

....We were presented with so many conflicting ideas from different philosophers that it became essential to think critically about every new idea, or we would just be lost.

Trying to relate certain themes and curriculum to daily life was really useful and helped me think about the material in a different way. I think talking about certain readings and applying them to the student's lives really helps.

....These connections to the real world helped me understand WHY I'm learning this and again further reinforced my understanding of the subject.

Finally, a number of respondents commented on multiple helpful courses or simply indicated that their college experience overall had helped strengthen their analytic abilities. As one commented, "I don't think there is just one class that helped my critical thinking skills. They all have contributed in some way."

Changes in Approaches to Quantitative Reasoning

In sharp contrast to the questions about changes in approaches to reading, writing, and critical thinking assignments, only 32% of the Fall 2007 and Fall 2008 Learning Habits respondents reported that their approaches to assignments involving mathematics or quantitative reasoning had changed during their first two years at CSUN. Within this minority, the most frequent change in approach involved striving to arrive at a better understanding of math assignments, as is evident from the top section of Table 21. The following examples are typical of this response:

I have been exposed to more difficult problems involving quantitative and mathematical reasoning than I have ever before. By challenging myself with these problems I have encouraged my growth in quantitative and mathematical reasoning.

I try to look at problems much more logically. When possible, I try to relate them to real life or place them in some kind of context that makes the concept itself easier to understand and remember....

....I think that CSUN has helped me think beyond solving a problem--here, I have learned what and why this answer is significant.

In addition, a fair number of respondents talked about working harder to understand concepts and problems and/or being more likely to seek help when assignments present difficulties, as the following examples indicate.

To start with, I give more importance to assignments now and procrastination is no more a part of my curriculum. When it comes to Math, I have learned to not give up until I find the right answer to the problem.

Math is harder in college and now I spend more time studying math.

I mostly do everything the same but now I always consult a tutor when I am lost.

If I feel I don't understand the material completely, I try to look for tutoring which I didn't do in past situations.

At least one respondent combined all of the above elements into his/her response: "I understand that mathematics builds on itself a lot more now than I did before coming to CSUN. I also know how to budget my time wisely to understand more and how to communicate with others if I do not understand something." Finally, a few respondents mentioned being more likely to consider multiple ways of approaching a problem. As one noted, "I now approach problems with multiple different ways of solving them rather than just solving problems the first way I can think of. I take time to think and decide which approach would be BEST."

Two-thirds of the respondents reported that their approach to quantitative reasoning and mathematics had not changed. Two of the most frequently cited reasons for lack of change are familiar from previous discussion. As the bottom section of Table 21 indicates, one third of the respondents in the No Change category said that there was no need to change their approach to quantitative reasoning problems, while close to one in six reported that the approaches developed prior to coming to CSUN had proved adequate to their coursework at the university. As one commented, "I have always been proficient in mathematics and quantitative reasoning so there was no real need to change." Said another, "I had good methods from high school and they still work so I do not need to change it."

One category of response in the No Change grouping is new: as the bottom rows of Table 21 indicate, a quarter of the respondents reported taking very few, if any, math courses at CSUN or not taking any that were challenging. As one student commented, “I have only taken two math courses here at CSUN so I have not had the opportunity to find a better way to approach these types of assignments.” Said another, “My skills have not improved. I did not like the math courses I took at CSUN and sometimes feel as though they were a waste of time.”

This second comment highlights another element evident in some of the responses to the question about quantitative reasoning. Complaints about the quality of CSUN’s courses and/or instructors’ teaching skills are not widespread – they are evident in only 6% of the responses – but are striking because of their virtual absence in the responses to the questions about writing, reading, and critical thinking. At the same time, some respondents report actively avoiding math courses, as the following examples illustrate.

I have always struggled with mathematics, and I have only taken two math courses here at CSUN.... These were both taken my first year at CSUN, and I have done my best in avoiding any math classes since.

I only needed to take one math class, and that class was taken in the first semester here at CSUN to get it out of the way. I still avoid math like a plague....

I chose to go with a major that doesn't require a lot of math because math is not one of my strong points....

Math has never been one of my stronger subjects and I feel as though the math department at CSUN does not do anything to help the students like me....

As this last example illustrates, the above responses to the question about quantitative reasoning may point to a complex interplay between students’ entry-level skills and the teaching they encounter . That is, because many students enter CSUN with poorly developed quantitative skills, they avoid math courses, and when they are forced to take them, they feel that their poor training in the subject does not receive sufficient attention, presumably because their limited mathematical background prevents them from fully using the material being taught to strengthen their skills.

In keeping with the responses just reviewed, one third of the students who responded to the open-ended question about courses that were particularly helpful in strengthening their quantitative reasoning skills, stated that they simply had not taken such courses. The remaining respondents, however, identified useful courses. The aspects of these courses that proved particularly helpful are summarized in Table 22. As it indicates, one in three of the relevant responses described how the courses in question had enabled students to develop systematic procedures for approaching mathematical problems and issues. The following examples are typical.

The most recent math class I have taken is math ideas and this has helped me understand the function of proofs and formulas involved in solving math problems.

....These [courses] helped me to learn how to deal with numbers and how to analyze them to see what they really mean. I have learned how to compare sets of data to each other, both to compare their validity and to determine whether they are in agreement or not....

....the professor really emphasized the importance of writing down everything, even if we were writing notes. We had to write down what was given and each and every step we took to solve the problem. At first I thought this process was just long and annoying but I soon learned that it would help me to not only understand the problem better, but also made it easier to solve the problem....

Another one in six discussed the importance of their instructors' approach to the quantitative concepts, with most responses in this group emphasizing instructors' adeptness at handling difficult content, as is evident from the following examples.

[The instructor] used course packets that had the bulk of the important notes printed out for each student to buy. I found that this packet helped me tremendously through the semester because instead of reading a book, which is hard to understand with only numbers and examples, her packets had written English to explain derivatives, integrals and more.

The professor is quite possibly the best math professor I've ever had, she makes sure we understand the topics at hand and gives us notes and examples that are easy to follow.

Of the remaining categories of response in Table 22, the third and fourth are related and account for another one-sixth of the responses describing exceptional courses. They focus on how the courses in question provided insight into the functioning of the everyday world or, more abstractly, enhanced

students' understanding of the world in general. The examples below illustrate each of these two facets, with the second rather striking.

[This] course has helped me to be able to analyze data and relate it to the real world. Where mathematics to me before was crunching numbers and getting out an answer [this course] has helped me to learn, even in an idealized state where there is no inflation, how to treat different hypothetical situations and relate them to our everyday lives.

Although my calculus class taught me many things about mathematics, it was my chemistry class that popped my basic science cherry.... It taught me that all things in the universe can be explained through mathematics. It changed the way I will look at the world forever. The lab for that class was also particularly challenging because it required more than just mathematics....

This last response, in particular, provides a stark contrast to the complaints noted above about the limited values of the math courses offered at CSUN and reinforces the importance of the interplay between students' entry-level skills and the perceived value of their coursework at CSUN.

Students' Contrasting Approaches to Critical Thinking and Quantitative Reasoning

The four questions reviewed in this section were all posed in the fourth end-of term survey because of the link between critical thinking and quantitative reasoning processes. The responses reviewed above, however, indicate that the Learning Habits students appear to approach the two skill sets entirely differently. Table 23, which places their responses to the initial questions about changes in approach side-by-side, highlights the unexpected divergence. Almost all of the respondents have changed their approaches to critical thinking, while less than a third report altering how they deal with quantitative reasoning assignments. These responses, instead of being similar to those dealing with changes in approaches to reading and writing assignments, form the two extremes in the spectrum of responses. Thus, students are more likely to report changes in their approaches to critical thinking than in their approaches to reading or writing assignments, but considerably less likely to report changes in their approaches to quantitative reasoning.

With one important exception, the reasons for lack of change are similar for all four skill sets examined. For the two questions under discussion here, there is simply a sharp difference in the frequency with which students report the following: no need for change – I know what works for me and the skills I entered CSUN with continue to work. In each case, the response is rarely articulated for critical thinking, but is frequent for quantitative reasoning. In the case of the latter another element plays a role as well, as the bottom section of Table 23 indicates. Fully one-quarter of the respondents report either taking no math courses at CSUN or not having found the few they have taken useful.

In contrast to the reasons for lack of change, the nature of the changes in approach that the Learning Habits students describe are quite distinct for critical thinking and quantitative reasoning, as the format of the top part of Table 23 makes clear. By and large, Learning Habits students who have changed their approaches to quantitative reasoning have developed new means of arriving at a better understanding of their math assignments (e.g., by focusing on concepts or seeking help). In the case of critical thinking, in contrast, students report being able to expand their analytic abilities, thanks to challenging course content and effective instructors.

Given these divergences, there is surprising commonality in students' reports of their particularly helpful courses, as Table 24 indicates. The frequency with which different categories of response are mentioned is even similar in some cases, if one ignores the large group reporting no particularly useful quantitative reasoning courses. As the table indicates, students comment favorably on the excellence of their instructors in both cases (see category I on the left and category II on the right), though such comments are more frequent for critical thinking than for quantitative reasoning (30% vs. 18%). The relevance that useful courses have in teaching about real-world challenges is also a common theme, and here, the two percentages are largely equivalent (20% for critical thinking and 18% for quantitative reasoning). Finally, a third area of commonality involves the use of logical or systematic procedures to

evaluate problems or outcomes, something that is a more frequent theme in the case of quantitative reasoning than in the case of critical thinking (33% vs. 21%).

The two sets of responses diverge in only one area: a good many of the critical thinking responses discuss the value of class discussions and assignments in strengthening skills in this area, a view that is not evident in the quantitative reasoning responses (see category II on the left). The limited divergence in this last set of responses suggests that outstanding courses have common features in students' eyes. Their ability to benefit from some of them, however, as has been noted elsewhere in this section, may, in some instances, depend on the interaction between their entry-level skills and their instructors' adeptness at handling course content some students find unusually challenging.

The Freshman Reading Program

In Fall 2007, Cal State Northridge launched a Common Reading Program for entering freshmen. At entry, students are urged to read a pre-determined book and Fall term instructors are encouraged to consider the book in their lower division GE courses. Thus, it seemed appropriate to include a few questions about the Fall 2007 common text (*The Things They Carried* by Tim O'Brien) in the first end-of-term survey given to the Learning Habits students. Similar questions about the Fall 2008 common text (*Nickel and Dimed* by Barbara Ehrenreich) were included in the initial end-of-term survey given to the second Learning Habits cohort.

When asked, half of the Fall 2007 respondents said that they had read *The Things They Carried* during the preceding summer or fall (see top of Table 25). Just over half (53%), however, were not enrolled in any Fall term classes in which the book was discussed. Of those who were enrolled in classes in which it was discussed, just over half said that the class discussions increased their understanding of the issues raised in the book by a great deal or a good deal. By the second year of the Freshman Reading Program, participation was higher. More than half of the Learning Habits respondents (56%) reported reading *Nickel and Dimed* in the recent past and the same percentage (56%) reported being in classes in

which the book was discussed (see top of Table 26). Of the latter, 45% reported that the class discussions increased their understanding of the issues raised a great deal or a good deal.

Respondents' views of *The Things They Carried* varied, as the bottom section of Table 25 indicates. Close to half of those who had read the book recently provided relatively general evaluations of it (e.g., "I thought it was a very good book, with great themes"; "Very nice and interesting book"), with a few questioning its appropriateness as a college text. Those providing more specific comments, focused on the meaning of the book's multiple war stories, with some linking them to the present:

....The author went into great detail about every aspect, and I felt as if I was actually seeing it all happen in front of me. It helped open my eyes to how soldiers felt in the army, as it does compare to our present times with the war in Iraq. I was able to feel how the soldiers felt in their time of terror and pain as they had separated from their loved ones, and was able to watch how each person handled it differently.

Although the responses to the general question about student views of *The Things They Carried* were revealing in some respects, the question was revised for the first end-of term survey given the second entry cohort because it did not relate directly to students' learning habits.

Instead, the respondents reading *Nickel and Dimed* were asked to elaborate on a short-answer question also posed to the first Learning Habits cohort: the degree to which class discussions of the book contributed to their understanding of the issues raised. Most answered in various affirmative ways and the bottom section of Table 26 summarizes those aspects of the discussions that students singled out as being most useful. Three-fifths of the responses focused on aspects of in-class discussion that proved useful, while just over a third dealt with how such discussion served to illuminate important issues raised in the book. In most cases, these second dealt with the challenges of making ends meet while earning the minimum wage:

I found that the discussion made it more personal to my life and helped me understand how hard it is for people to make a living even if they are trying their best. It made me much more open and understanding of those who grew up with backgrounds and households/economic status that were different than myself.

How minimum wage workers struggle to make a living.

....*Nickel and Dimed* gave me a first-hand perspective of what it is like being an employee at a Wal-Mart store. It also helped me understand and relate to how difficult it is for everyday Americans to make enough to support their families on minimum wage paying jobs.

Two-fifths of those who focused on other useful aspects of class discussion dealt with the opportunity it offered to hear different points of view and/or to arrive at new views oneself. The following examples are illustrative.

I found it useful to hear other people's perspectives on the book. More importantly, I was intrigued to hear from those in the class who had held low-paying jobs or whose family had been in a similar position to Ehrenreich's....

I found *Nickel and Dimed* completely about sociology and economics but having a discussion opened up new ideas I had not thought of. Hearing others' points of view was the aspect of the discussion that I found most useful.

Well I understood the book very well but the class discussions brought up some points that I missed or overlooked the first time I read it.

I found it most interesting that many people thought the book was somewhat unrealistic. Also, it was good to hear from people who have worked in similar situations.

Conclusion: Areas of Curricular Challenge

The data reviewed here suggest that the lower division coursework completed by the university's Learning Habits students allows many of them to strengthen their writing and critical thinking skills in significant ways. Clearly, these are areas of strength at CSUN. In addition, the university offers courses, primarily in the Humanities, the data suggest, that enable students to strengthen their ability to read analytically, something that appears to be new to most of them. Some instructors also provide guidance about how to approach their required reading assignments and build mechanisms into their courses (e.g., pop quizzes) for insuring that the readings are completed in a timely way. Virtually no one, however, appears to address the volume of reading that these beginning college students are expected to master, presumably because the issue transcends the individual college classroom. As a result, the problem remains largely unaddressed, leaving students to soldier on as best they can. Those who are fortunate enough to enter CSUN with strong reading skills, obviously, have an easier time coping than others.

These findings are unsettling, not because the students under study do not cope after some initial difficulty, but because they are among CSUN's most promising. And, if relatively large numbers of them are struggling with the amount of reading they are expected to complete, many of the university's less well-prepared freshmen are likely to be coping considerably less successfully with the same challenges.⁸ Because the issue transcends the individual college classroom, the usual focus of student learning, addressing it may require a multi-faceted initiative involving a wide range of programs and offices. Possible venues for discussion and advice about means of coping with large amounts of reading range from Freshman Orientation sessions to widely-taken 100-level courses, to workshops offered through the Learning Resource Center or EOP, to various Colleges' one-on-one advising sessions. Experience at other colleges and universities may provide helpful information on effective approaches to the problem; a cursory Google search reveals that a range of other institutions are also grappling with the challenge of helping their students handle the volume of reading expected of them.

Previous discussion has revealed that quantitative reasoning is a second area where many of even the most promising Learning Habits students struggle. Here, however, effective means of assisting poorly prepared students remain more elusive than is the case for the challenges associated with the volume of reading students encounter in college. The Learning Habits responses reviewed above suggest that the challenge is to find ways of helping students with both a strong aversion to mathematics and inadequate preparation for college-level work, which leave them unable to benefit from classes that may be excellent for well-prepared students, but poorly suited to their skill level. This may be an area in which collaboration with area high schools to strengthen students' entry-level skills proves to be the most effective strategy.

⁸ Recall that the unit loads of the Learning Habits students are largely the same as those of the students in the larger entry cohorts to which they belong (see section 7 of Table 1).

Table 1. Characteristics of Learning Habits Participants Compared to All First Time Freshmen Entering in Fall 2007 or Fall 2008

Characteristic	Fall 2007 Entry Cohort		Fall 2008 Entry Cohort	
	Participants	Freshmen	Participants	Freshmen
Participants				
<i>Invited to Participate in Project</i>	517	4,130	1,558	4,625
Percent of cohort	12.5		33.7	
<i>Actual Participants</i>	82		159	
Percent of invitees	15.9		10.2	
1. High School GPA				
2.0 - 2.49	2.4	6.1	0.6	5.2
2.5 - 2.99	7.3	34.4	12.6	36.3
3.0 - 3.49	34.2	42.1	31.4	42.0
3.5 - 3.74	26.8	10.5	29.6	10.0
3.75 or higher	29.3	6.9	25.8	6.5
Total (Number of students)	100.0 (82)	100.0 (4,122)	100.0 (159)	100.0 (4,614)
Mean	3.48	3.08	3.46	3.08
Median	3.50	3.05	3.51	3.05
Interquartile range	3.18 - 3.79	2.79 - 3.35	3.14 - 3.75	2.78 - 3.35
2. Proficiency at Entry				
Fully proficient at entry	72.0	26.2	79.2	23.8
<i>Needs remediation in</i>				
English only	8.5	16.5	5.0	16.8
Mathematics only	8.5	12.7	8.8	11.7
Needs Remediation in Both	11.0	44.6	6.9	47.6
Total (Number of students)	100.0 (82)	100.0 (4130)	100.0 (159)	100.0 (4,625)
3. Need for Remediation in English				
Exempt (e.g., ACT, SAT)	47.6	22.8	57.9	23.3
Proficient at entry (passed EPT)	32.9	16.1	30.2	12.4
Needs remediation	19.5	61.1	11.9	64.4
Total (Number of students)	100.0 (82)	100.0 (4,130)	100.0 (159)	100.0 (4,625)
4. Need for Remediation in Mathematics				
Exempt (e.g., ACT, SAT)	53.7	25.8	59.1	24.3
Proficient at entry (passed ELM)	26.8	16.9	25.2	16.5
Needs remediation	19.5	57.3	15.7	59.3
Total (Number of students)	100.0 (82)	100.0 (4,130)	100.0 (159)	100.0 (4,625)

Table 1 cont'd. - 2

Characteristic	Fall 2007 Entry Cohort		Fall 2008 Entry Cohort	
	Participants	All Freshmen	Participants	All Freshmen
5. Gender				
Women	69.5	56.7	66.0	56.7
Men	30.5	43.3	34.0	43.3
Total (Number of students)	100.0 (82)	100.0 (4,130)	100.0 (159)	100.0 (4,625)
6. Racial and Ethnic Background				
Minority Background	43.9	63.2	43.9	67.8
<i>African American or Black</i>	12.2	15.0	6.3	13.5
<i>American Indian</i>	0.0	0.5	0.0	0.3
<i>Asian (includes Pacific Islanders)</i>	9.8	12.3	12.6	13.0
<i>Latina/o</i>	22.0	35.5	21.4	41.1
White	39.0	23.9	44.7	20.8
Unknown (includes Other)	17.1	9.2	11.9	8.3
International	0.0	3.6	3.1	3.1
Total (Number of students)	100.0 (82)	100.0 (4,130)	100.0 (159)	100.0 (4,625)
7. Number of Units Attempted in Fall 2007/2008				
11 or fewer units	0.0	3.6	0.6	2.4
12 units	19.5	26.7	20.1	29.8
13 units	24.4	15.2	30.8	19.6
14 units	11.0	24.4	15.1	24.6
15 units	18.3	13.9	21.4	10.9
16 or more units	26.8	16.3	11.9	12.7
Total (Number of students)	100.0 (82)	100.0 (4,130)	100.0 (159)	100.0 (4,625)
Mean	14.3	13.8	13.8	13.7
Median	14.0	14.0	13.0	13.0
Interquartile range	13 - 16	12 - 15	13 - 15	12 - 14
8. College Housing Likely Major				
Arts, Media, & Communication	2.4	15.5	22.0	14.7
Business & Economics	0.0	17.0	20.1	17.1
Education	0.0	0.9	2.5	1.1
Engineering & Computer Science	0.0	6.3	6.3	7.1
Health & Human Development	2.4	9.7	11.9	10.9
Humanities	19.5	5.6	3.1	5.8
Science and Mathematics	33.0	8.4	13.2	7.8
Social & Behavior Sciences	1.2	12.7	8.2	13.1
Undeclared	41.5	24.0	12.6	22.5
Total (Number of students)	100.0 (82)	100.0 (4,130)	100.0 (159)	100.0 (4,625)

**Table 2. Additional Background Information Provided by the Learning Habits Participants
Entering CSUN in Fall 2007 or Fall 2008 (Percentages)**

Characteristic	Fall 2007 Cohort	Fall 2008 Cohort	All Participants
Attended Summer Orientation Program for New Students			
Yes	85.4	88.6	87.5
No	14.6	11.4	12.5
Total (Number of respondents)	100.0 (82)	100.0 (167)	100.0 (249)
Native Language			
English	78.0	81.4	80.3
Another language	22.0	18.6	19.7
Total (Number of respondents)	100.0 (82)	100.0 (167)	100.0 (249)
One or Both Parents Were Born and Raised			
in the United States	42.0	43.4	42.9
in another country	58.0	56.6	57.1
Total (Number of respondents)	98.8 (81)	99.4 (166)	100.0 (247)
Languages Spoken in Home While Growing Up			
English only	52.5	49.3	50.4
Languages other than English	47.5	50.7	49.6
<i>Spanish</i>	16.3	21.7	19.8
<i>Armenian</i>	13.8	7.9	9.9
<i>Tagalog or Filipino</i>	3.8	4.6	4.3
<i>Farsi</i>	2.5	3.3	3.0
<i>Polish</i>	0.0	2.0	1.3
<i>Chinese (includes Mandarin)</i>	0.0	2.0	1.3
<i>Cantonese</i>	0.0	1.3	0.9
<i>Hebrew</i>	0.0	1.3	0.9
<i>Korean</i>	0.0	1.3	0.9
<i>Russian</i>	1.3	1.3	1.3
<i>Vietnamese</i>	0.0	1.3	0.9
<i>Other (listed by one student only) *</i>	8.8	2.6	4.7
<i>None Specified</i>	1.3	0.0	0.4
Total (Number of respondents)	100.0 (80)	100.0 (152)	100.0 (232)

* The following languages are included in the "Other" grouping: Afrikaans, Amharic, Arabic, German, Gujarati, Hindi, Igbo, Italian, Japanese, Malayalam, Nepalese, Patois, Persian, Portuguese, Thai, and Urdu.

Table 3. Percentage of Learning Habits Participants Citing Different Reasons for Choosing to Attend Cal State Northridge by Entry Cohort

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Participants
I. CSUN provides good training in my likely career field(s)	43.2	51.8	49.0
<i>A. Interested in a career in education or communication</i>	11.1	11.1	11.1
<i>B. Interested in a career in the arts</i>	3.7	12.7	9.7
<i>C. Interested in a career in business</i>	2.5	12.7	9.3
<i>D. Interested in a career in the sciences and math</i>	7.4	2.4	4.0
<i>E. Interested in a career in kinesiology or physical therapy</i>	1.2	3.6	2.8
<i>F. Interested in a career in engineering</i>	0.0	3.0	2.0
<i>G. CSUN offers another specific major that I wish to pursue</i>	9.9	6.6	7.7
<i>H. Attending CSUN allows me to consider several career options</i>	7.4	4.8	5.7
II. Location of the university fits my needs.	42.0	20.5	27.5
<i>A. Being so close to home is convenient.</i>	30.9	12.0	18.2
<i>B. The university is far from home, but not too far.</i>	9.9	3.6	5.7
<i>C. It is important to be near my family</i>	1.2	4.8	3.6
III. CSUN's geographic location and campus setting is appealing	32.1	24.7	27.1
<i>A. University location is appealing</i>	11.1	10.2	10.5
<i>B. The university in general is appealing</i>	6.2	6.0	6.1
<i>C. Liked the feel fo the campus in general</i>	7.4	5.4	6.1
<i>D. Valued a specific campus feature</i>	7.4	3.0	4.5
IV. The university is inexpensive and affordable	34.6	16.9	22.7
<i>A. Proximity to home cuts down on expenses</i>	16.0	6.6	9.7
<i>B. The university has low fees, but provides a quality education</i>	12.3	7.2	8.9
<i>C. Received sufficient financial aid and/or did not need loans</i>	6.2	0.0	2.0
<i>D. Other aspects of affordability</i>	0.0	3.0	2.0
V. Friends and family attended CSUN or recommended that I attend	22.2	12.7	15.8
<i>A. Family members attended or recommended CSUN</i>	12.3	9.0	10.1
<i>B. Friends attended CSUN or recommended that I attend</i>	9.9	3.6	5.7
VI. CSUN was my second choice	3.7	4.8	4.5
VII. Other comments	3.7	2.4	2.8
(Number of respondents on which the percentages are based)	(81)	(166)	(247)

Table 4. Learning Habits Participants' Expectations for Returning to CSUN for a Second Year of Study by Entry Cohort (Percentages)

Characteristic	Fall 2007 cohort	Fall 2008 cohort	All Participants
Plans for third term after entry			
Planning to return to CSUN	98.5	97.9	98.0
Not planning to return to CSUN	1.5	1.4	1.4
No response	0.0	0.7	0.6
Total (Number of respondents)	100.0 (68)	100.0 (141)	100.0 (209)

Table 5. Percentage of Learning Habits Participants Citing Different Reasons for Planning to Return to Cal State Northridge for Their Second Year of College by Entry Cohort

Reason	Fall 2007 cohort	Fall 2008 cohort	All Participants
I. The quality of the learning environment	60.3	40.4	46.9
<i>A. Praise of the learning environment</i>	22.1	22.7	22.5
<i>B. Caring and knowledgeable professors</i>	23.5	15.6	18.2
<i>C. The supportiveness of faculty and staff in my major</i>	7.4	2.1	3.8
II. Value of the campus community	39.7	34.8	36.4
<i>A. Overall campus atmosphere</i>	22.1	12.8	15.8
<i>B. Student activities, clubs, and support services</i>	13.2	9.2	10.5
<i>C. Have developed a network of friends</i>	2.9	7.8	6.2
<i>D. Diversity of the university</i>	0.0	3.5	2.4
<i>E. Other specific campus feature draw me back</i>	1.5	1.4	1.4
III. Dedicated to completing my education	8.8	20.6	16.7
A. Focus on major	1.5	1.5	1.5
B. Other	7.4	7.4	7.4
IV. The location of the university fits my needs	5.9	7.8	7.2
V. Have no particular reason for returning	8.8	2.8	4.8
VI. Financial reasons	1.5	5.7	4.3
VII. Other comments about returning	1.5	5.0	3.8
VIII. Not planning to return	2.9	0.7	1.4
(Number of respondents on which the percentages are based)	(68)	(141)	(209)

Table 6. Percentage of Learning Habits Participants Describing Particularly Good Learning Experiences by Entry Cohort and Survey Term

	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Courses in Which Learned a Great Deal More Than in Others					
Yes, one or more courses stand out	59.4	63.6	61.5	66.0	62.5
<i>one specified</i>	53.7	57.4	60.5	66.0	59.2
<i>more than one specified</i>	5.7	6.2	1.0	0.0	3.3
None stand out	40.6	36.4	38.5	34.0	37.5
Total (Number of respondents)	100.0 (229)	100.0 (209)	100.0 (205)	100.0 (200)	100.0 (843)
Instructor Techniques That Made a Significant Contribution to My Learning in a Course					
Yes	55.9	55.0	42.9	48.5	50.8
No	44.1	45.0	57.1	51.5	49.2
Total (Number of respondents)	100.0 (229)	100.0 (209)	100.0 (205)	100.0 (200)	100.0 (843)

Table 7. Courses Most Frequently Identified by Learning Habits Participants as the Ones in Which They Learned the Most During Their First Two Years at CSUN by Term and Discipline (Fall 2007 and Fall 2008 Entry Cohorts) *

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total	Percentage of Courses: Among All Identified Taken in First Year	
Remedial Courses		6	1	1	0	8	0.9	87.5
CHS 098	Basic Communication Skills	2		1		3	0.4	66.7
GE Basic Subjects (i.e., oral & written communication, critical thinking, quantitative skills)		48	31	7	4	90	10.7	87.8
ENG 155 (& 155H)	Freshman Composition	31	4	1	1	37	4.4	94.6
COMS 151 (& 151H)	Fundamentals of Public Speaking & Lab	5	14	1		20	2.4	95.0
CHS 151	Freshman Speech Communication	2	2	2	1	7	0.8	57.1
UNIV 100	Freshman Seminar	3	2			5	0.6	100.0
MATH 102	College Algebra	1	2		1	4	0.5	75.0
MATH 150A	Calculus I	1	1	1		3	0.4	66.7
MATH 150B	Calculus II	2			1	3	0.4	66.7
Lower Division Courses								
Humanities		21	31	40	14	106	12.6	49.1
ENG 205	Business Communication		5	10	1	16	1.9	31.3
HUM 101	Forms and Ideas in Humanities	4	1	2	1	8	0.9	62.5
PHIL 100	General Logic			4	2	6	0.7	0.0
RS 150	World Religions		2	2	1	5	0.6	40.0
AAS 201	Race, Racism, and Critical Thinking		1	3	1	5	0.6	20.0
ENG 208	Creative Writing		3		2	5	0.6	60.0
ENG 275	Major American Writers	1	2	2		5	0.6	60.0
RS 100	Introduction to Religious Studies		2	2	1	5	0.6	40.0
CHS 202	Race, Racism, and Critical Thinking			2	2	4	0.5	0.0
ENG 258	Major English Writers I	1	1	1	1	4	0.5	50.0
ENG 259	Major English Writers II	1		3		4	0.5	25.0
RS 204	Religion, Logic and the Media	3		1		4	0.5	75.0
GWS 100	Introduction to Gender & Women Studies		1	3		4	0.5	25.0
CHS 260	Constitutional Issues and the Chicano/a		2	1		3	0.4	66.7
JAPN 101/101C	Elementary Japanese I & Lab	2	1			3	0.4	100.0
RS 101	The Bible		2	1		3	0.4	66.7
Social and Behavioral Science		40	29	17	16	102	12.1	67.6
PSY 150	Principles of Human Behavior	11	8	1	2	22	2.6	86.4
POLS 155	American Political Institutions	8	5	1	1	15	1.8	86.7
SOC 150	Introductory Sociology	7	3	3		13	1.5	76.9
GEOG 101	The Physical Environment	3	2	4		9	1.1	55.6

Table 7 cont'd. - 2

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total	Percentage of Courses: Among All Identified Taken in First Year	
Lower Division - S&BS cont'd.								
HIST 271	The United States Since 1865	1	3	1	1	6	0.7	66.7
HIST 151	Western Civilization II	1	2		2	5	0.6	60.0
PSY 250	Physiological Correlates Human Behavior		2	1	1	4	0.5	50.0
HIST 270	The United States to 1865		2	1		3	0.4	66.7
PAS 100	Intro to Black Culture	1		1	1	3	0.4	33.3
PAS 204	Race and Critical Thinking		1	1	1	3	0.4	33.3
Science & Mathematics		7	26	16	14	63	7.5	52.4
BIOL 106 & 106L	Biological Principles I		7	3		10	1.2	70.0
BIOL 107	Biological Principles II		1	2	5	8	0.9	12.5
CHEM 101	General Chemistry I		4	1	3	8	0.9	50.0
CHEM 100	Principles of Chemistry	4	1	1		6	0.7	83.3
CHEM 102 & 102L	General Chemistry II (& Lab)		1	3	2	6	0.7	16.7
BIOL 101 & 101L	General Biology & Lab	1	3			4	0.5	100.0
ASTR 152	Elementary Astronomy	1	2			3	0.4	100.0
BIOL 211	Human Anatomy		2	1		3	0.4	66.7
BIOL 212 & 212L	Laboratory Studies in Human Anatomy		1	1	1	3	0.4	33.3
BIOL 281	Human Physiology			2	1	3	0.4	0.0
Arts, Media & Communication		16	14	13	8	51	6.0	58.8
JOUR 100	Mass Communication	5	1	2	2	10	1.2	60.0
MUS 107 (& OL)	Music Today	4	2	1		7	0.8	85.7
ART 151	Photography as Art	2	2			4	0.5	100.0
MUS 108	Music in Film	3	1			4	0.5	100.0
CTVA 210	Television-Film Aesthetics		3			3	0.4	100.0
Health and Human Development		8	3	6	1	18	2.1	61.1
FCS 207	Nutrition for Life	4		1		5	0.6	80.0
CADV 250	Child & Adol Dev Profession		2	1		3	0.4	66.7
HSCI 231	Women and Health		1	2		3	0.4	33.3
Business and Economics		0	2	8	8	18	2.1	11.1
ACCT 220	Intro to Financial Accounting			5	1	6	0.7	0.0
BLAW 280	Buissness Law I			1	5	6	0.7	0.0
ECON 160	Prin of Microeconomics		2	1		3	0.4	66.7
Engineering and Computer Science		2	4	2	2	10	1.2	60.0
MSE 227 & 227L	Engineering Materials (& Lab)	1		2	1	4	0.5	25.0
Education		1	3	1	1	6	0.7	66.7

Table 7 cont'd. - 3

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total	Percentage of Courses: Among All Identified		Taken in First Year
Upper Division Courses									
Humanities									
		0	0	6	19	25	3.0	0.0	
ENG 306	Report Writing			2	2	4	0.5	0.0	
Social and Behavioral Sciences									
		0	1	1	17	19	2.3	5.3	
PSY 320	Statistical Methods in Psychological Res & Lab			1	2	3	0.4	0.0	
Health and Human Development									
		0	3	3	11	17	2.0	17.6	
FCS 340	Marriage and Family Relations			2	2	4	0.5	0.0	
FCS 320	Family Resource Management		2	1	1	4	0.5	50.0	
Science and Mathematics									
		0	0	3	8	11	1.3	0.0	
CHEM 333	Organic Chemistry			1	7	8	0.9	0.0	
Arts, Media, and Communication									
		0	0	1	7	8	0.9	0.0	
JOUR 371	Women, Men, and Media				4	4	0.5	0.0	
Business and Economics									
		3	0	0	2	5	0.6	60.0	
MKT 304	Marketing Management	3			1	4	0.5	75.0	
No Courses Singled Out									
		93	76	79	68	316	37.5	53.5	
(No. of students providing responses)		(229)	(209)	(205)	(200)	(843)	100.0	52.0	

* All courses shown were mentioned by *at least three* students; the full list of courses appears in Appendix A.

Table 8. Percentage of Learning Habits Freshmen Citing Different Reasons Why Specific Courses Provided Exceptional Learning Experiences During Their First Year of College

Reason	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
I. Instructor's approach to course	72.1	70.2	66.9	69.5	69.7
<i>A. Focus on student learning</i>	21.3	21.4	20.2	23.7	21.6
1. Conveyed the desire to foster student learning	16.2	15.3	16.1	19.1	16.7
2. Articulated clear expectations for student performance	5.1	6.1	4.0	4.6	5.0
<i>B. Expressed enthusiasm and passion for subject</i>	12.5	12.2	12.9	6.9	11.1
<i>C. Course content linked to current events & students' daily lives</i>	16.9	8.4	12.1	19.8	14.4
<i>D. Clear well-organized class presentations and materials</i>	18.4	18.3	24.2	16.0	19.2
<i>E. Instructor displayed impressive knowledge of subject</i>	9.6	6.9	9.7	10.7	9.2
<i>F. Balance between lecture and discussion during class sessions</i>	7.4	3.1	6.5	4.6	5.4
<i>G. Instructor's style of presentation</i>	27.2	28.2	12.9	26.7	23.9
1. Instructor made the course interesting	18.4	14.5	4.0	11.5	12.3
2. Other aspects of instructor's style	8.8	13.7	8.9	15.3	11.7
II. Course structure	30.9	24.4	24.2	24.4	26.1
<i>A. Integration of reading assignments into class sessions</i>	11.0	6.1	4.8	4.6	6.7
<i>B. Utility of tests, papers, and assignments</i>	19.9	11.5	13.7	15.3	15.1
<i>C. Value of small group activities during class</i>	4.4	9.2	1.6	8.4	5.9
1. Peer evaluation	1.5	2.3	0.0	0.8	1.1
2. Group work	2.9	6.9	1.6	7.6	4.8
<i>D. Emphasis on ideas and concepts</i>	4.4	3.8	3.2	1.5	3.3
<i>E. Other aspects of course structure</i>	0.0	0.0	5.6	2.3	1.9
III. Nature of class content	17.6	16.0	29.8	30.5	23.4
<i>A. Challenged by subject matter and/or course requirements</i>	9.6	9.9	10.5	12.2	10.5
<i>B. In-depth examination of subject matter</i>	8.1	6.1	8.1	8.4	7.7
<i>C. Other</i>	0.0	0.0	11.3	9.9	5.2
IV. Contributions of other students to learning experience	13.2	10.7	8.9	5.3	9.6
<i>A. Getting to know other students facilitated learning</i>	5.9	4.6	3.2	3.1	4.2
<i>B. Interest and motivation of other students increased learning</i>	7.4	6.1	3.2	1.5	4.6
<i>C. Other</i>	0.0	0.0	2.4	0.8	0.8
V. What respondent brought to class	27.9	27.5	13.7	18.3	22.0
<i>A. An interest in the subject area</i>	23.5	18.3	10.5	14.5	16.9
<i>B. Desire for new knowledge and perspectives</i>	4.4	9.2	3.2	3.8	5.2
VI. Other comments	14.0	16.8	6.5	2.3	10.0
(Number of respondents on which the percentages are based) *	(136)	(131)	(124)	(130)	(521)

Table 9. Percentage of Learning Habits Freshmen Citing Instructor Techniques and Approaches Fostering Their Learning During Their First Year of College

Reason	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
I. Explicitly teach students how to approach academic tasks	23.6	11.9	7.1	11.6	14.4
<i>A. Preparation for examinations</i>	6.3	5.5	0.0	4.2	4.3
<i>B. Procedures for written assignments</i>	10.2	0.9	3.5	4.2	5.0
<i>C. Other academic tasks</i>	7.1	5.5	3.5	3.2	5.0
II. Draw students into class discussion or lecture	15.0	11.0	7.1	25.3	14.7
<i>A. Specific techniques for doing so</i>	6.3	3.7	4.7	18.9	8.2
<i>B. General recommendation</i>	8.7	7.3	2.4	6.3	6.5
III. Relate course material to ongoing events & students' daily lives	15.7	13.8	9.4	21.1	15.1
<i>A. With the help of visual aids</i>	4.7	6.4	0.0	10.5	5.5
<i>B. By other means</i>	11.0	7.3	9.4	10.5	9.6
IV. Convey the desire to foster student learning	19.7	15.6	15.3	11.6	15.9
<i>A. Make students comfortable in class</i>	5.5	3.7	1.2	9.5	5.0
<i>B. Availability to answer questions</i>	2.4	6.4	2.4	2.1	3.4
<i>C. Other strategies</i>	11.8	5.5	11.8	0.0	7.5
<i>V. In-class quizzes and exercises designed to strengthen skills</i>	10.2	9.2	16.5	15.8	12.5
VI. Small group activities during class	13.4	11.0	10.6	10.5	11.5
<i>A. Group work</i>	6.3	7.3	8.2	5.3	6.7
<i>B. Peer evaluation</i>	6.3	0.9	0.0	2.1	2.6
<i>C. Class Presentations</i>	0.8	2.8	2.4	3.2	2.2
VII. Instructor's approach to course	7.9	12.8	8.2	6.3	8.9
<i>A. Expressed enthusiasm and passion for subject of course</i>	7.1	11.9	7.1	2.1	7.2
<i>B. Knowledge of subject</i>	0.8	0.9	1.2	4.2	1.7
VIII. Other measures to facilitate student learning	20.5	31.2	31.8	32.6	28.4
<i>A. Make lecture notes available to students</i>	4.7	11.0	9.4	5.3	7.5
<i>B. Availability of online tools and resources</i>	4.7	5.5	9.4	7.4	6.5
<i>C. Clear, well-organized class presentations and materials</i>	3.9	6.4	7.1	6.3	5.8
<i>D. Integrating reading assignments into class sessions</i>	3.1	2.8	3.5	8.4	4.3
<i>E. The utility of various teaching techniques used</i>	3.9	5.5	2.4	5.3	4.3
VIII. Other suggestions	10.2	10.1	22.4	12.6	13.2
(Number of respondents on which the percentages are based) *	(127)	(109)	(85)	(95)	(416)

**Table 10. Other Aspects of Student Learning Deemed Important by Learning Habits Participants by Term
(Percentages; Fall 2007 and Fall 2008 entry cohorts) ***

Reason	Term Two (S09)	Term Four (S09 & S10)	All Respondents.
I. Instructor's Approach	30.0	26.9	27.6
<i>A. Conveyed enthusiasm and passion for subject</i>	10.0	7.7	8.2
<i>B. Acted in supportive manner (generous with time, office hours, etc.)</i>	5.0	6.4	6.1
<i>C. Had well-organized materials and presentations</i>	0.0	5.1	4.1
<i>D. Had difficulty in poorly taught course</i>	5.0	2.6	3.1
<i>E. Other</i>	10.0	5.1	6.1
II. Getting Involved or Connected	35.0	19.2	22.4
<i>D. Utilizing campus resources (e.g., library, tutoring services, counseling center)</i>	15.0	9.0	10.2
<i>A. Participation in study groups or dorm activities</i>	15.0	5.1	7.1
<i>B. Establishing friendships with other students</i>	5.0	2.6	3.1
<i>C. Participation in student clubs, Greek societies, etc.</i>	0.0	2.6	2.0
III. Class Content	0.0	9.0	7.1
<i>A. Interested in subject or gained knowledge about new subject</i>	0.0	6.4	5.1
<i>B. Upper division courses better than lower division courses</i>	0.0	2.6	2.0
IV. Strategies For Succeeding	35.0	25.6	27.6
<i>A. Good time management is key</i>	10.0	10.3	10.2
<i>B. Finding means of balancing personal & academic aspects of life</i>	5.0	5.1	5.1
<i>C. Heavy course load focuses attention</i>	0.0	2.6	2.0
<i>D. Importance of getting enough sleep</i>	5.0	1.3	2.0
<i>E. Other</i>	15.0	6.4	8.2
V. Personal Experiences	10.0	11.5	11.2
<i>A. Financial considerations</i>	10.0	10.3	10.2
<i>A.2. Effects of budget cuts at CSUN (e.g., furloughs)</i>	5.0	7.7	7.1
<i>A.1. Self or family</i>	5.0	2.6	3.1
<i>B. Illness (self or family member)</i>	0.0	1.3	1.0
VI. Other	20.0	9.0	11.2
(Number of respondents on which the percentages are based)	(20)	(78)	(98)
<hr/>			
Percentage of respondents identifying other important aspects of their learning	20.8	39.0	33.1
(Number of respondents)	(96)	(200)	(296)

* Since the question on which this table is based was not posed until the Spring 2009 term, term two responses were provided by the Fall 2008 entry cohort only.

Table 11. Other Aspects of College Experience That Learning Habits Participants Reported Making a Difference in Their Learning by Term (Percentages; Fall 2007 and Fall 2008 entry cohorts) *

Reason	Term One (F08)	Term Two (S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
I. Co-curricular or Volunteer Activities	36.6	40.9	47.0	56.3	46.8
<i>A. Strengthened academic skills</i>	7.3	15.9	10.6	21.1	14.4
<i>B. Provided sense of community</i>	14.6	13.6	9.1	4.2	9.5
<i>C. Provided career direction</i>	2.4	2.3	10.6	15.5	9.0
<i>D. Service to others</i>	0.0	2.3	7.6	1.4	3.2
<i>E. Participated in activity (no further explanation)</i>	4.9	6.8	4.5	7.0	5.9
<i>F. Other</i>	7.3	0.0	4.5	7.0	5.0
II. Paid Employment.	14.6	15.9	31.8	32.4	25.7
<i>A. Off-campus position</i>	9.8	9.1	21.2	12.7	14.0
<i>B. On-campus position</i>	4.9	4.5	9.1	15.5	9.5
<i>C. Internship or service learning</i>	0.0	2.3	1.5	4.2	2.3
III. Established or Strengthened Support Network	31.7	27.3	18.2	21.1	23.4
<i>A. Friendships and study groups</i>	9.8	9.1	16.7	15.5	13.5
<i>B. CSUN services (e.g., Health Center, Career Center, learning supports)</i>	19.5	9.1	1.5	2.8	6.8
<i>C. Faculty and staff assistance</i>	2.4	9.1	0.0	2.8	3.2
IV. Some Courses Helped With Personal Issues or Career Direction	9.8	6.8	13.6	8.5	9.9
V. CSUN Atmosphere	17.1	4.5	7.6	0.0	6.3
<i>A. Dorm life</i>	9.8	2.3	6.1	0.0	4.1
<i>B. Campus facilities (e.g., Library, Art Galleries, Athletic events)</i>	4.9	2.3	1.5	0.0	1.8
<i>C. Student diversity</i>	2.4	0.0	0.0	0.0	0.5
VI. Other	4.9	15.9	3.0	9.9	8.1
(Number of respondents on which the percentages are based)	(41)	(44)	(66)	(71)	(222)
Percentage of respondents identifying other important aspects of their learning	41.4	45.8	32.8	35.5	37.2
(Number of respondents)	(99)	(96)	(201)	(200)	(596)

* Since the question on which this table is based was not posed until Fall 2008, term one and two responses were provided by the Fall 2008 entry cohort only.

Table 12. Changes in Study Habits of Learning Habits Participants After Disappointing First Term Performance by Entry Cohort (Percentages)

Characteristic	Fall 2007 cohort	Fall 2008 cohort	All Participants
Were There Courses in Which You Performed Less Well Than You Would Have Liked in the Preceding Term?			
Yes	35.3	59.6	51.7
No	64.7	40.4	48.3
Total (Number of respondents)	100.0 (68)	100.0 (141)	100.0 (209)
Changes in Study Habits Designed to Improve Performance			
I. Changes in learning or study habits	68.2	82.1	78.7
<i>A. Studied harder</i>	50.0	35.8	39.3
1. Paid more careful attention in class	13.6	13.4	13.4
2. Other	36.4	23.9	27.0
<i>B. Approached my studies in a different manner</i>	9.1	23.9	20.2
1. Started to study with one or more students	4.5	9.0	7.9
2. Turned to tutor or instructor to explain difficult course material	4.5	9.0	7.9
3. Other strategy	0.0	7.5	5.6
<i>C. Improved time management</i>	13.6	20.9	19.1
II. Reasons why study habits remained unchanged	22.7	7.5	11.3
<i>A. Family difficulties undermined my performance during Fall term</i>	13.6	0.0	3.4
<i>B. Did not improve my grades because did not change study habits</i>	9.1	7.5	7.9
III. Other comments	9.1	10.4	10.1
(Number of respondents on which the percentages are based)	(22)	(67)	(89)

Table 13. Learning Habits Students' Views of Whether Their Approach to Writing Has Changed Since Their Arrival at CSUN by Entry Cohort (Percentages)

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
My Approach to Writing Has Changed	60.7	70.7	67.7
I. Have Learned New Techniques and Approaches in CSUN Classes	14.8	29.3	24.9
<i>A. English Classes Singled Out</i>	6.6	10.7	9.5
<i>B. Other Classes Singled Out</i>	3.3	3.6	3.5
<i>C. Both Types of Classes or CSUN Classes in General Mentioned</i>	1.6	7.1	5.5
<i>D. Learning Resource Center (LRC) Helpful</i>	1.6	2.9	2.5
<i>E. Other (no CSUN activity mentioned)</i>	1.6	5.7	4.5
II. Have Changed Approach to Writing Assignments	36.1	26.4	29.4
<i>A. Organize More Carefully Before Begin to Write</i>	8.2	8.6	8.5
<i>B. Begin to Work on Assignments Earlier</i>	14.8	5.7	8.5
<i>C. Engage in More Preparation Before Write</i>	6.6	5.0	5.5
<i>D. Revise More</i>	3.3	3.6	3.5
<i>E. Have Become More Serious About Writing</i>	3.3	3.6	3.5
<i>F. Other</i>	9.8	11.4	10.9
III. Practice Makes Perfect (Required to Do More Writing at CSUN)	0.0	2.1	1.5
IV. Need to Perform at Higher Level Than in High School	8.2	9.3	9.0
V. Other Writing Comments	6.6	5.0	5.5
VII. Have Changed Approach to Reading Assignments	--	--	--
VI. Importance of Doing Assigned Readings in a Timely Way	--	--	--
VIII. Other Reading Comments	--	--	--
My Approach to Writing Has NOT Changed	41.0	30.7	33.8
I. No Need For Change: I Know What Works for Me	26.2	16.4	19.4
II. Don't Do Much Writing at CSUN	3.3	3.6	3.5
III. Approach Developed in High School Continues to Work	11.5	10.0	10.4
<i>A. Did Extensive Writing in High School</i>	4.9	2.1	3.0
<i>B. Other</i>	6.6	7.9	7.5
IV. Other Writing/Reading Comments	1.6	1.4	1.5
(Number of respondents on which the percentages are based)	(61)	(140)	(201)

Table 14. Percentage of Learning Habits Students Citing Different Reasons Why Their Initial College Coursework Was Particularly Helpful in Strengthening Their Writing Skills by Entry Cohort

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
I. Provided Information on How to Approach Academic Writing Tasks	37.2	49.5	45.8
<i>A. Emphasis on Organizing Essay and Thoughts</i>	11.6	14.9	13.9
<i>B. Elements of Logical Arguments and How to Construct Them</i>	4.7	10.9	9.0
<i>C. Attention to Audience</i>	2.3	10.9	8.3
<i>D. Preparing Different Types of Essays</i>	9.3	5.9	6.9
<i>E. Importance of Distinguishing Components of Writing Process (e.g., outline, research)</i>	7.0	4.0	4.9
<i>F. Learned to View Writing in a Different Way</i>	4.7	5.0	4.9
<i>G. Clear Directions for Approaching Assignments</i>	2.3	5.9	4.9
<i>H. Other</i>	2.3	2.0	2.1
II. Instructor Behavior	30.2	33.7	32.6
<i>A. Actively Involved in My Writing Process</i>	16.3	12.9	13.9
<i>B. Instructor Was Exceptional</i>	4.7	13.9	11.1
<i>C. Had High Standards and Pushed Students to Improve</i>	2.3	5.9	4.9
<i>D. Other</i>	7.0	4.0	4.9
III. Provided Information on Technical Aspects of Writing	9.3	11.9	11.1
<i>A. Dealt With Appropriate Use of Grammar</i>	4.7	4.0	4.2
<i>B. Provided Guidance on Preparing Specific Documents (e.g., business letters)</i>	4.7	3.0	3.5
<i>C. Provided Guidance on Citing and Evaluating Sources</i>	2.3	4.0	3.5
<i>D. Other</i>	2.3	2.0	2.1
IV. Writing Practice Required	30.2	25.7	27.1
<i>A. Volume of Writing Required Made the Difference</i>	16.3	11.9	13.2
<i>B. Peer Editing Exercises Valuable</i>	7.0	6.9	6.9
<i>C. Multiple Drafts and Revision Helpful</i>	7.0	5.9	6.3
<i>D. Essay Topics Interesting; More Engaged as Result</i>	2.3	3.0	2.8
<i>E. Other</i>	2.3	1.0	1.4
V. Benefitted From Required Use of Campus Writing Center	0.0	4.0	2.8
VI. Other	7.0	5.9	6.3
(Number of respondents on which the percentages are based)	(43)	(101)	(144)

Table 15. Learning Habits Students' Views of Whether Their Approach to Reading Has Changed Since Their Arrival at CSUN by Entry Cohort (Percentages)

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
My Approach to Reading Has Changed	55.9	62.0	60.2
I. Have Learned New Techniques and Approaches in CSUN Classes	1.7	4.2	3.5
<i>A. English Classes Singled Out</i>	0.0	2.1	1.5
<i>B. Other Classes Singled Out</i>	0.0	1.4	1.0
<i>C. Both Types of Classes or CSUN Classes in General Mentioned</i>	1.7	0.0	0.5
<i>D. Other (no CSUN activity mentioned)</i>	0.0	0.7	0.5
II. Have Changed Approach to Writing Assignments	--	--	--
III. Practice Makes Perfect (Required to Do More Reading at CSUN)	15.3	13.4	13.9
IV. Need to Perform at Higher Level Than in High School	6.8	8.5	8.0
V. Other Writing Comments	--	--	--
VI. Have Changed Approach to Reading Assignments	42.4	36.6	38.3
<i>A. Have learned to take better notes</i>	11.9	15.5	14.4
<i>B. Importance of reading for understanding *</i>	15.3	7.0	9.5
<i>C. Read more carefully/in depth</i>	8.5	9.9	9.5
<i>D. Importance of reading and reviewing multiple times</i>	6.8	6.3	6.5
<i>E. Other</i>	10.2	4.2	6.0
VII. Importance of Doing Assigned Readings in a Timely Way	15.3	22.5	20.4
<i>A. Have learned to skim/read faster</i>	8.5	8.5	8.5
<i>B. Prioritize readings based on class structure or professor's style</i>	3.4	6.3	5.5
<i>C. Importance of doing assigned reading before class</i>	3.4	4.2	4.0
<i>D. Other</i>	5.1	4.9	5.0
VIII. Other Reading Comments	1.7	3.5	3.0
My Approach to Reading Has NOT Changed	44.1	38.0	39.8
I. No Need For Change: I Know What Works for Me	33.9	28.9	30.3
<i>A. Current approach has always worked</i>	25.4	23.2	23.9
<i>B. Description of approach to reading; lack of change implied</i>	8.5	7.7	8.0
II. No Courses Have Focused on Reading	1.7	7.0	5.5
III. Approach Developed in High School Continues to Work	3.4	2.8	3.0
<i>A. Did Extensive Reading in High School</i>	1.7	1.4	1.5
<i>B. Other</i>	1.7	1.4	1.5
IV. Other Writing/Reading Comments	3.4	1.4	2.0
(Number of respondents on which the percentages are based)	(59)	(142)	(201)

* Reading for understanding involves gaining a better understanding of an assignment or the necessary basis for critical analysis.

Table 16. Percentage of Learning Habits Students Citing Different Reasons Why Their Initial College Coursework Was Particularly Helpful in Strengthening Their Reading Skills by Entry Cohort

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
I. Amount of Assigned Reading Required Different Approach	30.0	18.8	22.1
<i>A. Interesting assignments make requirement easier to meet</i>	5.0	4.2	4.4
<i>B. Other</i>	25.0	14.6	17.6
II. Integrating Assigned Reading into Course	10.0	16.7	14.7
<i>A. Quizzes and tests focusing on reading</i>	0.0	10.4	7.4
<i>B. In-class discussions based on readings</i>	5.0	4.2	4.4
<i>C. Essay assignments based on readings</i>	2.5	3.1	2.9
<i>D. Instructor expectation that comprehension of assigned readings integral to course</i>	4.7	0.0	1.4
III. Providing Guidance on How to Approach Reading Assignments	12.5	18.8	16.9
<i>A. Analytic reading skills (i.e., reading for understanding) taught in course</i>	10.0	10.4	10.3
<i>B. Provide review questions on assigned readings that draw out implications</i>	0.0	4.2	2.9
<i>C. Critical reading skills taught in course</i>	2.5	2.1	2.2
<i>D. Subdivide sections of required books (other than text) into multiple assign.</i>	0.0	2.1	1.5
IV. Learning About Writing Helps Improve Reading Skills	2.5	1.0	1.5
V. Other	5.0	5.2	5.1
VI. No Specific Courses Mentioned as Being Helpful	7.5	13.5	11.8
<i>A. Described own techniques for approaching reading</i>	5.0	8.3	7.4
<i>B. Improved skills through trial & error or my own efforts</i>	0.0	2.1	1.5
<i>C. Other</i>	2.5	3.1	2.9
VII. Have Not Taken Courses That Improved Reading Skills (no further explanation)*	35.0	32.3	33.1
(Number of respondents on which the percentages are based)	(40)	(96)	(136)

* This response was explicit in 45 instances (14 in 07 cohort and 31 in 08 cohort); another 66 students (20 in 07 cohort and 44 in 08 cohort) simply did not respond to the question.

Table 17. Learning Habits Students' Views of Whether Their Approach to Writing or Reading Has Changed Since Their Arrival at CSUN (Percentages)

Reason	Writing Responses	Reading Responses
My Approach to Writing/Reading Has Changed	67.7	60.2
I. Have Learned New Techinques and Approaches in CSUN Classes	24.9	3.5
II. Have Changed Approach to Writing Assignments	29.4	--
III. Required to Do More Writing/Reading at CSUN (Practice Makes Perfect)	1.5	13.9
IV. Need to Perform at Higher Level Than in High School	9.0	8.0
V. Other Writing Comments	5.5	--
VI. Importance of Doing Assigned Readings in a Timely Way	--	20.4
VII. Have Changed Approach to Reading Assignments	--	38.3
VIII. Other Reading Comments	--	3.0
My Approach to Writing/Reading Has NOT Changed	33.8	39.8
I. No Need For Change: I Know What Works for Me	19.4	30.3
II. Don't Do Much Writing at CSUN/No Courses Have Focused on Reading	3.5	5.5
III. Approach Developed in High School Continues to Work	10.4	3.0
IV. Other Writing/Reading Comments	1.5	2.0
(Number of respondents on which the percentages are based)	(201)	(201)

Table 18. Percentage of Learning Habits Students Citing Different Reasons Why Their Initial College Coursework Was Particularly Helpful in Strengthening Selected Skills by Type of Response

Writing Response Category	Writing Responses	Reading Responses	Reading Response Category
IV. Writing Practice Required	27.1	22.1	I. Amount of Assigned Reading Required Different Approach
III. Provided Information on Technical Aspects of Writing	11.1		
II. Instructor Behavior	32.6		
I. Provided Information on How to Approach Academic Writing Tasks	45.8	16.9	III. Providing Guidance on How to Approach Reading Assignments
V. Benefitted From Required Use of Campus Writing Center	2.8	14.7	II. Integrating Assigned Reading into Course
		1.5	IV. Learning About Writing Helps Improve Reading Skills
		11.8	VI. No Specific Courses Mentioned as Being Helpful
VI. Other	6.3	33.1	VII. Have Not Taken Courses That Improved Reading Skills
		5.1	V. Other
(No. of respondents on which the percentages are based)	(144)	(136)	(No. of respondents on which the percentages are based)

Table 19. Learning Habits Students' Views of Whether Their Ability to Think Critically and Analyze Has Improved Since Their Arrival at CSUN by Entry Cohort (Percentages)

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
My Ability to Think Critically Has Changed	91.1	94.9	93.8
I. Have Been Challenged by Course Content	33.9	61.6	53.6
II. Have Improved Analytic Abilities	17.9	15.9	16.5
III. Professors Have Challenged Me to Think Critically	14.3	8.7	10.3
IV. Exposure To and Familiarity With Real World Problems	7.1	6.5	6.4
V. Have Gotten Older and Matured	10.7	3.6	5.7
VI. Have Been Exposed to Differing Points of View	3.6	3.6	3.6
VII. Other	3.6	2.9	3.1
My Ability To Think Critically Has NOT Changed	8.9	5.1	6.2
I. No Need for Change: I Know What Works for Me	0.0	2.2	1.5
II. Approach Developed in High School Continues to Work	5.4	0.0	1.5
III. Critical Thinking Courses Lacked Emphasis on Practical Application	1.8	0.0	0.5
IV. Have Not Benefitted from CSUN coursework; no reason given	0.0	2.2	1.5
V. Other	1.8	0.7	1.0
(Number of respondents on which the percentages are based)	(56)	(138)	(194)

Table 20. Percentage of Learning Habits Students Citing Different Reasons Why Their Initial College Coursework Was Particularly Helpful in Strengthening Their Critical and Analytical Skills

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
I. Instructor's Approach to Course Material	35.4	27.6	29.9
<i>A. Fostered Critical Evaluation</i>	20.8	12.9	15.2
<i>B. Encouraged Consideration of Multiple Points of View</i>	6.3	4.3	4.9
<i>C. Other</i>	8.3	10.3	9.8
II. Nature of Class Discussions and Assignments Fostered Critical Thinking	22.9	33.6	30.5
<i>A. Small Group Discussion in Class</i>	8.3	8.6	8.5
<i>B. Essay Assignments</i>	4.2	10.3	8.5
<i>C. Other</i>	10.4	14.7	13.4
III. Have Learned How to Evaluate Logic of Arguments or Possible Outcome	14.6	24.1	21.3
IV. Courses Provided Insights Into Real World Challenges	20.8	19.0	19.5
V. College Experience Has Improved Analytic Abilities	2.1	7.8	6.1
VI. Other	12.5	9.5	10.4
(Number of respondents on which the percentages are based)	(48)	(116)	(164)

Table 21. Learning Habits Students' Views of Whether Their Quantitative Reasoning Skills Have Changed Since Their Arrival at CSUN by Entry Cohort (Percentages)

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
My Quantitative Reasoning Skills Have Changed	28.3	33.3	31.8
I. Strive to arrive at better understanding of assignments.	7.5	11.1	10.1
II. Work harder at understanding mathematical concepts and problems	5.7	5.6	5.6
III. Seek Help When Encounter Problems	1.9	5.6	4.5
IV. Consider Multiple Ways of Approaching Problems	5.7	2.4	3.4
V. Approach Math With a Positive Attitude	1.9	0.8	1.1
VI. Other	5.7	10.3	8.9
My Quantitative Reasoning Skills Have NOT Changed	71.7	66.7	68.2
I. No Need For Change: I Know What Works for Me	24.5	16.7	19.0
II. Adequate Quantitative reasoning skills developed before came to CSUN	11.3	13.5	12.8
III. Have taken very few math classes at CSUN; none were challenging	22.6	15.9	17.9
IV. Have not taken any math classes at CSUN.	5.7	8.7	7.8
V. Other	7.5	10.3	9.5
(Number of respondents on which the percentages are based)	(53)	(126)	(179)

Table 22. Percentage of Learning Habits Students Citing Different Reasons Why Their Initial College Coursework Was Particularly Helpful in Strengthening Their Quantitative Reasoning Skills

Reason	Fall 2007 Cohort	Fall 2008 Cohort	All Resp.
I. Courses taught systematic procedures for solving problems.	16.7	24.2	22.1
II. Instructor's approach to class content.	12.5	11.3	11.6
<i>A. Able to explain mathematical content and/or logic.</i>	4.2	4.8	4.7
<i>B. Knowledge, enthusiasm, and passion for subject</i>	8.3	1.6	3.5
<i>C. Other</i>	0.0	4.8	3.5
III. Learned importance of quantitative reasoning skills in the real world	0.0	9.7	7.0
IV. Learned importance of math & science in understanding the world	4.2	4.8	4.7
V. Have learned value of experimental method.	0.0	3.2	2.3
VI. Class taught value of persistence.	8.3	0.0	2.3
VII. Other	8.3	21.0	17.4
VIII. No classes were particularly helpful.	50.0	27.4	33.7
(Number of respondents on which the percentages are based)	(24)	(62)	(86)

Table 23. Learning Habits Students' Views of Whether Their Approach to Critical Thinking or Quantitative Reasoning Has Changed Since Their Arrival at CSUN (Percentages)

Reason	Critical Thinking Responses	Quantatative Reasoning Responses
My Approach Has Changed	93.8	31.8
I. Have Been Challenged by Course Content	53.6	--
II. Have Improved Analytic Abilities	16.5	--
III. Professors Have Challenged Me to Think Critically	10.3	--
IV. Exposure To and Familiarity With Real World Problems	6.4	--
V. Have Gotten Older and Matured	5.7	--
VI. Have Been Exposed to Differing Points of View	3.6	--
I. Strive to arrive at better understanding of assignments.	--	10.1
II. Work harder at understanding mathematical concepts and problems	--	5.6
III. Seek Help When Encounter Problems	--	4.5
IV. Consider Multiple Ways of Approaching Problems	--	3.4
Other Comments (V,VII)	3.1	8.9
My Approach Has NOT Changed	6.2	68.2
I. No Need For Change: I Know What Works for Me	1.5	19.0
II. Approach Developed Before Came to CSUN (e.g., in high school) Continues to Work	1.5	12.8
Courses Have not Focused on Skill/Have Not Benefited From Them (III, IV)	1.5	17.9
IV. Have not taken any math classes at CSUN.	--	7.8
V. Other Comments	1.0	9.5
(Number of respondents on which the percentages are based)	(194)	(179)

Table 24. Percentage of Learning Habits Students Citing Different Reasons Why Their Initial College Coursework Was Particularly Helpful in Strengthening Selected Skills by Type of Response

Critical Thinking Response Category	Critical Thinking Responses	Quantitative Reasoning Responses	Quantitative Reasoning Response Category *
I. Instructor's Approach to Course Material	29.9	17.5	II. Instructor's approach to class content.
III. Have Learned How to Evaluate Logic of Arguments or Possible Outcomes	21.3	33.3	I. Courses taught systematic procedures for solving problems.
IV. Courses Provided Insights Into Real World Challenges	19.5	10.5	III. Learned importance of quantitative reasoning skills in the real world
		7.0	IV. Learned importance of math & science in understanding the world
II. Nature of Class Discussions and Assignments Fostered Critical Thinking	30.5		
V. College Experience Has Improved Analytic Abilities	6.1		
		3.5	V. Have learned value of experimental method.
		3.5	VI. Class taught value of persistence.
VI. Other	10.4	26.3	VII. Other
(No. of respondents on which the percentages are based)	(164)	(57)	(No. of respondents on which the percentages are based)

* In calculating the percentages shown here, the relatively large number of respondents attempting no particularly helpful quantitative reasoning classes have been excluded from consideration (see Table 22).

Table 25. Fall 2007 Entrants' Familiarity With and Views of the Freshman Common Reading (*The Things They Carried* by Tim O'Brien)

	Percentage
Familiarity with <i>The Things They Carried</i>	
Yes, I read the book this past summer/fall	50.0
No, I did not read the book	50.0
Total responses (Number of responses)	100.0 (76)
Was <i>The Things They Carried</i> Discussed in One of Your Fall 2007 Classes?	
Yes, and it increased my understanding of the issues raised in the book	39.2
A great deal	9.5
A good deal	14.9
A bit	14.9
Yes, but it did not really increase my understanding of the issues	8.1
The book was not discussed in any of my Fall classes	52.7
Total responses (Number of responses)	100.0 (74)
Respondents' Views of <i>The Things They Carried</i>	
I. Scope of book	53.7
A. Transcended its Vietnam setting & dealt with overarching issues	17.1
B. Provided insight into soldiers' experiences during war	19.5
C. Provided a good description of the Vietnam war and its era	17.1
II. General evaluations of the book	48.8
A. Appropriateness as a college text	9.8
B. An excellent book	14.6
C. The book did not interest me	7.3
D. General comments	17.1
(Number of respondents on which the percentages are based)	(41)

Table 26. Fall 2008 Entrants' Familiarity With and Views of the Freshman Common Reading (*Nickel and Dimed* by Barbara Ehrenreich)

	Percentage
Familiarity with Nickel and Dimed	
Yes, I read the book this past summer/fall	56.1
No, I did not read the book	43.9
Total responses (Number of responses)	100.0 (148)
Was <i>Nickel and Dimed</i> discussed in one of your Fall 2008 classes?	
Yes, and it increased my understanding of the issues raised in the book	42.8
A great deal	9.5
A good deal	15.6
A bit	17.7
Yes, but it did not really increase my understanding of the issues	13.6
The book was not discussed in any of my Fall classes	44.2
Total responses (Number of responses)	100.0 (148)
Utility of Class Discussion About the Book	
I. Specific aspects of class discussion that proved helpful	60.3
A. Class discussions offered opportunities to discuss/arrive at different points of view	27.0
B. Insight into author's perspective	14.3
C. Focus on writing style and class assignments	9.5
D. Other	11.1
II. Important issues raised in the book	34.9
A. Provided insight into the challenges of living on the minimum wage	27.0
B. Effects of economy on society	7.9
III. Class discussion was not useful	6.3
(Number of respondents on which the percentages are based)	(63)

Appendix A.

Courses Identified by Learning Habits Participants as the Ones in Which They Learned the Most During Their First Two Years at CSUN by Term, Course Level, and Discipline (Fall 2007 and Fall 2008 Entry Cohorts)

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Remedial Courses		6	1	1	0	8
CHS 098	Basic Communication Skills	2		1		3
ENG 097	Developmental Reading	2				2
CHS 097	Developmental Reading	1				1
ENG 098	Developmental Writing	1				1
University 60	Supplemental Instruction		1			1
GE Basic Subjects (i.e., oral & written communication, critical thinking, quantitative skills)		48	31	7	4	90
ENG 155 (& 155H)	Freshman Composition	37	4	1	1	37
AAS 155	Approaches to University Writing		2			2
CHS 155	Freshman Composition	1				1
PAS 155	Freshman Composition	1				1
COMS 151 (& 151H)	Fundamentals of Public Speaking & Lab	5	14	1		20
CHS 151	Freshman Speech Communication	2	2	2	1	7
AAS 151	Fundamentals of Public Speaking		2			2
PAS 151	Freshman Speech Communication		1	1		2
PHIL 100	General Logic			4	2	6
AAS 201	Race, Racism, and Critical Thinking		1	3	1	5
CHS 202	Race, Racism, and Critical Thinking			2	2	4
RS 204	Religion, Logic and the Media	3		1		4
PAS 204	Race and Critical Thinking		1	1	1	3
COMS 225	Argumentation and Lab		1	1		2
PHIL 200	Critical Reasoning		1	1		2
PHIL 210	Reasoning in the Sciences	1				1
PHIL 230	Introduction to Formal Logic			1		1
UNIV 100	Freshman Seminar	3	2			5
MATH 102	College Algebra	1	2		1	4
MATH 150A	Calculus I	1	1	1		3
MATH 150B	Calculus II	2			1	3
MATH 140 (& Honors)	Introductory Statistics	1	1			2
MATH 104	Trigonometry and Analytic Geometry			1		1
MATH 255A	Calculus for the Life Sciences I			1		1
Lower Division Courses						
Humanities		21	31	40	14	106
ENG 205	Business Communication		5	10	1	16
HUM 101	Forms and Ideas in Humanities	4	1	2	1	8
RS 150	World Religions		2	2	1	5
ENG 208	Creative Writing		3		2	5
ENG 275	Major American Writers	1	2	2		5
RS 100	Introduction to Religious Studies		2	2	1	5

Appendix A cont'd. - 2

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Lower Division - Humanities (cont'd.)						
ENG 258	Major English Writers I	1	1	1	1	4
ENG 259	Major English Writers II	1		3		4
GWS 100	Introduction to Gender & Women Studies		1	3		4
CHS 260	Constitutional Issues and the Chicano/a		2	1		3
JAPN 101/101C	Elementary Japanese I & Lab	2	1			3
RS 101	The Bible		2	1		3
CHS 245	History of the Americas	1	1			2
AAS 100	Intro to Asian American Studies	1	1			2
ARM 101	Elementary Armenian I		1			1
CAS 100	Intro to Central American Studies	1				1
CAS 102	The Salvadran Experence		1			1
CHS 111	The Chicano/a and the Arts		1			1
CHS 246	Contemporary Issues of the Chicana			1		1
FLIT 150	Gateways to W Civilization: Greece & Rome	1				1
FRSI 101C	Elementary Farsi I and Lab	1				1
ITAL 101	Elementary Italian I & Lab				1	1
JAPN 102 and 102C	Elementary Japanese I & Lab		1			1
JAPN 201	Intermediate Japannese I			2		2
JAPN 202	Intermediate Japannese II				1	1
JS 210	History of the Jewish People				1	1
LRS 150/F	Liberal Studies & Anthropology & Field Study		1			1
PHIL 150	Intro to Philosophical Thought	1				1
PHIL 165	Today's Moral Issues				1	1
RS 255	American Political Institutions and Religion	1				1
RTM 278	Recreatinal and Leisure Cont Soc	1				1
Social and Behavioral Science		40	29	17	16	102
PSY 150	Principles of Human Behavior	11	8	1	2	22
POLS 155	American Political Institutions	8	5	1	1	15
SOC 150	Introductory Sociology	7	3	3		13
GEOG 101	The Physical Environment	3	2	4		9
HIST 271	The United States Since 1865	1	3	1	1	6
HIST 151	Western Civilization II	1	2		2	5
PSY 250	Physiological Correlates Human Behavior		2	1	1	4
HIST 270	The United States to 1865		2	1		3
PAS 100	Intro to Black Culture	1		1	1	3
ANTH 150	Human Origin and Culture	2				2
ANTH 222	Visions of the Sacred				2	2
GEOG 150	World Geography	1		1		2
HIST 111	World History Since 1500	1			1	2
HIST 150	Western Civilization I			1	1	2
PSY 265	Psychology of Prejudice		1	1		2
URDB 150	The Urban Scene				2	2

Appendix A cont'd. - 3

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Lower Division - S&BS (cont'd.)						
ANTH 152	Culture and Human Behavior	1				1
ANTH 153	Temples, Tombs & Treasures? An Intro to Arch	1				1
GEOG 102	Physical Geography Lab				1	1
HIST 185	Civilization of the Middle East		1			1
PAS 161	Perspective				1	1
PAS 220	Psychological Environment of the Afrcan-American	1				1
SOC 200	Social Crises of Today	1				1
SOC 202	Sociological Analysis			1		1
Science & Mathematics		7	26	16	14	63
BIOL 106 & 106L	Biological Principles I		7	3		10
BIOL 107	Biological Principles II		1	2	5	8
CHEM 101	General Chemistry I		4	1	3	8
CHEM 100	Principles of Chemistry	4	1	1		6
CHEM 102 & 102L	General Chemistry II (& Lab)		1	3	2	6
BIOL 101 & 101L	General Biology & Lab	1	3			4
ASTR 152	Elementary Astronomy	1	2			3
BIOL 211	Human Anatomy		2	1		3
BIOL 212 & 212L	Laboratory Studies in Human Anatomy		1	1	1	3
BIOL 281	Human Physiology			2	1	3
BIOL 100 (& OL)	Introductory Biology		1	1		2
CHEM 104	Introductory Chemistry II				1	1
GEOL 102H	Honors Geol Planet Earth	1				1
GEOL 110	Earth History		1			1
MATH 262	Intro to Linear Algebra		1			1
MATH 280	Applied Differential Equations		1			1
PHYS 100A	General Physics I				1	1
PHYS 101	Introduction to Faculty Research			1		1
Arts, Media & Communication		16	14	13	8	51
JOUR 100	Mass Communication	5	1	2	2	10
MUS 107 (& OL)	Music Today	4	2	1		7
ART 151	Photography as Art	2	2			4
MUS 108	Music in Film	3	1			4
CTVA 210	Television-Film Aesthetics		3			3
ART 250	Photography I			1	1	2
CTVA 220	Foundation of Media Writing			2		2
CTVA 250	Fundamentals of Film Production				2	2
ART 100	Intro to Art Processes and Lab			1		1
ART 112	World Art: Africa, Oceania and the Americas			1		1
ART 124b	Drawing I				1	1
ART 140	Beginning Two-Dimensional Designs	1				1

Appendix A cont'd. - 4

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Lower Division - AMC (cont'd.)						
ART 263	Animation I		1			1
ART 267	Intro to Ceramics				1	1
CTVA 100	Intro To Mass Communication		1			1
CTVA 240	Fundamentals of Video Production			1		1
JOUR 110	Writing, Reporting and Ethics II			1		1
JOUR 210	Writing, Reporting and Ethics II			1		1
MUS 111	Musicianship I and Lab	1				1
MUS 292	Music Therapy Orientation			1		1
TH 110	Plays and Players		1			1
TH 142	Intro to Theater Performance		1			1
TH 208	Introduction to Theatre Performance				1	1
TH 262	Fundamentals of Costume Technology		1			1
TH 242	Basic Acting Technique			1		1
Health and Human Development		8	3	6	1	18
FCS 207	Nutrition for Life	4		1		5
CADV 250	Child & Adol Dev Profession		2	1		3
HSCI 231	Women and Health		1	2		3
CADV 150	Foundations of Child and Adolescent Develop.	1		1		2
KIN 200	Foundations of Kinesiology	2				2
FCS 201	Introductory Food Science and Lab			1		1
FCS 232	Individual and Family Development	1				1
HSCI 131	Health and Society				1	1
Business and Economics		0	2	8	8	18
ACCT 220	Intro to Financial Accounting			5	1	6
BLAW 280	Buissness Law I			1	5	6
ECON 160	Prin of Microeconomics		2	1		3
ECON 161	Prin of Macroeconomics			1	1	2
ACCT 230	Intro to Managerial Accounting				1	1
Engineering and Computer Science		2	4	2	2	10
MSE 227 & 227L	Engineering Materials (& Lab)	1		2	1	4
CE 240	Engeneering Statistics		2			2
COMP 100	Computer Impact Use	1	1			2
CE 340	Strenght of Materials				1	1
COMP 110	Intro to Algorithms & Programing		1			1

Appendix A cont'd. - 5

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Education		1	3	1	1	6
DEAF 160	American Sign Language I			1	1	2
DEAF 200	Introduction to Deaf Studies	1				1
DEAF 281	American Sign Language IV		1			1
ELPS 203	Urban Education in American Society		1			1
SPED 400	Introduction to Special Education		1			1
Upper Division Courses						
Humanities		0	0	6	19	25
ENG 306	Report Writing			2	2	4
ENG 313	Studies in Popular Culture				2	2
ENG 355	Writing About Literature			1	1	2
QS 301	Perspective in Queer Studies				2	2
RS 306	American Religious Diversity			1	1	2
AAS 347	Asian American Politics and the Law				1	1
CHS 361	Urbanization and the Chicana/o				1	1
ENG 301	Language and Linguistics				1	1
ENG 302	Intro to Modern Grammar				1	1
ENG 309	Verse Writing				1	1
ENG 311	History of African-American Writing			1		1
ENG 314	North American Indian Culture				1	1
ENG 316	Shakespeare				1	1
ENG 461	Modern British Literature				1	1
JS 330	Women in the Jewish Experience			1		1
LING 417	Language Development and Acquisition				1	1
PHIL 310	Philosophical Problems				1	1
RS 304	Women and Religion				1	1
Social and Behavioral Sciences		0	1	1	17	19
PSY 320	Statistical Methods in Psychological Res & Lab			1	2	3
POLS 355	American National, State and Local Govts				2	2
PSY 310	Behavior Disorders				2	2
PSY 312	Psychological Aspect of Parenthood		1		1	2
PSY 321	Experimental Psychology and Lab				2	2
AIS 301	First People and Popular Culture				1	1
ANTH 326	Intro to Folklore				1	1
ANTH 356	People and Culture of the Mediterranean				1	1
FLIT 370	Modern Japanese Culture				1	1
GEOG 330	California				1	1
HIST 303	Themes in Western Civilization Before 1500				1	1
POLS 360	Public Administration				1	1
SOC 345	Social Psychology				1	1

Appendix A cont'd. - 6

Course Abbreviation	Course Name	Term One (F07 & F08)	Term Two (S08 & S09)	Term Three (F08 & F09)	Term Four (S09 & S10)	Total
Health and Human Development		0	3	3	11	17
FCS 340	Marriage and Family Relations			2	2	4
FCS 320	Family Resource Management		2	1	1	4
CADV 352	Applied Social Development				2	2
EOH 353	Global Perspective of Environmental Health				1	1
CADV 350	Applied Cognitive Development				1	1
CD 405	Phonetics				1	1
FCS 321/L	Contemporary Issues in Food & Nutrition/ Lab		1			1
HSCI 488	Epidemiology: Study of Disease				1	1
KIN 300	Foundations and Analysis of Human Movement				1	1
KIN 306	Socio-Psychological Aspect of Physical Activity				1	1
Science and Mathematics		0	0	3	8	11
CHEM 333	Organic Chemistry			1	7	8
CHEM 321	Chemical Analysis I			1		1
MATH 320	Foundation of Higher Mathematics			1		1
MATH 350	Advanced Calculus I				1	1
Arts, Media, and Communication		0	0	1	7	8
JOUR 371	Women, Men, and Media				4	4
JOUR 372	Diversity and the Media				1	1
JOUR 400	Mass Communication Law and Ethics				1	1
MUS 312J/L	Musicianship VI: Jazz and Lab				1	1
TH 321A	World Theatre and Drama I			1		1
Business and Economics		3	0	0	2	5
MKT 304	Marketing Management	3			1	4
ECON 310	Price Theory and Application				1	1
Education		0	0	0	1	1
DEAF 350	Principles of Sign Language Interpretation				1	1
No Courses Singled Out		84	84	72	72	312
(No. of students providing responses)		(219)	(219)	(201)	(200)	(839)