Lessons Learned:

Collecting Learning Outcomes Data from the Student Perspective

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Abstract

This paper reports lessons learned from analyzing data collected via an indirect assessment of student learning. Data was gathered from students through a survey about their perceptions of having met expected student learning outcomes, and whether students felt there was sufficient emphasis placed on the learning outcomes during their time at the university.

Focus of the Paper

The focus of this paper is to present the lessons learned as a result of the process of data analysis for 2005 graduating students. The analysis of data occurred as part of the requirements for a Master's degree thesis. Data was collected on students' perceptions of the level of emphasis given to 14 university-wide Student Learning Outcomes (Appendix A) during their time at the University. The lessons learned are revealed following descriptions of the setting and background of the survey, the survey methodology, and survey results and data analysis.

Setting and Background

California Lutheran University (CLU) is a private, comprehensive university located in Thousand Oaks, California, with graduate satellite centers in Oxnard and Woodland Hills. Founded in 1959, California Lutheran University includes a College of Arts and Sciences, a School of Business, a School of Education, and an Adult Degree Evening Program. The goal for all programs is expressed in CLU's mission statement: "To educate leaders for a global society who are strong in character and judgment, confident in their identity and vocation, and committed to service and justice."

With an enrollment of over 3200 students, CLU offers 36 undergraduate majors, nine Master's degrees, one doctoral degree, and four credential programs. California Lutheran University administers a survey each spring to students who have completed either an undergraduate or graduate degree program. In keeping with the current focus in higher education on the importance of performance based measures of student learning, the content of the graduating students' survey changed in May 2005 to gather data about student perceptions of having met expected learning outcomes. A learning outcome is defined by Battersby (1999) as "integrated complexes of knowledge, abilities and attitudes" (p.1). Learning outcomes are something that faculty intend for their students to accomplish by the completion of a course or program. Kimmell, Marquette, and Olsen (1998) stated the need for outcomes assessment by explaining that an increase in accountability for institutions of higher education requires an "increased focus on output measures of student performance" (p. 853).

In 2000, the faculty at CLU began working on the development of institution-wide Student Learning Outcomes (SLOs). Three years later, Dr. Mary Allen was invited to a two-day faculty retreat and assisted in refining SLOs, defining each outcome, and determining where the outcomes would happen in the curriculum and co-curriculum (Allen, 2001). By the conclusion of the 2003-04 academic year, faculty reached consensus on the Educational Objectives and Student Learning Outcomes document (Appendix A) and on definitions for each of the 14 outcomes (Appendix B).

There is evidence of the use of the 14 Student Learning Outcomes in several places throughout the University. The Student Affairs department has utilized the Student Learning Outcomes to set annual goals, and they focus on these outcomes when planning co-curricular activities.   Student   Learning   Outcomes   are   found   on   the   CLU   website (www.callutheran.edu/assessment) and are printed in the graduate catalog. Faculty highlight

relevant SLOs in their syllabi, and subsequently design assignments, and assess for levels of outcomes achievement. Questions related to the SLOs have been incorporated into many of the surveys used at CLU, including the graduating students' survey, exit survey, alumni survey, and internship / co-op employer evaluation. Questions related to the 14 Student Learning Outcomes are included in the Noel-Levitz Student Satisfaction Survey and Adult Student Priorities Survey.

The focus on Learning Outcomes reflects a shift in what CLU investigates and reports for the purposes of accreditation. Such a focus is in keeping with external accrediting agencies such as the Western Association of Schools and Colleges (WASC, 2001) and the National Council for Accreditation of Teacher Education (NCATE, 2006).

Outcomes assessment became an accepted standard for receiving accreditation in the 1980s, but by the early 1990s only about 80% of all colleges and universities had begun any assessment activities (Kimmell, Marquette, & Olsen, 1998). During the 1990s, WASC, NCATE, and other regional and national accreditation associations had been concerned primarily with what resources an institution had or what reputation an institution had gained. A shift to outcomes-based assessment began to occur, allowing institutions to choose their own goals and develop plans to reach those goals (NCATE, 2006; Western Association of Schools and Colleges, 2001). The process of outcomes assessment allows institutions to choose their own goals while still following the same steps to reach those goals, regardless of the size of the institution (Jones, 1996).

As a direct result of the shift, more and more institutions are developing assessment plans and implementing outcomes assessment programs. Public and private institutions are required to include evidence of assessment in their accreditation reports by all regional accrediting agencies in each of the six geographic regions in the United States (Ewell, 1993). Seybert (2002) wrote that every regional accrediting agency has included some aspect of outcomes assessment in their

new and reaffirmation of accreditation requirements and that "the assessment movement seems to be gaining rather than losing strength" (p.55). CLU is among institutions that have begun outcomes-based assessment and one way CLU is collecting evidence is via a graduating student survey.

While the University was gathering data for two years regarding student perceptions of achieving SLOs, there was a lack of analysis of the data being collected. A Master's degree thesis provided the opportunity to discover whether graduating students perceived that SLOs were being emphasized. The purpose of the Master's research study was to investigate student perceptions of having met student learning outcomes defined by a small private university as measured by a graduating students' survey.

Survey Methodology

Two graduating student surveys were developed with unique items included for the undergraduate programs and the graduate programs. Both surveys were constructed and responses were collected using Flashlight, a web-based system developed by The TLT Group and operated from servers at Washington State University. Flashlight has the capacity to allow for the custom designing of a survey and provides real-time viewing of results (Teaching, Learning, and Technology, 2006).

The surveys were distributed via email in April 2005 to students who received their degrees between August 2004 and May 2005. The survey, sent to 394 students with a Bachelor's degree (and referred to as the Senior Survey), consisted of 61 items; 15 items related to SLOs and were thus selected for data analysis. The survey sent to 248 students with a Master's degree (and referred to as the Graduate Survey) contained 51 items; 17 items related to SLOs and were used in the data analysis. There were 191 (48.5%) completed Senior Surveys and 44 (17.7%)

completed Graduate Surveys. Each survey included overarching questions which grouped the 14 learning outcomes into three categories. The two additional questions in the Graduate Survey were items relating to overall level of challenge and engagement (Appendix C) as the faculty had identified an educational effectiveness theme of raising the level of challenge and engagement in CLU's academic and co-curricular programs. Students were asked to rate items on a four point Likert scale ranging from "no emphasis" to "strong emphasis."

Finally, only 12 of the 14 SLOs defined by CLU were included in the survey. No data were collected on student perceptions about oral communication or written communication; these two Student Learning Outcomes were not included in the survey. The remaining questions included in the surveys but omitted from this data analysis asked students about their levels of satisfaction with University services as well as suggestions for improvements or comments about what was being done well at CLU.

Survey Results and Data Analysis

Following data collection, data were exported from Flashlight into a Microsoft Excel document. The data were analyzed using Excel and Statistical Package for Social Science (SPSS) software. Using SPSS further facilitated the calculation of measures of central tendency and measure of variance.

The highest rated item on the Senior Survey was "critical thinking" while the highest rated item on the Graduate Survey was "interpersonal and teamwork skills." On both surveys, the item rated the lowest was "service to the community" (Appendix D and E).

A review of Senior Survey highest standard deviation scores occurred in "service to the community" and "appreciation of diversity"; the lowest standard deviation score was "critical thinking." Graduate Survey highest standard deviation scores were in "principled leadership" and

"appreciation of diversity"; the lowest standard deviation score was "ethical and professional judgment."

The mean calculations revealed that females rated 10 of the 15 items higher than males on the Senior Survey and females rated 14 out of 17 items higher than males on the Graduate Survey. The mean differences between females and males prompted the researcher to examine the data in greater depth.

A t-test was used to test differences between males and females on the Senior Survey. This test revealed that no statistically significant differences occurred between females and males. A Mann-Whitney U-test was used to evaluate the differences between females and males on the Graduate Survey. This test revealed that the last eight items (Appendix C) on the Graduate Survey produced a statistically significant difference in the ratings provided by females and males. A Mann-Whitney U-test was used for the Graduate Survey, because the population of males was very small and would not produce valid results if a t-test were used.

The last eight items on the Graduate Survey had the lowest means. Additionally, these items were the only items that had a statistically significant difference between females and males. Because these questions were at the end of the section, it is possible that the students who participated in the survey experienced survey fatigue and therefore the data gathered may not be as reliable.

Analysis of data from the surveys suggests that students feel that Student Learning Outcomes are being emphasized during their course of study at the University. Findings show that some areas that could be improved, specifically "service to the community." There is also work to be done to increase perception amongst males that Student Learning Outcomes are met because, overall, males' ratings of emphasis on SLOs were lower than females' ratings of SLOs.

Lessons Learned: Data Driven Action

The analysis of student ratings and comments provided an initiative for change in two general areas: faculty involvement and survey design.   Data analysis revealed various opportunities to improve the survey design and administration so that richer data might be gathered. Additional opportunities for faculty involvement in data analysis, reflection, and goal setting for the coming year are planned. The shift from assessment as driven by an external agency to assessment informing practice at California Lutheran University is in progress.

Changes involving faculty

Students' perceptions about achieving Student Learning Outcomes, will inform teaching, learning, and decision making at CLU. Review of this and other institutional data during the 2006 – 2007 academic year will provide opportunities for faculty reflection and recommendations.   To date, faculty have identified which specific CLU Student Learning Outcomes are addressed within the courses they teach, and included these in course syllabi; adjunct instructors have also been involved in the process through various workshops. Faculty plan to review SLOs with students during classes.

Changes to the survey

Analysis prompted revisions to both surveys before the next administration occurred in April 2006. The Senior Survey with revisions was administered to students who received a Bachelor's degree between August 2005 and May 2006 (Appendix F).   The Senior Survey incorporated the following four changes to improve the quality and usefulness of the data gathered:

- Title and directions. The title was changed to be more succinct. The directions were unclear and were revised in the hope that it would better direct potential respondents to complete the survey.

- Context. Questions related to the Student Learning Outcomes were given a context by listing them by overarching category.

- Content: The two Student Learning Outcomes that had been left out of the 2005 survey were included in the 2006 survey.

- Length. The survey was shortened because student satisfaction was determined using other methods.

- Demographics. All demographic questions were moved to the end of the survey. Some respondents to the 2005 survey filled out only the demographic items located at the beginning of the survey and did not respond to any of the additional items. By moving the demographic questions to the end of the survey, it was hoped that students would complete the survey. Including demographics at the end of a survey is supported by Ary, Jacobs, Razavieh, and Sorensen (2006) who noted that when questionnaires begin with demographic information, "respondents may regard these questions as irrelevant or as an invasion of privacy" (p. 428).

The Graduate Survey was not administered in 2006 as the University chose to include graduating Master's degree students in the administration of the Noel-Levitz Adult Student Priorities Survey, which was expanded to include the CLU student learning outcomes. The Graduate and Senior Surveys will be administered during years when the Noel-Levitz Adult Priorities Survey and Noel-Levitz Student Satisfaction Survey are not administered.

Recommendations

Lessons learned resulted in recommendations to the 2007 research process in the four areas of survey construction and methodology, data analysis, follow-up studies, and utilization of Student Learning Outcomes (McClendon, 2006).

Survey Construction and Methodology

The following five recommendations were presented in the area of survey construction and methodology:

- Content Review. The surveys that were administered had some grammatical errors. Also, questions pertaining to the Student Learning Outcomes were given no context and as stand alone phrases, the SLOs might not have made sense. There were also unnecessary questions, such as asking students to rate their satisfaction on "other items" after they had just responded to approximately 20 satisfaction items. Important changes would be to make sure that spelling and grammar are correct, and that all 14 Student Learning Outcomes are listed on future surveys, since two SLOs dealing with oral and written communication had been left off of the previous survey administration. We recommend that the April 2007 administration of the survey include the Student Learning Outcomes worded as questions to further contextualize the items for the students taking the survey.

- Demographic information. Demographic information related to ethnicity should offer the same ethnicity options as reported to the Integrated Postsecondary Education Data System (IPEDS). On the Graduate Survey, students were given the option of selecting African American, Asian American, Latino/Hispanic, Native American, or White for their ethnicity. IPEDS provides "multi-racial, non-resident alien or decline to state" options as well as those listed above. The research was unable to report ethnicity in consort with IPEDS university data since the options were not consistent. On the Graduate Survey, the ethnicity section was designed so that students could "check all options that apply." If more than one option was checked, that might mean that a student was multiracial, but an option for multiracial was not given.

- Randomize questions. As noted in the summary of results, the last eight items on the Graduate Survey could have been rated lower as a result of survey fatigue. If the questions in the survey are randomized, then students would be answering questions from different areas, and the results of the survey may be more reliable. The capabilities of the software may be a limitation for this recommendation.

- Increased response rate. A way to ensure that a larger number of students respond would be to review and possibly revise the methodology / administration of the surveys Revisions include writing clearer directions and sending reminders to students to complete the survey.

Data Analysis

To assist with data analysis, recommendations include:

- Representative sample of respondents. In future studies, an analysis of responses while the survey is still active in real-time to determine if a representative sample has responded will enable faculty to make conclusions about the data.

- Analysis by ethnic group. Analyze the data for any possible difference between different ethnic groups. The samples from different ethnic groups that responded to this survey were much too small to examine for any differences, therefore a larger sample must be obtained in the future to examine these differences. Examining differences between different ethnic populations could reveal important implications which would prompt the University to focus its efforts into different areas.

- Calculation check. It is important that calculations are cross-checked regularly to ensure that the data is being analyzed correctly.

Follow-up Studies

Although a survey was used as the tool for gathering data for this research, follow-up studies should involve other types of assessment to triangulate the data and strengthen validity.

As Ewell (1987) stated, "No assessment approach can successfully investigate all possible outcomes of the college experience, nor can a single approach fulfill all planning, policy, or political ends" (p.10). Surveys provide an important source of information about student perceptions of having met outcomes developed by an institution, but their use in isolation from other sources of data should be avoided.

Banta (2004) wrote that "multiple measures are essential because no single measure is perfectly reliable or valid" (p.5). This is especially true of surveys. A survey relies on aggregated data taken from large populations and is usually inefficient when trying to analyze data for individuals. In order to get a full view of whether or not a learning outcome is being met, data should be analyzed from groups as well as from individual perspectives in addition to using different measures. Holding focus group meetings of students from each of the survey populations would enable asking more in depth questions related to the items from the surveys, asking students to describe their understanding of the definitions of the Student Learning Outcomes, and may also lead to discovery of reasons for the differences in female and male responses on the Graduate Survey. Using multiple measures of assessment would prompt the use of qualitative analysis software to discover themes from written survey comments as well as the transcripts of interviews gathered from the focus groups.

Utilization of Student Learning Outcomes

It is recommended that Student Learning Outcomes and definitions be included in course syllabi and reviewed with students. This review, followed by a discussion by faculty, might contribute to further understanding of the Student Learning Outcomes by students.

In Summary

Through our reflections, we have recognized that constructing a Senior Survey and Graduate Survey is a learning process. It is hoped that this study might encourage other research projects by graduate students to assist the University.   And, it is hoped that the lessons learned will assist other institutions in assessing Student Learning Outcomes.

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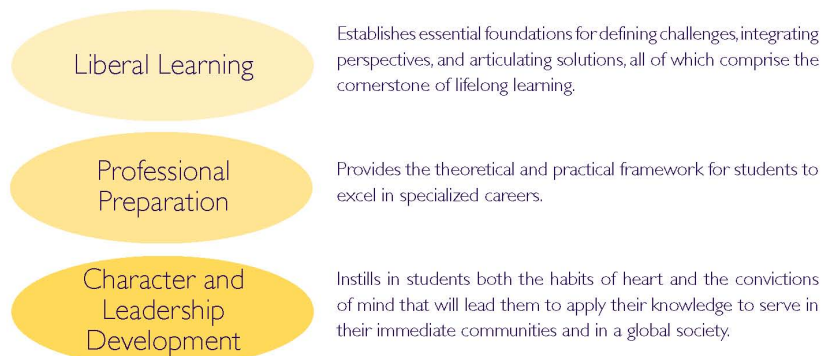
Appendix A
Educational Objectives and Student Learning Outcomes

California Lutheran University Mission Statement

The mission of the University is to educate leaders for a global society who are strong in character and judgment, confident in their identity and vocation, and committed to service and justice. California Lutheran University is a diverse scholarly community dedicated to excellence in the liberal arts and professional studies. Rooted in the Lutheran tradition of Christian faith, the University encourages critical inquiry into matters of both faith and reason.

Educational Objectives

California Lutheran University (CLU) is a comprehensive university rooted in the Lutheran tradition. CLU views the three Core Commitments of Liberal Learning, Professional Preparation, and Character and Leadership Development as interwoven elements contributing to educational excellence:

Liberal Learning — Establishes essential foundations for defining challenges, integrating perspectives, and articulating solutions, all of which comprise the cornerstone of lifelong learning.

Professional Preparation — Provides the theoretical and practical framework for students to excel in specialized careers.

Character and Leadership Development — Instills in students both the habits of heart and the convictions of mind that will lead them to apply their knowledge to serve in their immediate communities and in a global society.
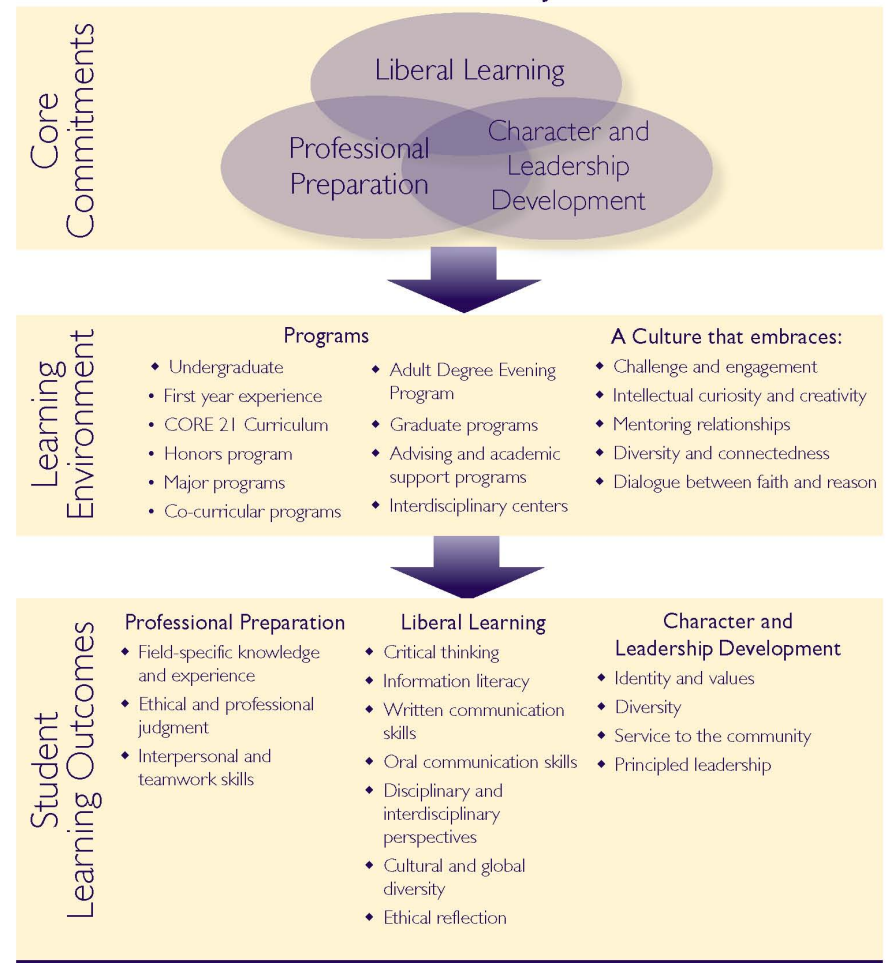
These Core Commitments, with varying degrees of emphasis, support all of CLU's educational activities. They are communicated to students through academic and co-curricular programs, and also through pedagogical practices and the culture that permeates the campus.

The success of our academic and co-curricular programs will ultimately be measured by what our students learn and also by how they live out what they experience at CLU. The distinction of a CLU education is our graduates who are leaders for a global society, strong in character and judgment, confident in their identity and vocation, and committed to service and justice.

California Lutheran
UNIVERSITY
Experience Success

Educational Objectives

Core Commitments

Liberal Learning

Professional Preparation

Character and Leadership Development

Learning Environment

Programs
- Undergraduate
- First year experience
- CORE 21 Curriculum
- Honors program
- Major programs
- Co-curricular programs
- Adult Degree Evening Program
- Graduate programs
- Advising and academic support programs
- Interdisciplinary centers

A Culture that embraces:
- Challenge and engagement
- Intellectual curiosity and creativity
- Mentoring relationships
- Diversity and connectedness
- Dialogue between faith and reason

Student Learning Outcomes

Professional Preparation
- Field-specific knowledge and experience
- Ethical and professional judgment
- Interpersonal and teamwork skills

Liberal Learning
- Critical thinking
- Information literacy
- Written communication skills
- Oral communication skills
- Disciplinary and interdisciplinary perspectives
- Cultural and global diversity
- Ethical reflection

Character and Leadership Development
- Identity and values
- Diversity
- Service to the community
- Principled leadership

Appendix B
Definitions of Student Learning Outcomes

STUDENT LEARNING OUTCOMES

LIBERAL LEARNING

Develop Critical Thinking

Students will:
- Generate relevant and probing questions
- Identify, interpret, assess, and evaluate relevant information
- Recognize premises, assumptions, and point(s) of view underlying an argument, theory, or selection of information
- Reach fair-minded conclusions that are well-reasoned and well-supported
- Apply those conclusions to new issues and problems

Integrate Information Literacy

Students will:
- Determine the extent of the information needed
- Access the needed information effectively and efficiently
- Evaluate sources and information critically
- Use information to accomplish a specific purpose
- Understand economic, legal, and social issues surrounding the use of information in order to use information ethically and legally

Refine Written Communication Skills

Students will:
- Articulate an explicit focus
- Find, analyze, and evaluate sources
- Synthesize information to support their arguments
- Present arguments in an engaging and coherent style, appropriate to the conventions of standard U.S. English and of the discipline, and to the nature of the work

Enhance Oral Communication Skills

Students will:
- Communicate publicly in a clear, engaging, and confident manner
- Effectively create, organize, and support ideas for a particular audience
- Critically evaluate content and delivery of oral communication

Comprehend Issues from a Variety of Disciplinary and Interdisciplinary Perspectives

Students will:
- Apply the principles, content, theory and/or methods of one discipline to another, or learn to apply multiple disciplinary perspectives to a common subject matter

Integrate Knowledge with Ethical Reflection

Students will:
- Identify ethical issues and dilemmas
- Demonstrate the ability to apply ethical principles to problem solving

Demonstrate Understanding of Cultural and Global Diversity

Students will:
- Demonstrate an understanding of one or more historical eras and cultures outside of their own
- Identify and analyze critical ideas, traditions, and artifacts of other world cultures
- Compare cultures and their interactions systematically
- Describe how different cultures have contributed to the contemporary world
- Demonstrate strong cross-cultural analytic and communication skills

PROFESSIONAL PREPARATION

Demonstrate Field-Specific Knowledge and Experience

Students will:
- Demonstrate comprehension of field-specific content
- Analyze issues, problems, and/or questions based on disciplinary knowledge and experience, which may include real world or laboratory situations
- Integrate knowledge and experience

Utilize Interpersonal and Teamwork Skills

Students will:
- Demonstrate interpersonal skills (oral and written communication, active listening) and sensitivity to diverse opinions
- Apply skills of collaboration, negotiation, and group decision-making successfully in a team environment

Apply Ethical and Professional Judgment

Students will:
- Recognize ethical principles within their fields
- Apply professional standards and ethical principles in making decisions

CHARACTER & LEADERSHIP DEVELOPMENT

Grow in Identity and Values

Students will:
- Understand and express their vocation, an idea of their purpose and direction in life
- Understand and express their sense of responsibility to their community and the world
- Understand and express their identity in terms of their religious, ethical, and moral convictions
- Develop an awareness of themselves in relation to their own background and to others
- Demonstrate both compassion toward others and a commitment to justice

Appreciate Diversity

Students will:
- Understand the social importance of race, ethnicity, culture, gender, sexuality, class, and religion
- Demonstrate an awareness of similarities and differences among groups and individuals
- Express increased understanding and respect for people of different cultures

Provide Service to the Community

Students will:
- Demonstrate awareness and the need for service to the community that promotes social welfare and environmental sustainability
- Participate in service to the community

Develop Principled Leadership

Students will:
- Develop personal principles of ethical leadership
- Evaluate the impact of leadership actions
- Use thoughtful self-analysis for intentional growth as an ethical leader

CALIFORNIA LUTHERAN UNIVERSITY

Appendix C
2005 Senior and Graduate Survey

List of items in the 2005 Senior and Graduate Survey

Item #	Item
1	Field specific knowledge and experience
2	Ethical and professional judgment
3	Interpersonal and teamwork skills
4	Overall professional preparation
5	Critical thinking
6	Information literacy
7	Ability to comprehend issues from disciplinary and interdisciplinary perspectives
8	Understanding of cultural and global diversity
9	Integration of knowledge with ethical reflection
10	Overall liberal learning
11	Growth in identity and values
12	Appreciation of diversity
13	Service to the community
14	Principled leadership
15	Overall character and leadership development
16 *	Overall level of challenge
17 *	Overall degree of engagement

* Items 16 and 17 only appeared in the Graduate Survey received by Master's degree students.

Appendix D
2005 Senior Survey Item Response Data

2005 Senior Survey Item Response

n=*191* unless otherwise noted	4=Strong Emphasis	3=Moderate Emphasis	2=Little Emphasis	1=No Emphasis	Total	Mean scores	Standard Deviation
1 Field specific knowledge & experience	48.7%	38.7%	10.5%	2.1%	100.0%	3.34	0.75
2 Ethical & professional judgment	46.6%	41.4%	8.4%	3.7%	100.0%	3.31	0.777
3 Interpersonal & teamwork skills	49.7%	42.9%	6.3%	1.0%	100.0%	3.41	0.658
4 Overall professional preparation	30.9%	51.8%	15.7%	1.6%	100.0%	3.12	0.719
5 Critical thinking (n=190)	59.5%	35.8%	4.7%	0.0%	100.0%	3.55	0.587
6 Information literacy (n=190)	47.9%	48.9%	3.2%	0.0%	100.0%	3.45	0.559
7 Ability to comprehend issues from disciplinary & interdisciplinary perspectives	44.5%	48.2%	7.3%	0.0%	100.0%	3.37	0.618
8 Understanding of cultural & global diversity	36.6%	44.5%	17.3%	1.6%	100.0%	3.16	0.761
9 Integration of knowledge with ethical behavior (n=190)	38.4%	48.4%	11.6%	1.6%	100.0%	3.24	0.714
10 Overall liberal learning	46.1%	44.5%	8.4%	1.0%	100.0%	3.36	0.68
11 Growth in identity & values (n=190)	45.8%	42.1%	11.1%	1.1%	100.0%	3.33	0.712
12 Appreciation of diversity	39.8%	38.7%	17.3%	4.2%	100.0%	3.14	0.85
13 Service to the community	24.1%	37.2%	33.5%	5.2%	100.0%	2.80	0.866
14 Principled leadership (n=189)	33.3%	43.9%	20.6%	2.1%	100.0%	3.08	0.788
15 Overall character and leadership	42.9%	40.8%	14.7%	1.6%	100.0%	3.25	0.761

Appendix E
2005 Graduate Survey Item Response Data

2005 Graduate Survey Item Response

n=44 *unless otherwise noted*	4=Strong Emphasis	3=Moderate Emphasis	2=Little Emphasis	1=No Emphasis	Total	Mean of scores	Standard Deviation
1 Field specific knowledge &experience	65.9%	27.3%	6.8%	0.0%	100.0%	3.59	0.622
2 Ethical & professional judgment	65.9%	31.8%	2.3%	0.0%	100.0%	3.64	0.532
3 Interpersonal & teamwork skills	68.2%	22.7%	9.1%	0.0%	100.0%	3.59	0.658
4 Overall professional preparation	52.3%	40.9%	6.8%	0.0%	100.0%	3.45	0.627
5 Critical thinking	61.4%	34.1%	4.5%	0.0%	100.0%	3.57	0.587
6 Information literacy	56.8%	29.5%	11.4%	2.3%	100.0%	3.41	0.787
7 Ability to comprehend issues from disciplinary & interdisciplinary perspectives	43.2%	47.7%	9.1%	0.0%	100.0%	3.34	0.645
8 Understanding of cultural & global diversity	38.6%	47.7%	11.4%	2.3%	100.0%	3.23	0.743
9 Integration of knowledge with ethical behavior	63.6%	22.7%	13.6%	0.0%	100.0%	3.50	0.731
10 Overall liberal learning	40.9%	40.9%	13.6%	4.5%	100.0%	3.18	0.843
11 Growth in identity & values	54.5%	25.0%	20.5%	0.0%	100.0%	3.34	0.805
12 Appreciation of diversity (n=43)	52.3%	29.5%	15.9%	2.3%	100.0%	3.32	0.829
13 Service to the community	20.9%	46.5%	30.2%	2.3%	100.0%	2.86	0.774
14 Principled leadership (n=43)	54.5%	25.0%	18.2%	2.3%	100.0%	3.32	0.857
15 Overall character & leadership	60.5%	23.3%	14.0%	2.3%	100.0%	3.42	0.823
16 Overall level of academic challenge	45.5%	43.2%	9.1%	2.3%	100.0%	3.32	0.740
17 Overall degree of engagement	45.5%	43.2%	9.1%	2.3%	100.0%	3.32	0.740

Appendix F
2006 Senior Survey

Please complete the survey items below. Your responses are very important to help us improve university quality. This survey will take less than two minutes to complete. Thank you for your participation.

1. Student ID#:

2. Current Work Situation:

  ☐ Full-time Employment (40 hours)

  ☐ Part-time Employment (21-39 hours)

  ☐ Part-time Employment (20 hours or less)

  ☐ Part-time Employment with Assistantship

  ☐ Graduate Assistantship only

  ☐ Not Employed

3. What do you plan to do after graduation?(Mark ALL that apply)

  ☐ Immediately attend graduate school as a full time student

  ☐ Immediately attend graduate school as a part time student

  ☐ Apply to graduate school after working for a time

  ☐ Work in a professional position that I have already obtained

  ☐ Work in a professional position that I am now seeking

  ☐ Work in a temporary position that I have already obtained

  ☐ Work in a temporary position that I am now seeking

  ☐ Work in an internship

4. If seeking a professional position: what type of position and with what business/organization?

5. If seeking a temporary position: what type of position and with what business/organization?

[text area]

6. If planning to attend graduate school: what school and what area of study?

[text area]

7. If working in an internship: what field of study and with what business/organization?

[text area]

As you graduate from CLU, please indicate the level of emphasis you felt in your instructional experiences:

Profession Preparation	Level of Emphasis			
	4=Strong Emphasis	3=Moderate Emphasis	2=Little Emphasis	1=No Emphasis
8. Field specific knowledge and experience	⭕	⭕	⭕	⭕
9. Ethical and professional judgment	⭕	⭕	⭕	⭕
10. Interpersonal and teamwork skills	⭕	⭕	⭕	⭕

Liberal Learning	Level of Emphasis			
	4=Strong Emphasis	3=Moderate Emphasis	2=Little Emphasis	1=No Emphasis
11. Critical thinking	⭕	⭕	⭕	⭕
12. Information literacy	⭕	⭕	⭕	⭕
13. Oral Communication	⭕	⭕	⭕	⭕
14. Written Communication	⭕	⭕	⭕	⭕
15. Ability to comprehend issues from disciplinary and interdisciplinary perspectives	⭕	⭕	⭕	⭕
16. Understanding of cultural and global diversity	⭕	⭕	⭕	⭕
17. Integration of knowledge with ethical behavior	⭕	⭕	⭕	⭕

Character and Leadership				
18. Growth in identity and values	⭕	⭕	⭕	⭕

19.	Appreciation of diversity	⊙	⊙	⊙	⊙
20.	Service to the community	⊙	⊙	⊙	⊙
21.	Principled leadership	⊙	⊙	⊙	⊙

		Much better than I expected	Quite a bit better than I expected	Better than I expected	About what I expected	Better than I expected	Quite a bit worse than I expected	Much worse than I expected
22.	How has your college experience met your expectations?	⊙	⊙	⊙	⊙	⊙	⊙	⊙

		Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Not very satisfied	Not satisfied at all
23.	Rate your overall satisfaction with your college experience.	⊙	⊙	⊙	⊙	⊙	⊙	⊙

		Definitely yes	Probably yes	Maybe yes	I don't know	Maybe not	Probably not	Definitely not
24.	If you had it to do over again would you enroll at CLU again?	⊙	⊙	⊙	⊙	⊙	⊙	⊙

25. At this time, what are CLU's strongest features?

26. At this time, what features of CLU do you see that need improvement?

27. Major:

28. Gender:

☐ Female

☐ Male

29. Ethnicity:

☐ African American

☐ Asian/Pacific Islander

☐ Native/Alaskan American

☐ Hispanic

☐ Caucasian

☐ Multiracial

☐ Other

☐ Decline to State

30. Work Experience: (Mark all that apply)

☐ On Campus

☐ Off Campus

☐ None

31. Lived: (Mark all that apply)

☐ On Campus

☐ Off Campus

32. Additional Comments: