

ANALYSIS, ASSESSMENT & ACCREDITATION

UNIVERSITY CONNECTIONS COURSE

**PRE/ POST-SURVEY ATTITUDINAL CHANGES
AND VALUE ADDED**

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EXECUTIVE SUMMARY

Each fall, USU offers a University Connections orientation class for incoming freshman. In the most popular version of Connections, students spend a week in class before school starts and then meet several times during the semester. In order to assess the impact of Connections, a pre-survey was administered on the first day of the class and a nearly-identical post-survey was filled out six weeks later. Each survey had three parts. The first section asked students to rate the importance of reasons for attending Connections (pre-survey only) and to indicate how useful the course was in meeting those needs (post-survey only). The second focused on their attitudes about being at college and in Logan. The third section consisted of ten objective questions about the content taught in Connections.

A total of 828 students completed the pre-survey and 637 the post-survey. Demographic characteristics of the post-survey respondents are virtually identical to those of the pre-survey group, and both closely resemble the demographics for all incoming Fall, 2004 freshman. This report provides both pre- and post-survey results. In comparing pre/post survey data, only the responses for students who completed both surveys were used.

The pre-survey results suggest that the most important reasons for attending Connections were to better understand what professors expect, develop college study skills, learn where things are found on campus, and make friends with other new students. The post-survey data indicate that Connections was useful in fulfilling these needs.

Comparing pre/post survey perceptions of college and Logan, there was a substantial shift in responses toward either greater agreement or greater disagreement for eight of thirteen statements. Six weeks into the semester, students were much less worried about succeeding in college, somewhat less likely to agree that they will graduate from USU, believed they had a much better understanding of what professors expect, less desirous of being involved in extra-curricular activities, and less likely to agree that Connections should be required of all students. They were more confident in their computer skills and more likely to say that there isn't enough to do in Logan. Finally, some time to reflect on the book, "A Hope in the Unseen," caused them to be less likely to respond that reading it was a meaningful experience.

For the ten multiple choice questions that focused on course content, the pre-survey mean was 38.6%, while the post-survey mean was 49.0%. Results suggest that some learning occurred, but the gain is not large, nor is the final score stellar. Possible explanations are that the survey questions did not adequately represent the course content because there were too few or they were too detailed, some of the material was not taught, or that the students did not take the learning component of Connections very seriously.

UNIVERSITY CONNECTIONS COURSE

PRE/POST-SURVEY ATTITUDINAL CHANGES AND VALUE ADDED

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JANUARY, 2005

I. INTRODUCTION

Utah State University sponsors a University Connections class for incoming freshmen. The course provides an introduction to the breadth of university services and resources, to basic policies and procedures of the university, and to the physical layout of the campus. It also provides students with an introduction to college-level study skills. The stated goals of Connections are to:

1. Increase student awareness of and ability to cope with the normal developmental processes that are a part of this stage of the life cycle.
2. Help students identify and address the anxieties involved in the transition to university life and help them make the transition to USU a productive learning experience.
3. Create an environment that helps students establish friendship and support networks.
4. Introduce students to the expectations of Utah State University and promote academic success.
5. Introduce students to the Computer Information Literacy (CIL) exam and have them successfully complete two of the six tests.
6. Develop in students the desire and ability to be an “informed-participant” in the educational process.
7. Broaden the educational experience by increasing student involvement in extra-curricular and service learning activities.
8. Enhance student understanding of the professor/student relationship.
9. Help students connect with the university as a community of learners.
10. Share, discuss, and analyze a common reading experience that will enhance students’ connection to the campus community.

Each fall, a large number of new freshmen participate in Connections. These students are divided into sections of approximately 30 students each and the vast majority engage in an intensive one-week experience just before the start of fall semester and then meet periodically in those same groups during the semester. For the first time this year, a small number of students participated in an alternative version of Connections that met twice a week for the first eight weeks of the Fall Semester. The focus of this report is on the traditional Connections class.

II. SURVEY METHODOLOGY

The purpose of the survey was to evaluate the impact and effectiveness of Connections. Students were asked to complete a questionnaire (pre-survey) on the first day of the 2004 class and then to complete a near-identical questionnaire (post-survey) at the last meeting of the group, which occurred six weeks later. Responses to the pre- and post-surveys were compared to assess how student attitudes and knowledge had changed over the period.

The surveys consisted of three parts. On the pre-survey, the first section asked students to indicate how important different reasons were for attending Connections. On the post-survey, the same reasons were listed, but students were asked how helpful Connections actually was in achieving those objectives. The second section of both the pre- and the post-survey asked the students to indicate their degree of agreement or disagreement with statements such as “USU is a friendly place for students” and “I don’t have very good study skills.” The final section focused on information that was to be taught during Connections. Ten representative multiple choice questions were selected. The purpose was to compare pre- and post-survey results to assess how much learning took place. Copies of the two survey instruments are included in the appendix.

A total of 828 students completed the pre-survey, about 95% of the students who took Connections. The post-survey was completed by 637 students. The lower completion rate on the post-survey primarily reflects the negligence of some instructors who failed to pass it out at the last class meeting. Only responses for students who completed both questionnaires were used for making pre/post comparisons. In evaluating attitudinal changes, it is important to remember that, during the six week interval, Connections was only a small part of the total college experience of the students responding to the survey.

As will be discussed in the next section, the demographic characteristics of those students who filled out the post-survey are almost identical to the larger group who filled out the pre-survey, so there is no reason to expect bias in the pre vs. post survey comparisons. The similarity in characteristics of the two groups is probably explained by the fact that whole classes were omitted from the post-survey, rather than individual students deciding not to complete the instrument or not being in attendance when it was administered.

III. CHARACTERISTICS OF SURVEY RESPONDENTS

As part of the survey, students were asked to include their student identification number. This made it possible to match the pre- and post-surveys and it also allowed additional student information, including age, ACT score, high school GPA, race, and college credits earned to be included in the data base. The following tables provide summary information on the characteristics of the pre-survey respondents.

AGE		GENDER	
≤ 18 Years	90%	Female	65%
19 Years	7%	Male	35%
≥ 20 Years	3%		

Ninety-seven percent of survey respondents were 18 or 19 years old about the same as the total 2004 Freshman Class. Sixty-five percent were women, compared to 57% for all incoming USU freshman. The gender and age distributions for the post-survey are very similar to the pre-survey distribution.

ACT scores and high school GPAs for the 2004 Connections class are shown below. The mean values for all incoming freshman in Fall, 2004 are similar to these numbers, with 24.1 for ACT score and 3.57 for high school GPA. The post-survey means of 24.34 for ACT and 3.63 for high school GPA are also very close to the pre-survey Connections numbers.

ACT SCORE		HIGH SCHOOL GPA	
< 18	1%	< 2.5	1%
18-21	28%	2.5-2.99	7%
22-25	32%	3.0-3.49	22%
26-29	31%	3.5-3.79	31%
30-36	8%	3.8-3.99	34%
	Mean = 24.14	4.0	6%
			Mean = 3.61

Ninety-one percent of all Connections students are white. For all incoming freshmen in 2004, the proportion was 92%. Eighty-four percent of those in Connections came from Utah. This compares to 79% for all Fall, 2004 Freshman. Post-survey values for these two measures are very similar to the pre-survey numbers.

RACE/ETHNICITY		GEOGRAPHIC ORIGIN	
Am. Ind./AK Nat.	1%	Cache Valley	14%
Asian/Pac. Isl.	2%	Utah, not Cache Valley	70%
Black, Non-Hisp.	0%	U.S., not Utah	16%
Hispanic	5%	Outside of U.S.	0%
Other/Unspecified	1%		
White, Non-Hisp.	91%		

The distribution of credits that Connections students had as they started their college experience was computed. These credits were earned through AP, CLEP, or concurrent enrollment. Over 60% had no college credit, but 18% brought more than 12 credits. Again, the post-survey distribution is essentially the same as the pre-survey percentages.

PRIOR CREDITS

0	63%	19-24	6%
1-6	3%	25-30	2%
7-12	15%	31-36	2%
13-18	6%	≥ 37	2%

IV. PRE-SURVEY RESULTS

Responses to the Connections pre-survey are shown below. From the first section of the survey, all of the eight reasons for attending Connections were considered very or somewhat important by over 90% of the respondents. Three reasons, “1. Develop college level study skills,” “4. Learn where things are found on campus,” and “7. Better understand what professors expect” were ranked as “Very Important” on nearly 80% of the surveys and “2. Making friends with other new students” was very important to more than 70%. The reason with the least support was “3. Learn about USU policies and procedures.”

Importance of reasons for attending Connections	Very Important	Somewhat Important	Not Important
1. Develop college level study skills	82%	18%	1%
2. Make friends with other new students	72%	27%	1%
3. Learn about USU policies and procedures	38%	55%	8%
4. Learn where things are found on campus	79%	20%	1%
5. Get settled in before school starts	63%	32%	5%
6. Learn what university life is like	57%	40%	3%
7. Better understand what professors expect	83%	16%	1%
8. Better Understand what I want from college	64%	33%	3%

There was considerable variation in responses to the statements in the second section of the survey. Three-fourths of Connections students were worried about succeeding in college, but over 85% believed that their computer skills were adequate for college and about half thought they had good study skills and were good at using a library. Nearly all of the respondents started college with the perception that faculty and staff at USU are helpful, but two-thirds were unclear as to what professors expect from students in classes.

More than two-thirds of the respondents disagreed with the statement that there isn’t enough to do in Logan and nearly 98% were happy to be at USU. Over 98% agreed that USU is a friendly place for students.

Agree or disagree with statement	Strongly		Disagree	Strongly
	Agree	Agree		
1. I am worried about succeeding in college	24%	53%	20%	3%
2. Faculty and staff at USU are helpful	28%	71%	1%	0%
3. I plan to graduate from USU	47%	43%	8%	1%
4. My computer skills are adequate for college	24%	62%	14%	1%
5. I don't have very good study skills	8%	41%	46%	5%
6. USU is a friendly place for students	40%	58%	1%	0%
7. I am not very good at using a library	5%	39%	48%	8%
8. I am unclear about what professors expect from students in their classes	9%	57%	32%	1%
9. I am happy to be here at USU	49%	48%	2%	0%
10. There isn't enough to do in Logan	5%	25%	58%	12%
11. I want to be involved in extra-curricular activities while in college	39%	56%	5%	0%
12. Connections should be required for all freshman	11%	40%	44%	4%
13. Reading "A Hope in the Unseen" was a meaningful experience for me.	10%	55%	28%	7%

The 10 multiple choice questions in the final part of the pre-survey were taken from material that was to be covered in the Connections class. The mean pre-survey score on the ten questions is 37.6%. The proportion of respondents getting a specific question right ranged from less than 15% for #4: How long students have to make up an "I" grade to over 80% for #8: Eligibility to use the Student Health Center.

Material to be covered in Connections	Correct Answers
1. Which would you not be able to access by connecting to USU by modem from home or from your dorm? <u>Correct Answer:</u> Word processing software	19%
2. If I want to know which classes provide Supplemental Instruction, I can look: <u>Correct Answer:</u> In the class schedule bulletin	16%
3. The grade of pass or "P" indicates that a student has earned at least a ____ grade in a course. <u>Correct Answer:</u> C-	53%
4. The maximum length of time a student has to make up an "I" grade is ____ . <u>Correct Answer:</u> 12 months	14%
5. To be ranked as a sophomore, a student must have earned a total of at least _____ credits. <u>Correct Answer:</u> 30 credits	80%
6. A full-time enrolled freshman student may apply for an emergency loan of up to _____ dollars. <u>Correct Answer:</u> \$400	19%
7. If you received an "A" in a 2 credit class, a "B" in a 4 credit class, and a "C" in a one credit class, your GPA for the semester would be: <u>Correct Answer:</u> 3.25	31%
8. Students can use the University Student Health Center if: <u>Correct Answer:</u> They have paid their tuition and fees	83%
9. Special Collections and Archives materials in the library are useful for providing what kind of information? <u>Correct Answer:</u> First person accounts of individuals who helped settle Utah	25%
10. You buy a disk with a game on it. Which of the following would be a violation of copyright law? <u>Correct Answer:</u> Letting a friend load the game on her hard drive.	37%

V. POST-SURVEY RESULTS

The tables below provide the results of the post-survey. They will analyzed and discussed in the next section. Note that the only difference in format from the pre-survey is the first section. Instead of asking students the importance of reasons for attending Connections, students were asked how helpful the class actually was in those areas.

Connections was useful in helping me to:	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Develop college level study skills	16%	65%	17%	2%
2. Make friends with other new students	47%	48%	4%	1%
3. Learn about USU policies and procedures	35%	62%	2%	0%
4. Learn where things are found on campus	57%	39%	4%	1%
5. Get settled in before school starts	61%	35%	3%	1%
6. Learn what university life is like	29%	57%	13%	1%
7. Better understand what professors expect	24%	61%	14%	1%
8. Better Understand what I want from college	20%	58%	20%	2%

Agree or disagree with statement	Strongly Agree	Agree	Disagree	Strongly Disagree
1. I am worried about succeeding in college	21%	44%	31%	4%
2. Faculty and staff at USU are helpful	26%	71%	2%	0%
3. I plan to graduate from USU	41%	44%	12%	3%
4. My computer skills are adequate for college	31%	60%	8%	1%
5. I don't have very good study skills	10%	38%	47%	5%
6. USU is a friendly place for students	41%	58%	1%	0%
7. I am not very good at using a library	7%	39%	46%	7%
8. I am unclear about what professors expect from students in their classes	2%	19%	73%	6%
9. I am happy to be here at USU	45%	52%	3%	0%
10. There isn't enough to do in Logan	7%	30%	54%	10%
11. I want to be involved in extra-curricular activities while in college	31%	63%	6%	0%
12. Connections should be required for all freshman	13%	31%	41%	16%
13. Reading "A Hope in the Unseen" was a meaningful experience for me.	8%	45%	29%	18%

Material covered in Connections	Correct Answers
1. Which would you not be able to access by connecting to USU by modem from home or from your dorm? <u>Correct Answer:</u> Word processing software	20%
2. If I want to know which classes provide Supplemental Instruction, I can look: <u>Correct Answer:</u> In the class schedule bulletin	49%
3. The grade of pass or "P" indicates that a student has earned at least a ____ grade in a course. <u>Correct Answer:</u> C-	70%
4. The maximum length of time a student has to make up an "I" grade is ____ . <u>Correct Answer:</u> 12 months	37%
5. To be ranked as a sophomore, a student must have earned a total of at least _____ credits. <u>Correct Answer:</u> 30 credits	91%

6. A full-time enrolled freshman student may apply for an emergency loan of up to _____ dollars. <u>Correct Answer:</u> \$200	19%
7. If you received an "A" in a 2 credit class, a "B" in a 4 credit class, and a "C" in a one credit class, your GPA for the semester would be: <u>Correct Answer:</u> 3.25	36%
8. Students can use the University Student Health Center if: <u>Correct Answer:</u> They have paid their tuition and fees	89%
9. Special Collections and Archives materials in the library are useful for providing what kind of information? <u>Correct Answer:</u> First person accounts of individuals who helped settle Utah	41%
10. You buy a disk with a game on it. Which of the following would be a violation of copyright law? <u>Correct Answer:</u> Letting a friend load the game on her hard drive.	37%

VI. PRE- VS. POST-SURVEY RESULTS

One of the primary purposes for conducting the survey was to assess the value-added that results from participation in Connections. By having students complete essentially the same instrument at the end of the course as they did at the beginning, it is possible to evaluate changes in attitudes and knowledge.

On the first section of the questionnaire, the pre-survey asked about importance of reasons for taking Connections, while Section I of the post-survey focused on the helpfulness of the course in meeting those needs. By analyzing both, it is possible to assess the extent to which Connections provided help with the most important reasons students had for taking the course.

The four reasons for attending Connections ranked by at least 70% of pre-survey respondents as very important are listed below, together with the assessment from the post-survey as to how helpful Connections was in meeting these needs.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Better understand what professors expect	24%	61%	14%	1%
2. Develop college level study skills	16%	65%	17%	2%
3. Learn where things are found on campus	57%	39%	4%	1%
4. Make friends with other students	47%	48%	4%	1%

The data indicate that a substantial proportion of the post-survey respondents agree that Connections was successful in helping them satisfy their most important reasons for attending. However, the percentages who strongly agree that Connections helped them “Develop college level study skills” or “Better understand what professors expect” are not particularly high.

In analyzing the data from the section of the surveys that focus on feelings or concerns about college life, the approach was to consider how responses changed during the six week period from start to end of Connections. Only responses from those students who

completed both the pre-survey and the post-survey were used in this part of the analysis. The methodology was to quantify the pre/post “change” in answers for each respondent and for each statement. Stronger agreement or weaker disagreement was assigned positive values and weaker agreement or stronger disagreement was given negative values. If the student marked the same category both times, a value of “0” was assigned. Possible values range from -3 (a change from strongly agree to strongly disagree) to +3 (a change from strongly disagree to strongly agree). For example, if the pre-survey response was “strongly agree” and the post-survey response was “agree”, then the score would be -1 for that student on that statement.

It is recognized that there may be problems in assigning numerical values to changes, because the approach assumes that movement between all categories represents the same degree of attitudinal shift, but this may not be accurate. For example, a change from agree to disagree may reflect a bigger change in attitude than a change from agree to strongly agree. Still, the methodology allows the pre/post variations to be examined in a systematic manner. The results are shown in the table below.

Statements	Disagree More Than Pre-Survey			No Change	Agree More Than Pre-Survey		
	-3	-2	-1	0	1	2	3
1. I am worried about succeeding in college	1%	9%	30%	35%	18%	7%	0%
2. Faculty and staff at USU are helpful	0%	1%	19%	63%	17%	0%	0%
3. I plan to graduate from USU	1%	8%	24%	45%	19%	3%	0%
4. My computer skills are adequate for college	0%	1%	20%	48%	27%	4%	0%
5. I don't have very good study skills	0%	5%	25%	37%	24%	8%	0%
6. USU is a friendly place for students	0%	1%	23%	50%	24%	1%	0%
7. I am not very good at using a library	0%	4%	25%	38%	25%	7%	1%
8. I am unclear about what professors expect from students in their classes	0%	11%	47%	34%	7%	1%	0%
9. I am happy to be here at USU	0%	1%	26%	50%	22%	1%	0%
10. There isn't enough to do in Logan	0%	5%	21%	40%	24%	9%	1%
11. I want to be involved in extra-curricular activities while in college	0%	2%	30%	45%	22%	1%	0%
12. Connections should be required for all freshman	2%	11%	25%	32%	21%	8%	1%
13. Reading “A Hope in the Unseen” was a meaningful Experience for me.	1%	13%	27%	33%	21%	5%	0%

The data in the table suggest that attitudes changed over the period of time covered by Connections. For twelve of the thirteen statements, at least 50% of the students changed their response. The only exception was #2: Faculty and staff at USU are helpful, where 63% of the respondents did not change their pre/post survey answers.

For five of the statements (2, 5, 6, 7, and 9), the pre/post percentage of students who indicated greater disagreement was within 4 percentage points of those indicating greater agreement. This suggests that, collectively, attitudes of the Connections students did not change very much in either direction.

There were significant pre/post survey changes in attitude toward greater agreement or greater disagreement for eight statements (1, 3, 4, 8, 10, 11, 12, and 13). After finishing Connections, students are much less worried about succeeding in college, somewhat less likely to agree that they will graduate from USU, believe they have a much better understanding of what professor expect, less desirous of being involved in extra-curricular activities, and a little less likely to agree that Connections should be required of all students. They are more confident in their computer skills and more likely to say that there isn't enough to do in Logan. Finally, a few weeks to reflect on "A Hope in the Unseen," caused them to be more likely to respond that reading the book was not a meaningful experience.

The final table compares answers for the ten multiple choice content questions. The answer for each student on the pre-survey is matched to that student's answer on the post-survey. As the table shows, there are four possible pre vs. post combinations. By adding the right/right and wrong/right percentages and then calculating the average for all ten questions, the mean score for the post-survey respondents can be computed. By adding the right/right and right/wrong percentages, the pre-survey mean can be determined. The mean for the post-survey is 49.0%, while the pre-survey mean is 38.6% (The pre-survey mean for those who completed both the pre- and post-survey is essentially the same as the mean for the larger group that completed only the pre-survey (37.6%), reaffirming the lack of bias in the post-survey responses.).

The comparison of means indicates that learning did take place during Connections, but the gain is not large and the final mean of 49.0% does not reflect stellar performance by Connections students. There may be several reasons. The first is that there may have been too few questions to adequately sample course content or that the questions were too detailed. The second is that some material may not have been taught by all instructors. Finally, students may not have put forth much effort to learn the material. More study is needed to determine the relative importance of these factors.

	Right/ Right	Wrong/ Right	Right/ Wrong	Wrong/ Wrong
1. Which would you not be able to access by connecting to USU by modem from home or from your dorm? <u>Correct Answer:</u> Word processing software	5%	16%	16%	64%
2. If I want to know which classes provide Supplemental Instruction, I can look: <u>Correct Answer:</u> In the class schedule bulletin	10%	39%	7%	43%
3. The grade of pass or "P" indicates that a student has earned at least a ____ grade in a course. <u>Correct Answer:</u> C-	37%	33%	17%	14%
4. The maximum length of time a student has to make up an "I" grade is ____ . <u>Correct Answer:</u> 12 months	6%	32%	9%	53%
5. To be ranked as a sophomore, a student must have earned a total of at least _____ credits. <u>Correct Answer:</u> 30 credits	73%	19%	7%	1%
6. A full-time enrolled freshman student may apply for an emergency loan of up to _____ dollars. <u>Correct Answer:</u> \$400	4%	19%	16%	61%

7. If you received an "A" in a 2 credit class, a "B" in a 4 credit class, and a "C" in a one credit class, your GPA for the semester would be: <u>Correct Answer:</u> 3.25	12%	25%	21%	42%
8. Students can use the University Student Health Center if: <u>Correct Answer:</u> They have paid their tuition and fees	75%	15%	9%	2%
9. Special Collections and Archives materials in the library are useful for providing what kind of information? <u>Correct Answer:</u> First person accounts of individuals who helped settle Utah.	12%	31%	14%	43%
10. You buy a disk with a game on it. Which of the following would be a violation of copyright law? <u>Correct Answer:</u> Letting a friend load the game on her hard drive.	14%	23%	22%	40%

VII. 2004 VS. 2003 CONNECTIONS SURVEY RESULTS

In terms of format and content, the traditional Connections class was much the same in Fall, 2004 as in Fall, 2003. One significant change was that the book, "A Hope in the Unseen" was added to the curriculum. The survey instrument for 2004 was similar to that used in 2003, although the several of the content questions were changed, precluding any comparison of learning gains.

Responses to questions from the first section of the survey changed very little from 2003. The most important reasons for attending Connections in 2004 were the same as in 2003 and the percent of students who strongly agreed that Connections had met their needs in those areas were very similar both years.

In contrast, there was more change in the pre/post survey responses to the Section II statements in 2004 than there was in 2003. In the earlier year, 50% or more of the students did not change their pre vs. post answers on nine of the twelve questions, while as many as 50% of responses remained the same on only one of thirteen questions on the 2004 survey. For those questions where there was a substantial pre/post survey shift in attitudes for 2004 students, the direction of change was the same in all cases as it was for those who took Connections in 2003.

VIII. 2004 TRADITIONAL VS. EIGHT WEEK CONNECTIONS CLASSES

In Fall, 2004, about sixty students took an alternative version of Connections that met twice a week for the first eight weeks of classes. With minor modifications, the same pre- and post-surveys were administered to these students. But, because of drops and adds and other problems, only 26 of the students who took the pre-survey also filled out the post-survey. This number is too small to allow meaningful pre/post survey analyses of the data, so results for the eight week option are not reported here.