



Office of Institutional Research

To: College-Wide Assessment Team
CC: Stephen Siciliano
From: Darby Hiller
Date: July 3rd, 2003
Subject: Retrospective Survey Results (Spring 2003)

In spring 2003, a new and improved retrospective survey was administered in 53 courses to assess student perceptions about the General Education outcomes. The new survey (see attached) was improved in three ways from the survey administered in the fall. First, the spring survey was administered in 53 classes, chosen at random, to 885 students. Secondly, the response categories to each question were reworded. In the fall 2002 survey, the students were asked to talk about their level of agreement with a statement. I thought that it would be more useful to talk about a student's level of understanding, or rating of a skill. Therefore, I reduced the number of responses by dropping the "before this class" column from the old survey (see the attached old survey). The new survey asked the students if their skills improved as a result of the class only. There were twelve statements, four for each general education outcome. The possible response categories were:

- 0=not applicable
- 1=did not improve
- 2=slightly improved
- 3=greatly improved

With this scale we removed the opportunity for students to say they actually became less skilled from taking the course, as was the case with the fall 2002 survey. Lastly, each statement on the survey was grouped with other statements from the same general education outcome and then those groups were identified with the title of the outcome. These headings helped to give the questions some organization while further reinforcing the names of the outcomes to the students.

These changes, combined with an instructor script, helped to make the results of this survey more valid. We encouraged the students to take the survey more seriously. There were no defaced surveys or student comments, positive or negative. We can feel more confident in the information garnered from the results.

Results.

Descriptive statistics for the new retrospective survey are provided below. In Table 1, the percentage of responses, the mean and standard deviation are provided for each general education statement for all classes. The not applicable responses were removed from the total in calculating the means. Regardless of class and outcome, students overall report the same degree of improvement in their abilities for each outcome. Within the outcomes, the greatest level of improvement was reported in the students' abilities to use what they have learned to communicate in a field of study (mean=2.52), in their ability to solve problems using techniques from the academic area

in which they were studying (mean=2.41) and in all the cultural perspectives statements (means ranging from 2.49 to 2.62)

For the previous fall 2002 administration of the retrospective survey we were unable to link responses to the general education outcomes supported in the courses. With fewer courses that is now a feasible analysis. The classes were categorized by the general education outcomes they support. Out of the 53 classes surveyed, 37 support Communications (632 students), 44 support Critical Thinking (701 students), and 16 support Cultural Perspectives (320 students). It is more appropriate to analyze the frequencies and means of the statements with regard to the outcomes the course supports. Table 2 gives the descriptive statistics for all of the Communications courses (regardless of whether they support an additional outcome).

For each communications statement, at least 70% of the students reported they had improved in those skills. As in the fall 2002, the greatest number of students (92%) said they had improved in their ability to use what they had learned to communicate in the field of study. However, 17.5% said that the ability to understand, organize and express ideas using correct English was not applicable to the course they were taking. That is an alarming amount of students that do not see how their course, purporting to support that general education outcome, is connected. It is possible that students associate this skill with English classes only. I do not suggest rewording the statement, necessarily, because then we would not be able to develop a trend analysis for this skill. Instead, perhaps instructors in classes that support this basic communication skill, that are not English classes, could reinforce the fact that competency in the English language, whether written or spoken, is also an outcome of their history class or their art class, for instance.

A similar tendency was found when analyzing the courses that support critical thinking (Table 3). Generally, at least 72% of the students improved in their abilities in three of the four skill statements. However, in responding to whether one's ability to identify the parts of an argument has improved, only 67% said it had, and 32% said that their ability had not improved or that the skill was not applicable to the course they were taking. My response to this is that perhaps in math classes, which disproportionately support critical thinking, students do not recognize a math problem as an argument. So either our students believe that they are not learning or improving in this skill, or the wording of the statement is confusing for them. Otherwise, I think we should be quite encouraged by the results from the critical thinking courses.

The most impressive results come from the cultural perspective classes. The skill statements had the highest means, meaning the greatest extent of improvement, of all the general education outcome statements. And although cultural perspectives is the least pervasive outcome, our students recognize that outcome when it is a part of and supported by their courses and instructors. For every skill statement, at least 85% of the respondents reported that their abilities had improved after taking the course. Moreover, a majority said their skills had greatly improved in all four skill statements. This result is quite impressive and proves that our instructors have embraced the cultural perspectives outcome in their classes. This is a tremendous improvement over the fall 2002 results in which about 70% of the respondents overall said that their understanding had decreased or remained the same as a result of taking the class.

For both the critical thinking classes and the cultural perspectives classes, like the communications classes, 22% of the students said that the ability to understand, organize and express ideas using correct English was not applicable to the class. Again this signifies that either instructors are not making this outcome a priority in their classes or students are misunderstanding the intention of the statement. One way to test for the latter possibility is by having focus groups of students review the wording of the survey and offer their thoughts and suggestions to make sure we have construct validity in the questions. We may not be measuring what we want to measure with that statement.

What we have learned.

The redesign of the retrospective survey was critical to acquiring valid data. I recommend using the same survey in the Fall 2003 semester to collect comparable data and begin to establish trends. The results for communications and critical thinking are similar to those found in Fall 2002. Students made the most progress in their ability to use what they had learned to communicate in their field of study and the least progress in their ability to understand, organize and express ideas using correct English. However, as I mentioned above, the latter finding may be the result of student's misunderstanding of the skill statement.

For critical thinking, students made the most progress in their ability to solve problems using techniques from their academic area, as in fall 2002. Yet, unlike fall 2002, they made the least progress in their ability to identify the parts of an argument. Interestingly, this is contrary to our students' scores on the CAAP critical thinking test (see CAAP Addendum: Item Analysis (February 24, 2003)), in which they performed the best in evaluating the parts of an argument. Perhaps this skill is more inherent and less recognizable to the student. Again, it would be of value to test this survey with focus groups before administering it a second time to make sure we have construct validity.

According to the respondents, the greatest gains were made in the cultural perspectives outcome. The descriptive statistics for those skill statements are impressive, given the results in the previous semester. The ability to see and recognize different cultural viewpoints was an area of greatest improvement (mean=2.62), along with the ability to understand the contributions and influences of different cultures and people (mean=2.58). But about 50% of the respondents also said their ability to talk about the economic, historical, political or social aspects of a culture and their ability to evaluate how different cultures affect each other and the work had greatly improved (both with means of 2.49). The bottom line is that the instructors of those courses supporting cultural perspectives are deserving of laudatory recognition. Our challenge with regard to the cultural perspectives outcome will be to make it more pervasive throughout the curriculum so that students have a higher likelihood of exposure (see Graduate Exposure to General Education Outcomes (April 16, 2003) and Curriculum Commitment to the General Education Outcomes (May 13, 2003) for more information).

For additional analyses, questions, or comments please contact Darby L. Hiller, dhiller@nmc.edu or 995-1084.

Table 1. Retrospective Survey Spring 2003 (N=885)	Not Applicable	Not Improved	Slightly Improved	Greatly Improved	MEAN	STD. DEV.	N for means
COMMUNICATIONS							
1. My ability to understand, organize and express ideas using correct English has:	23.3%	11.3%	43.8%	21.5%	2.134	0.641	673
2. My ability to collect information according to the ways of this academic area has:	5.5%	6.0%	46.2%	42.3%	2.384	0.604	831
3. My ability to communicate my purpose to a specific audience has:	14.6%	10.9%	43.9%	30.6%	2.230	0.658	751
4. My ability to use what I learned to communicate in this field of study has:	3.8%	4.7%	37.0%	54.5%	2.518	0.590	840
CRITICAL THINKING							
5. My ability to identify the parts of an argument has:	24.1%	11.3%	39.2%	25.5%	2.186	0.671	665
6. My ability to use information relevant to the problem I am solving has:	11.4%	7.2%	43.8%	37.6%	2.343	0.623	776
7. My ability to reason clearly and to draw conclusions based on information has:	8.0%	7.6%	47.5%	36.8%	2.317	0.619	807
8. My ability to solve problems using techniques from this academic area has:	9.9%	6.6%	40.0%	43.5%	2.409	0.624	789
CULTURAL PERSPECTIVES							
9. My ability to see and recognize different cultural viewpoints has:	25.1%	8.0%	29.9%	37.1%	2.388	0.672	657
10. My ability to understand the contributions and influences of different cultures and people has:	25.8%	9.2%	29.2%	35.7%	2.357	0.692	650
11. My ability to talk about the economic, historical, political or social aspects of a culture has:	27.0%	11.6%	32.0%	29.4%	2.243	0.709	641
12. My ability to evaluate how different cultures affect each other and the world has:	27.2%	10.5%	32.2%	30.1%	2.269	0.698	636

Table 2. Statistics for Communications Courses	Not Applicable	Not Improved	Slightly Improved	Greatly Improved	Mean	Std. Deviation	N for means
COMMUNICATIONS							
1. My ability to understand, organize and express ideas using correct English has:	17.5%	11.5%	47.2%	23.8%	2.15	0.637	517
2. My ability to collect information according to the ways of this academic area has:	4.3%	6.8%	44.3%	44.6%	2.39	0.619	601
3. My ability to communicate my purpose to a specific audience has:	9.4%	10.5%	44.6%	35.5%	2.28	0.658	569
4. My ability to use what I learned to communicate in this field of study has:	2.4%	5.0%	36.2%	56.4%	2.53	0.593	609
CRITICAL THINKING							
5. My ability to identify the parts of an argument has:	21.4%	12.3%	39.9%	26.5%	2.18	0.679	493
6. My ability to use information relevant to the problem I am solving has:	11.5%	8.8%	44.6%	35.2%	2.30	0.639	556
7. My ability to reason clearly and to draw conclusions based on information has:	7.6%	8.6%	47.5%	36.3%	2.30	0.630	580
8. My ability to solve problems using techniques from this academic area has:	10.4%	7.5%	41.6%	40.5%	2.37	0.633	562
CULTURAL PERSPECTIVES							
9. My ability to see and recognize different cultural viewpoints has:	17.2%	7.8%	33.4%	41.6%	2.41	0.656	520
10. My ability to understand the contributions and influences of different cultures and people has:	17.6%	8.8%	33.8%	39.8%	2.38	0.670	515
11. My ability to talk about the economic, historical, political or social aspects of a culture has:	20.8%	11.6%	35.0%	32.6%	2.27	0.699	498
12. My ability to evaluate how different cultures affect each other and the world has:	19.2%	10.7%	36.1%	34.0%	2.29	0.687	504

Table 3. Statistics for Critical Thinking Courses	Not Applicable	Not Improved	Slightly Improved	Greatly Improved	Mean	Std. Deviation	N for means
COMMUNICATIONS							
1. My ability to understand, organize and express ideas using correct English has:	22.1%	10.6%	44.6%	22.7%	2.15	0.636	543
2. My ability to collect information according to the ways of this academic area has:	4.6%	6.2%	45.5%	43.8%	2.39	0.607	665
3. My ability to communicate my purpose to a specific audience has:	13.5%	10.5%	45.1%	30.9%	2.24	0.650	604
4. My ability to use what I learned to communicate in this field of study has:	3.3%	5.5%	37.5%	53.7%	2.50	0.603	670
CRITICAL THINKING							
5. My ability to identify the parts of an argument has:	21.1%	11.2%	40.7%	27.0%	2.20	0.667	549
6. My ability to use information relevant to the problem I am solving has:	7.0%	7.0%	46.6%	39.4%	2.35	0.616	647
7. My ability to reason clearly and to draw conclusions based on information has:	5.5%	7.2%	49.1%	38.3%	2.33	0.611	659
8. My ability to solve problems using techniques from this academic area has:	6.6%	6.9%	40.7%	45.8%	2.42	0.626	650
CULTURAL PERSPECTIVES							
9. My ability to see and recognize different cultural viewpoints has:	27.4%	9.6%	31.5%	31.5%	2.30	0.690	505
10. My ability to understand the contributions and influences of different cultures and people has:	29.1%	11.1%	30.6%	29.2%	2.26	0.710	493
11. My ability to talk about the economic, historical, political or social aspects of a culture has:	29.7%	13.5%	32.1%	24.7%	2.16	0.720	490
12. My ability to evaluate how different cultures affect each other and the world has:	29.5%	12.4%	32.1%	25.9%	2.19	0.713	489

Table 4. Statistics for Cultural Perspectives Courses	Not Applicable	Not Improved	Slightly Improved	Greatly Improved	Mean	Std. Deviation	N for means
COMMUNICATIONS							
1. My ability to understand, organize and express ideas using correct English has:	22.2%	12.0%	48.7%	17.1%	2.07	0.609	246
2. My ability to collect information according to the ways of this academic area has:	6.3%	8.5%	44.3%	40.9%	2.35	0.639	298
3. My ability to communicate my purpose to a specific audience has:	11.4%	12.3%	44.5%	31.9%	2.22	0.672	281
4. My ability to use what I learned to communicate in this field of study has:	3.2%	3.5%	38.2%	55.1%	2.53	0.568	304
CRITICAL THINKING							
5. My ability to identify the parts of an argument has:	23.1%	13.6%	40.2%	23.1%	2.12	0.681	243
6. My ability to use information relevant to the problem I am solving has:	17.4%	9.8%	43.7%	29.1%	2.23	0.647	261
7. My ability to reason clearly and to draw conclusions based on information has:	11.1%	8.5%	51.6%	28.8%	2.23	0.608	281
8. My ability to solve problems using techniques from this academic area has:	15.5%	7.6%	43.7%	33.2%	2.30	0.627	267
CULTURAL PERSPECTIVES							
9. My ability to see and recognize different cultural viewpoints has:	7.3%	3.5%	28.4%	60.9%	2.62	0.558	294
10. My ability to understand the contributions and influences of different cultures and people has:	7.6%	4.1%	30.8%	57.5%	2.58	0.578	291
11. My ability to talk about the economic, historical, political or social aspects of a culture has:	10.4%	5.1%	35.1%	49.4%	2.49	0.604	283
12. My ability to evaluate how different cultures affect each other and the world has:	8.3%	5.1%	36.8%	49.8%	2.49	0.602	289