

What We Have Learned

October 2006

General Education Assessment Update

The purpose of this update is to present what we have learned about NMC student progress on the general education outcomes from the 2005-2006 assessment cycle. Key areas of assessment over the past year included student artifact scoring in spring 2006 for communications, the Student Perceptions survey administered via the web in spring 2006, and perceptions of NMC graduates and transfer students.

Communications

The artifact scores in spring 2006 showed that while a smaller percentage of near-graduates scored sufficient or better on a specific communications capability, more near-graduates scored sufficient or better with their overall score than in spring 2005 (Table 1). Some caution must be taken in making comparisons from 2005 to 2006 because last year's sample size was small, with n=66. The 2006 results better reflect our near-graduates' abilities and can be generalized to the entire population of those students with 52 or more college credits (+/- 5% confidence interval). For the second year in a row, the weakest area was students' ability to support the main idea with relevant material and documented sources (Table 1, C4).

Table 1. Percentage of near-graduates scoring Sufficient or better: Communications		Spring 2006 (N=247)	Spring 2005 (N=66)
C1	Identifies main idea for intended purpose	71.1%	80.3%
C2	Uses coherent and mechanically-sound language	66.8%	75.8%
C3	Organizes ideas logically for intended purpose	67.6%	71.2%
C4	Supports main idea with relevant material and documented sources, if suitable	63.0%	65.2%
C5	Demonstrates an awareness of audience	74.1%	81.8%
Overall (Sufficient or better: total score >= 8 of a possible 15)		76.2%	62.2%

On the Student Perceptions Survey in spring 2006 (Table 2), students reported the greatest gains in their ability to use information sources appropriately in supporting their ideas. While students may perceive they are making improvements in that area, the artifacts of the near-graduates show that to be the weakest skill area.

Table 2. Student Perceptions Survey: Communications Means	Spring 2006 (N=134)
1. My ability to present and support an idea I am trying to convey has:	2.65
2. My ability to organize information to support an idea has:	2.70
3. My ability to express ideas appropriately using correct grammar and mechanics has:	2.51
4. My ability to use sources appropriately in supporting my ideas has:	2.75
5. My ability to communicate with a sense of my audience has:	2.69
4=greatly improved, 3=moderately improved, 2=slightly improved, 1=not improved	

The Student Perceptions survey is administered to currently enrolled students who were registered for at least three credits that semester. The students reported the least amount of improvement in their ability to express ideas appropriately using correct grammar. The finding is consistent with the results from past Perceptions surveys. Students believe that learning to use mechanically-sound language is only applicable in composition courses.

The Graduate Follow-Up survey and Transfer Survey also measure student perceptions of learning. A smaller percentage of NMC graduates believed their coursework and NMC experience made a contribution to improving their communications and research skills than in the previous year (Table 3). Furthermore, 93.2% graded their communications skills a 2.5 or better (sufficient or above) which shows a disconnect between perception and the results of the artifact scoring.

A smaller percentage of transfer students indicated that their NMC experience contributed to their ability to express ideas in writing than in previous years (Table 4). However, a higher percentage indicated NMC contributed to improving their research skills. This finding is not necessarily contrary to the artifact findings. While the artifacts showed that to a lesser extent students are performing at the sufficient level with regards to documenting and supporting their ideas, students who have completed their studies at NMC perceive gains in this skill.

Table 3. Perceptions of Graduates: Percent reporting that NMC contributed to improving...	Graduate 2006 (N=203)	Graduate 2005 (N=260)
1. ability to express ideas in writing	78.6%	86.1%
2. research skills	80.0%	85.7%
% reporting their skill level at sufficient or above	93.2%	

Table 4. Perceptions of Transfer Students: Percent reporting that NMC contributed to improving...	Transfer 2006 (N=167)	Transfer 2005 (N=212)	Transfer 2004 (N=221)
1. ability to express ideas in writing	76.2%	85.3%	80.0%
2. research skills	85.6%	81.5%	76.0%

Next Steps

While students perceive that their achievement of the Communications capabilities has improved as a result of their NMC experience, the artifacts show we still have areas that can be improved. Moreover, we have not yet achieved the NMC goal that 100% of near-graduates will perform at the sufficient level or above (see the [Communications rubric](#) for sufficient definition).

Several curricular changes were outlined in the 2005 [Progress Report on Using General Education Assessment Results](#) to the Higher Learning Commission to improve communications skills. An update on where NMC stands with regards to those changes will be presented later this semester. Communications artifacts will again be collected and scored in spring 2008.

Critical Thinking

The critical thinking outcome was not assessed by the artifact method this past year. Artifacts will again be collected and scored in spring 2007. Moreover, the CAAP Critical Thinking test will again be administered in spring 2007. The Student Perceptions Survey administered in spring 2006 did include statements regarding critical thinking skills. Students

perceived their greatest gains in their ability to use information to solve problems (Table 5, #3). This finding is consistent with previous semesters.

Table 5. Student Perceptions Survey: Critical Thinking Means	Spring 2006 (N=134)
1. My ability to identify the parts of an argument or problem has:	2.79
2. My ability to evaluate different ways to solve a problem has:	2.81
3. My ability to use information in solving a problem has:	2.84
4. My ability to reason clearly and to draw conclusions based on information has:	2.75
5. My ability to draw conclusions has:	2.73
4=greatly improved, 3=moderately improved, 2=slightly improved, 1=not improved	

A smaller percentage of NMC graduates perceived that NMC had contributed to their ability to think critically and solve problems than last year (Table 6). However, nearly all of the graduates graded themselves at the sufficient level or above (2.5-4.0) on critical thinking skills. From the artifact scoring in spring 2005, 82.3% of near-graduates scored at the sufficient level or higher. (See the [Critical Thinking rubric](#) for sufficient definition.) Nearly 11% more of the transfer students reported that their NMC experience contributed to improving their skills in thinking critically and solving problems than last year (Table 7)

Table 6. Perceptions of NMC Graduates: Percent reporting that NMC contributed to improving...	Graduate 2006 (N=203)	Graduate 2005 (N=260)
Ability to think critically and solve problems	84.6%	90.7%
% reporting their skill level at sufficient or above	96.3%	

Table 7. Perceptions of Transfer Students: Percent reporting that NMC contributed to improving...	Transfer 2006 (N=167)	Transfer 2005 (N=212)	Transfer 2004 (N=221)
1. ability to identify a problem and evaluating different ways to solve the problem	84.4%	86.3%	N/A
2. ability to think critically and solve problems	87.4%	76.8%	90.5%

Next Steps

In the past, the artifact method and the CAAP critical thinking test showed that demonstrating an understanding of different perspectives in solving a problem is the area needing most improvement. As far as we know, no new initiatives were proposed or implemented over the 2005-2006 academic year to improve student learning of critical thinking.

Cultural Perspectives/Diversity

The cultural perspectives outcome is in the process of being redefined by Curriculum Committee and the campus community. Artifacts have not been collected or scored since the committee initiated this process. Moreover, the Student Perceptions survey did not include statements about the cultural perspectives outcome in spring 2006. However, the Graduate Follow-Up survey and the Transfer survey still included broad statements regarding cultural perspectives/diversity.

On the Graduate Follow-Up survey, a smaller percentage of NMC graduates reported that NMC contributed to helping them develop an openness to opinions other than their own and

to broadening their awareness of other cultural viewpoints than in the previous year (Table 8). Conversely, on the Transfer Survey, a greater percentage of transfer students reported gains in their skills regarding cultural perspectives than in the previous years (Table 9). While the results from the Transfer survey are encouraging, the inverse trend between the Graduate survey and the Transfer survey is confusing and may be a reflection of the confusion the institution faces in redefining the outcome, a process that has lasted for over two years.

Table 8. Perceptions of NMC Graduates: Percent reporting that NMC contributed to improving...	Graduate 2006 (N=203)	Graduate 2005 (N=260)
1. Developing an openness to opinions other than my own	72.6%	83.0%
2. Broadening my awareness of other cultural viewpoints	70.2%	77.0%
% reporting their understanding of the contributions of diverse cultures and peoples at sufficient or above	85.2%	

Table 9. Perceptions of Transfer Students: Percent reporting that NMC contributed to improving...	Transfer 2006 (N=167)	Transfer 2005 (N=212)	Transfer 2004 (N=221)
1. Developing an openness to opinions other than my own	85.6%	85.2%	82.8%
2. Broadening my awareness of other cultural viewpoints	74.8%	70.6%	65.2%

Next Steps

When the diversity outcome is defined, the assessment measures will need to be revised as well. This will be a task for the Scholarship Action Group in the coming year.

Additional information about the artifact results can be found in the [annual report](#). Additional information about the [Graduate Follow-Up survey results](#) can be found in the analysis report. Additional information about the [results of the Transfer Survey](#) can be found in this year's annual report.