

Miami Dade College
QEP: ALEKS Pilot
Data Analysis and Summary

Overview: The ALEKS Study was conducted in Spring 2007-08 by having students use the program as part of the State Required Lab Hours for MAT0020/MAT0024 Courses. Participating Instructors had two sections of the course in which the Experimental Section used ALEKS and the other section did not. To assess learning gains, a faculty created PreTest was administered to all students in all participating sections in the beginning of the semester. The same test was administered as a PostTest at the end of the semester.

Results: Learning gains were greater overall and in five of the seven ALEKS sections compared to the matched comparison sections.

| | Group #1 | |
|-----------------------------------------|-----------------|-----------------|
| | Control | Experimental |
| | 436295 | 436294 |
| Average Pre Test Score | N = 26 9.88 | N = 27 8.44 |
| Average Post Test Score | N = 15 12.60 | N = 12 15.33 |
| Average % Increase between Pre and Post | N = 13 41% | N = 12 80% |
| Summary | 39% Higher | |

| | Group #4 | |
|-----------------------------------------|----------------|----------------|
| | Control | Experimental |
| | 438345 | 438330 |
| Average Pre Test Score | N = 30 9.80 | N = 31 7.81 |
| Average Post Test Score | N = 11 8.09 | N = 9 12.44 |
| Average % Increase between Pre and Post | N = 8 -13% | N = 9 86% |
| Summary | 99% Higher | |

| | Group #7 | |
|-----------------------------------------|-----------------|----------------|
| | Control | Experimental |
| | 443106 | 443103 |
| Average Pre Test Score | N = 26 9.13 | N = 30 9.32 |
| Average Post Test Score | N = 11 14.33 | N = 9 16.57 |
| Average % Increase between Pre and Post | N = 10 69% | N = 9 52% |
| Summary | 17% Lower | |

| | Group #2 | |
|-----------------------------------------|-----------------|-----------------|
| | Control | Experimental |
| | 436289 | 436287 |
| Average Pre Test Score | N = 20 8.40 | N = 22 8.27 |
| Average Post Test Score | N = 16 13.00 | N = 15 12.60 |
| Average % Increase between Pre and Post | N = 14 60% | N = 15 62% |
| Summary | 2% Higher | |

| | Group #5 | |
|-----------------------------------------|-----------------|-----------------|
| | Control | Experimental |
| | 443127 | 455771 |
| Average Pre Test Score | N = 18 10.33 | N = 16 10.63 |
| Average Post Test Score | N = 14 13.79 | N = 11 14.64 |
| Average % Increase between Pre and Post | N = 14 37% | N = 8 38% |
| Summary | 1% Higher | |

| | Group #3 | |
|-----------------------------------------|-----------------|-----------------|
| | Control | Experimental |
| | 438358 | 438359 |
| Average Pre Test Score | N = 17 9.41 | N = 27 9.19 |
| Average Post Test Score | N = 12 13.25 | N = 22 12.00 |
| Average % Increase between Pre and Post | N = 12 57% | N = 19 56% |
| Summary | 1% Lower | |

| | Group #6 | |
|-----------------------------------------|----------------|----------------|
| | Control | Experimental |
| | 436281 | 436296 |
| Average Pre Test Score | N = 23 8.78 | N = 25 6.80 |
| Average Post Test Score | N = 6 12.50 | N = 9 13.33 |
| Average % Increase between Pre and Post | N = 4 60% | N = 8 116% |
| Summary | 46% Higher | |

| | Overall Student Comparison | |
|-----------------------------------------|----------------------------|--------------|
| | Control | Experimental |
| | N =75 | N=64 |
| Average Pre Test Score | 9.17 | 8.97 |
| Average Post Test Score | 12.6 | 13.56 |
| Average % Increase between Pre and Post | 45% | 69% |
| Summary | 24% Higher | |

Data Comparison Notes:

- Average Pre Test Score:** Includes test results of ALL pre test scores for class
- Average Post Test Score:** Includes results of ALL post test scores for class
- Average % increase between Pre and Post:** Only includes test results for students who had both "Pre" and "Post" Test Scores
- Average % increase between Pre and Post:** For Experimental Sections, Only includes data for students whose "Time in ALEKS" is greater than 0.
- Student Comparison:** Comparison of student Pre and Post Test scores across classes. Only includes cases in which student had both "Pre" and "Post" Test Scores