

QEP Evaluation: Learning Prescription/Supplemental Instruction

Comparison of Math Attitude Survey Results, Spring Term 2007-2
Classes using ALEKS vs. sections taught by same instructor without ALEKS

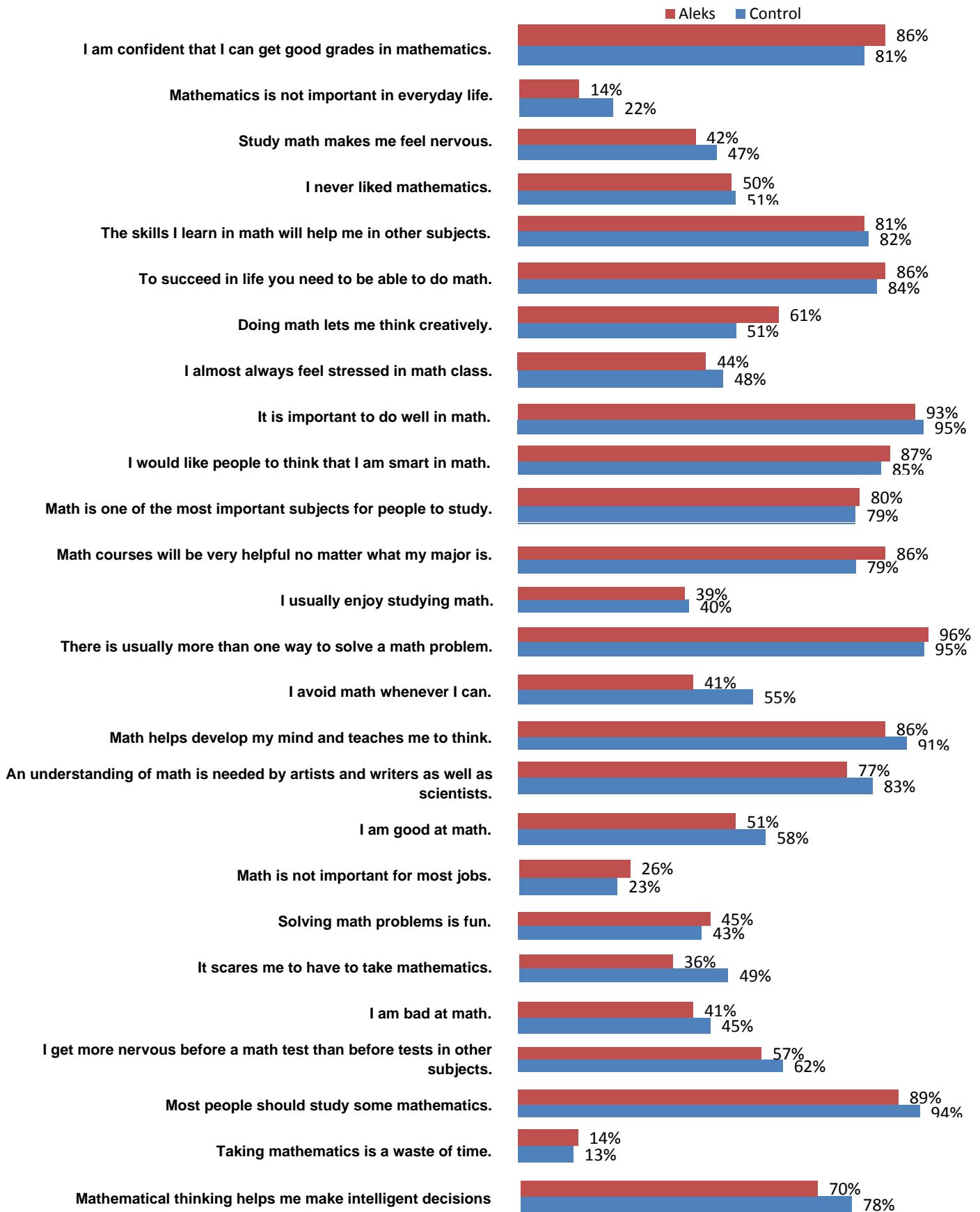
Method: The ALEKS (Assessment and Learning in Knowledge Spaces) program was selected by faculty for use in providing learning prescriptions and supplemental instruction to students in target classes. Eight faculty agreed to use ALEKS in one section of either MAT0020 or MAT0024 and teach another section of the same class without ALEKS. To evaluate potential changes in students' attitudes toward math as a result of using ALEKS, the Math Attitude Survey was administered by faculty in their ALEKS and Control group sections.

Institutional Research received completed surveys from six faculty and compared post survey results for these sections. The proportions of students who agree or strongly agree with the items were compared. Two faculty members submitted pre and post surveys for their matched sections for analysis. Pre/post means were compared for semester gains. For both analyses, significance was indicated at the $p < .05$ level.

Post Survey Results: Students in the ALEKS sections were significantly less likely to say they *avoid math whenever they can*. They were also less likely (although not significantly) to say that *it scares them to have to take math*. With these two notable exceptions, there was little difference between ALEKS and control group sections in student attitudes toward mathematics.

Pre/Post Survey Results: Comparisons of mean ratings at the beginning and end of the terms for the ALEKS and control groups revealed few significant differences. Students in the ALEKS sections were significantly more likely to agree that *the skills learned in math would help in other subjects* and less likely to say they are *confident they can get good grades in math at the end of the term*.

QEP ALEKS: Math Attitude Survey (Post Test) Spring 2007-2
Percent Agree or Strongly Agree



QEP ALEKS: Math Attitude Survey Pre & Post Test
Mean Survey Responses - Percent Agree or Strongly Agree
Spring 2007-2

	Pre-ALEKS Mean (N=38)	Post-ALEKS Mean (N=33)	Pre-Control Mean (N=41)	Post-Control Mean (N=33)
I am confident that I can get good grades in mathematics.	2.0	1.6	1.8	1.6
Mathematics is not important in everyday life.	3.2	3.2	3.2	3.0
Studying math makes me feel nervous.	2.4	2.6	2.4	2.4
I never liked mathametics.	2.3	2.3	2.2	2.2
The skills I learn in math will help me in other subjects	1.8	2.2	1.8	2.0
To succeed in life you need to be able to do math.	1.7	1.9	1.7	1.8
Doing math lets me think creatively.	2.4	2.6	2.3	2.4
I almost always feel stressed in math class.	2.3	2.6	2.4	2.5
It is important to do well in math.	1.5	1.8	1.5	1.6
I would like people to think that I am smart in math.	1.8	1.8	2.0	1.9
Math is one of the most important subjects for people to study.	1.8	2.1	1.9	1.9
Math courses will be very helpful no matter what my major is.	1.8	1.9	1.8	1.8
I usually enjoy studying math.	2.5	2.6	2.9	2.8
There is usually more than one way to solve a math problem.	1.6	1.8	1.6	1.7
I avoid math whenever I can.	2.5	2.5	2.5	2.3
Math helps develop my mind and teaches me to think.	1.8	2.0	1.8	1.8
An understanding of math is needed by artists and writers as well as scientists.	1.7	2.1	2.0	2.0
I am good at math.	2.6	2.5	2.6	2.4
Math is not important for most jobs.	3.0	2.9	3.1	2.9
Solving math problems is fun.	2.7	2.6	2.6	2.6
It scares me to have to take mathematics.	2.6	2.7	2.4	2.4
I am bad at math.	2.5	2.5	2.3	2.3
I get more nervous before a math test than before tests in other subjects.	2.1	2.2	1.9	2.1
Most people should study some mathematics.	1.9	1.9	1.9	1.7
Taking mathametics is a waste of time.	3.5	3.2	3.1	3.2
Mathematical thinking helps me make intelligent decisions	1.9	2.0	2.1	2.1

*Significant differences between pre/post means indicated in **bold blue**;
No significant differences between ALEKS and control group means; $p < .05$ level.