Implementation Strategies

Sedgwick Middle School, West Hartford School District
West Hartford, CT

Grade(s): 6 – 8
Scenario: Computers in Classroom
Purpose: Intervention, Supplement, Improve State Test Scores, At−Risk Students
ALEKS Portion of Curriculum: 70%
Time Spent in ALEKS: 90 minutes per week; 15 hours per term
ALEKS Course: Mathematics – LV 3 (with QuickTables), Mathematics – LV 4 (with QuickTables), Mathematics – LV 5 (with QuickTables)

Patricia Ray, Teacher
I have used ALEKS for two years in a remedial math class. The class is the students' second math class and my goal is to bring them up to grade level. I have found ALEKS to be the best resource for accomplishing this goal. The program assesses students and develops an individualized plan for each; this way all the gaps are addressed. I have been very pleased with the results. The first year, 35 percent of my students advanced at least one band level on the Connecticut Mastery Test (CMT); the second year, 19 percent of the students advanced at least one band level. Some of my students made it all the way to mastery, and considering that they had to be at band one or two to be in my class, that is quite an accomplishment.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
I am the only extra support for students who are in band one and two who are not in special education classes. Before ALEKS, I was constantly trying to assess all the students and determine what the different holes were for my students. I could not always fine−tune it for each individual student, and certain concepts would be missed because I would not have tested for that particular skill. I had developed my own assessment based on the CMT, however, it did not go into the depth that ALEKS does. Now the students are assessed on all of the CT standards and ALEKS develops a program for each that touches on everything that the student needs to know.

How many days per week is class time dedicated to ALEKS?
5 days per week.

What is the average length of a class period when ALEKS is used?
20 minutes.

Implementation

How do you implement ALEKS?
ALEKS is used by the developmental math class to help bring the students up to grade level. The students in my class all take it as a second math class with the intention that my class will fill in their gaps. They are also in a regular math class to hopefully keep them from falling further behind. We have 7−month subscriptions to help fill their gaps before CMT tests.

Do you cover ALEKS concepts in a particular order?
I do not force the students to fill in the ALEKS pie slices in any particular order, other than encouraging them to fill in their place value pie first. Place value concepts are fundamental to most other math concepts.

How do you structure your class period with ALEKS?
The class comes in and does a warm−up, such as practicing a skill or working on word problems; each month I focus on a different skill. Then the students work on QuickTables for about seven minutes and then they then work on their ALEKS course.

How did you modify your regular teaching approach as a result of ALEKS?
I have used ALEKS to support my efforts to fill in the mathematical concepts my students are missing. ALEKS enables me to find all the missing pieces and helps the students master them.

How often are students required or encouraged to work on ALEKS at home?
I encourage them all to work at home but probably 30−40 percent of my students do not have Internet access at home so I do not make it a required part of my program. The students who do have access and use it at home generally make the most gains though.

How do you cultivate parental involvement and support for ALEKS?
I tell the parents of students with Internet access to encourage their child to work with it at home. However, because many of my students do not have Internet access, I always tell them that we are working with it at school and they are getting the benefit of the program in their class.

Grading

Is ALEKS assigned to your students as all or part of their homework responsibilities? If so, what part of the total homework load is it?
No.

How do you incorporate ALEKS into your grading system?
ALEKS is incorporated with the computer portion of students' grades and is worth 20 percent. The grade is based on how on–task they are, not on how much they accomplish. I also print ALEKS Worksheets for the students to do in my class and it counts as a quiz grade. I find they have a great deal of difficulty transferring from computer to pencil and paper. I always want to see how they do when the task is written and they know it counts as a quiz grade.

Do you require students to make regular amounts of progress in ALEKS?
I encourage the students to make progress and try to reward them for completing objectives. Each child has a sheet with his name on it and the number of objectives he mastered from his initial assessment. Every 10 mastered objectives is worth a prize. If they lose objectives when they have a progress assessment, they have to get back to where they were and then count from there for the next 10 objectives mastered.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen.
I have found that the students who really buy into the program make tremendous progress. I had one student who started at band one (the lowest band in CT) and worked at home and in class. When she was tested the next spring, she had moved to band four (mastery) and is earning A's in her regular math class without any extra support. Most of my students improve on their CMT testing; they do not all make mastery, but they generally go up quite a few points. The students like to watch their progress and enjoy seeing their pie slices fill up.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS?
I found that it was really important to add an external motivator for my students to keep them going when the going got tough. The sheet where they tracked the number of objectives mastered worked best. One year, they received a prize when they filled in a slice of pie, but as the tasks got harder, they were getting discouraged and didn't want to work. However, when I changed the prize rules to focus just on objectives, they explored more pie sections and felt that they were mastering more math concepts.