

Implementation Strategies

Bayless Junior High School, Bayless School District
St. Louis, MO

Grade(s): 7 – 8

Scenario: Computer Lab, Laptop Carts

Purpose: RtI, Improve State Test Scores, At-Risk Students, Supplement

ALEKS Portion of Curriculum: 40%

Time Spent in ALEKS: 2 hours per week, 15–20 hours per term

ALEKS Course: RtI 6, Middle School Math Course 2, Middle School Math Course 3, Algebra Readiness, Pre-Algebra, Algebra 1

Amy Ruzicka, Teacher

Two years ago, I brought to the attention of the district that we were in desperate need of a math intervention or math recovery program. We had been implementing a very successful reading recovery program and had seen remarkable results. As a math instructor, I wanted to see similar results with our at-risk math students. Last year, we began using ALEKS in a hybrid course. Three days a week we do typical classroom instruction: cooperative learning, class discussions, guided discovery, etc. Two days a week the students work on completing their ALEKS pies. I describe my students' math knowledge as Swiss cheese. Everyone has some "holes" in their knowledge. Some holes are larger than others and are in different places. ALEKS helps locate and plug in those holes. The students love the autonomy of being able to choose the topics that they work on first. I make recommendations based upon what we are working on in class, but also give them some control over their learning. As a result, I can definitely see an improvement in ownership of one's learning. I have also seen improved motivation, especially with my at-risk students. They like being able to see immediately when they accomplish something. ALEKS says "I'll add that to your pie" and their number of topics mastered increases. I have also developed and implemented an incentive system to reward students for making strides in their math knowledge with ALEKS. Overall, I have had a very positive experience and look forward to continuing to learn new implementation strategies.

Scenario

What challenges did the class or school face in math prior to using ALEKS?

Students lacked a lot of basic skills upon which we could build more complex math concepts. ALEKS helps identify the weaker skills and guides the students in mastering them.

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

2 days per week.

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

45–50 minutes.

Implementation

How do you implement ALEKS?

I use it as a supplement to reinforce what I teach in my course. I also use it as an intervention to plug in the holes in students' prerequisite knowledge.

Do you cover ALEKS concepts in a particular order?

I make suggestions based upon what we are working on in class. Overall, though, I give students autonomy.

How do you structure your class period with ALEKS?

My schedule is broken down into three days of class instruction and two days of ALEKS. My schedule is not set in stone; I adapt as needed. I just make sure that we get 1.5 hours minimum in ALEKS.

How did you modify your regular teaching approach as a result of ALEKS?

I am able to spend a lot less time reviewing what they should have already learned because ALEKS does that for me. I am able to spend more time on my curriculum, instead of elementary and intermediate curriculum that they have not mastered.

How often are students required or encouraged to work on ALEKS at home?

I give rewards for most time spent in ALEKS, so I do encourage it. We do have a number of families without Internet access at home, however. I offer to let the students stay after school and work in the computer lab.

How do you cultivate parental involvement and support for ALEKS?

I send home information about the program and discuss it at parent–teacher conferences.

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?**

They have to make up missed class days at home to achieve a minimum of 1.5 hours per week. They also may need to put in extra time to achieve a minimum of six topics per week.

How do you incorporate ALEKS into your grading system?

I give ten points per week for completing the 1.5 hours minimum required time. If they work 45 minutes that week, they earn five out of ten points for only completing half of the required time. I also assign points for mastering a minimum of six topics, worth ten points. If they only master two topics, they earn three out of ten points, so about 30 percent of the requirement ten points per week. If they master 11 out of 20, they earn a 5.5/10 for mastering 55 percent of the topics they attempted. I assign an additional ten points per week for their ALEKS notebook. I look for key vocabulary, examples, illustrations, etc. Finally, I give 16 points for ALEKS worksheets (they are generally 16 questions) and 30–50 points for ALEKS quizzes.

Learning Outcomes**Since using ALEKS, please describe the learning outcomes or progress you have seen.**

Students are more confident in math and more eager to learn. Also, once the holes in math knowledge have been plugged in by ALEKS, we have seen students move from Basic to Proficient on the Missouri Assessment Program (MAP) test. Students get very excited when I announce the "leaders" in most topics mastered, greatest percentage of pie mastered, most time spent in ALEKS, etc. They are very proud to be recognized and to see their accomplishments in their ALEKS pie.

Best Practices**Are there any best practices you would like to share with other teachers implementing ALEKS?**

I highly recommend incentive systems. Each day, I acknowledge three students. Some of the categories I highlight are most topics mastered, greatest percentage of topics mastered, best note–taking, etc. I also chart their progress on a bar graph so they can see their growth. If they are lagging behind due to poor effort, it also helps show them how their progress compares to those that are working hard.