

Implementation Strategies

Liberty Jr. High School, Lakota Local School District
Liberty Township, OH

Grade(s): 7 – 8

Scenario: Laptop Carts

Purpose: Intervention, Improve State Test Scores, At-Risk Students

ALEKS Portion of Curriculum: 100%

Time Spent in ALEKS: 3.5 hours per week

ALEKS Course: Middle School Math Course 2

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When my school informed me that I would be teaching ALEKS as an elective course for those students who failed the math section of their Ohio Achievement Assessment, I must admit that I was a little apprehensive. I wasn't sure a computer-based program would be able to help students who needed intensive intervention. I was so much more than pleasantly surprised when I took a closer look at the individualization of the program – it is as though each student had his or her own Individualized Education Program (IEP) strategically designed by a computer genius! I have had over fifteen students completely finish their pies and many more increase their learning by over 80 percent. ALEKS is truly a special program that caters to each student's unique needs and successfully bridges any learning gaps. ALEKS not only gives struggling students multiple explanations and clarifications for problems, it also increases their confidence in their ability to succeed.

Scenario

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

Math is very sequential, and my school faced problems with not having the time to re-teach and cover the state standards in the regular education classrooms.

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?

42 minutes.

Implementation

How do you implement ALEKS?

Our school made it mandatory for students who did not pass the previous grade's state achievement test to take a math elective class that solely uses ALEKS. We call this ALEKS class "Math Extensions," and it is used in addition to their regular math class.

Do you cover ALEKS concepts in a particular order?

No, students take an Initial Assessment on the first day of class, and continue working on their individual pie, choosing any available topic that they feel like working on. Students love having the freedom to work on whatever topic they wish, and I love how only certain topics are available because those are the topics in which students are ready to learn next.

How do you structure your class period with ALEKS?

Students immediately grab a pencil, their notebook, a calculator, and a laptop computer and begin working. Students sit in pairs and help each other. They also use the Explain button for help. Only after they have read the explanations given by ALEKS and asked their partners are they allowed to request teacher help. I try to give students as much ownership of their learning and have them take notes in their notebooks. They are allowed to use their notebooks on assessments, which gives them an incentive to take wonderful notes. Their note taking increases their retention and helps them understand a once confusing mathematical concept.

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

I am much better at giving students the necessary wait time to process the information and then explain their understanding to me using words and numbers. I work individually with students to further explain a concept, giving more examples and clearing up any misconceptions.

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

They are never required to work on ALEKS at home. Because they already have a regular math class with homework, they do not get

any homework from my class and are not required to log on to ALEKS at home. However, I encourage students to work at home when they are on their computers checking their email or Facebook.

How do you cultivate parental involvement and support for ALEKS?

My school has a Curriculum Night where parents can come in and learn about the material covered in each of their child's classes. I also send home an informational letter explaining the program and allowing parents to visit the ALEKS website.

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, ALEKS is never assigned as homework.

How do you incorporate ALEKS into your grading system?

My ALEKS grading scale is as follows: My students are graded on both ALEKS generated assessments and classwork. 50 percent of their final grade is an average of their quiz grades, and 50 percent of their final grade is an average of their classwork grades. As for quizzes (ALEKS generated assessments), a -4 or more on a assessment is an F (50 percent); a -3 is a D- (60 percent); a -2 is a C- (70 percent); a -1 is a B (85 percent); a 0 is an A (95 percent); and a +1 or more is an A+ (100 percent). For practice (classwork), one lesson or less per hour is an F (50 percent); two lessons per hour is a D- (60 percent); three lessons per hour is a D (65 percent); four lessons per hour is a C (75 percent); five lessons per hour is a B (85 percent); six lessons per hour is an A (93 percent); seven lessons per hour is an A (96 percent); and eight or more lessons per hour is an A+ (100 percent).

Do you require students to make regular amounts of progress in ALEKS?

Yes, students must complete at least four topics per hour to receive a passing grade of 75 percent. Students must miss two or less percentage points on their ALEKS generated assessments to receive a passing grade of 70 percent. For quizzes (ALEKS generated assessments), a -4 or more is an F (50 percent); a -3 is a D- (60 percent); a -2 is a C- (70 percent); a -1 is a B (85 percent); a 0 is an A (95 percent); and +1 or more is an A+ (100 percent).

Learning Outcomes

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

Students who started off the year knowing as little as three percent on the Initial Assessment left my class knowing over 85 percent. I have had fifteen students completely finish their pies and move on to the next grade level. Students love visually seeing the pieces of their pie grow. After they take an assessment, my students love seeing what they like to call their "ALEKS Thermometer" continually increase as they work on their pies.

Best Practices

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

I would highly recommend having students use notebooks specifically for ALEKS. I even have a designated area in my classroom where students store their notebooks, so the notebooks never leave my class and are always there for the students to use. The Explain button on ALEKS is truly wonderful, and students can use the explanations to take great notes on definitions of different math terms or on the steps necessary to complete a problem. Students retain the information and concepts better when they write things down, and allowing students to use their notebooks on their assessments really rewards students for their efforts. The notebooks not only help my students, but also help me to better help my students by viewing their work in their notebooks and seeing where they made a mistake in their problem. The notebooks truly help students take responsibility for their actions and ownership of their learning.