Implementation Strategies

Betsy Layne High School, Floyd County School District Betsy Layne, KY

Grade(s): 9 – 12 Scenario: Computer Lab, Laptop Carts Purpose: Rtl, College and Career Readiness, Improve State Test Scores, At–Risk Students ALEKS Portion of Curriculum: 100% Time Spent in ALEKS: 3 hours per week, 27 hours per term ALEKS Course: Pre–Algebra, Algebra 1, High School Geometry, Algebra 2

Christina Crase, Math Department Chair

Initially, we used ALEKS on a trial basis, and after our trial, we were hooked. The students love the program and teachers love the data and individualization! Each student is able to progress at his/her own level and they really excel! As department chair, I crunch numbers daily to ensure my students are always moving forward. I am a believer in ALEKS and when our American College Testing (ACT) scores came back, I was AMAZED! We utilize ALEKS in our Junior Math Strategies class of 19 students. Results show dramatic improvement from our practice test to the official test. 16 students' scores went up! The range of score increases was 1–4 points. The lowest ACT score from this class is 14 and the highest is 20! This is amazing from a strategies class. We also use ALEKS as enrichment. We enroll our Pre–Calculus students on ALEKS and they are required to do one hour or more per week and also snow day assignments. Out of 12 junior students in Pre–Calculus, nine are up! The range of scores increased from 1–10 points! The lowest ACT score is a 14 but the highest is a 30! Ten out of 12 juniors in Pre–Calculus who use the ALEKS program have tested at or above the college ACT math requirement of a 22! Students love this program! Several students in my classes request more class time on ALEKS and they even utilize online time at HOME! This is a first for me, a teacher of seven years, students doing MATH at home. I am a firm believer in this program and would recommend this for any school! We plan to use this program from now on in our school. We are now going to implement it in the whole freshman academy during a PLAN prep class, as well as sophomore and junior math strategies, and even enrichment for each grade level!

Scenario

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

Prior to using ALEKS it was hard to remediate in strategies classes because not every student was on the same level. It required grouping and regrouping with stations and more stations, and teachers would easily get burned out. It was hard to plan for these Rtl classes. However, with ALEKS each student can work at their own pace! This allows for more teacher–student one–on–one instruction, as well as students taking their education in their own hands. They can accomplish whatever they want to accomplish.

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? 45 minutes.

Implementation

How do you implement ALEKS?

We implement ALEKS for RtI and enrichment. We did not implement ALEKS to take over our core classes, but only to assist our core classes.

Do you cover ALEKS concepts in a particular order?

I sat down and went through all of the topics in the classes offered by ALEKS and came up with a sequence for all incoming freshmen to use next year and work on until they graduate.

How do you structure your class period with ALEKS?

Rtl students come in, get their computers from the cart, and begin working on ALEKS. I make my students keep a daily notebook (which I store in my room) so I can see them working out problems on ALEKS and can keep up with their progress. Our enrichment students get 1–2 classes a week to work on ALEKS, with other time available at home. ALEKS is also a requirement during snow days at school. In our region we usually miss about 1–2 months of school due to weather issues. ALEKS is now an assignment (45 minutes) online each day we miss school. This gives students constant math curriculum so snow days no longer interfere with our progress.

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

I love ALEKS on days as a review and even as a chance for students who are absent to catch up by working with me individually, while others are on ALEKS learning new material!

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

Students are encouraged to work on ALEKS once a week at home and also during snow days.

How do you cultivate parental involvement and support for ALEKS?

We have parent meetings to talk about ALEKS and how it can be utilized to increase student testing scores and math ability. Parents seem to love the program and talk about seeing their students access it from home a lot!

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?

Only during snow days.

How do you incorporate ALEKS into your grading system?

Our grading system for RTI is based upon the students' percent increase after assessment.

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

I encourage students to work each and every day on ALEKS. I require students to show progress from each assessment. If I feel students are slacking, I go in and assign an assessment myself.

Learning Outcomes

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

Since using ALEKS, I have seen students have a better understanding of number sense and computation. Students are able to understand the more abstract material and are better problem solvers! I would recommend ALEKS to anyone who is struggling or is looking to further advance their math curriculum! My students in the strategies class were very hesitant at first. They were a little scared of the topics and didn't want to try anything new. After letting them work on the program for a while, I saw results instantly! 14 out of 19 strategies students completed two online classes of ALEKS and were able to do this at their own pace! My Pre–Calculus students didn't think this was going to help them at all because it was below their level. When they were able to work on this program and realize it would take them as far as "they" were willing to go, they loved it! They realized it would cover basic and complex ideas, but all designed for them! I have never in my years of teaching seen students who want to do math as much as these students do when they work on this program.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS? ALEKS can be used as Rtl and enrichment. I recommend utilizing it for both, in and outside of class!