

Implementation Strategies

Kettle Falls High School, Kettle Falls School District 212
Kettle Falls, WA

Grade(s): 9 – 12

Scenario: Computers in Classroom

Purpose: Credit Recovery, Improve State Test Scores, At-Risk Students, Core Curriculum

ALEKS Portion of Curriculum: 20%

Time Spent in ALEKS: 2–10 hours per week

ALEKS Course: Algebra 1, High School Geometry, Algebra 2 with Trigonometry, Mastery of SAT Math

Jan Bonstrom, Teacher

As a math teacher, I have great respect for what ALEKS has been able to accomplish with my reluctant learners. ALEKS has made a big difference in turning them around, improving their attitudes about math, and causing them to enjoy working on their daily topics and goals. I work with alternative high school students, most of whom are angry, disenfranchised, wounded, depressed, hopeless, pregnant, or homeless. On a daily basis, they deal with issues of neglect, survival, substance abuse, and/or abject poverty. Any educational psychologist can tell you that most students dealing with emotional, personal or family issues can't deal with the complexities of high school math. In my contract-based program, handing a student a math book and a syllabus usually resulted in him/her throwing a tantrum or simply refusing to do it, even though I gave frequent help. Now, many enjoy their math class, and even the most adamant "I HATE MATH" student has decided that it's "okay" – a monumental compliment indeed. Additionally, all of my alternative high school students who have used ALEKS have shown growth and improvement in their math skills. Students who had failed Algebra or Geometry multiple times in a regular school setting are having success and earning these credits for the first time ever. Of Algebra and Geometry students who re-took the state's End-of-Course Assessments in January, all students significantly improved their scores, averaging a 20 percent improvement, even though we just started with ALEKS in October. This is the most exciting part of ALEKS for me.

Scenario

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

Finding suitable math courses for our alternative high school students has been difficult. All of my students are at-risk and are way behind on credits, have moved around a lot, have family/medical issues, and don't fit well into the regular school setting. That means, at any given time, I may have 24 different students on 24 different subjects as we individualize program for each student's needs. Even though my background is in math and I have a variety of courses at my disposal, just giving a student a book and a syllabus was not doing the job in remediating topics needed to meet state standards and pass state assessments. The element of artificial intelligence in ALEKS, allowing them to slide back and review or advance faster when mastery is shown, has made all the difference.

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

3–5 days per week.

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

15–60 minutes.

Implementation

How do you implement ALEKS?

Each student works on an individually-assigned course, whether it is a math course or from another discipline. Students on an ALEKS math course have priority access to the computers in the room.

Do you cover ALEKS concepts in a particular order?

No, I like the fact that students have some choice in jumping around to different topics in the course. Having the feeling of some control in their math class has been instrumental in changing my at-risk students' poor attitudes about math.

How do you structure your class period with ALEKS?

This varies considerably. One student may be working on ALEKS 1–4 hours daily, while other students are working on English, history, science, or elective courses. Another student may work on it at home more sporadically, depending on computer access.

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

There is no significant modification since students' educational plans are personalized and individualized for them.

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

All my students are encouraged to work on ALEKS at home. Unfortunately, we live in a poverty-stricken, high-unemployment area, and many of my students do not have Internet and/or computer access at home. In this high-tech era, not having a computer at home automatically puts a high school student at-risk.

How do you cultivate parental involvement and support for ALEKS?

I talk to parents about how good I think the program is, how it seems to be making headway into changing bad attitudes, how it offers their child the best chance at making progress toward passing the state assessments, and how it compares to the textbook-based math courses I have.

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?**

Half of my alternative school program is working with contract-based education students. These students must do 90 percent of their schoolwork at home. In the other program, representing half of the students I work with, the students are here daily and those students on ALEKS math do 90 percent in the classroom.

How do you incorporate ALEKS into your grading system?

In my case, I only have to post a grade with the course that is completed.

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

Yes, a monthly review of a student's progress in their alternative school program is conducted at the end of each month. Their ALEKS course, if they have one, is a part of that review. I measure progress by looking at their chart of assessment progress, number of topics mastered, and by the number of hours logged in the course that month. The amount of progress needed varies with each student depending upon their ability, number of concurrent courses they are working on, and their access to computers.

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

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