

Implementation Strategies

Tahoe Truckee High School, Tahoe Truckee Unified School District
Truckee, CA

Grade(s): 9 – 12

Scenario: Computer Lab

Purpose: Supplement

ALEKS Portion of Curriculum: 20%

Time Spent in ALEKS: 1.5 hours per week, 10+ hours per term

ALEKS Course: QuickTables, Pre–Algebra

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I was originally introduced to ALEKS at a math conference, and have used it personally for my own review and for one of my daughters. I received a local grant to put about 35 Pre–Algebra high school students on ALEKS as a diagnostic tool and to fill in their individual knowledge gaps on a biweekly basis. I like that at the end of the year when kids are tired of school and won't even bring a book to class, they would still focus on ALEKS. I saw progress with students that would likely not have occurred with a traditional classroom setting. Students like the instant feedback ALEKS provides and the ability to choose which topic to work on.

Scenario

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

My students are all below grade–level, some by several years. Demographically, they are 50 percent English as a Second Language (ESL) and 35 percent Resource Specialist Program (RSP). About 20 percent are repeating Pre–Algebra, some of them multiple times. I needed something that wasn't the same textbook we had been using, and wasn't presented only in English since many students were new to English. We also needed something wasn't an endless set of problems since many students have difficulty focusing, and could be individualized to each students' needs.

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?

30–45 minutes.

Implementation

How do you implement ALEKS?

I added ALEKS as a lab supplement twice a week for half of the block period. I graded the students on ALEKS weekly as participatory lab time, once every two weeks as a progress grade (had to show improvement over last computer grade cycle), and awarded extra credit for most time spent on program and most percent gain per computer grade cycle.

Do you cover ALEKS concepts in a particular order?

I taught curriculum from our textbook during class and as homework, and ALEKS was only used as a supplement for students to gain mastery over their individually weaker skills.

How do you structure your class period with ALEKS?

A class period is 90 minutes, and students work on a "warm up" which was actually teaching a different topic; review homework on the current topic; go over new material and take notes; work in class; and review as needed.

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

Twice a week we skipped the warm–up section (spatial relationships puzzles, geometry) and had an easy or review assignment in class, then went to the lab for the second half of the block.

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

Students were required to put in another half hour outside of class total knowing most wouldn't. I rewarded extra time outside of the lab with extra credit points.

How do you cultivate parental involvement and support for ALEKS?

With these kids, most of their parents liked the idea of the program but were not motivated to support ALEKS in pushing for home

computer time. As this was our "trial run," I merely introduced the program to a few parents and to the Resource Specialist Program (RSP) teachers, so that they were aware of the program and could encourage its use when they could.

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?

Not as homework per se, but as an extra credit option. I told students outright that it would help them in two ways: the extra credit points were obvious, and it would help them do better on their California Standards Test (CST), their Algebra placement test, and their Pre-Algebra final.

How do you incorporate ALEKS into your grading system?

I count ALEKS as 20 percent of their classroom grade.

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

I required progress. The first two weeks, I used the class average of 2 percent gain as full credit, but some students had a higher gain and earned extra points. No percent gain generally reflected not putting effort into the program, so those students' grade points reflected that. I knew this by monitoring the individual computer screens in the lab; I could watch and see who was really putting in some thought and time and who was just goofing around. The second and third two-week grade sections showed varying amount of progress, but they received full points as long as I saw a gain or knew they had spent their time on QuickTables.

Learning Outcomes

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

My biggest success is an RSP student who had previously never successfully finished a course. At his Individualized Education Program (IEP), his parents and RSP teacher and I thought to try ALEKS as an alternative curriculum for him. For the first time, he focused, worked most of each math block, worked independently, and went from an initial assessment of 29 percent to a final assessment at the end of the semester of 64 percent, meaning he passed a math course! This was a major success, major self-esteem booster, and the program received major accolades from his parents for helping them find something that he could see success with. I also saw gains with several ESL students who finally had a way to do something in Spanish and be comfortable with the language while tangling with the math, instead of trying to frustrate themselves with English and math at the same time. Students liked to see the class printout to see how much they had gained compared to the other students. I told them I didn't care about where they started in the program, but that I did care about the fact that they made gains from where they started. They all seemed to like "killing off pieces of their pie" as I put it. They liked knowing that they could do more than they had started with, some of which were not topics covered in class (which I had purposely not deselected from the ALEKS course content).

Best Practices

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

Tie ALEKS to the students' grade somehow. It keeps some of the students focused when the end of the year comes and they get restless. Also consider extra credit for extra time spent and concepts gained. That motivated about 20 percent of my kids to spend some extra time outside the lab on the program. I also liked that we only went twice a week to the lab. The students looked forward to the lab days and it really broke up the time and gave them something non-book to do more often.