IMPLEMENTATION STRATEGIES

ALEKS in Your Classroom!
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General Facts

Bibb County School District: Alexander II Magnet School
Macon, GA

Grade(s): K-6
Scenario: Computer Lab, In-class Computers
ALEKS Portion of Curriculum: 20%
Time Spent in ALEKS: 1 - 2 hours per week, 9 – 18 hours per term
ALEKS Course Product(s): Mathematics LV-3, Mathematics LV-4

Jennifer Doss, Teacher
I use ALEKS with my math team and with my lowest performing students. If I could have only one supplemental program, it would be this online individualized skill builder. The other teachers using ALEKS are thankful for the support it provides. ALEKS is a hit and we all love it. My math teams took 1st and 2nd place in their tournaments! Our fourth graders, which included quite a few students in danger of failing, were all promoted with only one exception!

Scenario

What challenges did the class or school face in math prior to using ALEKS?
The students didn’t get enough practice and individual attention.

How many days per week is class time dedicated to ALEKS?
2 - 3 days

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

Implementation

How did you implement ALEKS?
ALEKS was used as a supplemental resource to our regular math curriculum.

How often are students required or encouraged to work on ALEKS at home?
Students were encouraged but not required to work on ALEKS at home.
Implementation Strategies

Grading

How do you incorporate ALEKS into your grading system?
I gave a bonus grade for completing a certain amount of work and for finishing an ALEKS course.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen?
All but one of our fourth grade students were promoted to the next grade! Student test scores also increased by approximately 10 points. The students love ALEKS and are very proud of themselves. They love the feeling of having control over their learning and pacing. Overall, the students feel confident about their ability to learn independently!
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General Facts

Beachwood City School District: Beachwood Middle School
Beachwood, OH

Grade(s): 7-8
Scenario: One-to-One Laptop Program
ALEKS Portion of Curriculum: 40%
Time Spent in ALEKS: 3 hours per week, 30+ hours per term
ALEKS Course Product(s): Middle School Geometry, Middle School Math 1, Middle School Math 2, Middle School Math 3, Pre-Algebra, and Algebra 1.

Barbara Urbanski, Teacher
This is my 3rd year using ALEKS, and I am totally sold on it. It is quite amazing how accurate the results are with regard to student testing and progress. I have also found that students who complete a minimum of 3 hours per week in ALEKS are succeeding in class.

With ALEKS I am able to design reviews and quizzes (see “Quizzes”) to help students at all levels. Also, if there is a question or an idea that I have about the program, I am able to contact ALEKS Customer Support and have the question answered very quickly.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
We struggled with correctly assigning work to students at various levels in a given classroom.

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

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

Implementation

How did you implement ALEKS?
I generally look at the text to see where the students should be by a certain time of the year. I set the objectives (see “Intermediate Objectives”) for the quarter and give students an opportunity to earn bonus points for finishing early. This encourages the students to work toward the goal.
I also create quizzes that coincide with the units that we are working on throughout the year. ALEKS quizzes allow me to make sure that students are working on a particular concept. I also create classes (see “Creating a Class”) to move students to when they are progressing at a faster pace than other students. I check the report (see “Progress Reports”) feature to see how students are progressing.

I also require that all students have a notebook while they are working on ALEKS. I allow students to periodically use their notebooks for a requested ALEKS assessment that is taken during class (for a grade).

Do you cover ALEKS concepts in a particular order?
I use the ALEKS Intermediate Objectives (see “Intermediate Objectives”) to structure my class. I also create quizzes in the order in which concepts are covered in the textbook. I find that if I allow students to work at their own pace, they can either cover concepts that need more practice or they can move ahead.

How do you structure your class periods with ALEKS?
I usually have an "ALEKS Day" on Fridays and students look forward to it. Because their homework is ALEKS, I have students keep a notebook for their work and they are instructed to write down any concepts they do not understand. The students are constantly asking questions and working throughout the class period. They are also encouraged to answer questions by their peers.

How did you modify your regular teaching approach as a result of ALEKS?
My teaching approach has changed in that I assign ALEKS for all homework (with minimal exceptions). Students are able to ask questions during lecture that correspond to concepts they are learning on the program.

How often are students required or encouraged to work on ALEKS at home?
Three hours of homework are required every week. I see a direct correlation between those completing their homework (the right way) and those achieving good grades. I give them their hours (see “Identifying Time Spent in ALEKS”) on Monday and keep a running total from week to week.
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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?
Yes. 100%.

How do you incorporate ALEKS into your grading system?
Students can earn 50 points per week. I tell students that if they complete their ALEKS homework, they will not earn anything lower than a C-minus. This grading period breaks down as follows:

- Total Points Possible: 795
- ALEKS Homework: 400 points (50% of their grade)
- ALEKS Quizzes and Final: 210 points (26.5% of their grade)
- Pencil/Paper Test/Homework: 185 points (23.5%)

In addition to ALEKS quizzes, I also have my students take an ALEKS Final at the end of the school year. I test my students by giving them a new ALEKS assessment (see “Scheduling Assessments”) that they need to take in class. I also put together a final by setting up two ALEKS quizzes with concepts that are covered in our texts.

Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress they are responsible for completing?
I check the student progress every week (at least). If I see that a student is not progressing, I speak with the student. I also give students their ALEKS hours every Monday so they know where they should be with regard to time.

How do you cultivate parental involvement and support for ALEKS?
I am careful to inform the parents early on about the benefits of the ALEKS program. Parents are particularly excited to know that the students can work ahead and not be held back due to the self-paced design of the program. I encourage parents to email me with questions if they have any problems.

I also notify parents when their child meets the Intermediate Objectives I set using the ALEKS Teacher Module (see “Teacher’s Module”). Parents are quick to review these objectives and encourage their child to complete remaining objectives.

Grading
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Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen? Students are always looking at their own progress and looking at how many concepts they have learned. I believe that the use of the ALEKS program has given some of my “regular” students the opportunity to excel and earn their way into an advanced class.

I always enjoy having a student come to class and inform me that she just finished an assessment and now has more concepts completed. My students know that I watch their progress and they are very eager to announce their ability to learn new material. Students who are working in ALEKS are definitely earning better grades on exams. I can look at a student’s total time in ALEKS and can almost predict what grade she is earning for the class.

My first-year ALEKS students have come back to me and have stated that high school math is “so easy” because they had already seen many concepts in ALEKS. Several students have doubled up on math classes because they have learned so much in the ALEKS program.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS? I use ALEKS in preparation for the Ohio Achievement Test. I create two ALEKS quizzes by going through the Ohio Achievement sample test and selecting the concepts in the ALEKS quizzes. I make these quizzes available in early December and notify students and parents. Parents are thrilled to have these quizzes available to their students. Students are told to look over their quizzes and write missed questions in their ALEKS notebook.

I believe that it is imperative to make sure that students know you are watching them. For whatever reason, my students really like the fact that I can see who is working online at night. I have students come up to me and say, ‘Hey Ms. Urbanski, did you see me working last night?’ - I really think this says something for the program when my students want to do the work.
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General Facts

Sweetwater Union High School District: Hilltop Middle School
Chula Vista, CA

Grade(s): 7-8
Scenario: Computer Lab
ALEKS Portion of Curriculum: 60%
Time Spent in ALEKS: 3 hours per week
ALEKS Course Product(s): Mathematics LV-6, Middle School Math 1, Middle School Math 2, Middle School Math 3, Pre-Algebra, and Algebra 1.

Gary Oakland, Teacher
ALEKS has a fantastic approach to assessing student achievement! I have used ALEKS for several years and have had tremendous success using the program in many different ways. I started using ALEKS for students in after-school math recovery classes (Math 7, 8 and Algebra) and then found that ALEKS also works great for summer school, advanced students, and extra credit. Currently, I am using ALEKS for Math 7 Support classes in a computer lab that I helped build for the program.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
We found that many students were getting left behind because they had not mastered many of the math basics. Students are being pressured to achieve the standards at an accelerating pace and several were falling behind for various reasons. ALEKS allows students to select and work on improving their unique gaps. The teacher can also select standards for the students to work on.

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

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

Implementation

How did you implement ALEKS?
I use overheads about twice a week for 3 - 6 warm-ups that consist of basic math concepts that the students are learning in their regular math class. After the warm-ups, I conduct short ALEKS quizzes (see “Quizzes”) regarding the warm-ups, then the students work on ALEKS problems of
their choice. I like to give my students three opportunities to complete their quizzes over the course of two days.

I use ALEKS along with our textbook to follow district guidelines and to master the state standards.

**Do you cover ALEKS concepts in a particular order?**
I let students work on ALEKS in any order they choose, except when it comes to their ALEKS quizzes. For the quizzes, I follow district text guides so that I stay on track with their regular math classes.

**How do you structure your class periods with ALEKS?**
For the first ten minutes, I have my class do a brief warm-up using the overhead that covers topics correlated to the state standards. The warm-ups also consist of basic math concepts such as multiplying, dividing or fractions. Students then work on an ALEKS quiz that covers the warm-up topic. They then have the option to work on any ALEKS topic they like. Students usually complete 1-2 quizzes per week and students spend the rest of class time filling in their individual ALEKS pies.

**How did you modify your regular teaching approach as a result of ALEKS?**
I use less lecturing and a lot less homework.

**How often are students required or encouraged to work on ALEKS at home?**
I always encourage students to work at home and give them extra credit for their hours as well as their success.

**How do you cultivate parental involvement and support for ALEKS?**
I send many ALEKS reports (see "Progress Reports") home to the parents and highly recommend that their children spend more time in ALEKS. Parents like the reports that ALEKS provides and they are very impressed with the ALEKS state standards report (see "State Standards Report"). This report also helps me show the student’s strengths and weaknesses to the parents.

**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?**
ALEKS is not assigned as homework, but students can earn extra credit.

**How do you incorporate ALEKS into your grading system?**
I like to use the internal ALEKS grading system (see "Grading Scale") as the main grade. I have various other assignments and projects that I use as part of their grade. The student’s grade roughly breaks down as follows:

- ALEKS Progress: 90%
- Worksheets: 10%
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Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?
No, but I make suggestions for improvement in order for the student to move to the next ALEKS course level.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen?
It's very rewarding and exciting to see students finally get a concept and be proud of their accomplishments. The results have been truly amazing. I had classes of 30 - 40 "F" students that showed over a 90% success rate of achieving a "C" or better. Some of my students achieved A’s and some reached the entire course level mastery. One of my current students has completed 85% of Algebra using ALEKS without ever being in an Algebra class! In another instance, I had a teacher send me 12 ESL students every day during my lunch period to work on ALEKS in Spanish (see “Spanish Translation”) because these students were failing math due to the language barrier. I don’t speak Spanish, but I found it very easy to use the bilingual capability of ALEKS to help these students do better in math.

Students love the ALEKS pie chart and get excited about watching the sections of the pie chart grow as they master items. They like being able to work at their own individual pace and to choose the standard that they wish to work on. I’ve noticed almost an obsession in some students to complete their mastery of the course when they get close to finishing the pie. I had several students this past June ask me to change their course level to the next ALEKS math course level so that they could get ahead of their classmates over the summer. ALEKS can be used from any computer with Internet access so students can work in ALEKS at school and at home.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS?
As a teacher, the feature that I am most impressed with is the quiz feature. Correlating teaching with state standards is something we all strive to do as teachers and ALEKS makes this easy. Using an overhead, I work together with the class to solve warm-up problems that coincide with problems they are currently working on in ALEKS. I have the students do a short ALEKS quiz once or twice a week to work on these warm-ups. I keep the quizzes short and give students three opportunities to earn a higher grade.
**Implementation Strategies**

**ALEKS**

**General Facts**

Claremont Unified School District: El Roble Intermediate School  
Claremont, CA

Grade(s): 7-8  
Scenario: Computer Lab  
ALEKS Portion of Curriculum: 90%  
Time Spent in ALEKS: 3 hours per week, 30+ hours per term  
ALEKS Course Product(s): Pre-Algebra

James Guerra, Teacher  
My gifted students are flying through the curriculum and love ALEKS. I let them work individually and then I go around the room to monitor what they are working on and give direct instruction wherever it is needed.

**Scenario**

What challenges did the class or school face in math prior to using ALEKS?  
We had a lot of students who did not know their basic math facts. We also had some students who worked very slowly and could not complete quizzes within the regular time period.

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

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

**Implementation**

How did you implement ALEKS?  
I use ALEKS as the basis for the class, but I supplement it with worksheets to target specific areas the students need help in. I use the ALEKS pie chart (see "ALEKS Pie Chart") to find my remedial students. I also use the state standards (see "State Standards Report") to divide the curriculum and make ALEKS quizzes. We do weekly quizzes (see "Quizzes") with an unlimited
number of attempts until the student learns the material. I set up 12 quizzes per trimester and give students the entire trimester to finish them. I appreciate that ALEKS grades (see "Grading Scale") them for me and allows me to go over specific problems with students to figure out what they don't understand.

Do you cover ALEKS concepts in a particular order? Yes. We singled out Whole Numbers, Fractions, Signed Numbers and Variables.

How do you structure your class periods with ALEKS? We meet for roll, have a brief lesson, make announcements, and take care of any housekeeping. After about 10 minutes, we go to the computer lab where students work individually for the remaining 30-35 minutes. In the lab, I sit at a main computer and watch what individual students are working on and call students over when I see them struggling and I teach students as they come to my desk for help.

How did you modify your regular teaching approach as a result of ALEKS? All of the above has been modified from my previous teaching practices.

How often are students required or encouraged to work on ALEKS at home? 30 minutes per night

How do you cultivate parental involvement and support for ALEKS? At Back-to-School Night, I explain the program. During the first week, I send home some literature explaining the program with a list of standards that the students will be working on during the first trimester. I have had several parental contacts since then to explain the program and to help families get set up at home.
**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?
Yes, 76 – 100%. I assign 30 minutes per night, per student and verify completion with a homework log signed by the parent. The only drawback is the digital divide between students with Internet access at home and those without. I have had to offer alternative homework to those students who don’t have Internet access at home.

How do you incorporate ALEKS into your grading system?
The student’s grade roughly breaks down as follows:

- Number of Standards Learned in ALEKS: 50%
- ALEKS Quizzes: 20%
- ALEKS Homework: 30%

Do you require students to make regular amounts of progress in ALEKS?
I ask them to learn about 1/3 of the standards per trimester. I look at their pie charts to see if they have done this.

**Learning Outcomes**

Since using ALEKS, please describe the learning outcomes or progress you have seen?
I have several students who have almost finished all of the Pre-Algebra standards for the entire year and have only been in class for 12 weeks! They are highly motivated to move into Algebra and this would have been impossible if we were using the traditional method of instruction.
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General Facts

Delta/Greely School District: Delta Cyber School
Delta Junction, AK

Grade(s): Middle School through High School
Scenario: Online School
ALEKS Portion of Curriculum: 90%
Time Spent in ALEKS: 4 hours per week, 30+ hours per term
ALEKS Course Product(s): Mathematics LV-6, Essential Mathematics, Middle School Math 1, Middle School Math 2, Middle School Math 3, Pre-Algebra, Foundations of High School Math, Algebra 1, High School Geometry, Algebra 2, PreCalculus, Trigonometry

Patrick Krepel, Teacher
I have been quite happy with ALEKS. I feel that it has helped many students begin to understand math better while working at their own pace.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
Many of our courses were in dire need of upgrades, which amounts to huge time commitments. ALEKS allowed us to offer standards-based (see "State Standards Report") math without having to put the courses together ourselves.

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

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

Implementation

How did you implement ALEKS?
Because I have students from all over the state, I use the Teacher Module (see "Teacher’s Module") daily to manage my students as they work independently in their ALEKS course.

How do you structure your class periods with ALEKS?
I am not a traditional classroom teacher since we are an online school. I use ALEKS student reporting (see “Progress Reports”) when talking with individual students.
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This feature helps me to see what they’ve been working on and how much time/mastery they currently have. The ALEKS Message Center (see “Message Center”) allows me to check individual students’ understanding and to offer encouragement via email. I also use the Worksheet (see “ALEKS Worksheets”) manager to correct individual students' self-generated worksheets.

**How did you modify your regular teaching approach as a result of ALEKS?**
I now play more of a tutoring role, depending on which course a student is taking.

**How often are students required or encouraged to work on ALEKS at home?**
Students complete all course work from home.

**How do you cultivate parental involvement and support for ALEKS?**
We do meetings at our partner schools to inform parents about what their child is working on and how to access ALEKS.

**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.

**How do you incorporate ALEKS into your grading system?**
In courses where ALEKS is used, ALEKS comprises 100% of the student’s grade.

**Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?**
Yes. I like to see 50% mastery by the semester and 100% completion by the end of the school year.

**Learning Outcomes**

Since using ALEKS, please describe the learning outcomes or progress you have seen?
Students who actively use ALEKS seem to be quite excited about math. I have one parent who absolutely raves about his daughter’s progress due to ALEKS. She took the ALEKS Algebra 1 course as an 8th grader and upon entering High School, began taking Algebra 2. She is actually helping her older classmates (sophomores, juniors, seniors) with their math. This is quite a turnaround for this student as she was very uncertain about math prior to her ALEKS experience last year.

I have also had several students who’ve completed an entire year-long ALEKS course in a semester. I love the way students are not held to a classroom pace when they are capable of moving forward more rapidly.
**General Facts**

Orlando Public Schools: Meadowbrook Middle School  
Orlando, FL  

Grade(s): 7-8  
Scenario: Computer Lab  
ALEKS Portion of Curriculum: 40%  
Time Spent in ALEKS: 2 hours per week, 16 – 20 hours per term  
ALEKS Course Product(s): Essential Mathematics, Middle School Math 2, Middle School Math 3  

Tracy Littles, Teacher  
I am very pleased with the ALEKS program. One-hundred percent of my students have shown tremendous improvement and learning gains. ALEKS is used with all my students for an Intensive Math course that was created for all students who placed at Level 1 on the Florida Comprehensive Assessment Test (FCAT) math component.

**Scenario**

What challenges did the class or school face in math prior to using ALEKS?  
The students that scored at level 1 on FCAT Math had difficulty remembering basic math procedures, steps and skills.

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

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

**Implementation**

How did you implement ALEKS?  
I set performance goals. For example all students must be at or above 50% of the entire pie by December 15th. The majority of my students do not have access to the Internet at home so I offer extra credit to students who go to the library or a friend’s house.
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Do you cover ALEKS concepts in a particular order?
No, students were given all sections available to 7th and 8th grade students. I allow students to do what they know first and gradually tackle the more difficult concepts.

How do you structure your class periods with ALEKS?
We have computer lab days every Monday and Tuesday; we dedicate the entire class time strictly to ALEKS. We then alternate the days and weeks that we use ALEKS.

How did you modify your regular teaching approach as a result of ALEKS?
My students’ district-provided Intervention Kit correlates with ALEKS, which makes learning easier for the students. They learn how to work problems in ALEKS and use what they learn to complete homework skill worksheets from the Intervention Kit. Instead of lecturing, I review and reflect on the skills they learned in the previous day.

How often are students required or encouraged to work on ALEKS at home?
Students can work on ALEKS at home to earn extra credit but it is not required.

How do you cultivate parental involvement and support for ALEKS?
The ALEKS program was presented to parents so they could get a better understanding of how the program works. Parents then encouraged their children to use ALEKS if they have computer and Internet access at home. I also showed each student’s ALEKS pie (see “ALEKS Pie Chart”) to the parents so they could see their child’s progress.

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.

How do you incorporate ALEKS into your grading system?
ALEKS comprises 15% of a student’s total grade.
Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?
Yes, I give deadlines based on weeks. For example, by December 15th all students must be at or above 50% of the ALEKS pie.

**Learning Outcomes**

Since using ALEKS, please describe the learning outcomes or progress you have seen?
I see improvement every day on quizzes (see “Quizzes”) and class work. My students enjoy ALEKS because they can click on the Explain button (see “Explain Button”) and get a step-by-step explanation of how to work different problems.

**Best Practices**

Are there any best practices you would like to share with other teachers implementing ALEKS?
Monitor student progress closely. This will help you to identify weaknesses so you can implement additional learning strategies to help students achieve high learning gains.
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General Facts

Groton-Dunstable Regional School District: Groton-Dunstable Regional Middle School
Groton, MA

Grade(s): 5-8
Scenario: One-to-One Laptop Program
ALEKS Portion of Curriculum: 90%
Time Spent in ALEKS: 2 hours per week
ALEKS Course Product(s): Middle School Math 2, Middle School Math 3

Karen Gartland, Teacher
I have been nothing but pleased with this program. The students are enjoying it, they are being exposed to different types of math and they are motivated by the ALEKS pie (see “ALEKS Pie Chart”). I like the artificial intelligence (see “Artificial Intelligence Explained”) aspect of the program since it tracks what students know and what they need to work on. I am also pleased with the explanations that are provided.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
Students of lower level capability were not motivated to practice mathematics in a traditional manner.

How many days per week is class time dedicated to ALEKS?
2 - 3 days

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

Implementation

Do you cover ALEKS concepts in a particular order?
No, I do not require an order for the majority of students.

How do you structure your class periods with ALEKS?
Students begin using the program at the outset of the class period, often take a break for about 5 minutes (or longer if they need to work on homework from their regular classroom) and then have about 5 minutes at the end for “free time.” Some students continue to use ALEKS during their free time.
How did you modify your regular teaching approach as a result of ALEKS?
I have chosen to use ALEKS as the primary method of remediation, so we no longer use other supplementary materials, except perhaps to practice open response questions.

How often are students required or encouraged to work on ALEKS at home?
3 hours per week.

How do you cultivate parental involvement and support for ALEKS?
I have done the following: (1) included information about ALEKS in our school newsletters; (2) put information about ALEKS on our school website; (3) sent letters home to parents of students who are using the program in school; (4) sent emails to parents to remind their students to use the program during vacation.

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.

How do you incorporate ALEKS into your grading system?
It is not a part of their final grade at this time as I am using the program to supplement their regular classroom learning.

Do you require students to make regular amounts of progress in ALEKS?
They are not required to use ALEKS for regular progress other than to consistently use the program while they are with me 2 - 3 days a week for 50 minutes at a time.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen?
I have had students who will not shut the program down when it’s time to leave class – they want to keep working! I also have students working on ALEKS diligently at night and they don’t want to go to bed. Students who once had math anxiety are pleased with their work and send me “I love ALEKS” messages. Overall, students are much happier to come to my class than they have ever been before! The fun has just begun!

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS?
I am providing an incentive program with small prizes for students who complete a multiple of 10 for their topics or a slice of their ALEKS pie can choose a prize. It seems to be working.
General Facts

Cedar Rapids Community Schools: Washington High School
Cedar Rapids, IA

Grade(s): 9-11
Scenario: Computer Lab
ALEKS Portion of Curriculum: 10%
Time Spent in ALEKS: 3 hours per week, 30+ hours per term
ALEKS Course Product(s): Middle School Math 1, Middle School Math 2, Middle School Math 3, Pre-Algebra, Foundations of High School Math

Dan Reyner, Teacher
When looking at the 11th grade students who were placed in the remedial class as a result of their low ITED scores last year, over 60% improved their scores this year after using ALEKS.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
We struggled to reach the lower-level students in a way that minimizes the homework aspect yet covers the full range of material that they are lacking.

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

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

Implementation

How did you implement ALEKS?
In addition to a regular math class, ALEKS is used for remediation classes.

How do you structure your class periods with ALEKS?
ALEKS day: students use the first five minutes to set up their computers, login, and select music (I allow them to listen to music while working; it keeps talking to a minimum). For the next forty-five minutes, students work on ALEKS as I move around the room. During the last five minutes they shut down the computers and visit.
Non-ALEKS day 1: I hand out notes, lecture, demonstrate, and answer specific questions about the material covered in class.

Non-ALEKS day 2: I assign an ALEKS quiz (see “Quizzes”) covering the material we went over in lecture.

How did you modify your regular teaching approach as a result of ALEKS?
Three out of five days we try to use ALEKS for instruction and review. The other two days are used for direct instruction in either a lecture or demonstration format. Quizzes are then used to evaluate this instruction.

How do you cultivate parental involvement and support for ALEKS?
A large majority of these students do not have parental support at home. Notification of involvement with ALEKS is given to the parents and they are encouraged to have the students work on the program at home. Some actually do, but ALEKS is an additional math class for many of these kids, so homework is optional.

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. Homework in ALEKS is optional.

How do you incorporate ALEKS into your grading system?
Grading breaks down as follows:

- Quiz Scores: 30%
- Assessment Growth: 30%
- Time on Task: 30%
- Class Participation & Behavior: 10%

Do you require students to make regular amounts of progress in ALEKS?
Grading is highly individualized in this area. It depends on the student, their ability, attitude, and background.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen?
When looking at the 11th grade students who were placed in the remedial class as a result of their low ITED scores last year, over 60% improved their scores this year after using ALEKS.
Many students like the ability to choose what they want to work on in ALEKS. They like the ability to go back and review, and they really like the part on quizzes that allows them to go back and look at an answer and change it if they want to before submitting. Also, many students listed the overlap between what they see in ALEKS with their regular class as a benefit. They get to see material in a different way and it helps. All students felt ALEKS was less stressful than other curriculum options and was very easy to see their progress. They also felt that they were able to get help quicker, either through the program or the teacher.

**Best Practices**

Are there any best practices you would like to share with other teachers implementing ALEKS? Break it up; don’t do ALEKS every day. Relate what students see in their regular classes to what ALEKS shows, and incorporate some group work into what they do.

I also suggest allowing students to listen to music while working; it keeps talking to a minimum.
IMPLEMENTATION STRATEGIES

ALEKS

General Facts

Vista Unified School District: Rancho Buena Vista High School
Vista, CA

Grade(s): 9-12
Scenario: Computer Lab
ALEKS Portion of Curriculum: 25 - 30%
Time Spent in ALEKS: 2 hours per week, 16 - 20 hours per term
ALEKS Course Product(s): Math Prep for California High School Exit Exam (CAHSEE)

Linda Van Solkema, Teacher
I am pleased with the opportunity for individual learning that ALEKS provides. Each student can progress more quickly with this individualized instruction. Students can't passively sit through class; they are able to learn at a level where they are ready to learn (see "Artificial Intelligence Explained").

Scenario

What challenges did the class or school face in math prior to using ALEKS?
It was difficult trying to teach such a wide range of abilities which resulted in me teaching to the middle of the class; the strongest students were bored and the weakest students gave up. In ALEKS, each student is given different problems that best meet their individual needs.

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

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

Implementation

How did you implement ALEKS?
The CAHSEE class that I teach uses ALEKS 1 - 2 times per week, so in this class ALEKS comprises 25-35% of the curriculum. The students individually work on their ALEKS pie (see "ALEKS Pie Chart") in the library lab. On non-ALEKS days, we work through five modules preparing for the CAHSEE. For my Algebra 2 classes, some students use ALEKS to supplement their learning. I use ALEKS for warm-ups and practice using my projector.

Do you cover ALEKS concepts in a particular order?
No, students work individually on topics in any order they choose.
**Implementation Strategies**

**ALEKS®**

How do you structure your class periods with ALEKS?
On block periods consisting of 2 hour classes, I teach the first hour using the 5 module curriculum prescribed for CAHSEE classes. During the second hour of the class, students work on ALEKS in the library lab. On alternating Fridays, the students once again visit the ALEKS library lab.

How did you modify your regular teaching approach as a result of ALEKS?
I assign time with ALEKS as homework; students have minimal homework outside of ALEKS.

How often are students required or encouraged to work on ALEKS at home?
1 hour per week.

How do you cultivate parental involvement and support for ALEKS?
Parents are to encourage their students to use ALEKS at home. We have a Back-to-School night and newsletters sent home, but there's no easy way to communicate directly with parents in mass.

**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?
Yes. 30%.

How do you incorporate ALEKS into your grading system?
In the CAHSEE class, the student’s grade is 70% based on tests, quizzes and class work from CAHSEE module work. The other 30% of the grade is based on ALEKS - how much time is spent (see “Identifying Time Spent in ALEKS”) and the amount of progress (see “Progress Reports”) that is made.

Do you require students to make regular amounts of progress in ALEKS?
This is difficult since some concepts are much longer and harder to master than others. The students record their work on paper (problems and solutions). I assess what seems like a good effort (Number of problems attempted per period). As I walk around the room, I can assess which students are trying hard and which are not focused on ALEKS. As for the amount of progress, I try to reward improvement and see rates of individual student work, as some students work more quickly than others.

**Learning Outcomes**

Since using ALEKS, please describe the learning outcomes or progress you have seen?
One specific student struggled in Algebra 2; her skills were very weak and she had no confidence in her own abilities. After a good dose of ALEKS over a long period, she started to improve. This year she is in Pre-Calculus. She earned a D- in Algebra 2 but has now earned a B- in PreCalculus. Her growth in confidence, as a result of the progress she made in ALEKS, is what is so astonishing.
IMPLEMENTATION STRATEGIES

General Facts

Long Beach Unified School District: Cabrillo High School
Long Beach, CA

Grade(s): 12
Scenario: Computer Lab
ALEKS Portion of Curriculum: 80%
Time Spent in ALEKS: 3 hours per week, 26 - 30 hours per term
ALEKS Course Product(s): Math Prep for California High School Exit Exam

Matt Gold, Teacher
In my situation, I am teaching 12th grade students who have failed the CAHSEE multiple times and whose math skills and needs are widely divergent. ALEKS allows me to individualize instruction so that students get what they need, when they are ready to learn it. Because ALEKS is so closely aligned to the CAHSEE standards, I use ALEKS to determine what topics the majority of students are working on and use classroom time to support that learning.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
We are presently using ALEKS to work with our CAHSEE Prep students. By in large, these students are in 12th grade and have failed Algebra multiple times, have been unable to pass the CAHSEE and need a lot of support to get to a place where they can pass the CAHSEE and get their diplomas.

This group of students is very difficult to work with because of the wide variety of challenges they present to a classroom teacher. Some of these students have large gaps in their math fundamentals and need to start from scratch. Others are only missing a small piece of the CAHSEE standards and once they fill in these gaps can pass easily. Many of these students are chronic underachievers in math and have a long history of frustration and failure. Motivating these students, diagnosing their unique needs and addressing them in a class of 35-40 students at all levels is nearly impossible without ALEKS.

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

What is the average length of a class period when ALEKS is used?
90 minutes
IMPLEMENTATION STRATEGIES

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Implementation

How did you implement ALEKS?
I use ALEKS in conjunction with a variety of support materials including CAHSEE warm-up questions from previously released exams, the Prentice Hall Algebra support materials for remediation, the AGS Pre-Algebra textbook and related resources I’ve collected over the years.

Do you cover ALEKS concepts in a particular order?
No I have a general idea of the order I've usually covered the CAHSEE standards, but I'm more flexible with ALEKS. I try to utilize the student data I get to cover topics at the ideal time for the majority of students, rather than in a pre-determined order.

How do you structure your class periods with ALEKS?
The first 10-15 minutes are used for students to assess their progress using the built-in ALEKS tools. The majority of the period is spent using ALEKS to practice and instruct in specific areas that students choose to focus on for that period. About 1/2 hour before the end of the period, students need to complete the online ALEKS quiz (they can complete it up to 3 times) or homework assignments and then do a quick journal regarding their daily progress and reflect on what they learned that day.

On Mondays, we meet in the classroom instead of the lab, and we work on topics I select to address key areas that the majority of students are either working on or are struggling with (I use the ALEKS quizzes to identify these topics as well as quick assessments during class).

How did you modify your regular teaching approach as a result of ALEKS?
I would say that this is something that is ongoing. To date, ALEKS has been very helpful at diagnosing students’ strengths and weaknesses and has helped focus and inform my instruction when we are not in the lab.

How often are students required or encouraged to work on ALEKS at home?
1 hour per week

How do you cultivate parental involvement and support for ALEKS?
We did a demonstration and explanation of ALEKS at our Back-To-School night. We are also working on ways to get parents more involved by connecting with the parent education group to allow parents to become familiar with different technologies that their students use at school.
**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?

Yes, 100%.

How do you incorporate ALEKS into your grading system?

ALEKS makes up 50% of the student’s grade.

Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?

Not currently. We are working to define and set learning goals based on our initial experience implementing the program.

**Learning Outcomes**

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

ALEKS has provided answers to many of the problems I faced in addressing the unique needs of this group of students. Students are more motivated to learn and it is easier for me to assess and evaluate students so they get constant feedback on their progress. ALEKS also offers students a chance to be successful because it provides instruction in their proximal learning zone, challenging them without frustrating them.

**Best Practices**

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

I suggest implementing ALEKS with an open mind and a willingness to adjust and change your expectations as you become more familiar with how the program works. The most important thing to me is to tie what students are working on in ALEKS to classroom instruction so that ALEKS informs and enhances classroom instruction. I also suggest using ALEKS to assess student progress to either continue an instructional objective or change direction in response to students’ success or failure at achieving the objective.
IMPLEMENTATION STRATEGIES

ALEKS®

General Facts

Long Beach Unified School District: Cabrillo High School
Long Beach, CA

Grade(s): 11-12
Scenario: Computer Lab
ALEKS Portion of Curriculum: 60%
Time Spent in ALEKS: 3 hours per week, 30+ hours per term
ALEKS Course Product(s): Math Prep for California High School Exit Exam (CAHSEE)

Heather Bleecker, Teacher
My students work well with ALEKS. Many students enjoy the relaxed atmosphere and the individualized work. It is easy for them to see what they have learned and what they are ready to learn next.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
With the newly instated CAHSEE, about 30% of our enrolled students are not passing the exam by the end of their high school years. We are struggling as a math department to get kids to be interested in math, make the effort to practice outside of class, and ultimately grasp those concepts needed to pass the exit exam.

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

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

Implementation

How did you implement ALEKS?
ALEKS is used with the Long Beach Unified CAHSEE Math Prep Handbook.

How do you structure your class periods with ALEKS?
0-5 minutes: students log in to ALEKS
5-8 minutes: students receive announcements and check messages in their ALEKS inbox (see "Message Center")
8-15 minutes: students review their ALEKS pie (see "ALEKS Pie Chart") and choose a lesson
15-90 minutes: students work independently
IMPLEMENTATION STRATEGIES

ALEKS

During this time, I pull small learning groups of 4-6 students for 10 minutes each (all students visit once) and I provide assistance when needed.

The second ALEKS day is the same as the first day but with the last 15 minutes available for a weekly 10-question ALEKS quiz (see “Quizzes”).

How did you modify your regular teaching approach as a result of ALEKS?
I now lecture only once a week and I pull small groups aside during computer time to break up the ALEKS class period. I am also using the ALEKS worksheets (see “ALEKS Worksheets”) and quizzes to create a base for my assessment of the classroom.

How often are students required or encouraged to work on ALEKS at home?
1 hour per week.

How do you cultivate parental involvement and support for ALEKS?
It is hard to get parents involved but the math department sent out letters detailing the importance of their students passing the CAHSEE exam, along with information regarding the newly purchased ALEKS program to assist students.

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?
Yes. 75%.

How do you incorporate ALEKS into your grading system?
Grading breaks down as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>10%</td>
</tr>
<tr>
<td>Class work/ALEKS Time</td>
<td>15%</td>
</tr>
<tr>
<td>Notes/Projects</td>
<td>15%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>25%</td>
</tr>
<tr>
<td>Tests</td>
<td>35%</td>
</tr>
</tbody>
</table>

ALEKS comprises approximately 50% of the student’s grade.

Do you require students to make regular amounts of progress in ALEKS?
Students are responsible for completing four hours of ALEKS a week (see “Identifying Time Spent in ALEKS”), getting a 7/10 or better on quizzes, completing a worksheet, and showing that the time required to complete the program has decreased.
IMPLEMENTATION STRATEGIES

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Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen? Students are showing improvement on mock CAHSEE questions. They are able to attempt the problem and look for an answer before they ask for assistance. It seems that students are more comfortable having the computer tell them if they are wrong instead of the teacher. Students like to read their ALEKS pie charts and look at the standards (see “State Standards Report”) and concepts they have mastered.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS? I encourage teachers to get to know ALEKS. It can be truly beneficial if the teacher knows what to look for and what to create to meet the students’ needs.

CAHSEE Standards Report for an Individual Student
IMPLEMENTATION STRATEGIES

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General Facts

Long Beach Unified School District: Cabrillo High School
Long Beach, CA

Grade(s): 12
Scenario: Computer Lab
ALEKS Portion of Curriculum: 80%
Time Spent in ALEKS: 3-5 hours per week, 30+ hours per term
ALEKS Course Product(s): Math Prep for California High School Exit Exam

Teri Pearlman, Teacher
My students feel like they are getting a useful experience with ALEKS.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
Serving students with varying degrees of math skills and abilities.

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

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

Implementation

How did you implement ALEKS?
Our district CAHSEE Math Prep Handbook is used as homework. I am also using an Intervention Kit published by Prentice Hall. I use ALEKS to personalize areas where my 12th graders need to fill-in the gaps in their math understanding in order to pass the CAHSEE.

How do you structure your class periods with ALEKS?
Students work on ALEKS every class period. All students are required to spend 3-5 hours per week (see “Identifying Time Spent in ALEKS”) for course credit.
How did you modify your regular teaching approach as a result of ALEKS?
Less lecture and less homework.

How often are students required or encouraged to work on ALEKS at home?
2 hour per week.

How do you cultivate parental involvement and support for ALEKS?
I send home information and ask students to show their parents the program.

**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?
Yes. 50%.

How do you incorporate ALEKS into your grading system?
Grading breaks down as follows:

- ALEKS Time Spent: 45%
- Project/Checkbook: 25%
- Success at Passing CAHSEE: 25%
- Homework: 5%

Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?
Yes, progress is measured by time spent in ALEKS.

**Learning Outcomes**

Since using ALEKS, please describe the learning outcomes or progress you have seen?
I sense that my students are gaining readiness to learn. They are all on task. ALEKS provides a great opportunity for students to fill-in the holes in their past math knowledge. ALEKS will help prepare students for subsequent classes. Students seem pleased with their progress; 60% seem confident that they passed the CAHSEE.
IMPLEMENTATION STRATEGIES

General Facts

Tolleson Union High School District: La Joya Community High School
Avondale, AZ

Grade(s): 9-11
Scenario: Computers in Classroom
ALEKS Portion of Curriculum: 100%
Time Spent in ALEKS: 5 hours per week
ALEKS Course Product(s): Algebra 1

Jesus Cardiel, Teacher
ALEKS has been great at helping kids catch up on the prerequisite skills they need to achieve success.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
Many students lack the prerequisite skills needed for Algebra 1.

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

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

Implementation

How did you implement ALEKS?
Since the class is entirely ALEKS, there is no textbook. We simply use ALEKS.

Do you cover ALEKS concepts in a particular order?
No. Students complete the ALEKS tutorial (see “Answer Editor Tutorial”), complete the assessment, and then proceed at their own pace.

How do you structure your class periods with ALEKS?
From bell to bell, the students work on ALEKS.
Implementation Strategies

How did you modify your regular teaching approach as a result of ALEKS?
1 hour per week

How do you cultivate parental involvement and support for ALEKS?
I communicate to parents that they can monitor their student’s progress (see “Progress Reports”) by going to 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?
Yes. 76 - 100%.

How do you incorporate ALEKS into your grading system?
ALEKS makes up about 80% of final grade, along with class participation.

Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?
Yes. Progress is basically broken down so students earn ALEKS grades (see “Grading Scale”) of A/B/C/F.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen?
Students have improved their standardized test scores by approximately 20%. Students have also improved their letter grades by 1 or 2 entire letters. ALEKS helps students feel more prepared and more willing to learn.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS?
Minimize talking in the classroom and have your desk in the back of the classroom so you can minimize off-task Internet use.
IMPLEMENTATION STRATEGIES

General Facts

Hawaii Department of Education: Kapolei High School
Kapolei, HI

Grade(s): 9-12
Scenario: One-to-One Laptop Program
ALEKS Portion of Curriculum: 100%
Time Spent in ALEKS: 2 hours per week, 21 - 25 hours per term
ALEKS Course Product(s): Pre-Algebra, Algebra 1, High School Geometry, Algebra 2

Rachel Fronzo, Teacher
The individualized curriculum that ALEKS offers has been very beneficial for both teachers and students. Some students that were struggling in traditional math courses have been given access to ALEKS as a tutoring device at home and are very pleased with how much they are learning.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
I teach in an alternative program that services students at many different levels in one class. This has been very difficult to teach using lecture/small groups.

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

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

Implementation

How did you implement ALEKS?
ALEKS is used in conjunction with consumer math readings and worksheets. The consumer math consists of a daily 10-15 minutes of reading and exercise. The rest of the 70 minute period is spent working on ALEKS. Homework is also done through ALEKS.
Do you cover ALEKS concepts in a particular order?
No, I do not cover the concepts in any order. I think it’s important that the students take responsibility for their own learning and pick what they want to work on. I also think this is important for students that become frustrated with one concept, because they are free to switch to something else rather than giving up. I do appreciate that some topics cannot be chosen until others are mastered.

How do you structure your class periods with ALEKS?
The first ten minutes are spent completing a consumer math activity (usually a reading and exercises). For the next 5–10 minutes, students are then given announcements, hand in their homework, and are assigned new homework. The next 40-50 minutes are spent using ALEKS individually.

How did you modify your regular teaching approach as a result of ALEKS?
Our class focus is purely ALEKS with individualized instruction.

How often are students required or encouraged to work on ALEKS at home?
Students were required to log in to ALEKS a minimum of 2 hours per week (see “Identifying Time Spent in ALEKS”). If we were unable to work during class time they were required to make up the time at home.

How do you cultivate parental involvement and support for ALEKS?
The program was explained to the parents on the first day of school at orientation. Parents have been very supportive of the students using the program at home.

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?
Yes. 75%.

How do you incorporate ALEKS into your grading system?
Grades are based on the following breakdown:

- Progress in ALEKS: 25%
- Homework: 25%
- Class Work: 25%
- ALEKS Tests/Quizzes: 25%
Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing? Students must complete at least 25% of their current ALEKS course each quarter in an effort to make sure they complete the course within the year. They are highly encouraged to finish more each quarter in an effort to complete more than one course in the year. Students feel like they are really learning and like the idea that with everyone working on the computer the teacher is free to help students individually.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen? I have noticed struggling students are now confident in helping other students with concepts they have already mastered, because everyone is picking concepts in a unique order that fits his/her learning needs. I have also noticed much improvement in student ability and motivation.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS? My recommendation is to spend as much time as you can getting the students to use ALEKS and offering help as they work on their concepts. The one-on-one time spent with each student motivates them and creates a great working relationship.
IMPLEMENTATION STRATEGIES

General Facts

Newport-Mesa Unified School District: Back Bay & Monte Vista High Schools
Costa Mesa, CA

Grade(s): 10-12
Scenario: Computers in Classroom
ALEKS Portion of Curriculum: 100%
Time Spent in ALEKS: 5 hours per week, 60 hours per term
ALEKS Course Product(s): Middle School Geometry, Essential Math

Dennis Ashendorf, Teacher
Students respond well to ALEKS. While I try to use standards-based courses, I’ve found Essential Math the most effective platform for teaching math, especially for CAHSEE students. ALEKS staff has responded to my requests quickly; I thoroughly trust and recommend ALEKS to all educators.

Scenario

What challenges did the class or school face in math prior to using ALEKS?
In a continuation school, just getting students to do work is an accomplishment.

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

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

Implementation

How did you implement ALEKS?
I just follow the standard ALEKS curriculum. I figure that the program’s flow is more pedagogically correct than adaptations for questionable standards-based pacing schedules.

Do you cover ALEKS concepts in a particular order?
Student choice is absolutely necessary to the success of ALEKS. Pushing an order only decreases the effectiveness of ALEKS.

How do you structure your class periods with ALEKS?
Students log on immediately. Computer monitors face me so I can tell if students are working.
IMPLEMENTATION STRATEGIES

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How did you modify your regular teaching approach as a result of ALEKS?
I use ALEKS as a "virtual" class-size reduction tool. Since I can issue credit for mastery learning, students receive five credits for completing a class. Students who dawdle still earn credit for seat time: 12 hours = 1 credit.

How often are students required or encouraged to work on ALEKS at home?
None of my classroom students log on at home, but my independent study students do. However, 70% need twice weekly phone calls (not email) to remind them to log on.

How do you cultivate parental involvement and support for ALEKS?
I ask parents for a voluntary $40 contribution to cover the cost of ALEKS. 50% of the parents usually donate. Most parents want ALEKS because Direct Instruction hasn't worked and ALEKS deals well with the exceptions. Parents get it. Paying a small sum helps them commit.

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?
Yes. 100%.

How do you incorporate ALEKS into your grading system?
Students receive five credits for completing a class. Students who dawdle still earn credit for seat time: 12 hours = 1 credit.

Do you require students to make regular amounts of progress in ALEKS? If so, how is this progress measured and what is the amount of progress that they are responsible for completing?
I look at time (see "Identifying Time Spent in ALEKS") first, and then I see if progress (see "Progress Reports") has been made. If it is little, then I watch/talk with the student. Depending on the student’s performance, I may have to press by demanding more work or placing them into a Direct Instruction classroom.

Learning Outcomes

Since using ALEKS, please describe the learning outcomes or progress you have seen?
Students who complete, BY THEMSELVES, 100 of the Essential Math objectives will almost always pass CAHSEE. In short, more of the student space is receptive to ALEKS than to other products.

Best Practices

Are there any best practices you would like to share with other teachers implementing ALEKS?
I suggest printing out a worksheet (see “ALEKS Worksheets”) and having students complete it in your presence if they are taking courses remotely.
ALEKS Pie Chart

Pie Charts express the results of a given assessment. They contain the following types of information:

- which mathematics topics are part of the course objectives
- the relative importance of the parts of the mathematics course objectives
- to what extent the student has attained knowledge for each part of the mathematics course objectives.

Each color-coded slice of the pie chart refers to a particular part of the course objectives, such as “Whole Numbers” or “Proportions and Percents.” Each slice is marked with an abbreviation. The meanings of these abbreviations and of the chart’s color-coding are given in the legend following the pie chart. If the abbreviation next to the slice is underlined, it means this topic contains concepts the student is most “ready to learn.”

A pie chart will show only those topics that are part of the math curriculum for the class. The portion of the chart taken up by any one topic reflects the importance of that topic relative to others in the given course objectives.

The progress a student has made toward satisfying the course objectives for knowledge in a given topic is expressed by the degree to which the slice corresponding to that area is shaded (i.e., filled in with solid color). The measure of progress given by the pie chart is dependent on the standards for a particular class and is set by teachers and administrators.

When a user places the pointer over one of the slices in the pie charts, a list of the items that the student is currently most ready to learn within that topic will appear. Clicking on any one of these concepts takes the user into the Learning Mode, beginning with that concept. Not every slice necessarily contains such a list, even if the topic has not yet been fully mastered. This is because a student may not be ready to learn a concept in a given topic (slice) before concepts in another topic (slice) have been mastered.

ALEKS Worksheets

A student using ALEKS can obtain an individualized, printable worksheet (in PDF format) containing 16 practice questions based on the student’s most recent work in ALEKS by clicking the “Worksheet” button (or the “Review” button).

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When the student does this, a sheet containing answers for this individual worksheet (labeled with the student’s name and the date) is sent to the teacher via the ALEKS Message System. The teacher may set the option for this feature so that there are 12 review questions and 4 “Extra Credit” questions.

A record will be kept on the Worksheet page of all worksheets produced by the student. The student can click on the link for any past worksheet in order to obtain that worksheet again. If the teacher has permitted access to worksheet answers, there will also be links on this page to answer keys for each of the worksheets.

**Answer Editor Tutorial**

ALEKS uses a free response environment that avoids multiple choice questions and provides tools for realistic input. A critical reason for this is to prevent substantial inaccuracies which arise from students' guessing in multiple choice questions.

Another purpose of this approach is to train students in the same skills that are necessary for conventional, paper-and-pencil communication of solutions and results. At the same time, the sophistication of the ALEKS input tools provides certain advantages. The presentation of results is always neat and clear. Manual dexterity plays a reduced role in drawing an accurate graph or geometrical construction. Immediate feedback is provided on the formal completeness of solutions.

The general term for the input tools used in ALEKS is the “Answer Editor.” This encompasses a variety of actual modes for user input: an Answer Editor for mathematical expressions, an Answer Editor for the number line, an Answer Editor for graphing in the Cartesian plane (with x and y coordinate axes), and an Answer Editor for histograms (in Statistics).

A student beginning to use ALEKS is thoroughly trained in all features of the Answer Editor that are relevant to the subject being studied during the Tutorial. The ALEKS Tutorial is not intended to teach mathematical knowledge, but rather to train students in using the system tools. If students need a “refresher” on use of the system tools, it is always possible to click on the “Help” button, which gives access to the sections of the Tutorial.

**Artificial Intelligence Explained**

By its unprecedented use of Artificial Intelligence, ALEKS determines quickly and precisely what students know and what they need to learn, guiding them down individualized learning paths to mastery. Assessment and practice problems are algorithmically generated, so the students cannot predict them. The course objectives used in ALEKS are customizable, letting you conveniently add or subtract topics.

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Since ALEKS is accessed over the World Wide Web using standard browsers, no complicated technical preparation is needed—and your students can work at any time, from home or from the classroom. The features of ALEKS make it a self-contained tool, opening new horizons for educators and learners alike in any educational context.

Creating a Class

To create a new class using the Basic Teacher’s Module, follow the instructions below:
1. Login to your ALEKS teacher account
2. Click on Create a new class link
3. Fill out all required fields:
   a. Name: Type in the name of the class (i.e., Fall 2007, Period 1, etc.)
   b. Topic: Use the drop-box menu to select a course
   c. Grade: Select a grade level
   d. Subscription type: Select the appropriate subscription type for your class. Be sure that the subscription type matches the available subscriptions ordered by your school or district.
4. Click Save.

To create a new class using the Advanced Teacher’s Module, follow the instructions below:
1. Login to your ALEKS teacher account and click on the Advanced tab; you will be prompted to enter the Advanced Teacher Module
2. Click on your name (highest branch) and click NEW CLASS.
3. Use the drop-box menu to fill out the following information
   a. Grade: Select a grade level
   b. Name: Type in the name of the class (i.e., Fall 2007, Period 1, etc.)
   c. Subscription type: Select the appropriate subscription type for your class. Be sure that the subscription type matches the available subscriptions ordered by your school or district.
   d. Category: Use the drop-box menu to select a course
4. Click Save.

Explain Button

Beneath each problem in ALEKS are two buttons, “Practice” and “Explain.” Clicking on “Explain” goes to a detailed explanation of the item with additional Dictionary links. Clicking on “Practice” goes to a page containing the Answer Editor and provides the opportunity to attempt to solve the problem.
Grading Scale

You can assign a grading scale to assessments and quizzes using the Taking Actions tab of the Basic Teacher’s Module. The Grades feature uses a chart with sliders that can be easily set by the teacher. The three buttons under the graph determine the use of the evaluation: if “Disabled,” no one sees it; if “Private,” the teacher sees it but the students do not; if “Public,” the teacher sees it and each student sees it for her own work. If no grading scale is set, the students and the teacher will only see the percentage of questions answered correctly.

Identifying Time Spent in ALEKS

Teachers can view the amount of time the student has spent in ALEKS at the top of the Progress Report for an Individual Student report. This report allows teachers to see how much time the student is spending in ALEKS and—if the school has provided ALEKS with their IP Address—they can view the amount of time the student is using ALEKS from school and outside of school.

Intermediate Objectives

The Intermediate Objectives feature was created to address the needs of teachers using ALEKS in conjunction with a planned sequence of topics for classroom instruction. It enables teachers to prioritize certain groups of topics for specified segments of time, when these topics will be at the focus of class discussion. When intermediate objectives have been set, students will be directed to work on these objectives as soon as they are available in the domain and guided through their prerequisites in the most direct way possible. Both students and teacher will receive clear information on current progress toward completion of scheduled objectives.

Note: ALEKS always maintains the coherence of its intermediate objectives; any set of intermediate objectives must contain all of the items within the domain needed to learn the items it contains. If an item being added to the objectives has prerequisite items not currently also belonging to the objectives, these will be automatically added as well; conversely, if an item being removed from the objectives is a prerequisite item for some items presently in the objectives, these will also be removed. The editor warns when this is occurring.

Every set of intermediate objectives is assigned to a particular date, which is the date by which the students are to have completed this set of objectives. The date is set in a pair of menus directly below the selector window, one for month and one for day. The set of objectives will be in effect through the date to which it is assigned, after which the next set of objectives will take effect. If no date is assigned, the

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objectives will take effect following the last set of objectives to which a date has been assigned, and remain in effect to the end of the class ("final" objectives).

When a set of objectives is in effect, both teacher and student will receive information about progress toward their fulfillment. The teacher will see notations on the Class Progress page indicating which students have fulfilled the current objectives, and which are close to doing so. The student will see dotted lines on their pie chart showing how far each slice will need to be filled in to achieve the current objectives. The teacher will see the same dotted lines when they view the pie charts for the class and for individual students.

When a student uses MyPie to choose a topic for work in the Learning Mode, the items shown as available are those which the student is “Ready to Learn,” excluding any items which do not lead directly to fulfillment of the current objective. Once the student has completed the intermediate objective, she or he will move immediately into the next objective, whether or not the completion date has passed. If the completion date passes without the student’s completion of that objective, the new intermediate objective will take effect in terms of the student’s guidance, but unfinished prerequisite material from the earlier objective will still have to be completed before moving on.

Message Center

The ALEKS Message Center resembles an email program in most of its features, although the exchange of messages takes place within the ALEKS system. Also, the Message Center is equipped with special symbols and tools appropriate to communication about the subject-matter used in ALEKS. Optionally, you can have copies of your students’ messages sent to your email account as well.

The ALEKS Message Center contains a full range of tools for using mathematical symbolism, constructions, and expressions in your messages. The tools are like those used by ALEKS itself in the Answer Editor. Moreover, students sending you messages in the Message Center can attach a graphic representation of the problem they are currently working on, to facilitate posing and answering mathematical questions.

Progress Reports

The Progress Report for a Single Student displays a list of bar graphs for the single student chosen. There is one row for each assessment that the student has taken, with dates (linked to the Report page for that assessment). Each row contains one to three bar graphs, depending on the student’s grade. Each bar graph measures the student’s mastery as of the given assessment as depicted by the blue portion of the bar. Progress made in the Learning Mode subsequent to that assessment (but before the next assessment, if there is one) is measured by the green portion of the bar. There are also percentage values given beneath.
the bar for the blue and green portions of the bars; for example, 57+9% means that the last assessment showed 57% mastery, and that subsequent work in the Learning Mode added another 9% of mastery. If there is more than one bar per row, they will correspond to the course objectives for the previous grade, the current grade, and the subsequent grade.

Information on each assessment, total hours and weeks spent subsequently in the Learning Mode (up to the time of the next assessment) with average numbers of items gained per hour and per week is also provided (optionally, this shows the time left to completion of course goals).

Teachers also have the option to view the progress of the entire class by selecting the Learning Progress Since Latest Assessment report. This report offers teachers a quick snapshot of each student’s latest progress in Learning Mode. The bar graphs allow teachers to view how close each student is to mastery of the subject matter. It should be kept in mind that the bar graphs displayed on this page show only the students’ achievement as of their last assessment (in blue) and any progress made in the Learning Mode since that assessment (in green). For a more panoramic view of the progress made by a group, select the Overall Progress in Assessment report. This displays the difference between the students’ knowledge as of their first assessment and that demonstrated on their most recent assessment.

**Quizzes**

The Quiz feature in ALEKS allows teachers to create quizzes for their students using any topics in the ALEKS course domain. These quizzes are administered through ALEKS and scored automatically, with optional use of a grading scale set by the teacher. Quizzes may be scheduled for particular days and times, or they may be made available for the students in a class to take when they are ready (“Homework Quiz”). The results of quizzes can be seen through the reporting features of ALEKS, but do not influence the students’ knowledge states or their guided learning in ALEKS.

By default, quizzes are made available to students as “Homework Quizzes.” This means that the student is not forced into the quiz by ALEKS; rather, the student clicks the “Quiz” button when they are ready to take the quiz. If this option is chosen, the teacher must indicate a due date for the quiz, after which the quiz will no longer be available to students. A message can also be sent to students informing them that the quiz has been assigned.

The student can take a quiz assigned by the teacher or check the results of quizzes already taken by clicking “Quiz.” If a quiz has been “scheduled” by the teacher, however, the student does not need to use this button; when the student logs on during the time the quiz has to be taken, it will begin automatically.

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Scheduling Assessments

ALEKS allows the teacher to schedule assessments for individual students or for an entire class. Students logging on to ALEKS within the time period specified for the assessment will automatically enter Assessment Mode.

The teacher simply announces the assessment for a certain time and place. Just prior to this time, the teacher prompts the class assessment in the Teacher Module. The next time students log on to ALEKS they will automatically enter the assessment.

Requested assessments “resets the clock” for automatic assessments, so that students will not be assessed with undue frequency. Also, among the options for a requested assessment is one to prevent automatic assessments within a certain number of days prior to the requested assessment.

Note: In some ALEKS products, there is an option to request the assessment on a particular slice or slices of the pie chart. When this is done, there will be a note regarding the estimated number of questions needed for the assessment. Often, assessing on more than one slice of the pie chart will result in an assessment that is longer than desired; therefore, this feature is usually most effective when only a single slice is selected. The teacher also has the option of letting ALEKS select an appropriate slice for each student, based on their individual progress.

Spanish Translation

The Language menu can be used to switch back and forth between English and Spanish versions of ALEKS. The Spanish translation of ALEKS is currently complete for courses used in Grades 3 through 9.

State Standards Report

The State Standards Report analyzes current progress of the class in terms of the strands and substrands of the applicable state standards. For each strand, a vertical bar graph at the top of the display shows the satisfaction of that strand as measured by ALEKS. The numbers beneath each bar indicate the proportion of substrands under that strand which have been satisfied by the students, according to the parameters set beneath the bars. The options appearing beneath the bars enable the teacher to choose:

- what percentage of ALEKS items supporting a substrand must be completed by a student for the student to be considered as having satisfied that substrand;
- how the students’ mastery of items will be determined: by initial assessment, by most recent assessment, or by most recent work in the Learning Mode;

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• which students will be used to calculate levels of achievement: all students in the class, or students who have spent certain amounts of time (10, 20, 40, or 60 hours) using their ALEKS accounts.

Further down the page, the display provides complete details on standards-based achievement by the class. The teacher can choose to see these details organized by student (which substrands have been mastered by each student) or by substrand (what the precise level of satisfaction is for each substrand, with lists of ALEKS items supporting the substrands and how many of them individual students have mastered).

Teacher’s Module

The teacher enters the ALEKS Teacher Module by logging on to ALEKS with their teacher login name and password. The Teacher Module is an extremely important component of the ALEKS system, permitting teachers to monitor and manage their ALEKS classes. The Teacher Module offers different capacities to users who are registered in ALEKS with Administrator status, as opposed to those with Teacher status. If you have a teacher account, the system features at your disposal can affect only your classes and the students under your supervision. If your account is that of a school administrator, your privileges are similar, but extend to all classes and all students in the school. If your account is that of a root administrator (e.g., over an entire school district), your privileges extend to all schools under your administration.

After the teacher is familiar with the features of the Basic Teacher Module, he or she may wish to try the Advanced Teacher Module, which is somewhat more complex than the standard interface but offers greater efficiency in some operations. Some teachers find the Advanced Teacher Module more convenient to use once they are used to it. There is a Tutorial in ALEKS explaining the use and features of the Advanced Teacher Module.

The Advanced Teacher Module interface provides an array of features enabling teachers with some familiarity in ALEKS to carry out management and monitoring of their classes with more efficiency and power. The Advanced Teacher Module is entered from the Basic Teacher Module by clicking “Advanced.” Teachers may also choose to make the advanced interface their default interface for the ALEKS Teacher Module. Teachers using the Advanced Teacher Module can return to the Basic Teacher Module at any time by using the link, “Go to the Basic Teacher Module,” located at the top of the Advanced Teacher Module window.

When you enter the Advanced Teacher Module with teacher status, you will see a directory containing only your own classes. If you have an administrator account you will see all of the teacher directories for your school. If you have a root administrator account you will see directories for all schools under your administration.

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