Central Texas College  
Killeen, TX

Product Used: MyMathLabPlus  
Course Names: Prealgebra, Beginning Algebra, Intermediate Algebra  
Credit Hours: Three

**Key Take-Away**  
Significant increases in pass and completion rates after MyMathLabPlus implementation indicate that requiring MyMathLab homework and lab time helps CTC's on-site and online students get the practice they need to succeed in math.

Textbooks in Use  
Prealgebra, 5e, Elayn Martin-Gay; Beginning Algebra, 5e, Elayn Martin-Gay; Intermediate Algebra, 5e, Elayn Martin-Gay

Course Implementation  
**Course Design**  
Courses are offered both on-site and online. Students in on-site courses meet for 65 minutes, Monday through Thursday, and are required to spend a minimum of 12 hours per semester in the math lab.

**Assessments**  
15 percent Homework  
(online courses, also quizzes)  
For all courses, homework in MyMathLabPlus is required.

35 percent Chapter tests  
In classroom, on paper, for each chapter.

50 percent Departmental final exam  
For Intermediate Algebra, the 50 percent is split into a midterm worth 20 percent and a final exam worth 30 percent.

**Use of MyMathLabPlus**  
MyMathLabPlus homework is required in all courses; online courses also require quizzes. Students are encouraged to use the Study Plan. Grades are imported from other sources.

Use of MyMathLabPlus contributes 15 percent to a student's final course grade.

Results and Data  
The positive change in pass and withdrawal rates illustrated in table 2 indicates that required use of first MyMathLab and now MyMathLabPlus increases both student success and retention rates.

Additional departmental data collected fall 2008 through summer 2011 indicates that use of the programs also contributes to increased subsequent success.

- 61 percent of students who successfully completed Prealgebra earned an A, B, or C in Beginning Algebra.
- 83 percent of students who successfully completed Beginning Algebra earned an A, B, or C in Contemporary Mathematics.
- 66 percent of students who successfully completed Beginning Algebra earned an A, B, or C in Elementary Statistics.
- 71 percent of students who successfully completed Beginning Algebra earned an A, B, or C in Intermediate Algebra.
- 84 percent of students who successfully completed Intermediate Algebra earned an A, B, or C in Contemporary Mathematics.
- 77 percent of students who successfully completed Intermediate Algebra earned an A, B, or C in Elementary Statistics.
- 83 percent of students who successfully completed Intermediate Algebra earned an A, B, or C in College Algebra.
Jenny Shotwell, professor, cites a number of ways that MyMathLabPlus’s design and underlying pedagogy positively impact her students.

- The individually tailored study plans make good just-in-time teaching tools for students working at home or otherwise not in a classroom environment.
- For those students who are intimidated by asking questions in class, MyMathLabPlus provides a variety of resources to turn to, in addition to a direct e-mail link to the instructor.

Central Texas College uses MyMathLabPlus in all developmental math courses and uses MyMathLab in college-level courses through calculus. The programs’ intuitive interfaces and easy-to-learn features mean that students have a consistent learning experience each semester, and that at each new level, they need concentrate solely on learning new course content—not new software.

The Student Experience

Table 1. Success Rates before MyMathLab** Implementation, Fall 2002–Summer 2004 (n=7,735)
*Taught only with MyMathLab support.
**Prealgebra taught with MyMathLabPlus since fall 2010, Beginning and Intermediate Algebra taught with MyMathLabPlus since fall 2011.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>69% or Below</th>
<th>Student Withdraw</th>
<th>Drop or Incomplete</th>
<th>Total Number</th>
<th>Passing Number</th>
<th>Completion Number</th>
<th>Pass Rate</th>
<th>Completion Rate</th>
<th>D/W Rate</th>
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<tbody>
<tr>
<td><strong>ON-SITE</strong></td>
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<tr>
<td>Prealgebra</td>
<td>200</td>
<td>477</td>
<td>560</td>
<td>606</td>
<td>227</td>
<td>580</td>
<td>2,650</td>
<td>1,237</td>
<td>1,843</td>
<td>46.7%</td>
<td>67.1%</td>
<td>30.5%</td>
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<tr>
<td>Beg Algebra</td>
<td>152</td>
<td>241</td>
<td>623</td>
<td>794</td>
<td>280</td>
<td>645</td>
<td>2,835</td>
<td>1,116</td>
<td>1,910</td>
<td>39.4%</td>
<td>58.4%</td>
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<tr>
<td>Inter Algebra</td>
<td>75</td>
<td>222</td>
<td>391</td>
<td>684</td>
<td>309</td>
<td>447</td>
<td>2,128</td>
<td>688</td>
<td>1,372</td>
<td>32.3%</td>
<td>50.1%</td>
<td>35.5%</td>
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<td><strong>ONLINE</strong></td>
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<td>23</td>
<td>10</td>
<td>22</td>
<td>19</td>
<td>15</td>
<td>37</td>
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<td>40.5%</td>
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<td>3</td>
<td>4</td>
<td>13</td>
<td>16</td>
<td>19</td>
<td>56</td>
<td>14.3%</td>
<td>38.1%</td>
<td>62.5%</td>
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</table>

Table 2. Success Rates after MyMathLab* Implementation, Fall 2004–Summer 2011 (n=14,730)
*Prealgebra taught with MyMathLabPlus since fall 2010, Beginning and Intermediate Algebra taught with MyMathLabPlus since fall 2011.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
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<th>69% or Below</th>
<th>Student Withdraw</th>
<th>Drop or Incomplete</th>
<th>Total Number</th>
<th>Passing Number</th>
<th>Completion Number</th>
<th>Pass Rate</th>
<th>Completion Rate</th>
<th>D/W Rate</th>
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<td>917</td>
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<td>1,008</td>
<td>448</td>
<td>952</td>
<td>4,911</td>
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<td>3,511</td>
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<td>398</td>
<td>679</td>
<td>4,334</td>
<td>2,025</td>
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<td>75.1%</td>
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<td>643</td>
<td>472</td>
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<td>3,260</td>
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<tr>
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<td>196</td>
<td>139</td>
<td>99</td>
<td>124</td>
<td>230</td>
<td>908</td>
<td>455</td>
<td>554</td>
<td>50.1%</td>
<td>61.0%</td>
<td>25.3%</td>
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<tr>
<td>Beg Algebra</td>
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<td>73</td>
<td>118</td>
<td>166</td>
<td>116</td>
<td>234</td>
<td>729</td>
<td>213</td>
<td>379</td>
<td>29.2%</td>
<td>52.0%</td>
<td>32.1%</td>
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<td>36</td>
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<td>122</td>
<td>169</td>
<td>206</td>
<td>588</td>
<td>91</td>
<td>213</td>
<td>15.5%</td>
<td>36.2%</td>
<td>35.0%</td>
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</tbody>
</table>

Conclusions

MyMathLabPlus’s benefit to developmental-level students prompted Central Texas College to pilot two new ways to deter these higher-risk students from dropping out, including eight-week courses and concurrent enrollment courses.

Central Texas College is also exploring how to help students remediate via the use of MyMathTest prior to taking placement exams, and in spring 2011 the college will transition the entire developmental sequence to a mastery quiz format.

In addition, the college moved all three developmental mathematics courses into a new MyMathLabPlus portal that enables a two-week grace period for access codes—a significant benefit for students who are on financial aid and may not have funds available at the start of the course.

Submitted by Jenny Shotwell, Professor, Developmental Studies
Central Texas College