



**Case Study of Middlesex Community College  
and SmarterMeasure<sup>TM</sup>**





**MIDDLESEX COMMUNITY COLLEGE'S  
DIRECTOR OF DISTANCE LEARNING  
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## **INTRODUCTION**

Middlesex Community College (MxCC) is located in Middletown, Connecticut. It enrolls 3000 credit students and 1700 non-credit students per semester. In Spring 2011, more than 1100 students take fully online courses, which counts for 14% of student enrollment in credit courses. In the Distance Learning department, two full time staff members and two student workers support online classes and the use of technology in on-ground classes.

## **IMPLEMENTATION OF SMARTERMEASURE™**

The SmarterMeasure™ learning readiness indicator was first introduced in Fall 2008 during academic advising for Spring 2009 students. Since then, the assessment has been used continuously every semester when fully online courses are offered—a total of seven semesters up to Spring 2011. More than 2200 students have taken the assessment in the past seven semesters with over 60% of students benefitting from it. To promote use of the SmarterMeasure™ assessment, the following strategies have been used:

- A web page was developed with the information on what SmarterMeaure™ is, how to log on, and how to interpret test results. <http://www.mxcc.commnet.edu/Content/READI.asp>.
- In the video on online learning, a section about the assessment (formerly called READI) was added, specifically indicating how students can evaluate whether they are a good fit for online learning—[http://www.mxcc.commnet.edu/ContentOnline\\_Classes.asp](http://www.mxcc.commnet.edu/ContentOnline_Classes.asp).
- The video and the SmarterMeasure™ page were linked from the Distance Learning web site. In college publications such as the college catalogs, semester schedules, brochures for distance learning, and Quick Reference packages, the self-assessment page and the video were introduced to students interested in taking online courses.
- Distance Learning staff developed flyers and information cards about SmarterMeasure™ and distributed them to the department offices, campus information shelves, and academic support services - admissions, counseling center, and college library. Letters and flyers about the assessment were sent to the academic advisors, asking them to recommend that potential students take the test before registering for an online course.



## DATA ANALYSES AND INTEGRATION OF RESEARCH FINDINGS TO SUPPORT

### MIDDLESEX COMMUNITY COLLEGE'S DIRECTOR OF DISTANCE LEARNING, YI GUAN-RACZKOWSKI

*A strong correlation was found with personal attributes and grades. The higher the score of personal attributes, the higher grade a student would receive.*

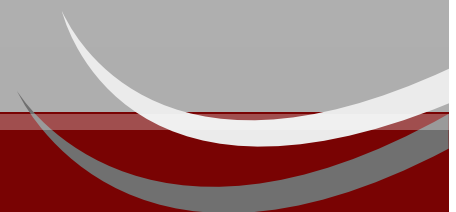
To answer whether SmarterMeasure™ scores affect students' grades in online learning, a correlation study was conducted to see the relationships between the scores of SmarterMeasure™ and the students' grades. **The preliminary study done in Spring 2009 and Summer 2009 on 750 cases showed a significant correlation between the score of personal attributes and grades.** They were significantly correlated with a positive coefficient, meaning that the higher a score of personal attributes, the higher grade a student would receive. This result implies that personal attributes, represented by self-motivation, self-discipline, and time management, plays a very important role in student success of online learning.



Based on this finding, in Fall of 2009, a web page titled as "Success Tips" was developed and linked to the distance learning web site. The success tips were added to one section, Step 3, in the online orientation at [http://www.mxcc.commnet.edu/Content/Success\\_Tips.asp](http://www.mxcc.commnet.edu/Content/Success_Tips.asp). The page of "Success Tips" was added to the Quick Reference, which was accessible by students in the Records' Office, Library, Communication Center, and campus buildings. The Quick Reference was mailed to online students with no personal emails in the college system. It was also downloadable from the distance learning web site. In the beginning of a semester, we sent the success tips in the email to all online students and posted them on the distance learning Facebook page.

During the campus orientation sessions, the success tips were introduced after showing students how to use basic tools in online courses. The research finding was shared with academic advisors and online professors in the distance learning newsletters as well as with students in the student newspaper articles. During advising, registration, and orientation, students were advised that self-motivation, self-discipline, and time management were major factors affecting their success. It was highly emphasized to students that distance learning staff was able to help navigate a course, use tools, and troubleshoot technical problems, but it was the student's responsibility to complete all course works on time to receive a good grade.

Ultimately, the correlation study was conducted between the SmarterMeasure™ scores and students' grades on 3228 cases collected from six semesters, Spring 2009 to Fall 2010. The result showed a significant correlation between the score of personal attributes and students' grades. This finding reconfirms the new approach we used in supporting online students: providing technical assistance to online students while stressing the students' self-driven responsibilities in studying to ensure success.



## SMARTERMEASURE™ LEARNING READINESS INDICATOR

Web based diagnostic tool that quantifies a learner's readiness to learn in an alternative learning environment like online. It measures 6 areas of readiness.

- ◆ Personal Attributes
- ◆ Learning Styles
- ◆ Life Factors
- ◆ Technical Competency & Skills
- ◆ On-Screen Reading Rate & Recall
- ◆ Typing Speed & Accuracy

### STUDY RESULTS

*"When SmarterMeasure™ was implemented, the percentage gap of failing students in online classes vs. on-ground classes was cut in half!"*



## Comparison - Failed Online Students

Percentage of Failed Online Students Before and After SmarterMeasure Implementation

SmarterMeasure - Implemented from Spring 2009 – Fall 2010

Years	Spring	Summer	Fall
Year 2010	24.6%	13.6%	27.9%
Year 2009	27.0%	13.5%	28.7%
Year 2008	31.3%	16.3%	33.5%
Year 2007	31.5%	23.3%	33.4%

## SMARTERMEASURE™ DECREASES FAILURE RATE IN ONLINE COURSES

Before SmarterMeasure™ was implemented, 6% to 13% more students failed online courses than students taking on-ground courses. After the implementation, the gaps were narrowed; 1.3% to 5.8% more online students failed than on-ground students.

The table in Figure 2 shows the percentage of failed students in online courses before and after the SmarterMeasure™ implementation. In the corresponding semesters, less percentage of students failed online courses after the implementation, decreased by about 5%. The finding implies that SmarterMeasure™ assessment helps "at-risk" students to do better in online learning. In other words, the use of the SmarterMeasure™ assessment has contributed to better success in online learning particularly for students who are more likely to fail.

**In summary, the implementation of SmarterMeasure™ has helped students to achieve better academic success by identifying their strengths and weaknesses in online learning.** When test results show a weak area, students are alerted to their shortcomings and therefore strive for improvement by seeking help. Additionally, based on the results of data analyses, personnel such as distance learning staff, faculty advisors, and academic counselors are able to pinpoint the key element contributing to student success: students' self-driven force including self-motivation, self-discipline, and time management. This finding has moved the distance learning support beyond technical assistance to inspiring students to be highly motivated and disciplined, accompanied with using appropriate study strategies to ensure greater success.

## SMARTERSERVICES™

SmarterServices™ provides the following four products:

(1) **SmarterMeasure™** - learning readiness indicator,  
(2) **SmarterSurveys™** - automated data collection survey system, (3) **SmarterFaculty™** - searchable database of thousands of faculty who want to teach online, and  
(4) **SmarterProctors™** - searchable database of neutral proctors to administer high stakes exams. Our mission is to organize and analyze data that empowers people to make smarter decisions. We help you obtain data about your students, faculty, teachers, employees, and courses. Data-driven decisions create strong strategic plans, maximize efficiency, and foster an environment of learning - learning from our mistakes, learning about best practices, and learning how to do things better. Learn more at SmarterServices.com.



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