Student Self-Assessment: Guiding Online Learners to Become Better Prepared

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Student Self-Assessment: Guiding Online Learners to Become Better Prepared

- Ways of Helping Online Students to Get Ready

- Implementation of Student Self-Assessment

- Data Analyses and Finding

- Integration of the Finding to Improve Support

How well students do?
Online vs. On-Ground

Spring 2007			
Grades	**Online**	**On-Ground**	**Differences**
A	**33.8%**	**28.9%**	**4.9%**
B	**21.6%**	**24.3%**	**-2.8%**
C	**10.4%**	**16.5%**	**-6.1%**
D	**2.8%**	**4.5%**	**-1.7%**
Failed (F, W, N)	**31.5%**	**24.5%**	**7.0%**

Grades: Online vs. On-Ground

- **Grade Differences in Percentage: Online vs. On-Ground**

Differences	Sp'07	Sum '07	Fall '07	Sp '08	Sum '08	Fall '08
A	4.9	-5.7	7.7	3.5	-4.6	8.7
B	-2.8	-11.2	-4.82	-1.7	5.2	-7.9
C	-6.1	2.8	-4.9	0.7	5.1	-5
D	-1.7	1.3	-2.1	-0.2	3.53	2.8
Failed (W, N, F)	7.0	13.0	6.9	6.4	9.9	9.3

- 6% - 13% more students failed in online courses than those in on-ground.
- What can we do to help?

Helping Online Students to Get Ready

Fall 2005 →

On-Campus orientation - first week of an online semester
Online Orientation - Blackboard Vista Tutorials
One-on-one assistance from distance learning staff
Advising – What online courses look like?
Distance Learning web site, information package

→ Fall 2008 →

Focused on the **technical aspect** of online learning.
-- Advising: What online courses look like?
-- Orientation: How to use basic tools in online learning?

•Consistent poor performance for online learners
• 6%-13% more students failed in online courses than in on-ground courses.

Fall 2008 – Introduced SmarterMeasure test in Advising/Registration for Spring 2009 online students.

Student Self-Assessment

R☉ADI = **SmarterMeasure**
Readiness for Education At a Distance Indicator — *Learning readiness indicator*

□ A self-diagnostic tool that assesses students' likelihood for success in learning online: strengths and weaknesses

- Students take the test online at their convenience.

- 30-40 minutes to complete

- Questions/Tasks

■ **Personal attributes**: motivation, self-discipline, and time management

■ **Learning styles**: predominant learning style

■ **Technical competency**: skills and knowledge

■ **Reading comprehension:** speed and comprehension

■ **Typing:** speed and accuracy

Report of a SmarterMeasure Test
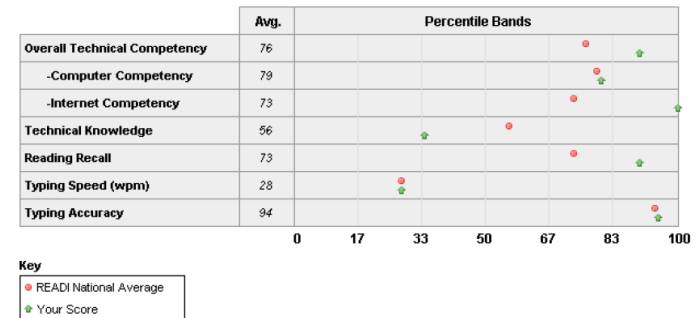
- **Summary scores**
  - Reading Comprehension
  - Technical Competency
  - Technical Knowledge
  - Personal Attributes
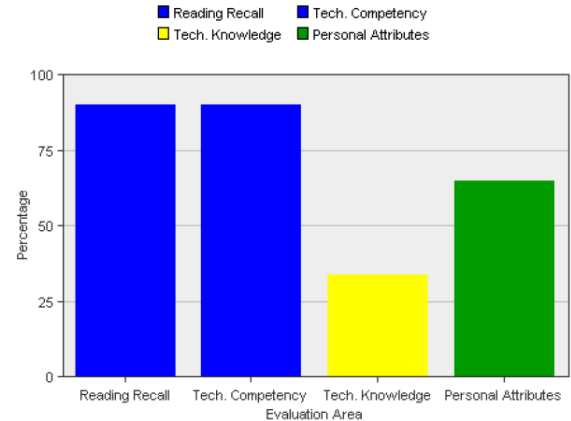
- **Comparison to national average**
  - Technical Competency
  - Technical Knowledge
  - Reading Comprehension
  - Typing Speed and Accuracy

- **Detailed breakdown scores with explanations**
- **Resources to provide help for improvement**

Legend: Reading Recall, Tech. Competency, Tech. Knowledge, Personal Attributes (bar chart, Percentage vs Evaluation Area)

COMPARISION TO READI NATIONAL AVERAGES

	Avg.	Percentile Bands
Overall Technical Competency	76	
-Computer Competency	79	
-Internet Competency	73	
Technical Knowledge	56	
Reading Recall	73	
Typing Speed (wpm)	28	
Typing Accuracy	94	

Key
- READI National Average
- Your Score

Chart: Ranges of Readiness

Section	Version	Fail	Question
Personal Information	Standard	n/a	n/a
Personal Attributes	Higher Education	(70)	(85)
Learning Styles	Higher Education	(30)	(65)
Reading Rate & Recall	10th Grade Lev	(30)	(65)
Technical Competency	Higher Education	(80)	(90)
Technical Knowledge	Higher Education	(50)	(75)
Typing Speed & Accuracy	Higher Education	(30)	(65)

(Smartermeasure.com, 2008)

Implementation Strategies

Starting in the fall of 2008 for Spring '09 students

Provided test information to advisors and counselors.
Designed a web page linked to distance learning.
Video – Online Classes – Part II
Distributed flyers on campuses.
Published an article in student newspaper.

Built into the first step of Online Orientation.
Integrated to course requirement: English, Psychology, Education
All online courses– added a web link to MxCC's SmarterMeasure web page.

Distance Learning Staff
 - Monitored test summary results.
- Sent three forms of email to students: Incomplete, Failed, Questionable
- Answered questions on how to interpret results and where to find help.

Implementation – Summary Table

Semesters	# of Students Taking SmarterMeasure	# of Online Students Taken SmarterMeasure	# of Online Students	Percentage of Online Students Taking SmarterMeasure
Spring '09	411	399	900	44.3%
Summer '09	326	364	584	62.3%
Fall '09	317	657	1043	63.0%
Spring '10	358	747	1139	65.6%
Summer '10	229	439	669	65.6%
Fall '10	301	707	1065	66.4%
Total	1942	3313	5400	61.4%

Data Analyses

- Research Question
  - Whether SmarterMeasure scores relate to students' grades in online courses?
    - Personal Attributes, Reading Comprehension, Technology Knowledge/Skills, Learning Style, and Typing Proficiency
- Correlation Study
  - Correlation between the SmarterMeasure scores and the final grades

Correlations - Spring '09 and Summer '09

Semesters	Number of Cases	Personal Attributes	Reading Comprehension	Technology Knowledge	Technology Competency	Learning Styles	Typing Proficiency
Spring '09	386	Significant at 0.01					
Summer '09	342	Significant at 0.01					

Personal Attributes
- a big player in student success

Motivation

Self-discipline

Time-management

Integration of Data Analyses to Support

Potential Online Students

Advising - emphasizing personal attributes

Our assistance is solely on technology - how to use technology, navigate the course, and troubleshoot, but it is **Student's Responsibility** to complete all assignments on time.

Registered Students: Success Tips

Online orientation – **Step 3. Achieving Success**

On-campus orientation

Email and a Note MxCC Distance Learning Facebook

Quick Reference

Continuing the implementation of student self-assessment.

Correlation Study – Six Semesters

Correlations - Yes - significant at .05 level ; Near -between .05 - .10 level
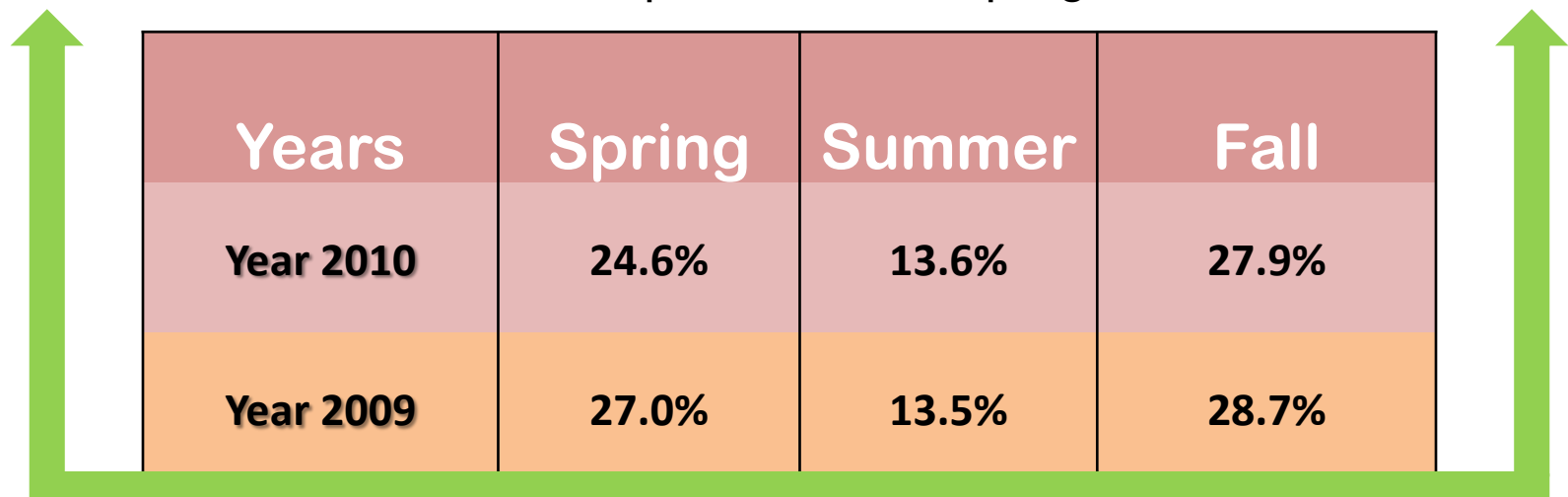
Semesters	Number of Cases	Personal Attributes	Reading Comprehension	Technology Knowledge	Technology Competency	Learning Styles	Typing Proficiency
Spring '09	386	Yes	Near = 0.07		Near - = 0.07		
Summer '09	342	Yes				Near = .007	
Fall '09	619	Yes		Yes			
Spring '10	715	Yes					
Summer '10	413						
Fall '10	678	Yes					
Overall	3228	Yes			Near = 0.08		

- **Statistically significant correlation is Personal Attributes in 3228 cases**
- **Personal Attributes** consistently play a major role in student success.
  - **Technology Knowledge/Competency, Learning Style, and Reading Comprehension** affect student success.

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%**

Grade Comparison after Implementation

Differences	Sp '09	Sum '09	Fall '09	Sp '10	Sum '10	Fall '10
A	6.9	-2.1	12.3	5.1	3.7	9.1
B	-3.6	-4.8	-7.2	-3.0	3.0	-4.3
C	-15.1	2.5	-5.3	-2.7	-5.9	-7.0
D	-1.4	2	-3	-0.2	-1.82	1.3
Failed	3.7	3.1	4.9	2.5	1.34	5.8

After SmarterMeasure was implemented, 3% - 5% more students failed in online courses than in on-ground courses. Fewer online students failed when SmarterMeasure was implemented.

Differences	Sp'07	Sum '07	Fall '07	Sp '08	Sum '08	Fall '08
A	4.9	-5.7	7.7	3.5	-4.6	8.7
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What is Next?

Find ways to help more students.
--- 3% - 5% more students failed in online courses than in on-ground courses.

- Personal attributes is a big player in online success
  - Highly emphasize personal attributes in advising and orientation
  - Rewrite Success tips: Study Strategies and Technical tips
- Identify online courses with high failing rates and look into the possible reasons: design, teaching, student readiness.
- Reading comprehension affects student grade (McNulty, 2010)
  - Assist poor readers who take online courses
    - Tutorials on how to interpret test results.
    - Online Orientation
      - Text-based -> a human-like tutorial – screen captures, voices, interactive – self-test
    - Course Design
      - Develop more presentations with professor's voice in online courses.

Special Thanks

Terry McNulty

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Sandra Couture

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