Identifying and Remediating At-Risk Attributes of Online MAT1033 Learners at Broward College Using eMathReady™

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BROWARD COLLEGE Online
Florida's Global Campus

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Summary

- What: A project in Online MAT1033-Intermediate Algebra
- How: Identify at-risk students & provide necessary scaffolds to address gaps in skills deemed necessary for success online using eMathReady™
- Why: Assess students' likelihood for succeeding in an online course & provide strategies for remediation of attributes, skills, and knowledge that contribute to success as an online learner
- When: Implementation began in summer semester due to delays with procurement and other bureaucratic issues
- What Else: Project continues through fall semester and hopefully longer

Background

- Many factors affecting student retention & success online
- Three broad factors identified to have a major role:
  - (i) course design related issues
  - (ii) delivery related issues
  - (iii) student related issues
- Last set of factors includes myriads of attributes and characteristics (e.g. financial status, life stability, time management, engagement, test anxiety, etc.)
- Many theories developed on factors contributing to student attrition, persistence, and success
- Not every factor can be addressed by an institution
- Factors related to self-regulatory skills = the most important factors contributing to student success
- Adult learners = more likely to enroll in online courses
- Empirical evidence does **not** agree with the expectation that adult learners have increased levels of self-confidence, self-motivation, and self-reliance, regardless of the level of readiness
- Expected skills contributing to online learners' success **are** lacking and go **un-remediated** prior to or during enrolment in online courses
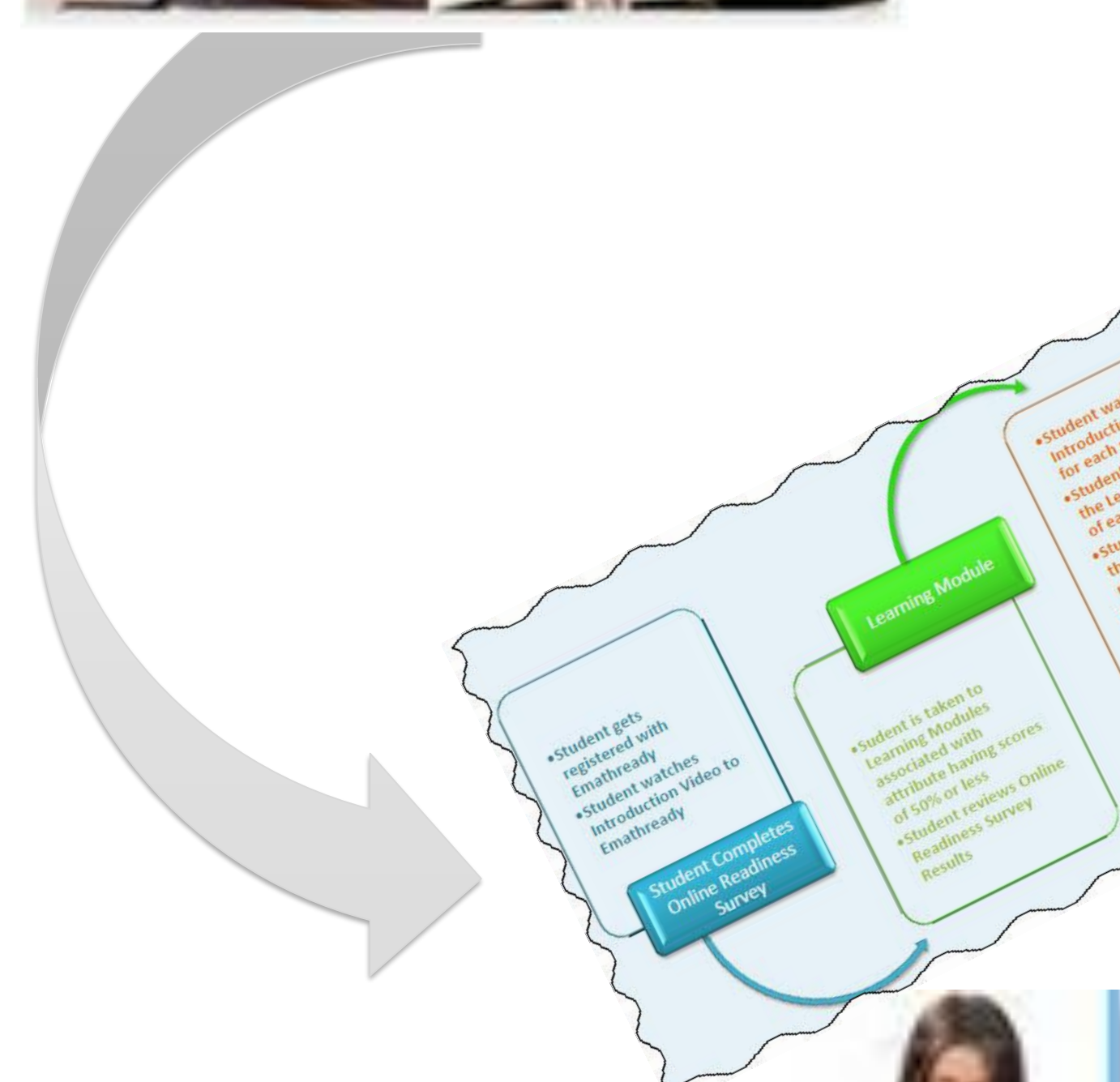
Project Overview

- Important to provide prospective online students the means to assess their level of readiness to learn in an online environment
- **eMathReady**: personalized online learner support platform, providing an indication of the degree to which a student possesses the attributes, skills, and knowledge that contribute to success as an online learner
- Provides personalized assessment and remediation on whether a student planning on taking or currently taking an online course:
  - ✓ is an independent or dependent learner
  - ✓ has good computer skills
  - ✓ is able to structure learning online to match own learning style
  - ✓ is able to master math competencies in a set time period
  - ✓ has good organizational & time management skills
  - ✓ has necessary math study skills
  - ✓ has low math anxiety & not fearful of taking math tests
- eMathReady™ platform employed as a **mandatory orientation activity**

Preliminary Results

- Effectiveness evaluated using a summative data collection and statistical analysis of retention rates and final course performance of students involved in this project as compared to the average retention rates and final course performance of previously offered MAT1033 courses
- Results currently only include summer term implementation and thus are considered preliminary with possible confounding variables present

- Average retention rate of eMathReady group: **96%** ✓
- 4-year fall semester average retention rate for BC: **89%** ✓
- Average success (A, B, C) proportion of eMathReady group: **75%** ✓
- 4-year fall semester average success rate for BC: **53%** ✗
- Average successful completion rate of eMathReady group: **78%** ✓