

Registry of Efficacy and Effectiveness Studies

Study Title:

Ascendium Multiple Measures Assessment Project

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Section I: General Study Information

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Ascendium

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2016-10-02

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2021-03-31

Intervention Start Date:

2018-01-01

Timing of entry:

Prior to analysis of outcome data

Brief Abstract:**Project Background**

Many colleges use the results of a test to refer students either to college-level courses or to non-credit “remedial” courses prior to taking college-level courses. College students who are referred to developmental (remedial) education are substantially less likely to graduate than students who place into college-level courses. Large-scale studies indicate that these test scores “misplace” substantial numbers of students — in other words, for many students, the test score does not accurately reflect their ability to succeed in college-level courses. One strategy to improve placement accuracy that is gaining momentum across the country is using multiple measures to determine placement, instead of a single test score.

Intervention Description

MDRC, in partnership with the Community College Research Center (CCRC), is testing the use of multiple measures for assessment and referral in two-year colleges. In Phase I of the Multiple Measures Assessment Project, launched in fall 2016, MDRC provided technical assistance to ten colleges in Minnesota and Wisconsin to develop and pilot new referral systems using multiple measures. These integrated high school grade point averages and noncognitive assessments (which measure behaviors and attitudes) into the existing test-based placement rules. Phase II of the project, which began in fall 2017, is a randomized controlled trial at five colleges, comparing students’ outcomes under the new multiple measures system with outcomes under the traditional test-only system. The Multiple Measures Assessment Project is funded by Ascendium.

Theory of Change

Among students placing into developmental courses in each subject, some would be as likely or more likely to succeed in the first college-level course had they been placed directly into that course. Using additional predictors of success besides the placement test, such as HS GPA, those students most likely to pass the first college-level course if placed directly into it can be selected from the pool of students that the test would have placed into developmental courses. Those students are placed into the first college-level course, where they should have higher success rates than they would have taking developmental courses. This may translate into higher success rates in college generally, including completion.

Keywords:

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Comments:

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Section II starts on the next page.

Section II: Description of Study

Type of Intervention:

Policy

Topic Area of Intervention:

Postsecondary and Adult Education

Number of intervention arms:

1

Target school level:

13-16

Target school type:

Suburban, Urban

Location of Implementation:

United States: United States : Midwest

Further description of location:

Minnesota and Wisconsin

Brief Description of Intervention Condition:

High school grade point averages and noncognitive assessments (which measure behaviors and attitudes) are used in decision rules along with the existing test-based placement scores to determine developmental or college course placement.

Brief Description of Comparison Condition:

Placement is based on traditional placement tests and standardized tests.

Comparison condition:

Business-as-usual

Comments:

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Section III: Research Questions

Confirmatory research questions:

Question 1:

What is the effect of placing students who meet multiple measures criteria in a subject into the college-level course, compared with placing them into a developmental course as indicated by status-quo placement test cutoffs, on completion of first college-level course (C or higher) within three semesters in English?

Question 2:

What is the effect of placing students who meet multiple measures criteria in a subject into the college-level course, compared with placing them into a developmental course as indicated by status-quo placement test cutoffs, on completion of first college-level course (C or higher) within three semesters in math?

Question 3:

What is the effect of placing students who meet multiple measures criteria in a subject into the college-level course, compared with placing them into a developmental course as indicated by status-quo placement test cutoffs, on cumulative college-level credit accumulation within three semesters?

Exploratory research questions:**Question 1:**

See upload.

Comments:

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Section IV-A: Study Design (Selection)**Study Design:**

Randomized Trial (RT)

Comments:

-

Section IV-B: Study Design (Input)***Study Design: Input*****Unit of random assignment of intervention:**

Student

Assignment within sites or blocks:

Yes

Define the sites or blocks:

School

Probability of assignment to treatment the same across sites or blocks:

No

Probability of assignment to treatment:

Most colleges chose 70/30 treatment ratio, others 50/50.

Unit outcome data measured:

Student

Intermediate clusters between unit of random assignment and unit of measurement:

No

Comments:

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Design Classification

Based on the responses above, this study has been classified as:

RT: Multisite (Blocked)

Section V: Sample Characteristics

Approximate number of students in the comparison condition within each school: 1000

Approximate number of students in the intervention condition within each school: 2000

Number of schools: 5

Yes - Students required to go through placement testing. Yes - At most colleges, ESL and dual enrollment students were excluded. No No

Comments:

The analysis sample will be limited to a subgroup of the randomized sample: those whose multiple measures would qualify them for being bumped from developmental to college level courses in English and math.

Section VI: Outcomes (Input)

Confirmatory question 1: Outcome Measure 1

Outcome domain: Student Achievement - Literacy

Minimum detectable effect size: 0.11

Outcome measure: Completion of first college-level English course (C or higher) within three semesters

Scale of outcome measure: Binary

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 2: Outcome Measure 1

Outcome domain: Student Achievement - Mathematics

Minimum detectable effect size: 0.11

Outcome measure: Completion of first college-level math course (C or higher) within three semesters

Scale of outcome measure: Binary

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 3: Outcome Measure 1

Outcome domain: Student Progress/Completion - credit accumulation

Minimum detectable effect size: 0.11

Outcome measure: Cumulative college-level credit accumulation within three semesters

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Section VII: Analysis Plan

Baseline data collected prior to start of intervention:

Yes

Description of baseline data:

Placement test scores, HS GPA, non-cognitive assessment scores, demographics

Covariates you plan to include in the model:

Placement test scores, HS GPA, non-cognitive assessment scores

Analytic model:

See one-pager upload.

Plan to handle cases with missing outcome data:

College transcript data (for the outcomes) will be available from the participating colleges for all students. Anyone missing transcript data will be imputed to zero on all outcome variables. HS GPA data (a covariate) will be missing for many students but because it is captured at baseline, there should be no differential missingness across research groups. A missing indicator variable will be used in the regression for that, and additional missing indicators will be used as needed for non-cognitive assessments.

Comments:

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Section VIII: Additional Information

Links:

No links have been added yet.

Files:

File Name: [Ascendium MMA Analysis Plan OnePager.docx](#)

Description:

File Name: [Ascendium Multiple Measures Assessment Project Analysis Plan.docx](#)

Description:

Comments:

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