

Overview of Multiple Measures Assessment (MMA) and Placement

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Agenda

Building your Knowledge of MMA → Making the Case for MMA

- What is MMA?
- What does the research say about MMA?

Examples of Placement Systems

Planning your MMA System

MMA Toolkit + Resources

An Introduction to MMA



Colleges have traditionally used standardized tests to place students into courses

- Students arrive at college with **different levels** of academic preparation.
- Tests provide a **simple** and **efficient** way to place students into developmental or college-level courses.
- Typical tests include:
 - Accuplacer and Compass
 - SAT and ACT
 - Homegrown tests

Placement tests are poor predictors of college readiness

- Research shows that placement test systems put **many students** into developmental courses who **could succeed** in college-level courses.
- Tests may **reinforce** cultural and racial **biases**.
- Test content may **not align** with what students need to know for their majors or careers.

To improve placement, colleges are increasingly using MMA

- These colleges are considering several indicators of students' readiness for college-level math and English, such as:
 - High school GPA
 - Standardized placement tests
 - Background questions
 - Course-taking history
 - Other assessments
- The goal of MMA is to **expand access to college-level courses** by giving students **several ways** to demonstrate college readiness.

Placement reforms are one part of a larger developmental education (DE) reform movement

- Traditional prerequisite approaches to DE **delay enrollment** in college-level courses, **lengthen time** to degree, and **add** to college **costs**.
- These negative effects **disproportionately** affect Black, Latinx, and low-income students.
- States and colleges are implementing **corequisite support** courses to replace prerequisite courses, **revising** math and English **curricula**, and taking other steps to reform DE.

Many colleges are introducing MMA and other reforms at the same time

- MMA is **compatible** with other DE reforms, such as **corequisite** courses and math pathways.
- In colleges that have eliminated prerequisite developmental courses, MMA can be used to place students into college-level courses **with or without** corequisite support.

Research on MMA

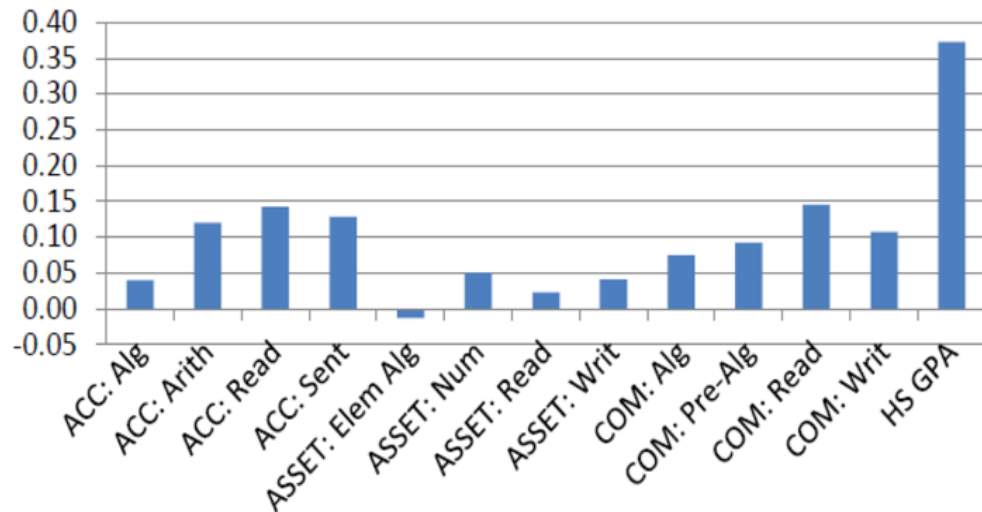


High school GPA is the most predictive placement measure

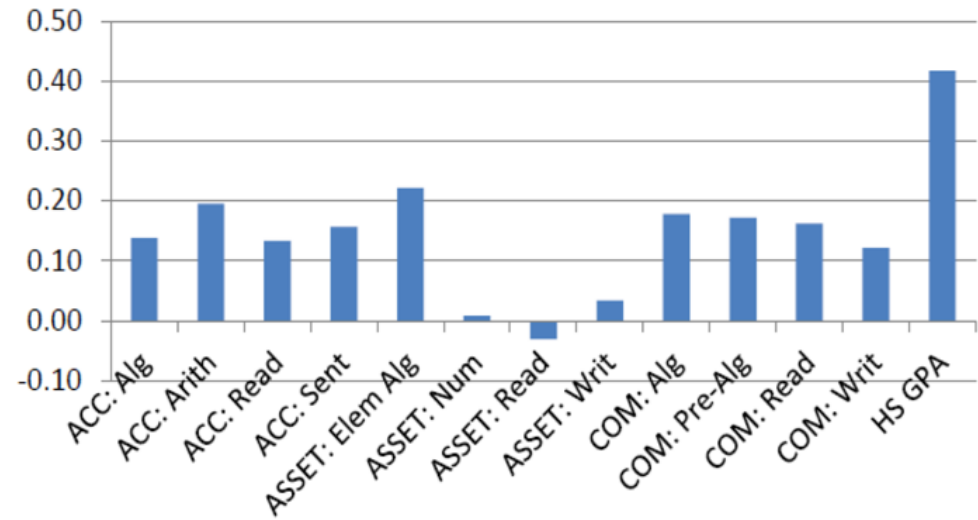
- High school GPA has **much more predictive power** than any standardized placement test scores.
- Research shows that its predictive power **holds up** for several years after high school graduation and across high schools.
- 11th-grade GPA and self-reported high school GPA are **nearly as predictive** as final high school GPA and are more easily available.
- Combining additional measures with GPA can **marginally improve** predictive power, but a **simple placement system** can even use high school **GPA alone**.

High school GPA is more predictive than standardized placement tests

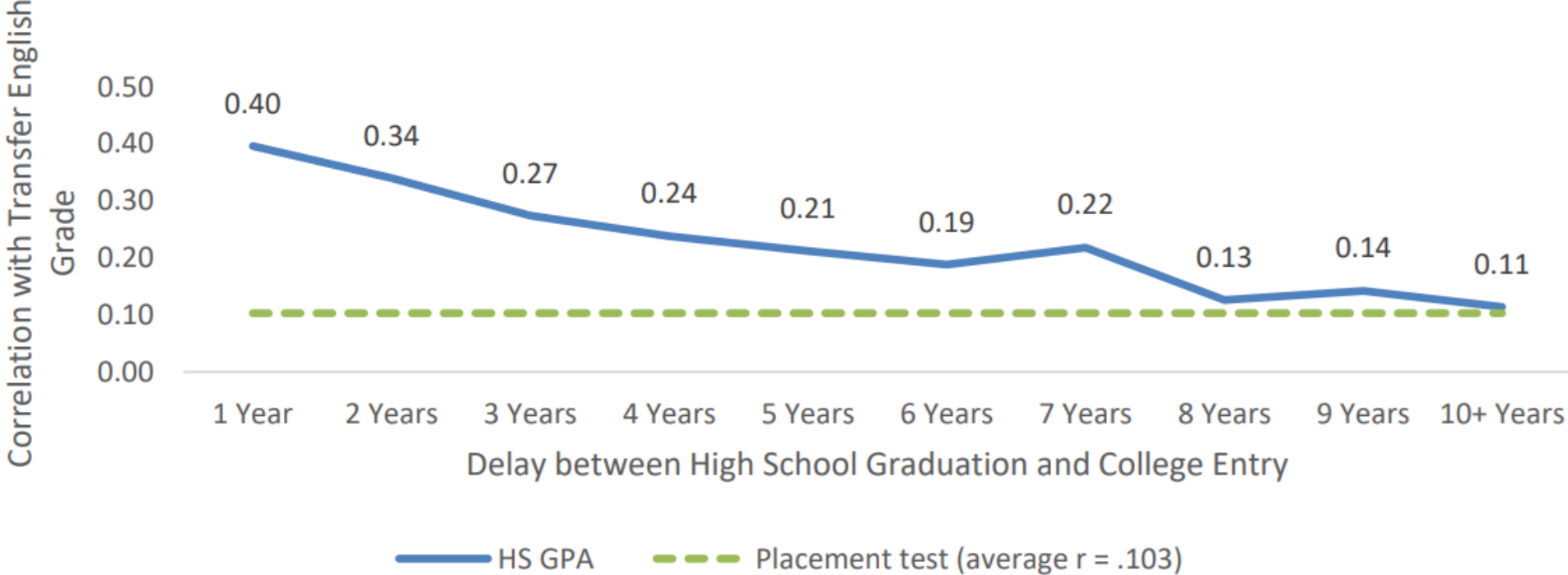
ENG110/111 Grades: Correlation Coefficients



MAT141-171 Grades: Correlation Coefficients

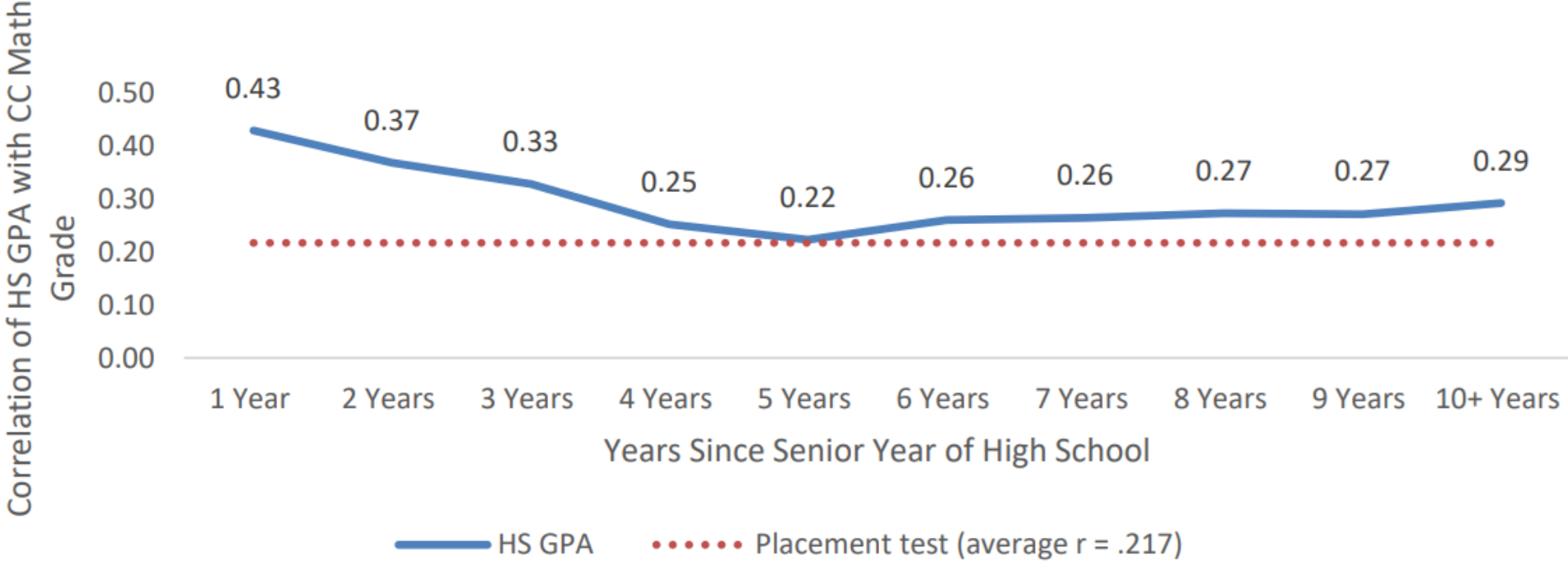


High school GPA is a better predictor than test results for a long time: English



Source: [Hayward, 2020](#)

High school GPA is a better predictor than test results for a long time: Math



Source: [Hayward, 2020](#)

Do differences in grading across high schools impact the reliability of high school GPA?

- Using data from North Carolina, researchers compared the difference between students' average college GPA and their average high school GPA for students from **different high schools**.
- Relative to students' high school GPA, students' college GPAs decreased by about the same average amount **regardless** of where students attended high school.
- These results suggest that differences across high schools **should not** be a major cause for **concern** when using high school GPA as a predictor of success in college-level English and math.

**What happens
when MMA
changes
student
placements?**

Recent CAPR research on MMA: Study 1

- One CAPR study used a **randomized controlled trial (RCT)** to examine an **algorithm-based** placement system at 7 community colleges in the State University of New York (SUNY) system.
- The measures in the algorithm included:
 - Placement test scores
 - High school GPA
 - Years since high school graduation
- Students could be **bumped up** from developmental to college-level courses or **bumped down** from college-level to developmental courses. Many students' placements stayed the same.

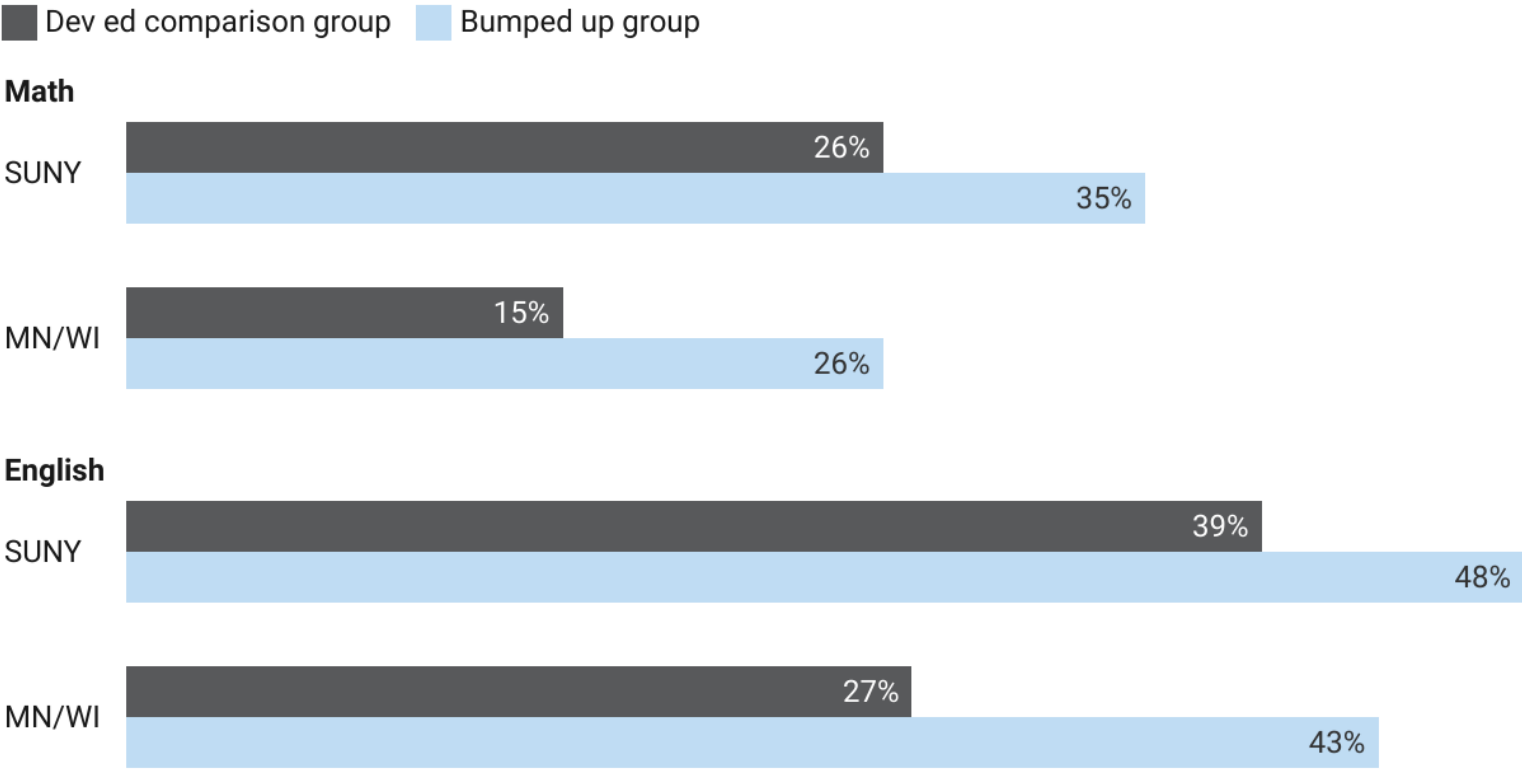
Recent CAPR research on MMA: Study 2

- A second study looked at simpler systems of **decision rules** at community colleges in **Minnesota** and **Wisconsin**.
- In the decision-rule systems, colleges considered:
 - Placement test scores
 - High School GPA
 - LASSI or Grit scores
- Students who missed the cutoff for college-level courses on a placement test could **qualify** based on **other measures**.
- No students were **bumped down** in Minnesota and Wisconsin.

Increasing access to college-level courses using MMA improves outcomes

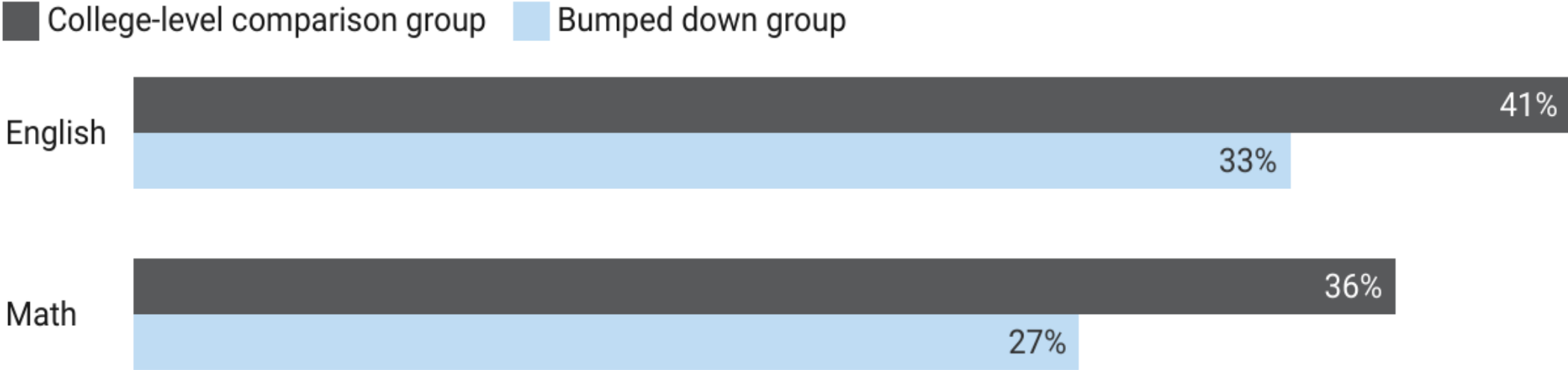
- Students in both studies who were **bumped up** from developmental to college-level courses were about **10 percentage points** more likely to complete college-level courses after three semesters than similar students in the control group who were not bumped up.
- SUNY students bumped down from college-level to developmental courses were **less likely** to complete college-level courses.

College-level course completion rates for students bumped up via MMA compared with similar students placed in DE



Note: Results from three semesters after placement. Source: [Lessons From Two Experimental Studies of Multiple Measures Assessment](#)

College-level course completion rates decreased for SUNY students bumped down to developmental courses



Source: [Who Should Take College-Level Courses? Impact Findings From an Evaluation of a Multiple Measures Assessment Strategy](#)

MMA can improve equity – Examples from SUNY

English

- Female, Pell-recipient, and Black students were more likely to **complete** a college-level English course.

Math

- Female students were the only subgroup to experience sustained, statistically significant **gains** in completion of college-level math.

Other Outcomes

- All subgroups experienced an increase in total **college-level credits** earned, though the duration of those statistically significant impacts varied.

Recommendations based on the research

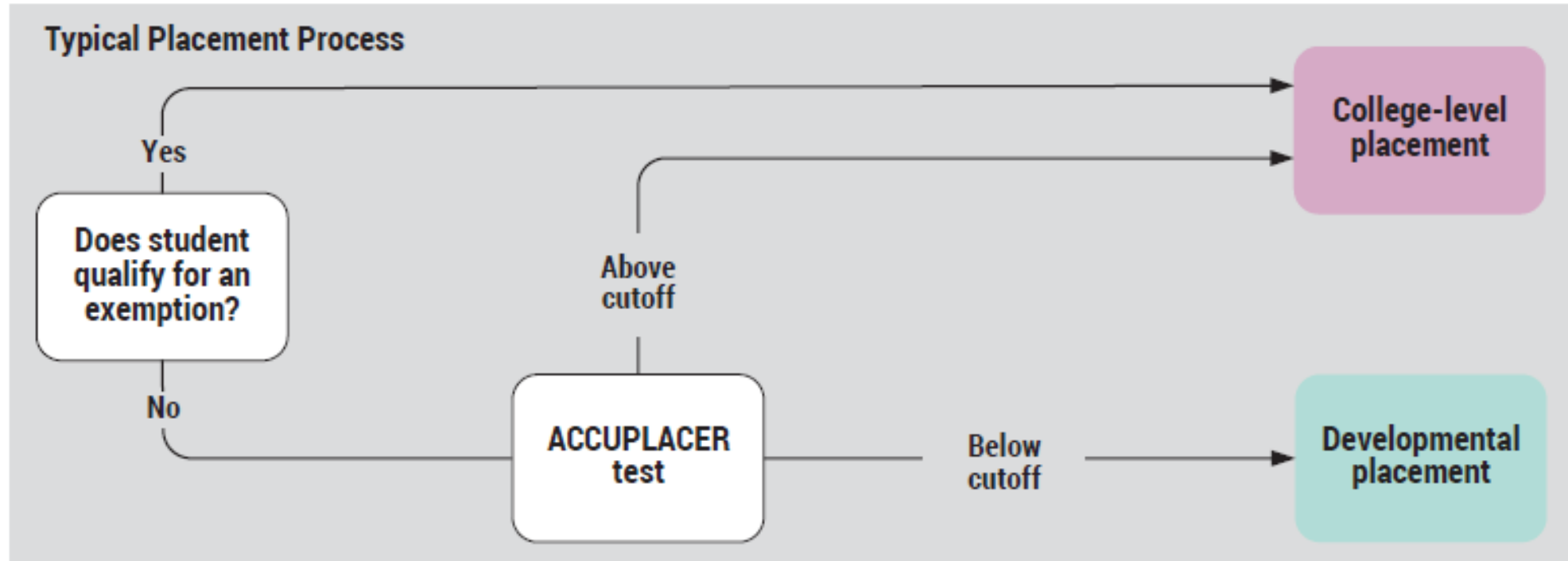
Create an MMA system that:

- **bumps** many **students up** from developmental courses to college-level courses and **avoids bumping** students **down**.
- emphasizes **high school GPA** and other transcript information, allowing the use of widely available measures such as self-reported high school GPA.
- is relatively **simple** to implement, with decision rules based on cutoffs on a few measures.

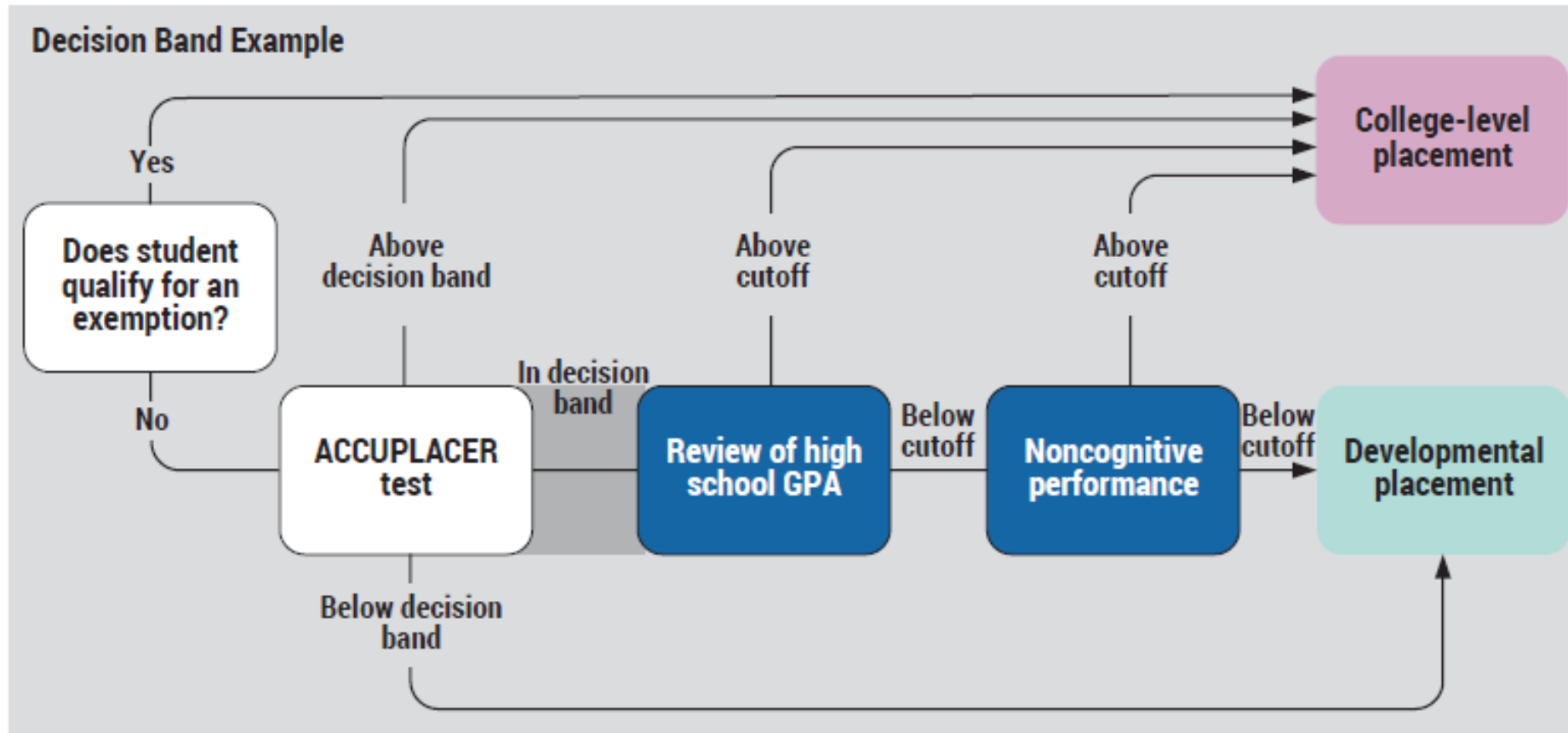
Examples of Placement Systems



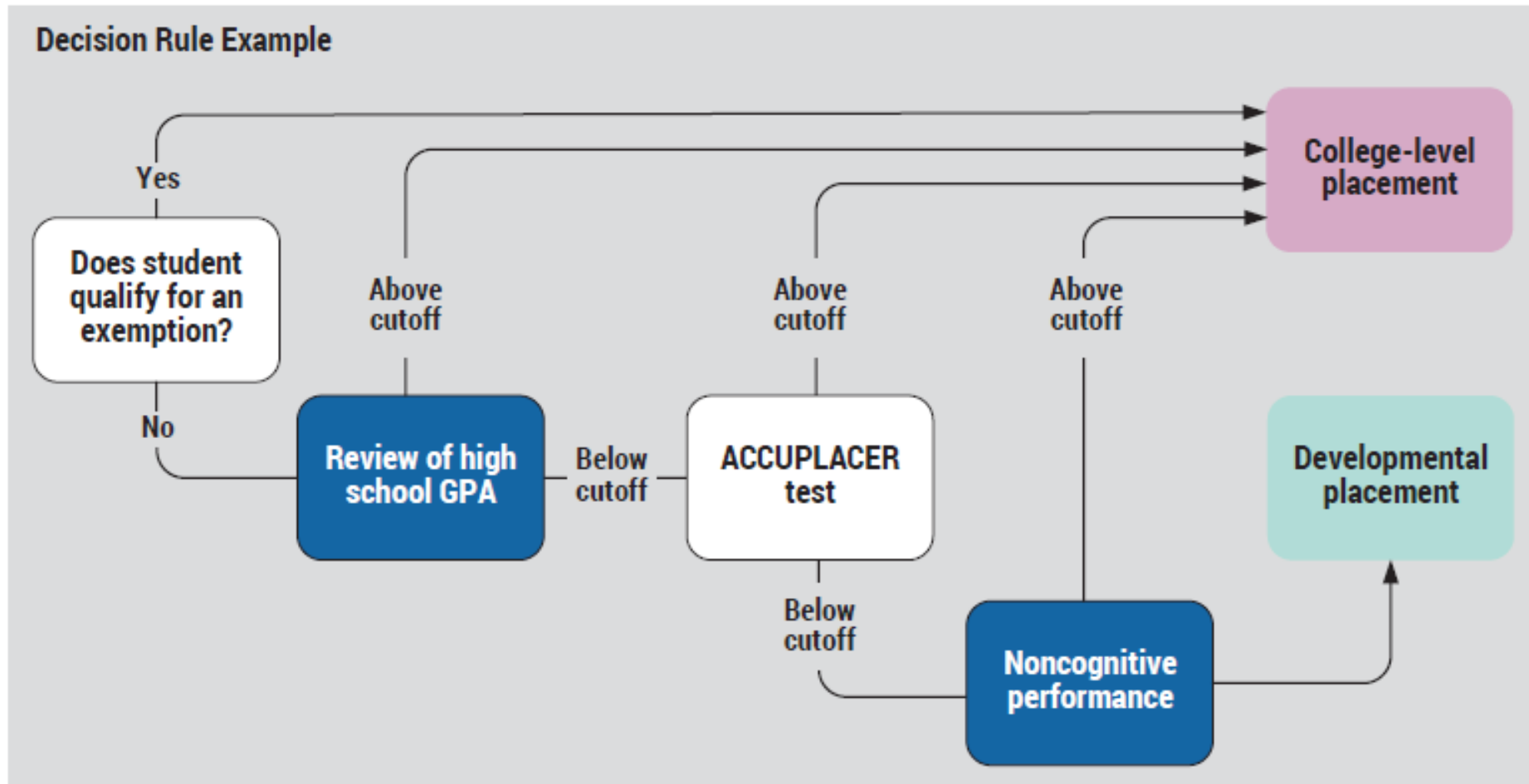
Examples of Placement Systems



Examples of Placement Systems



Examples of Placement Systems



Planning your MMA System

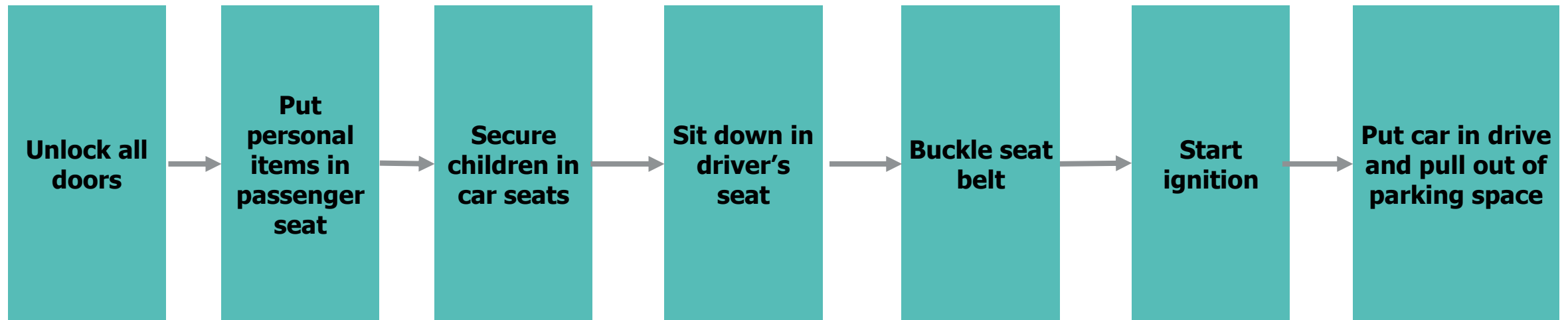


Recommendations based on the research

- Plan to implement MMA on your campus **by role**.
- Understand how to **use process maps to visualize** how your placement process will look once MMA is implemented
 - For students
 - For staff in different roles
- Identify how the **post-implementation process will be different** from your current process.

What is a process map?

A process map is a **visual representation** of a procedure or activity that lists each step from start to finish.



Why Create a Process Map?

A Process Map:

- **Displays** the entire process.
- Lays out the activities in a given process as a **sequence of events**.
- Incorporates **different perspectives** of people who engage in the process (e.g., students, advisors, faculty, staff).

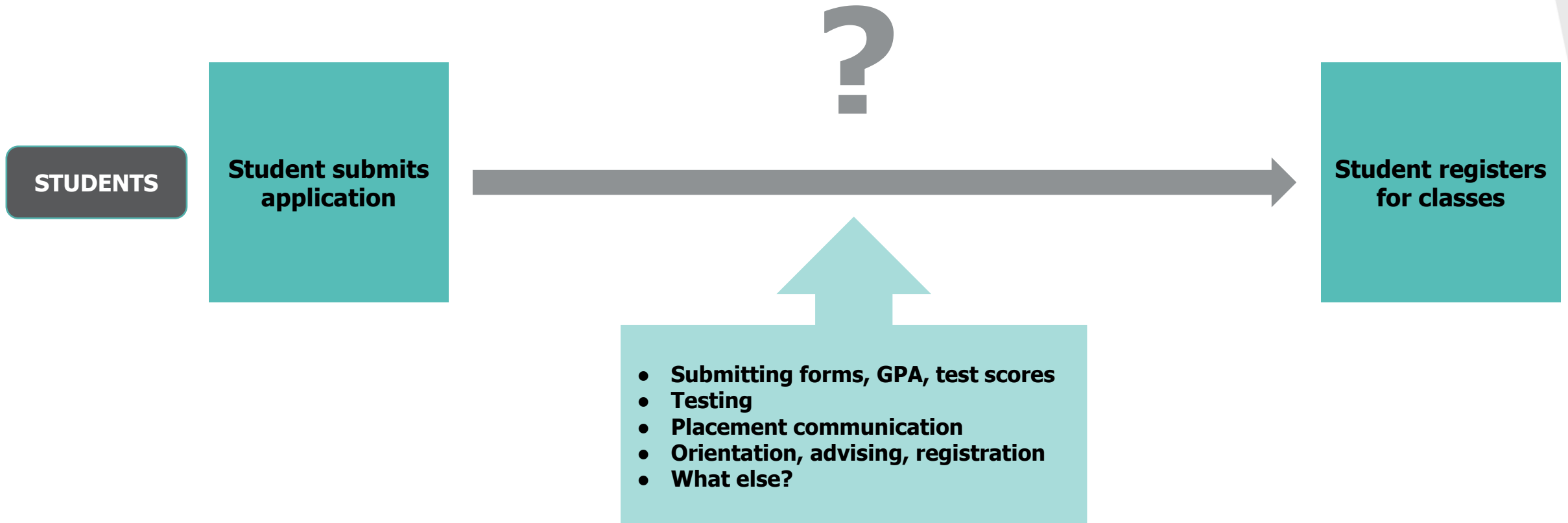
How to Create a Process Map

- **Identify the relevant processes**, or parts of a process, for your outcome of interest.
- **List** activities involved in the relevant process(es).
- Determine the **actors** and **sequence**.
- **Lay out** the full process and indicate the timing of each step.

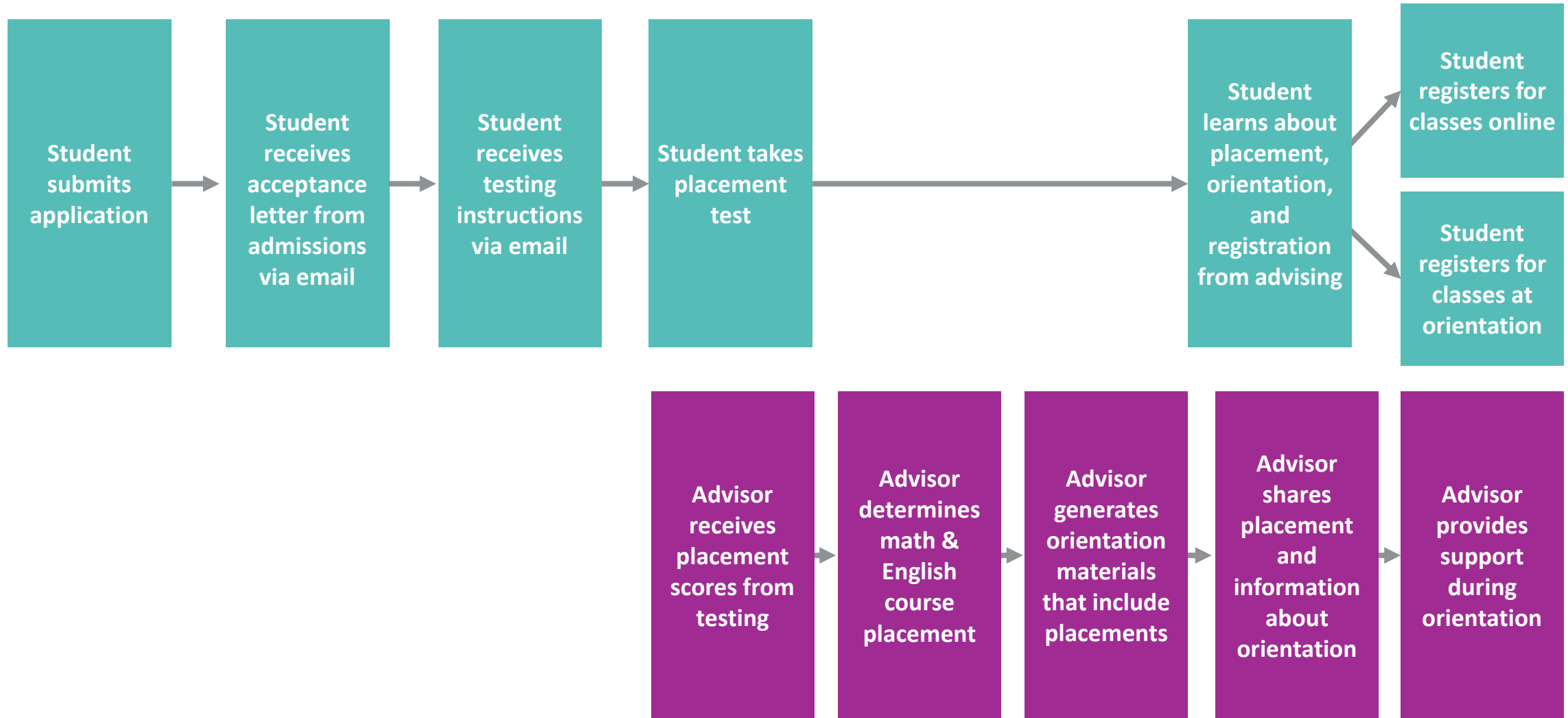
How to Use a Process Map for MMA

- **Plan** your implementation approach.
(This is a useful tool to help designers take a step back and evaluate or *re-evaluate* what your process is and what it should be.)
- **Guide discussions** about multiple measures.
- Build a **common understanding** of the process among stakeholders.
- **Identify** and **address** barriers to simplify the process.

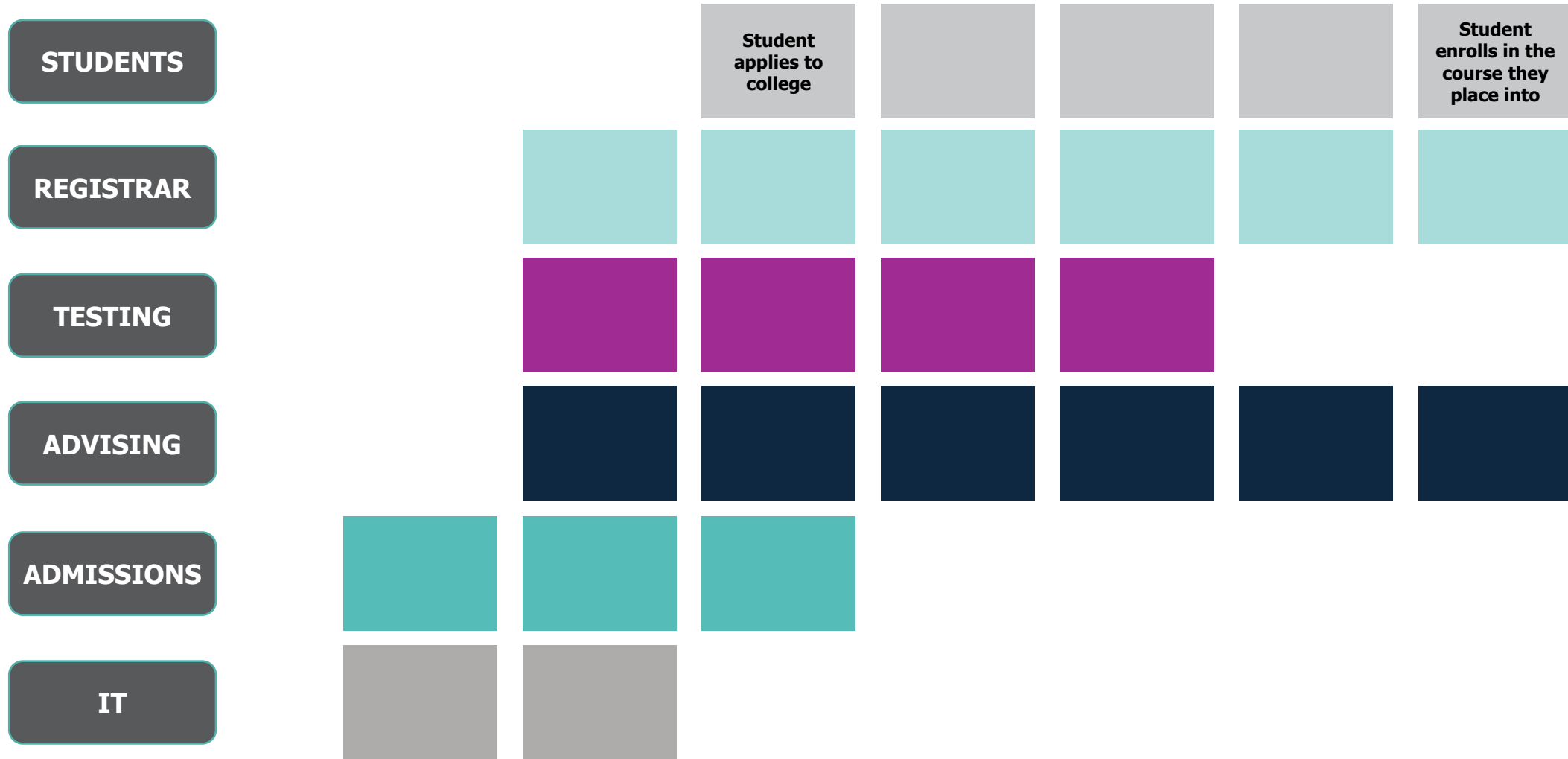
MMA implementation: Student Process



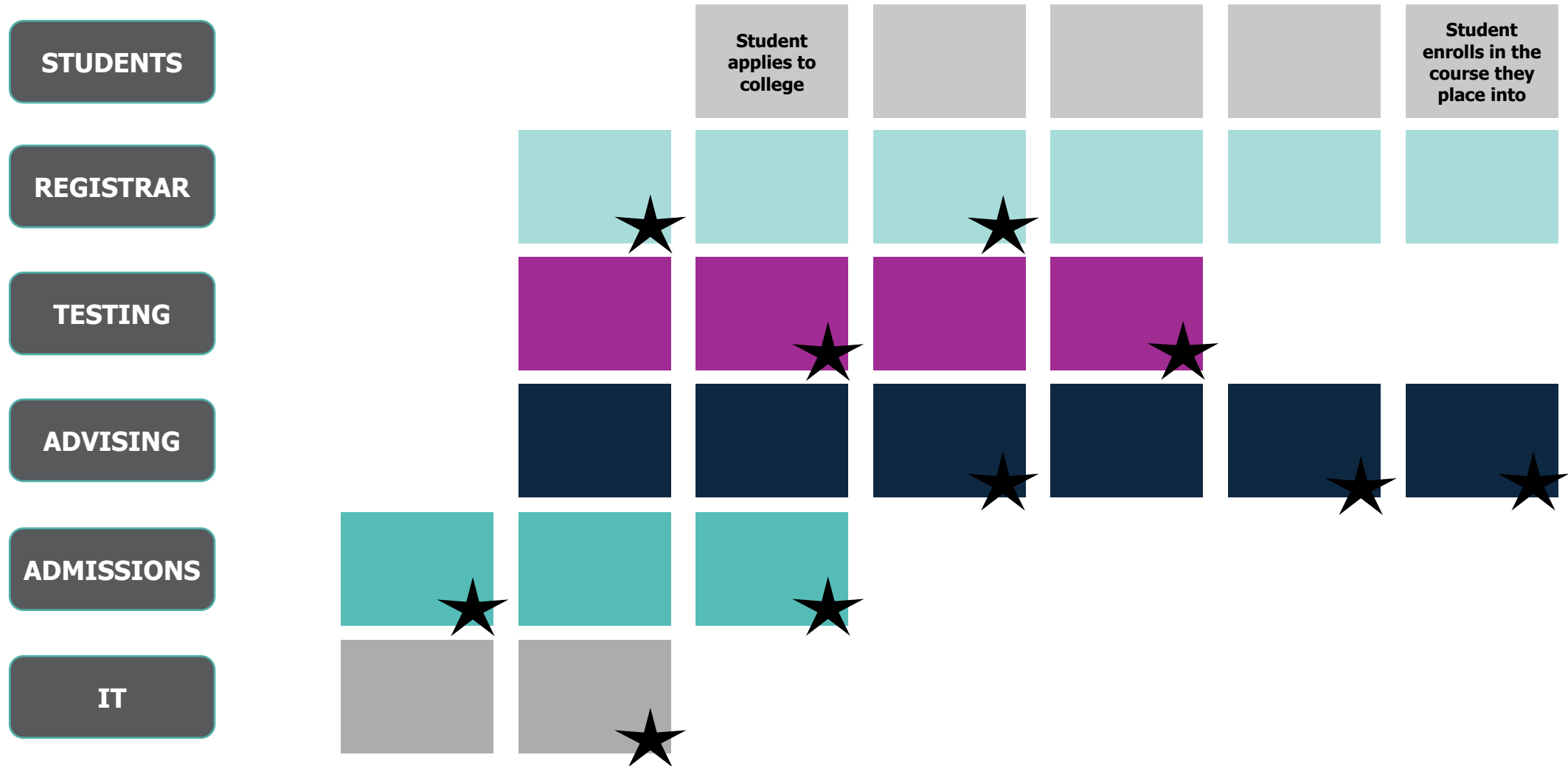
Sample process map



MMA implementation: Staff process



Using a process map to identify changes and barriers



MMA Toolkit



[Introduction](#)[1. Building Your Knowledge](#)[2. Making the Case](#)[3. Planning Your MMA System](#)[Feedback and Questions](#)

CAPR **Multiple Measures Assessment Toolkit**

Welcome to CAPR's toolkit for reforming assessment and placement at your college using multiple measures! The recommendations in this toolkit are based on rigorous studies conducted over several years that determined that multiple measures assessment and placement—or MMA—is a better model than placement based on standardized tests alone. Giving students multiple ways to demonstrate their skills helps ensure that all students who are ready for college-level math and English courses have the opportunity to take them, which can make access to college-level courses more equitable.

Tools for Making the Case for MMA



Slide Deck **Making the Case for Multiple Measures Assessment**

Slides to download, customize, and use in meetings with different constituencies at the college that will be involved in implementing multiple measures assessment.



Data Guide **What to Look for in Your Institution's Data**

A brief explainer on data that will help you make the case for MMA and understand its impact on your students and the college.



Slide Deck **Developing a Communication Strategy for Multiple Measures Assessment**

Slides to facilitate a discussion with the college's planning team on communicating the shift to MMA.



FAQs **Answers to Frequently Asked Questions (FAQs) for Faculty and Staff**

Answers to the most common questions that arise when a college decides to use Multiple Measures Assessment for course placement.

Tools for Planning your MMA System



Planning Template **Implementation Action Plan Template**

A step-by-step guide for planning the implementation of your new MMA system.



Design Guide **Designing Your MMA Placement System**

A detailed guide that explains the possible measures to include in your MMA system and various design options.



Video and Slide Deck **MMA Implementation Process Mapping**

An introduction to process mapping, a tool to think through how roles and processes will change across the college. Download the [slides](#).



Guidance Memo **Informing Students About Their Placement**

Guidance on effective student placement reports and post-assessment advising sessions.

Useful Websites

- Center for the Analysis of Postsecondary Readiness
<https://postsecondaryreadiness.org/>
- MMA Toolkit
<https://postsecondaryreadiness.org/capr-multiple-measures-assessment-toolkit/>
- Latest MMA Implementation and Cost Report
<https://postsecondaryreadiness.org/access-success-insights-implementing-multiple-measures-assessment/>
- Latest Report from SUNY MMA RCT
<https://postsecondaryreadiness.org/long-term-effects-multiple-measures-assessment/>
- Brief from SUNY MMA RCT
<https://postsecondaryreadiness.org/long-term-effects-multiple-measures-assessment/>



Thank you!

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