

SUCCESS STORY

# Transforming Math Pathways at Scale: How RCBC Improved First-Year Success Through Strategic Redesign



# Executive Summary

Rowan College at Burlington County (RCBC) faced a persistent challenge: systemic bottlenecks in developmental math sequences that delayed student progress and hindered graduation rates. Despite previous initiatives, low enrollment in college-level math and high failure rates in developmental courses persisted. By partnering with Almy Education for a “done with you” implementation, RCBC executed a strategic redesign of its math pathways, modernized placement protocols, and aligned advising structures.

This collaborative effort achieved measurable results at scale:

- **Reduced Developmental Dependency:** Enrollment in developmental math dropped from 17% to 8%.
- **Increased Access:** The percentage of students starting in college-level math rose from 51% to 73%.
- **Improved Completion:** The rate of students successfully completing college-level math within their first year rose from 33% to 39%.

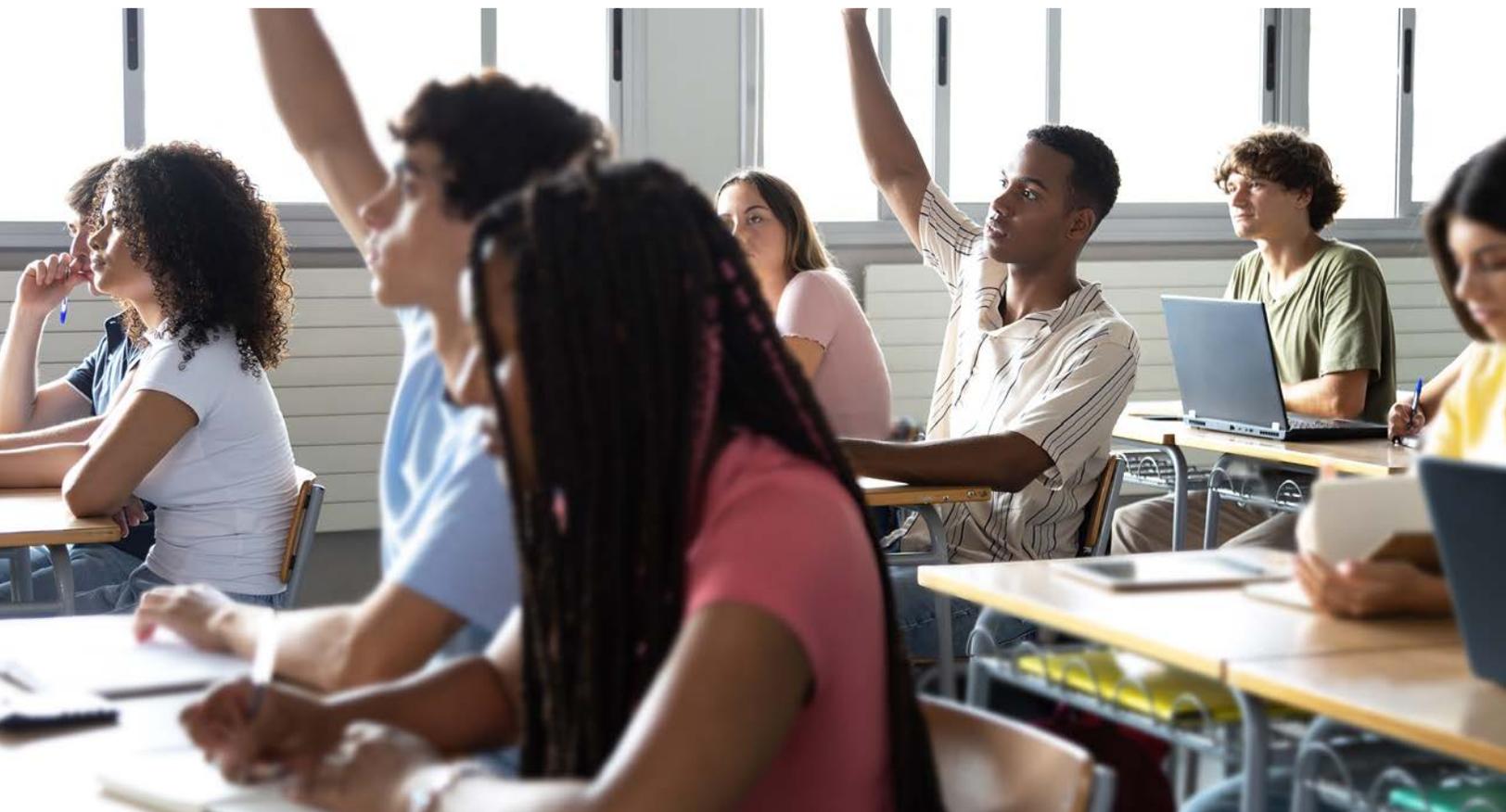


Rowan College  
at  
BURLINGTON COUNTY

# Introduction

Rowan College at Burlington County (RCBC) is a mid-sized public community college in New Jersey serving thousands of students with diverse academic goals. Like many institutions, RCBC faced a complex internal environment characterized by layered governance structures and a historical divide between academic affairs and student services.

However, under the direction of progressive leadership aligned with the Aspen Institute's student success initiatives, the college identified a critical barrier to graduation: mathematics. Data revealed that too many students were delaying math enrollment or getting stuck in prerequisite sequences that halted their progress. Recognizing that small tweaks would not suffice, RCBC sought a partner to help operationalize a large-scale transformation of their math curriculum and student support systems.



# The Problem

RCBC faced a multi-faceted challenge that was stalling student progress and impacting retention. The primary issue was that the existing math pathways were acting as a barrier rather than a gateway.

## **Students were getting “stuck” in developmental sequences.**

The college relied on a traditional prerequisite model where students had to pass developmental math before accessing credit-bearing courses. This resulted in high attrition and repeated failures. As Dr. Taziah Kenney, Associate Dean of STEM at RCBC, noted, the data was undeniable: “We had triple repeats.” Students could take up to six math courses and still not progress beyond developmental math, effectively ending their college journey before it truly began.

## **Misaligned pathways and rigid placement.**

The college operated on a “cafeteria model” where students were often defaulted into algebraic pathways regardless of their major. A humanities student might be forced into an algebra course they didn’t need, delaying their entry into a more appropriate Statistics or Modern College Math course. Furthermore, reliance on high-stakes placement testing meant capable students were frequently under-placed.

## **Cultural and structural resistance.**

Internally, the institution faced significant friction. There was a prevailing “we’ve always done it this way” mindset among some faculty and staff. Additionally, silos between academic departments and student services meant that advising and registration processes were not aligned with curricular goals. RCBC needed a solution that addressed not just the curriculum, but the institutional culture and operational systems surrounding it.

# The Solution

RCBC partnered with Almy Education to implement the proprietary **Gateway Success at Scale** framework. This engagement was not merely advisory; it was a “done with you” partnership that provided the project management and practitioner-led expertise required to navigate complex institutional politics and execute a comprehensive redesign.

The solution focused on three pillars: Culture, Systems, and Classroom.

## Culture: Building Alignment and Breaking Silos

To overcome resistance, Almy Education facilitated cross-functional collaboration, bringing math faculty, advising, registration, and academic leadership to the same table—often for the first time. This required high-volume coordination.

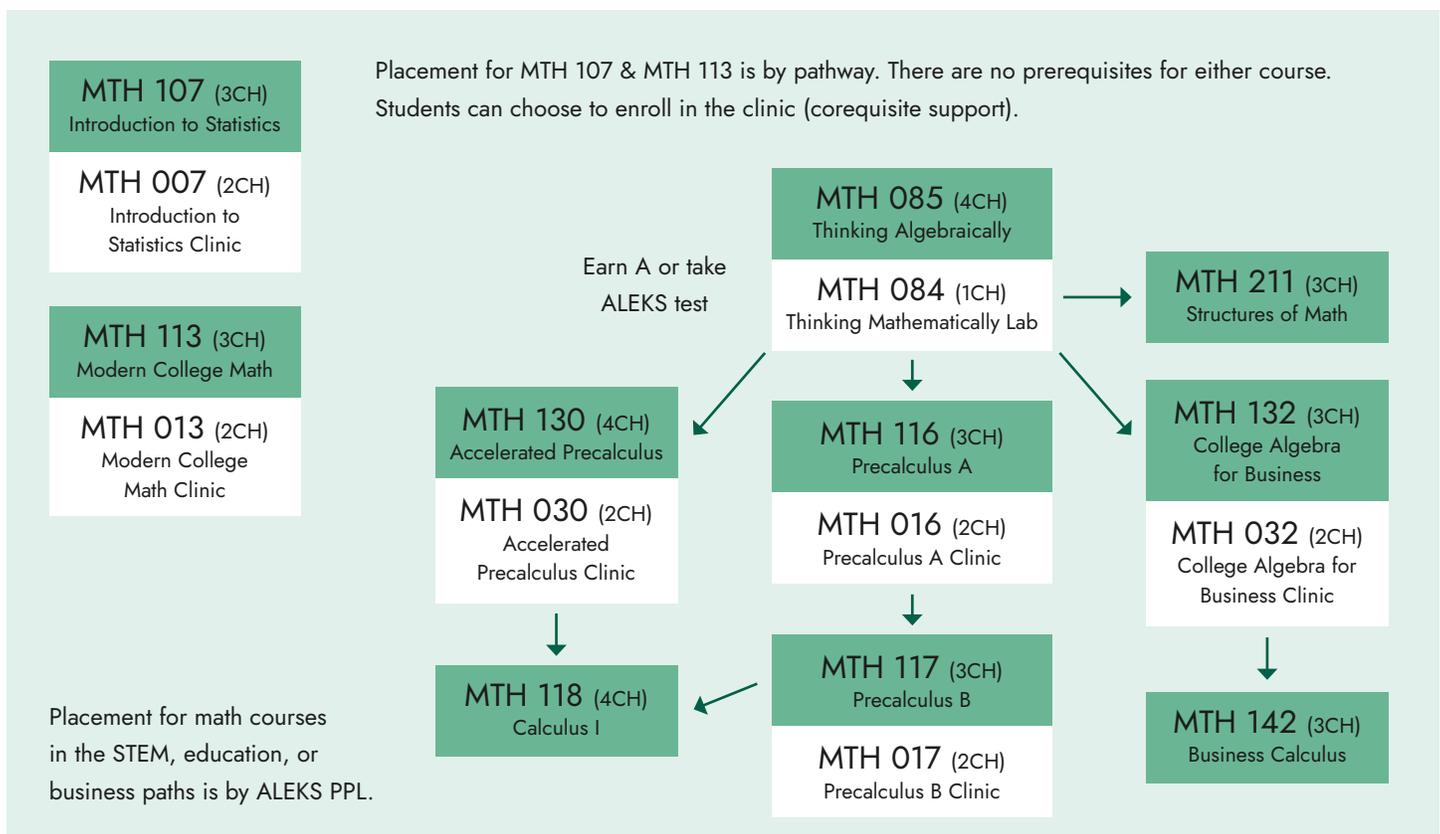
This extensive groundwork established the redesign as an institutional priority, championed visibly by the College President. Almy Education provided an external, evidence-based voice that helped move faculty from skepticism to ownership, treating the redesign as a continuous improvement process rather than a one-time mandate.

“I had a faculty member come up to me and say, ‘I had a really good meeting with Almy Education, and they showed me something that could work,’” says Dr. Kenney. “That was the moment I realized this was going to work.”

## Systems: Redesigning Pathways and Placement

The team moved away from the one-size-fits-all approach to create four distinct, program-based 100-level courses.

- **Program-Aligned Pathways:** Every academic program was reviewed to identify the specific math requirements needed, eliminating the default “algebra for everyone” approach.
- **Modernized Placement:** For non-STEM majors, RCBC implemented guided self-placement, allowing students to bypass high-stakes testing and enroll directly into college-level courses like Statistics or Modern College Math.
- **Strategic Advising:** Advising scripts and protocols were overhauled to ensure students were guided into the correct pathway immediately.



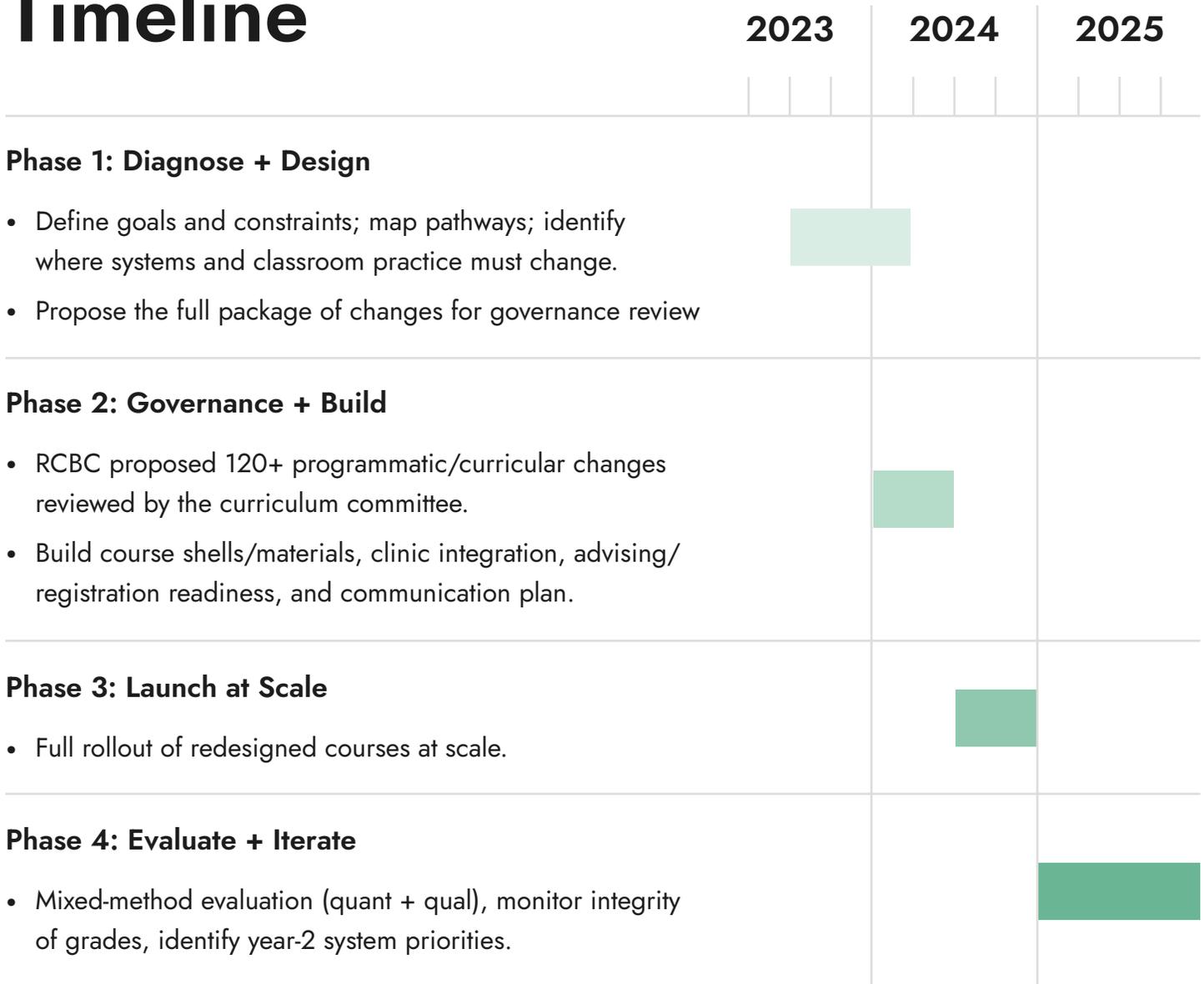
## Classroom: Corequisite Support and Active Learning

The most significant curricular change was the restructuring of “clinics”—RCBC’s version of corequisite support.

- **True Corequisite Model:** Previously, clinics functioned as separate developmental math courses with their own exams, doubling the workload for struggling students. The redesign aligned clinics directly with the parent course, ensuring their only purpose was to support success in the credit-bearing class.
- **Active Learning:** Almy provided professional development to help faculty integrate active learning strategies throughout the semester, moving away from passive lecture models to engage students more effectively.



# Implementation Timeline



# Result

By choosing to “rip off the Band-Aid” and launch the redesign at scale in Fall 2024 rather than piloting small sections, RCBC achieved immediate, quantifiable improvements in student outcomes.

## Dramatic Shift in Entry Points

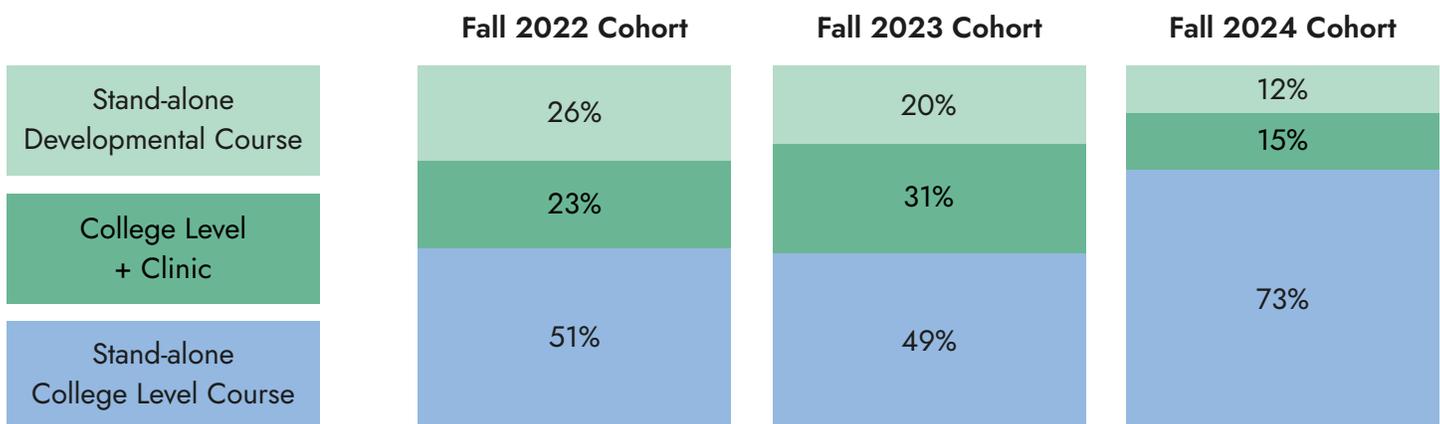
The structural changes successfully diverted students away from the “trap” of developmental math.

- Enrollment in stand-alone developmental math dropped from 17% (Fall 2022 cohort) to 8% (Fall 2024 cohort).
- Among students taking math in their first year, the share starting in college-level math rose to 73% (Fall 2024), up from approximately 49–51% in prior cohorts.

## Placement Distribution (Math Course Enrollment in First Year)

*(These data do not include students who entered with college level math credit or who did not take math in their first semester.)*

The percentage of incoming students beginning in a college level math course (with or without a clinic) increased with the implementation of reform, while the percentage beginning in a stand-alone developmental course decreased.



## Increased Success and Credit Accumulation

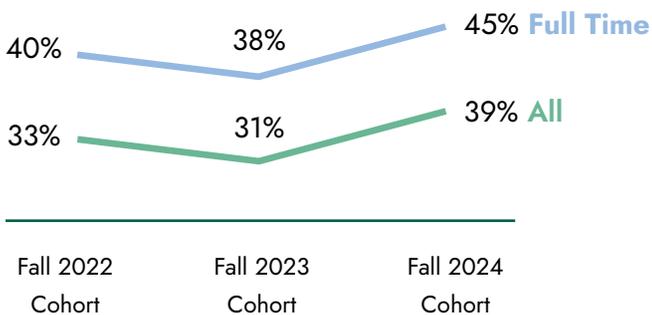
More students were not just entering college-level courses; they were passing them.

- College-level math credit earned within the first year increased to 39% for the Fall 2024 cohort, up from 31–33% in earlier cohorts.
- Pass rates in key non-STEM gateway courses saw significant growth:
  - **Intro to Statistics:** Rose from 57% to 71%.
  - **Modern College Math:** Rose from 59% to 85%.

“Students are taking math in their first year, and passing it higher than before we started the redesign.”

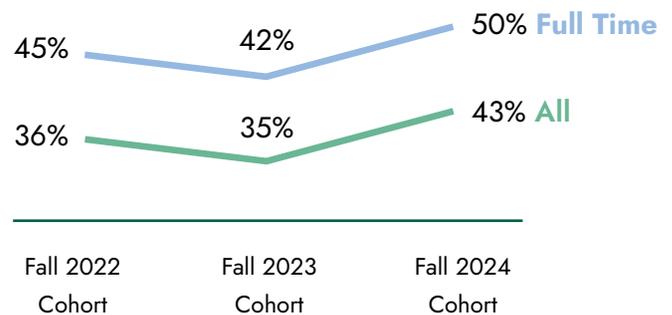
### College Math Credit within First Year

(These data do not include students who entered with college math credit.)



### College Math Credit by End of First Year

(These data include students who entered with college math credit.)



## The Value of Corequisite Support

Perhaps the most telling indicator of cultural success was the student response to the optional clinics. “Students are choosing to enroll in the clinic,” Dr. Kenney explained. Because the value was communicated effectively, students opted in for support even when not required. Academic leadership reported that approximately **80% of clinic students earned higher grades** than their peers who did not take the clinic.

As Dr. Kenney summarized the shift in student experience: “Students feel like they are in the right math class.”

# Conclusion

The partnership between RCBC and Almy Education demonstrates that large-scale reform is possible, even in institutions with complex governance and deep-seated traditions. By treating math redesign as a systemic issue involving culture, operations, and pedagogy, RCBC successfully removed barriers for their students.

“The support that you receive will make your redesign, and the changes you are trying to make, successful,” said Dr. Kenney. “This work is hard... but it’s worth it, always.”

Moving into the second year, RCBC is focused on refining the system, including implementing proctored placement for STEM pathways to ensure accuracy and further aligning developmental curriculum. The college aims for 95% of students to take math in their first year. With a foundation of culture, systems, and classroom excellence now in place, RCBC is well-positioned to reach that goal. The foundation laid in Year 1 has created a sustainable system where student success is the default outcome.

## Acknowledgement

Evaluation results provided courtesy of Coleman Evaluation based on a mixed methods approach.

**Want to see what Gateway Success at Scale could look like at your institution?** Let's compare your math entry-point and first-year completion patterns to RCBC's baseline and build a realistic execution plan.

 [almyeducation.com/getstarted](https://almyeducation.com/getstarted)

