COREQUISITES:
THE GOOD, THE BAD, 
AND THE UGLY

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Corequisites: The Good, the Bad, and the Ugly

• Let’s talk about bias briefly, on both sides of this issue
• Our own beliefs and experiences cloud our ability to take in new information, change how we view existing info, change what info we read, etc.
• These biases can be mitigated by being aware of them; then we may be able to learn new things and be open to change, again, from multiple perspectives
Corequisites: The Good, the Bad, and the Ugly

• After much research, I support Dr. Peter Adams’ original Accelerated Learning Program (ALP) from Community College of Baltimore County (CCBC); I believe it could be improved by adding more supports for remedial students

• It leads to a modest increase in gatekeeper passrates for remedial students just below cutoff

• Two CCRC research articles investigated its results

• Unfortunately, ALP is being used as the basis for the implementation of corequisite variations not supported by sound research, and it is being used as a basis for the elimination of remediation
Corequisites: The Good, the Bad, and the Ugly

• These untested reforms may be harmful for hundreds of thousands of at-risk students

• Before we discuss the variations of ALP, we must explore what ALP is first (what actually was studied)

• Then we will address the positives and the negatives of ALP according to the research (2 studies)

• Finally, we will examine the corequisite movement as a whole (2 more reputable studies to consider)
Corequisites: The Good
Corequisites: The Good

• What are corequisites (term from 2011)? What are the most important components of the ALP model?

• It is important to understand all of the components because researchers have not been able to isolate which parts affect students most.

• Here is a comprehensive list of ALP’s original components (the ones that were studied by the CCRC in 2010\textsuperscript{1} and 2012\textsuperscript{2}—all ALP results cited in this presentation come from these two studies).
Corequisites: The Good

1. ALP identified remedial writing students who were beneath college-level cutoff (qualified for ENGL052)
2. These students volunteered to be a part of ALP
3. Only 8 of them took a 3-credit college-level composition course with 12 nonremedial students
4. The 8 students also took a 3-credit “companion course”
5. Companion course was taught by same instructor, with a student-teacher ratio of 8-1
Corequisites: The Good

6. ALP instructors were mostly full-time and motivated because they chose to be a part of ALP as well

7. Companion course curriculum was not remediation per se, but double the time on task (the ENGL101 “deep version”); anything to get remedial students to learn college composition course curriculum

8. ALP instructors were normed and used a common sourcebook
Corequisites: The Good

9. ALP program and instructors had a coordinator

10. Sourcebook and curriculum were developed carefully over time, and all involved met regularly

11. Curriculum also included focus on noncognitivites (study skills, motivation, student attitudes, counseling on registration, financial aid, etc.)

12. Attempted to build a community (like a learning community) and improve social aspect of college; all with the goal of reducing attrition
Corequisites: The Good

• Clearly this was a thoughtful and well-supported intervention

• What were the key components?
  • Students volunteered to be a part of it
  • Doubled time on task in college-level course
  • Halved student-teacher ratio (current ALP 10-1) (Dr. Adams says half of results due to class size)
  • Common curriculum with motivated instructors
Corequisites: The Good

• What were the positive results?
  • With matched samples, 31.3%-point increase in remedial students passing college comp course (when compared to traditional remedial course track) (this equals about 75 to 80% increase)
  • Modest increase in percent of remedial students passing second college comp course (18.5%pt)
  • Slight increases in persistence (10.5%pt more), college courses completed (1/2 a course more), and college credits completed (1.6 credits more)
Corequisites: The Good

• The problem is that most people, upon hearing or reading these positive results, stopped hearing or reading and started to implement ALP or its variations.

• They did not continue on to read, hear, and understand the negative outcomes resulting from ALP.

• Before implementing any reform, a full cost-benefit analysis needs to be considered.

• All factors involved should be thoroughly understood.
Corequisites: The Bad
Corequisites: The Bad

- We have covered most of the positive results of ALP
- What are the negative results of ALP in particular?
  - No increase in graduation rates at all (Adams claims otherwise, but has not run stats tests)
  - In fact, all three types of completion studied showed decreases in outcomes. Two of the three were statistically insignificant, but there was a statistically significant decrease in ALP student certificate attainment rate ($-0.009\% pt^{**}$) (Cho et al., 2012, p. 20) (associate, certificate, and transfer)
Corequisites: The Bad

• More negative results
  • ALP costs double or more than traditional remediation (half the student-teacher ratio and more remedial students enroll in college comp)
  • Researchers calculate “cost per successful student”
  • This is a slight trick because the bar is changed from completion of college to completion of gateway
• Despite claims, there are no “savings”; to explain:
"[W]hen compared to the traditional model in which students take developmental English and ENGL 101 sequentially, ALP provides a substantially more cost-effective route for students to pass the ENGL 101 and 102 sequence required for an associate degree ($2,680 versus $3,122). This difference of $442 per student represents 14% less spending by the college on a cohort of ENGL 052 students. Alternatively expressed, if the college enrolls 250 ENGL 052 students each year with the objective of getting them to pass ENGL 102, it will save $40,400 using the ALP method rather than the traditional model" (Jenkins et al., 2010, p. 14).
Corequisites: The Bad

• To explain how ALP still doubles cost of remediation:
  • First, 14% reduction in amount spent to complete ENGL101 and 102 cannot be considered “substantially more cost effective”
  • Second, even if the objective is changed to passing ENGL102, the college will not “save $40,400”
  • It will still spend double the amount for no subsequent increase in graduation rates
Corequisites: The Bad

• More negative results
  • Positive results may have been due to “selection bias”: “Given that the ALP program is voluntary, it is also possible that student selection bias could be responsible for the higher success rates of ALP students” (Jenkins et al., 2010, p. 3).
Corequisites: The Bad

• More negative results

• Instructor effects may also have contributed a great deal to positive results: “[W]hen we added controls for instructor effects, we found that ALP students were less likely to be retained and to attempt college-level courses” (2010, p. 11)
Corequisites: The Bad

- More negative results
  - The 2012 paper controlled for instructor effects and still found 10.5%pt increase in persistence and a 1.6-credits taken increase, as stated
  - However, “balanced matched samples” were created by excluding about 90% of the non-ALP population; they still cannot control for selection bias; other samples may show different results; this study is subject to inadvertent p-hacking (538.com)
Corequisites: The Ugly
Corequisites: The Ugly

• To recap, in return for double the cost, ALP increased passrates in comp I and II for remedial students (31%pt/80%), slightly increased college-level courses and credits attempted and completed (1/2), and slightly increased persistence (10.5%pt)

• The increases in college-level courses, credits, and passrates are quite small may be explained by “selection bias” and “instructor effects”

• It also resulted in no increase in graduation rates and surprisingly, ALP lowered certificate rates
Corequisites: The Ugly

• Even worse negative results:
  • Surprisingly (or not surprisingly), nonremedial college-level students who took their college composition course with ALP students had lower subsequent college-level enrollment and passrates (12 nonremedial students in each section)
  • Reduced transfer rates (4%pt***lower); reduced college courses completed (1/2 a course less); reduced college credits completed (1.5 credits less)
Table 8
Regression Estimates of the Associations with Outcomes for Those Enrolling in ENGL101 Classroom with ALP Students, Using a Sample of All ENGL101 Enrollees (Fall 2009–Fall 2010 Cohorts)

<table>
<thead>
<tr>
<th>Followed through end of fall 2011</th>
<th>Model 1: Controls + Campus FE</th>
<th>Model 2: Add Cohort FE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL101 overall completion</td>
<td>0.006</td>
<td>0.004</td>
</tr>
<tr>
<td>ENGL101 grade</td>
<td>0.017</td>
<td>0.009</td>
</tr>
<tr>
<td>ENGL102 attempt</td>
<td>-0.032**</td>
<td>-0.030*</td>
</tr>
<tr>
<td>ENGL102 overall completion</td>
<td>-0.006</td>
<td>-0.002</td>
</tr>
<tr>
<td>ENGL102 conditional pass</td>
<td>-0.006</td>
<td>-0.002</td>
</tr>
<tr>
<td>ENGL102 grade</td>
<td>0.057</td>
<td>0.061</td>
</tr>
<tr>
<td>Persist to next term after ENGL101</td>
<td>0.024</td>
<td>0.024</td>
</tr>
<tr>
<td>Persist to next year after ENGL101</td>
<td>-0.028*</td>
<td>-0.014</td>
</tr>
<tr>
<td>College courses attempted after ENGL101</td>
<td>-0.448***</td>
<td>-0.388***</td>
</tr>
<tr>
<td>College courses completed after ENGL101</td>
<td>-0.487***</td>
<td>-0.458***</td>
</tr>
<tr>
<td>College credits attempted after ENGL101</td>
<td>-1.381***</td>
<td>-1.202***</td>
</tr>
<tr>
<td>College credits completed after ENGL101</td>
<td>-1.462***</td>
<td>-1.373***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Followed through one year after ENGL101</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL101 overall completion</td>
</tr>
<tr>
<td>ENGL101 grade</td>
</tr>
<tr>
<td>ENGL102 attempt</td>
</tr>
<tr>
<td>ENGL102 overall completion</td>
</tr>
<tr>
<td>ENGL102 conditional pass</td>
</tr>
<tr>
<td>ENGL102 grade</td>
</tr>
<tr>
<td>College courses attempted after ENGL101</td>
</tr>
<tr>
<td>College courses completed after ENGL101</td>
</tr>
<tr>
<td>College credits attempted after ENGL101</td>
</tr>
<tr>
<td>College credits completed after ENGL101</td>
</tr>
</tbody>
</table>

| N           | 7,679 | 7,679 |

*significant at 10%, **significant at 5%, ***significant at 1%

(Cho et al., 2012, p. 22)
Recall: ALP had positive effects for remedial students after college gateway passrate increase (8 per section):
  • college comp II passrate (21.2%pt more)
  • persistence (10.5%pt more)
  • college courses completed (1/2 a course more)
  • college credits completed (1.6 credits more)

ALP negatively affected more college-level students (12 per section v. 8 ALP) (all stat. sig. at the .01 level):
  • college comp II passrate (3%pt less)
  • persistence (3%pt less)
  • college courses completed (1/2 a course less)
  • college credits completed (1.5 credits less)
Corequisites: The Ugly

ALP and the corequisite model overall *double college-level failrates* for remedial students (Cho et al., 2012):

Table 2
Raw Academic Outcomes of ALP and Non-ALP Students (Fall 2007–Fall 2010 Cohorts)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>ALP</th>
<th>Non-ALP</th>
<th>Difference (1−2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Followed through end of fall 2011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL052 completion rate</td>
<td>82.77%</td>
<td>66.96%</td>
<td>15.8%***</td>
</tr>
<tr>
<td>ENGL101 attempt rate</td>
<td>100.00%</td>
<td>52.64%</td>
<td>47.4%***</td>
</tr>
<tr>
<td>ENGL101 overall completion rate</td>
<td>74.66%</td>
<td>38.50%</td>
<td>36.2%***</td>
</tr>
<tr>
<td>ENGL101 conditional pass rate</td>
<td>74.66%</td>
<td>73.14%</td>
<td>1.5%</td>
</tr>
<tr>
<td>ENGL101 grade</td>
<td>2.19</td>
<td>2.20</td>
<td>0.02</td>
</tr>
<tr>
<td>ENGL102 attempt rate</td>
<td>54.22%</td>
<td>22.13%</td>
<td>32.1%***</td>
</tr>
<tr>
<td>ENGL102 overall completion rate</td>
<td>37.50%</td>
<td>16.79%</td>
<td>20.7%***</td>
</tr>
<tr>
<td>ENGL102 conditional pass rate</td>
<td>69.16%</td>
<td>75.88%</td>
<td>−6.7%**</td>
</tr>
<tr>
<td>ENGL102 grade</td>
<td>2.24</td>
<td>2.38</td>
<td>−0.14*</td>
</tr>
</tbody>
</table>
Conceptualizing Corequisite Data Comparisons

- Traditional Remedial Course: 70 Pass, 30 No Pass
- Traditional Gateway: 40 Pass, 10 No Pass
- ALP Remedial and Gateway Courses: 70 Pass, 30 No Pass

Colors:
- Orange: No Pass
- Blue: Pass
Figure 1. Hypothetical Flowcharts Comparing Remediation Models

**Prerequisite Remediation**

1. Enroll 100 Students in Remediation
2. 60 Students Pass Remedial Course
3. Enroll 40 Students in College-Level Course
4. 20 Students Pass College-Level Course

Total Course Enrollments Delivered = 100 + 40 = 140
Successful Students = 20
Course Enrollments per Successful Student = 7

**Corequisite Remediation**

1. Enroll 100 Students in Remediation and Enroll 100 Students in College-Level Course
2. 60 Students Pass Remedial Course and College-Level Course

Total Course Enrollments Delivered = 100 + 100 = 200
Successful Students = 60
Course Enrollments per Successful Student = 3.3
Corequisites: The Ugly

• Even more negative results:
  • Both studies, according to the CCRC itself, are not rigorous research
  • In a recent paper, CCRC states that the “corequisite model has not yet been subjected to rigorous evaluation” (Belfield, Jenkins, & Lahr, 2016, p. 8)
  • Dr. Davis Jenkins is a researcher in all three of the CCRC papers, and he himself characterizes reform as not being “subjected to rigorous evaluation”
Corequisites: The Ugly

• Even more negative results:
  • The What Works Clearinghouse (WWC), a top government research and statistics organization, states that the two CCRC studies “did not meet WWC standards” (Bailey et al., 2016, p. 90-92)
  • Paper is the culmination of a decade of research by Bailey and CCRC into remediation; only 5 studies cited to support acceleration/corequisites; only 1 actually meets WWC standards, and that one was not on corequisites, but on acceleration in NYC
## Appendix D. Appendix Table 4 (continued)

<table>
<thead>
<tr>
<th>Study and design</th>
<th>Participants</th>
<th>Setting</th>
<th>Intervention condition as implemented in the study</th>
<th>Comparison condition as implemented in the study</th>
<th>Outcome domain and effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cho et al. (2012); Jenkins et al. (2010); QED</td>
<td>1,184 students placed into developmental writing</td>
<td>One community college in the mid-Atlantic</td>
<td>Community College of Baltimore County's Accelerated Learning Program (ALP) mainstreamed developmental-level students into college-level English composition. The students also received supplemental instruction for an additional hour per course meeting. The college-level English and supplemental instruction course are taught by the same instructor with integrated syllabi and activities.</td>
<td>The ALP comparison group was composed of students who were only enrolled in the traditional, highest level developmental English course (ENGL 052).</td>
<td>ALP students outperformed non-ALP students on college-level coursework completion rates and persistence to the next year* p&lt;.01. There was not a difference on college-level course grades or on degree attainment/transfer.</td>
</tr>
<tr>
<td>Edgecombe et al. (2014); QED</td>
<td>3,529 students in developmental education</td>
<td>One community college in California</td>
<td>A one-semester accelerated course in English was offered as a preparatory course in a pilot learning community, and this group formed the pool for the intervention group in the study. Later, the accelerated option was offered to all students on campus.</td>
<td>The 2-semester traditional pathway consisted of three developmental courses, which was considered “business as usual.” Students who enrolled in this course sequence and met propensity-score matching criteria with the intervention group participants formed the pool for the comparison group.</td>
<td>Over a 5-year follow-up period, accelerated course participants were more likely to complete college-level English** (m), earn more college course credits* (m), and more likely to earn a degree.* (m).</td>
</tr>
</tbody>
</table>

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* This study did not meet WWC standards because the authors used imputation for some covariates and outcomes; the WWC currently does not allow imputation for covariates.

* p<.05 indicates not reported. This study did not present information in a way that allows standardized effect sizes to be reported. See Cho et al. (2012), Table 3, p. 10.

* This study did not meet WWC standards because an acceptable pre-intervention measure of academic achievement was not available. The authors did control for measures of college achievement and student socioeconomic status.

* p<.05 indicates not reported. This study did not present information in a way that allows standardized effect sizes to be reported. See Edgecombe et al. (2014), Table A.2, p. 30.
Corequisites: The Ugly

• Perhaps the most pernicious result of the ALP research is that it has given license to institutions and organizations, such as Complete College America (CCA), to recommend and implement variations of ALP which do not have research supporting them.

• Most recently, the Oklahoma State System of Higher Education collaborated with CCA, funded by Lumina, Dell, Gates, Kresge, and Carnegie, to create four variations of ALP to be implemented by Fall 2017.
Corequisite models

- **Accelerated Learning Program (ALP)** is a form of mainstreaming remedial students by enrolling them in the college-level course, often with non-remedial students, and enrolling them in the ALP companion course which offers supplemental instruction and often meets in the class period immediately following the college-level course. The same instructor usually teaches both courses.

- **Mandatory Lab or Tutoring** delivers customized support to students enrolled in a traditional college-level course for an additional one to two hours per week in a required non-credit lab or tutoring. The support enables students to address specific needs related to their success in the college-level course.

- **Sequenced Courses** accelerate students through basic skills content and the common single-semester college-level math or English composition course in one semester. Students would attend class five days a week with the first five weeks dedicated to basic skills support followed by the college-level course.

- **Other models** could include two-semester models where a single semester remedial course is tightly aligned to a college-level course providing an introduction of content in the college-level course and requiring the student to commit to both courses in the freshman year. The two-semester model requires a backward mapping of learning outcomes in college-level course to the remedial course.
Corequisites: The Ugly

• **Variation 1**: ALP without same instructor teaching both courses; State of Indiana does this as well

• **Variation 2**: Put remedial students (what level?) into college-level courses with mandatory one- or two-hour lab (structured lab, self-directed lab?)

• **Variation 3**: Compress remedial course into five weeks, and then compress college comp course!

• **Variation 4**: Traditional remediation with curricula aligned (still included in “corequisite reform”)
Corequisites: The Ugly

• This is a form of bait and switch

• No researcher would tell you it is acceptable to implement a different version of a study and still cite that study’s positive findings as proof it will work

• Aside from ALP research somewhat supporting variation 1, only one other variation has any research supporting it
Corequisites: The Ugly

• This study (Logue, Watanabe-Rose, & Douglas, 2016) is more rigorous research than the ALP studies:
  • It uses a randomized controlled trial
  • It explores the effects of adding a structured 2-hour lab to both elementary algebra and college-level statistics, both of which were taken by similar remedial students

• Here is a chart showing its results:
FIGURE 2. Course pass rates.
Corequisites: The Ugly

• Three important findings from Logue, Watanabe-Rose, and Douglas (2016):

  • Adding a 2-hour structured lab to a remedial algebra course will slightly increase passrates in that remedial course (statistically insignificant)

  • Putting upper-level remedial students into a college-level math course and adding a 2-hour structured lab will result in statistically lower passrates in that college-level course as compared to college-level nonremedial passrates

  • If restricted to students beneath cutoff, the workshop seems to help students (low sample size problem)
significantly lower passrate for remedial students

insignificant

FIGURE 2. Course pass rates.
Corequisites: The Ugly

• If quality research shows that a 2-hour structured lab (taught by trained lab assistant who attends course with students and focuses on course material in a deliberate way) does not increase remedial passrates in elementary algebra, and it does not allow remedial students to perform as well as nonremedial students in college-level statistics, how can we expect an unstructured 1- or 2-hour lab to succeed, as in Oklahoma’s State System recommendation bullet 2?
Corequisites: The Ugly

• Many are citing ALP research (and other unverified numbers from various states) and are claiming that “results are in!”; “just in time support is far better”

• Remember, Complete College America and some other organizations, institutions, and legislators appear to want to only reduce remediation

• They know that if given option to choose one of four corequisite variations, most will choose mandatory lab hour due to ease of implementation and low cost
Corequisites: The Ugly

• It’s already happening: For example, one community college in Tennessee chose the variation of a lab for English corequisites the first year, and had to change.

• CCA rhetoric suggests they may only want to eliminate remediation (“Remediation: Higher Education’s Bridge to Nowhere,” 2012).

• The “right to fail” is coming back in various forms (see CCA documents for rhetoric and support of coreqs).
Remediation is a broken system. There's a better way — start many more students in college courses with just-in-time support.

COMPLETE COLLEGE AMERICA
REFORMERS WHO LEAD IT

In our groundbreaking September 2011 report, *Time Is the Enemy*, Complete College America applauded “Governors Who Get It.” And they deserve our thanks once again for the data necessary to determine the findings that follow.

Our greatest appreciation, however, must be reserved for impatient reformers who have toiled and innovated, often without the recognition they deserve, in community colleges, colleges, and universities across America. They are faculty and researchers who share extraordinarily important characteristics: intolerance for failure and the courage to change.

If not for their willingness to see the truth in the data and to reject broken methods and long-held beliefs, a clear path forward would still be unknown. If not for their years of hard work and accomplishment, proven approaches that enable success for unprepared college students could not be recommended today. They were working simply to help save their students’ dreams.

In college completion, Complete College America has discovered governors who get it. In the essential work of ending remediation as we know it, these are some of the reformers who lead it. We thank them and look forward to finding more of their colleagues in arms.

- Peter Adams  
  Director, Accelerated Learning Project, Community College of Baltimore County

- William Adams, Debra Franklin, Denny Gulick, Frances Gulick, and Elizabeth Shearn  
  Department of Mathematics, University of Maryland at College Park

- Tom Bailey and Davis Jenkins  
  Director and Senior Researcher, respectively, Community College Research Center, Teachers College, Columbia University

- Tristan Denley  
  Provost and Vice President for Student and Academic Affairs, Austin Peay State University, Tennessee

- Tom deWit and Sean McFarland  
  Co-Directors, Acceleration in Context

- Katie Hern and Myra Snell  
  Director and Math Lead, respectively, California Acceleration Project

- James Rosenbaum  
  Professor of Sociology, Education and Social Policy, Institute for Policy Research, Northwestern University

- Uri Treisman, Jenna Cullinane, and Amy Getz  
  Director, Higher Education Policy Lead, and New Mathways Project Lead, respectively, Charles A. Dana Center, Mathematics Department, University of Texas at Austin

- Solina Vasquez Mirelos  
  Director, Center for Mathematics Readiness, Texas State University-San Marcos
Corequisites: The Ugly

• Only way to claim “results are in” is to do the following:
  • Compare apples-to-oranges passrates
  • Reset the completion objective to passing college-level courses and not graduation, and then calculate “cost per successful student”
  • Exclude or minimize negative results of actual ALP and other corequisite research, i.e., nonremedial outcomes
  • Exclude the fact that it doubles or triples failrates in college-level courses, i.e., encourages “right to fail”
Apples-to-Oranges Comparisons
Explaining Apples-to-Oranges Passrates

• There are many types of apples-to-oranges comparisons going on in the corequisite literature:
  • Let’s look at Complete College America’s corequisite comparisons on their “Spanning the Divide” website

(More can be found at communitycollegedata.com)
Remediation as a Corequisite – Not a Prerequisite

Corequisite Remediation is doubling and tripling gateway college course success in half the time or better.

Where once there was a bridge to nowhere but college debt, disappointment and drop out, today there is a new, proven bridge to college success – a bridge that is spanning the divide between hope and attainment. We call it Corequisite Remediation.

Read More

"I've never seen results like this in higher education. Never. These are huge, dramatic changes that will make a difference to our students."

Sarah Tucker
Explaining Apples-to-Oranges Passrates

• Apples-to-Oranges 1: Can’t compare national passrates to one state’s passrates (too many variables: must compare one matched group in same institution)

• Apples-to-Oranges 2: Comparing two different courses: one is three hours and the other is six hours

• Apples-to-Oranges 3: Comparing two different course outcomes: algebra to statistics

• Apples-to-Oranges 4: Traditional remediation track includes stopouts; ALP data has not been analyzed to track stopouts on a semester equivalency
Explaining Apples-to-Oranges Passrates

• More about Apples-to-Oranges 3: Comparing two different courses, algebra to statistics in Tennessee:

“Only 21 percent of the college-level courses taken by corequisite students were in algebra courses; most corequisite students enrolled in Probability and Statistics or Math for Liberal Arts. According to college officials, in the past, most incoming students were referred to an algebra path rather than these others” (Belfield, Jenkins, & Lahr, 2016, p. 8)
Update on Corequisite Research
FIGURE 2. Prevalence of Developmental Education Instructional Methods Among Public Two-Year Colleges

<table>
<thead>
<tr>
<th>Math</th>
<th>Percentage of colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite sequence</td>
<td>76%</td>
</tr>
<tr>
<td>Compressed courses</td>
<td>51%</td>
</tr>
<tr>
<td>Multiple math pathways</td>
<td>41%</td>
</tr>
<tr>
<td>Self-paced</td>
<td>40%</td>
</tr>
<tr>
<td>Flipped classroom</td>
<td>30%</td>
</tr>
<tr>
<td>Corequisite</td>
<td>16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reading and Writing</th>
<th>Percentage of colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite sequence</td>
<td>53%</td>
</tr>
<tr>
<td>Integrated reading and writing</td>
<td>52%</td>
</tr>
<tr>
<td>Compressed courses</td>
<td>37%</td>
</tr>
<tr>
<td>Corequisite</td>
<td>35%</td>
</tr>
<tr>
<td>Flipped classroom</td>
<td>24%</td>
</tr>
<tr>
<td>Self-paced</td>
<td>9%</td>
</tr>
</tbody>
</table>

SOURCE: CAPR institutional survey.
Overview of Current Coreq Literature

• Here is an overview of the current research on coreqs:
  • 3 peer-reviewed articles (2 math, 1 chemistry)
  • Approx. 4 working papers that are QED or (a couple more are overviews of a few designs)
  • A few more “reports,” such as Complete College America’s overview of the states
  • This does not add up to a rigorous number of studies with definite conclusions; CCRC agrees

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Important CCRC Conclusions on Corequisites and Multiple Measures

• CCRC’s conclusions on recent popular reforms, including corequisites (Jaggars & Bickerstaff, 2018)\textsuperscript{11}:

“...research suggests that the most popular reform models (including multiple measures assessment and placement, math pathways, and the co-requisite approach) will indeed improve students’ rate of success in college-level math and English, but they are unlikely to substantially improve graduation rates” (p. 496).

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# Summing Up the Pros and Cons of ALP

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases passrates in college-level gateway courses for remedial students by 50 to 100%, depending on calculation and how low remedial numbers are to begin</td>
<td>Doubles the cost of remediation</td>
</tr>
<tr>
<td>Slightly increases second-year college courses taken, credits, and passrates</td>
<td>Doubles failrates in gateway courses</td>
</tr>
<tr>
<td>Doubles time on task in gateway</td>
<td>Does not increase graduation rates</td>
</tr>
<tr>
<td>Halves student-teacher ratio in one class</td>
<td>Lowers certificate attainment</td>
</tr>
<tr>
<td>Uses common curricula</td>
<td>Causes only temporary increase in gateway passrates</td>
</tr>
<tr>
<td>Utilizes mostly FT instructors who teach both courses and who are motivated</td>
<td>Compares apples-to-oranges passrates</td>
</tr>
<tr>
<td>Norms pedagogy</td>
<td>Decreases nonremedial ALP student credits, passrates, and transfer rates</td>
</tr>
<tr>
<td>Focuses on noncognitives</td>
<td>Has not been studied “rigorously”</td>
</tr>
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<td></td>
<td>Does not meet WWC research standards</td>
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<td></td>
<td>Allows for misapplication of variations not based on research</td>
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<td></td>
<td>Causes some institutions cut access to traditional remediation completely</td>
</tr>
</tbody>
</table>
What Would You Say to This Proposal?

“I have a reform that will increase passrates for remedial students in gateway courses by 50 to 100%, depending on how it is calculated and where our students are now. It doubles the time on task in the gateway course and halves the student-teacher ratio for upper-level remedial students. In addition to increasing remedial students’ gateway passrates, they might even perform slightly better in their second year. However, it will also cost the college and taxpayers double; it will double failrates in those gateway courses for other remedial students; its effects will be temporary; it will not lead to increased graduation rates and it may even lower them; and it will harm nonremedial students as much as it helps remedial students.
“Moreover, even the researchers who conducted studies on this reform admit that their research is not rigorous. In fact, the studies conducted on it do not even meet the government’s What Works Clearinghouse standards for research. In spite of the lack of rigorous research into the ALP reform specifically, and despite the fact that many negative outcomes accompany the few positive results, institutions and entire states are moving forward with the implementation of several variations of this reform, almost none of which have any basis in research. A common, easy, and inexpensive option is to put almost all remedial students into college-level courses with a lab hour.”
Corequisites: The Good, the Bad, and the Ugly

• What would you now say to that proposal?
• What should we do when we do not have enough funding to implement proper reforms?
• What do we think about doubling passrates in return for doubling the failrates for double the cost?
• These are difficult questions and I do not have the answers, especially with limited funding
• However, it is important to look at ALL of the data before implementing reforms; could lower outcomes
Corequisites: The Good, the Bad, and the Ugly

• Finally, what can be done to improve ALP or versions of this program to avoid harm to some students?
  • Perhaps instead of putting remedial students into college-level courses with nonremedial students, only remedial students just beneath the cutoff could be put into a college-level course with the other factors: double the time on task (two courses in one, just like ALP); lower student-teacher ratio (15-1); same instructor; focus on “deep version”
Corequisites: The Good, the Bad, and the Ugly

• So what does work without lowering outcomes for some students (increased failrates and lower outcomes for nonremedial students in ALP sections)

• Let’s discuss a reform that moves the needle

• It is comprehensive, addresses the same problem ALP was designed to solve (attrition), yet it does not decrease outcomes for any subgroups
Comprehensive Reform: What Works Best

• City University of New York (CUNY) Accelerated Study in Associate Programs (ASAP)\textsuperscript{9,10}

• The ASAP program implemented a randomized, controlled study, and the intervention was a comprehensive overhaul of Dev Ed (and non-Dev Ed) community college participation, including the infusion of a great deal of time and resources ($4,000 to $6,800 per student per year)
Comprehensive Reform: What Works Best

• ASAP Comprehensiveness
  • Dev Ed courses first
  • Full time
  • Block scheduling
  • Learning communities for first year
  • Group advising sessions every week (60-80 caseload)
• Meetings with adviser at least twice per month
• Mandatory tutoring
• Career specialist meeting once per semester

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Comprehensive Reform: What Works Best

• ASAP Comprehensiveness
  • Tuition waiver
  • Free MetroCards
  • Free books
  • Free social events
  • Consistent and repeated messages
• Out of pocket costs for institution are about $5K-$7K more per student per year
• Good model for “free community college” discussion
Comprehensive Reform: What Works Best

• Dev Ed ASAP results:
  • 896 students in original total sample
  • 44% Hispanic, 34% Black, 10% White, 8% Asian
  • Increased credits over control group by 25%
  • Increased retention second semester (80 to 90%)
Comprehensive Reform: What Works Best

• Dev Ed ASAP graduation rates after 3 years (newer results):
  
  • Control Group (no ASAP): 21%
  • ASAP Intervention Group: 48%

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Comprehensive Reform: What Works Best

• Non Dev Ed ASAP graduation rates after 3 years (newer results):
  • Control Group (no ASAP): 29%
  • ASAP Intervention Group: 60%

• Three community colleges in Ohio are starting this program; others looking into it
Questions?

Thank you!

References and more reading available at communitycollegedata.com

Feedback is always welcome!

Follow me on Twitter @ccollegedata
References


