

RiLADE

Research in Learning Assistance and Developmental Education

A publication of



Corequisite Developmental English/Writing:

An Annotated Bibliography of Recent Research

**By Shannon McGregor, D. Patrick Saxon,
Nara M. Martirosyan, & Fenecia Foster**

Corequisite developmental education is an instructional model designed to engage academically underprepared students in gateway college courses, while concurrently providing remedial learning support. This approach to serving underskilled entering college students has been used as a broadscale solution in developmental education, resulting in some colleges replacing remedial courses, which were typically prerequisite and offered no college degree credit, with corequisite courses. Advocacy groups pitched this model by labeling developmental education ineffective and declaring corequisite instruction the best solution for all underprepared students (Complete College America, 2012). Some states have legislated it as a partial or complete replacement for

developmental education, and one advocacy group reports an alliance of 46 states and territories implementing some form of a corequisite initiative (Saxon, Martirosyan, & Sides, 2020). Although instructional improvements are undoubtedly needed in developmental and college level courses, whole program advocacy and replacement seems a premature decision that does not consider the students most in need of basic skills support.

The Accelerated Learning Program (ALP) was the initial model identified as efficacious and, therefore, the model typically associated with supporting the corequisite trend. ALP was designed for English/writing instruction for students who were modestly underprepared yet motivated to spend more time on a writing course and be challenged with college level content. Some of the characteristics of ALP that contributed to its success were faculty training, small class sizes, and integrated academic and noncognitive support (ALP, 2022). Although ALP and other corequisite programming are showing success with

students who need modest support to complete the 1st-year writing course, they have not shown proven success with all students in developmental education, specifically for students who need basic reading, writing, and math support.

The primary goal of this work was to locate and collect literature on the efficacy of corequisite writing courses since 2009. The following is a list of annotations of research on corequisite developmental education English/writing. Searches were completed through Sam Houston State University's Engine Orange. Keywords applied included "corequisite developmental education," "corequisite model," "corequisite writing," "remedial reform," and "developmental education reform." A reference list on the topic entitled *Resources on Corequisites* was also consulted (Community College Data, 2020). All appropriate articles addressing corequisite English/writing were retrieved in full text. The key attributes for including a resource were that it focused on corequisite course design, the inclusion of completion data and success indicators, and/or best practices in the discipline. This information is provided as a guide to those who might wish to implement corequisite remediation, are already implementing it, or would like to improve their outcomes.

Corequisite Developmental Education English/Writing Annotations

Adams, P. (2020). Giving hope to the American dream: Implementing a corequisite model of developmental writing. *Composition Studies*, 48(2), 19-34. <https://files.eric.ed.gov/fulltext/EJ1269614.pdf>

In a special issue dedicated to corequisite support, this article offered updated program information for the

accelerated learning program (ALP) model, reporting data on the noncognitive elements that successful programming must address. An overview for integrated reading and writing was provided, and a broader picture of the communication needed to integrate ALP with advising and support services was described. Regarding curriculum, several corequisite structures were defined: a fast-track or stretch model, a studio model, a tutoring model, and the ALP model. Finally, seven tasks were identified for a department to implement in a corequisite program along with a program scoring rubric.

Adams, P., Gearhart, S., Miller, R., & Roberts, A. (2009). The accelerated learning program: Throwing open the gates. *Journal of Basic Writing*, 28(2), 50–69. <http://files.eric.ed.gov/fulltext/EJ877255.pdf>

The authors traced the history of creating the corequisite accelerated learning program (ALP) model at the Community College of Baltimore County (CCBC). In response to data that revealed only one-third of all students who attempted the developmental writing course at CCBC passed the gateway writing course, the faculty created a mainstream approach to the developmental sequence. Students enrolled in a developmental support class at the same time they were enrolled in the 1st-year writing course. The three-hour support class met immediately after the 1st-year writing class and emphasized review, revision, practice, and reflection. In the blended 1st-year course, half of the students were considered college-ready and the other half were considered underprepared. Due to the nature of placement into ALP, underprepared student skill levels were similar to those of the college-ready students. The small size of

the support class allowed for individualized attention and contextualized approaches.

From 2007 to 2009, CCBC collected data on 30 sections and 240 students across traditional and ALP sections. Of the 762 students in the traditional model, 21% did not pass, and an additional 19% never attempted the 1st-year writing course. Of those who passed, 39% also passed the 1st-year writing course. Of the 240 students who enrolled in ALP sections, 77% passed the ALP section and 63% passed the 1st-year writing course. A cost analysis for the ALP model showed that continued enrollment and degree completion benefits outweighed the costs of limiting the ALP class sizes. ALP appeared to serve students near similar placement levels well, but whether students at the lower levels of placement should be mainstreamed into ALP classes was not addressed.

Adams, P., & McKusick, D. (2014). Steps and missteps: Redesigning, piloting, and scaling a developmental writing program. *New Directions for Community Colleges*, 2014(167), 15-25. <https://doi.org/10.1002/cc.20107>

The authors discussed the crucial elements to develop the ALP model at CCBC and the compromises they needed to make while gaining administrator and faculty buy-in. They reviewed how they addressed issues with faculty compensation and professional development. They emphasized crucial aspects of the ALP model that must be retained: mainstreaming students within the 1st-year writing course to provide peer role modeling and contextualization, using learning communities to support engagement and sense of belonging, offering small class sizes and individualized attention, and

addressing noncognitive needs. Components that lead to ALP's success included having an advocate to work with college units like student services, administration, and faculty; doubling sections of ALP during the scale up; forming teaching and learning groups with faculty and advisors; messaging well with students, faculty, and advisors about ALP's structure and success; and using data to support decisions and dispel myths.

Andrews, D. (2019). *Predictors of community college students' academic success in the corequisite model* [Doctoral dissertation, Georgia Southern University]. *Electronic Theses and Dissertations*. <https://digitalcommons.georgiasouthern.edu/etd/1876>

This was a quasi-experimental study to identify predictors of student success in corequisite courses taught at a rural Georgia community college. Variables studied included student sex, race, age, Pell grant status, 1st-generation college student status, grade point average, writing placement test scores, major, use of academic support, and instructor employment status. The dependent variable was a dichotomous variable of a pass (C grade or better) or fail. The sample consisted of 1,933 students between Fall 2015 through Summer 2018 who enrolled in at least one corequisite English or mathematics course. Fifty-eight percent of the students were female, and a majority of the students were African American students who received Pell grants and whose GPAs exceeded 2.0. Eighty percent of the students were non-STEM majors, and 31% of students were 1st-generation college students.

Results of logistic regression showed that in both math and English, the highest

success predictor was high school GPA. Of 776 students enrolled in English corequisite courses, females were 1.5 times more likely to pass than males. The number of attempts at taking the corequisite course demonstrated statistically significant results as well. Students who received a Pell grant were less likely to pass than those not receiving a Pell grant. First-generation college students were also less likely to pass corequisite courses. Non-STEM majors were 1.25 times more likely than STEM majors to pass the English corequisite courses. Seventy-five percent of corequisite courses were taught by full-time faculty, and students were more likely to pass corequisite English taught by a full-time instructor. Because 96.3% of students in the corequisite English course did not attend tutoring services, the researcher concluded that tutoring did not have an impact on corequisite support. Demographic comparisons showed that White students were 1.09 times more likely to pass corequisite courses than minority students. When more underprepared students were placed in a class, student success was lower. Therefore, it was recommended to limit the number of seats for developmental students in gateway courses.

Armstrong, E., Baptista Geist, M., & Geist, J. (2020). Withstanding the backlash: Conceptualizing and preparing for coercive reactions to placement reform and corequisite support models in California. *Composition Studies*, 48(2), 74-92. <https://files.eric.ed.gov/fulltext/EJ1269339.pdf>

This work documented the implementation of California's legislative mandate AB 705 to guide states and colleges toward eliminating placement and it

addressed criticism against corequisite classes. Basing their guidance in theories on backlash and social justice frameworks, the authors provided the history and data behind the movement from single score placement toward multiple measures and from prerequisite to corequisite support. The authors stated that the backlash to AB 705 claimed power-grabbing and deficit-thinking, lack of faculty voice in decision-making, lowering course success rates, and lowering academic standards. Arguing through social and racial rhetoric, they cited how relying on placement tests exacerbates inequities. Their recommendations for discussions included five new contexts: looking at throughput of the college-level courses rather than focusing on grades and success rates alone, engaging in criticism to find new possibilities, sharing research on promising practices in literacy and composition, creating professional development that examines beliefs and policies that create inequities, and preparing for criticism rather than ignoring it.

Bailey, T. R., Bashford, J., Boatman, A., Squires, J., Weiss, M., Doyle, W., Valentine, J. C., LaSota, R., Polanin, J. R., Spinney, E., Wilson, W., Yeide, M., & Young, S. H. (2016). *Strategies for postsecondary students in developmental education—A practice guide for college and university administrators, advisors, and faculty*. Institute of Education Sciences, What Works Clearinghouse. http://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/wwc_dev_ed_112916.pdf

Bailey et al. compiled an evidence-based, best practices guide for institutional

interventions that support underprepared students in gateway classes. The recommendations focussed on 21 best practices in instructional and structural interventions, including classroom and curricular changes as well as policy and institutional support changes, all of them supported by empirical research. From more than 25,000 studies collected between 1995 and 2015, 439 were screened, and 19 were found that met the guidelines for evidence-based research supporting the panel's What Works Series criteria. The recommendations for holistic student support included using multiple measures for placement, enhancing and incentivizing advising, implementing performance-based incentives, accelerating developmental supports through a course redesign, teaching students self-regulation tools, and integrating holistic student support programming college-wide.

Corequisite design was described as a curricular redesign and acceleration method that decreases the time students spend in developmental courses. Some models compressed traditional 16-week courses into half the time while others mainstreamed students into the gateway course while they enrolled in a supplemental instruction course offering scaffolded assignments. The combination of contextualization and intensive study along with quicker or direct access to 1st-year courses increased students' motivation, persistence, and academic success while improving support for self-regulation skills and mastery. The models highlighted in the study as quality accelerated programming for English/writing included the City University of New York's (CUNY) accelerated courses, Chabot College's one-semester integrated reading and writing redesign, Community College of Baltimore County's accelerated learning program

(ALP), and the Integrated Basic Education and Skills Training program (I-BEST) contextualized programming.

Bailey, T. R., Jaggars, S. S., & Jenkins, D. (2015). *Redesigning America's community colleges: A clearer path to student success*. Harvard University Press.

This report described large-scale reform efforts in community colleges, focusing on developmental education. The authors noted the roles of philanthropic groups, such as Achieving the Dream, as pivotal in funding research and scaling-up projects that demonstrate a record of success. Problems with the reform efforts were described as large-scale reforms with a small reach to a specialized sample of students, lack of instructional improvements across academic departments, and lack of systematic change throughout an organization. The authors identified four areas in need of reform to create sustained change: structure, intake and student support, academic-only instructional supports, and developmental education. It was surmised that placement exams and policies that used cut scores poorly measured academic skills and ignored cross-disciplinary skills. With regard to instruction, a model was described whereby many developmental instructors still taught reading, writing, and mathematics skills in isolation, applying a skill-and-drill manner. They supported the development of diverse skills (e.g., metacognitive, quantitative, literacy, reasoning, and critical thinking) in order to be considered college-ready.

It was recommended that acceleration models eliminate exit points and reduce time spent in skills development by pairing, compressing, or mainstreaming

support. They emphasized the team aspect of integrating classes with, rather than isolating classes from, student support services. The authors acknowledged that mainstreaming does not work for all developmental students, recommending that faculty improve options for pairing or compressing, contextualizing with programs, and integrating basic skills in math and literacy within adult basic education, developmental, and college-level courses.

Bailey, T., Jaggars, S. S., & Scott-Clayton, J. (2013). Characterizing the effectiveness of developmental education: A response to recent criticism. *Journal of Developmental Education*, 36(3), 18–25. <https://ccrc.tc.columbia.edu/publications/characterizing-effectiveness-of-developmental-education.html>

Bailey et al. offered a point-by-point response to Boylan and Goudas' arguments regarding the effectiveness of developmental education. Both articles were published in the same issue of the *Journal of Developmental Education*. The discussion related to whether corequisite instructional models should replace prerequisite developmental course models. Bailey et al. also clarified the elements to evaluate during reform efforts. The claims they addressed included statements about the ineffectiveness of developmental education based on outcomes, failing to report positive aspects of developmental education, and overgeneralizing the results. The authors clarified their stance on the value of developmental education faculty efforts and asked for balance in scrutiny of developmental programming. They stated positive impacts but recognized how

developmental coursework discourages some students from continuing in college. Problems related to the entire system of developmental education, including alignment of placement exams with college curricula, of K12 curricula to college-level curricula, and of developmental coursework to gateway courses were summarized. They also cited issues with policies and procedures related to the system, from enrollment to assessment, placement, financial aid, advising, progression into college-level courses, and instruction in developmental and college-level courses. Recommendations for reform included making sure the system supports students in their placement referrals, ensuring that students are not over referred to developmental education. They advised institutions to address noncognitive aspects of student learning, to improve supports and alerts for students' academic and nonacademic skills, to align curricula, to measure outcomes (e.g., completion and noncompletion rates) through multiple demographics, and to eliminate unnecessary exits points and barriers.

Barhoum, S. (2017). Community college developmental writing programs most promising practices: What the research tells educators. *Community College Journal of Research and Practice*, 41(12), 791-808. <https://doi.org/10.1080/10668926.2016.1231092>

Barhoum reviewed more than 245 studies related to writing programs and identified 36 studies on prerequisite and corequisite writing courses in community colleges. Barhoum developed a framework with corresponding themes which would underpin best practices in developmental

writing. Four themes were identified: structural, curricular, andragogical, and relational. Institutions that focused on structural and curricular changes helped eliminate some barriers, but the real impact was made across the institution through improved training and support in the andragogical and relational domains. Within each domain, the most promising practices were presented and pivotal studies were cited in relation to each domain. The author mentioned that students of color face multiple barriers of discrimination and noted that programs that limited these barriers could achieve more successful outcomes.

Barshay, L. (2018, February 19). How to help students avoid the remedial ed trap. *The Hechinger Report*. <https://hechingerreport.org/help-students-avoid-remedial-ed-trap/>

This article focuses mostly on Texas's corequisite reform. Barshay noted moves by California State University and the state of Florida to eliminate developmental education requirements. Some states or universities revised policies to allow students the choice to enroll in developmental or college-level courses, and others required corequisite courses in addition to or in place of prerequisite developmental courses. The author outlined several issues, noting that corequisite courses show great range in design, requiring some students to attend tutoring in a lab or with the course instructor. Other models include a skills course with the credit hour requirements ranging from one to multiple. The reform has required developmental instructors to retrain to teach corequisite courses or to transition toward tutoring roles. Many have felt their professionalism and abilities have been directly attacked. The rush to implement

corequisites in Texas without a mandated model has allowed colleges autonomy in selecting what works best for their students and encouraged innovation, yet the numerous and varied approaches have also made evaluating program efficacy difficult.

Belfield, C. R., Jenkins, D., & Lahr, H. (2016). *Is corequisite remediation cost effective? Early findings from Tennessee* (CCRC Research Brief No. 62). Community College Research Center. <https://ccrc.tc.columbia.edu/media/k2/attachments/corequisite-remediation-cost-effective-tennessee.pdf>

Using data from the Integrated Postsecondary Education Data System (IPEDS), college transcripts, and cost data obtained from three Tennessee community colleges, a cost analysis of the statewide implementation of corequisite writing and mathematics was conducted in Fall 2015. The purpose was to determine whether the corequisite model was more efficient than the previously used prerequisite developmental education model. The criteria used were retention rates; graduation rates; per-student cost for corequisite courses; and transition costs such as faculty and administrative support during redesign, approvals of courses, and training costs. The researchers used course success rates from the prerequisite model during Fall 2012 through Spring 2013 and from the corequisite model during Fall 2015. The corequisite model was significantly more cost effective than the prerequisite model, although it initially cost more to implement. In writing, 31% of students passed their gateway courses within one year under the prerequisite model and 59% under the corequisite model. The researchers believed

that student momentum was a key to increased pass rates.

Additionally, the researchers conducted semi-structured interviews with college personnel at three community colleges, using the college's data and IPEDS data to project the average cost per course to transition to corequisite models for all community colleges in the state. The five-year estimated amortized cost per subject area for developing corequisite courses was \$10,330. They also completed cost per student comparative analyses, accounting for differences in class sizes and faculty status. In writing courses, the cost per student for the prerequisite model was \$400 less than the cost per student for the corequisite model. Although the initial costs of implementation of corequisite courses were higher and the smaller class size for the corequisite sections also contributed to higher costs, they argued that the long-term gains in momentum for the student would result in more earned credit revenue and higher degree completion rates, which would supersede and offset costs. The researchers admitted that the higher college-level course pass rates could not be directly attributed to corequisite support, as the state was also involved in implementing the Tennessee Promise and guided pathways at the time.

Blaauw-Hara, M., Strand Tebeau, C., Borowiak, D., & Blaauw-Hara, J. (2020). Is a writing-about-writing approach appropriate for community college developmental writers in a corequisite class? *Composition Studies*, 48(2), 54-73. <https://files.eric.ed.gov/fulltext/EJ1269611.pdf>

In Fall 2019, Blaauw-Hara et al. conducted interviews with 10 accelerated

learning program (ALP) community college students at North Central Michigan College (NCMC). The purpose was to explore the extent to which the writing-about-writing curriculum adopted by NCMC met the instructional needs of students. Four themes emerged from interview data: improving reading comprehension, appreciating the corequisite class, developing self-efficacy, and anticipating writing transfer. The students shared instances of success using reading and writing strategies, describing how they persisted through the assignments and how they enjoyed class discussions because they developed a deeper understanding of the material. Students described how that the corequisite class helped them build critical thinking skills, enabling learning transfer to current practices and envisioning a connection to their future professions. They saw reading and writing as discourse rather than right or wrong answers. They expressed that the writing-about-writing approach was intimidating at first, but that talking with their peers and reiterating their learning in the corequisite course made improving their skills feel conquerable and more positive than in their previous reading and writing experiences. The researchers reported that all of the students interviewed passed the corequisite course and the 1st-year writing course with a 3.24 GPA. Additionally, they reported that 70% of the students passed the second course in the writing sequence in the next semester.

Brathwaite, J., & Edgecombe, N. (2018). Developmental education reform outcomes by subpopulation. *New Directions for Community Colleges*, 2018(182), 21–29. <https://doi.org/10.1002/cc.20298>

To study reform efforts' impact on equity, Brathwaite and Edgecombe disaggregated data by racial background, gender, and Pell grant recipient status from a previous quasi-experimental study on a statewide developmental education reform initiative completed in 2012. The reforms completed for English included adding integrated reading and writing corequisite support to the gateway English course at two-, four-, and eight-hour options. They also studied placement reforms that transitioned from traditional placement tests to multiple measures, using high school GPA, course-taking behaviors, first-year momentum, and degree completion points.

The researchers found that 23% more students were able to register for the English gateway course with corequisite support. They also found some of the same placement issues existed pre- and post-reform, with a placement gap of 26% existing between African American and white students post-reform and a placement gap between Pell grant and non-Pell grant recipients increasing by 3%. Post-reform, females were 5% more likely than males to be placed into the gateway English course. Gateway course completion in English rose 11%, and a 1% pre- to post-reform gain was achieved for African American students completing the gateway course. The post-reform completion gap for English widened by 2% for Pell grant recipients and 3% for males, with both groups being less likely to complete the gateway English course. Additional findings on degree completion were offered.

Caouette, B. L. (2019). Directed self-placement, corequisite models, and curricular choice. *Journal of Basic Writing*, 38(1), 56-77.
<https://eric.ed.gov/?id=EJ1249322>

This work offered a descriptive account of a reform implementing directed self placement into a new writing plus (FYW 100Plus) corequisite-gateway course combination. The writing plus program and the self directed placement were piloted in 2012 and adopted in 2014 at Rhode Island College. The writing sequence framework offered students six options: (a) a two-semester sequence of a four-credit prerequisite developmental course followed by a four-credit FYW 100Plus, (b) a two-semester sequence of a four-hour prerequisite course followed by the four-hour gateway course, (c) a two-semester sequence of a four-hour prerequisite course followed by a four-hour honors gateway course, (d) a one semester version of the six-credit FYW 100Plus, (e) a one-semester gateway course, or (f) an honors gateway course. The author stated that changing to directed self-placement and corequisite models was too much all at once. Therefore, it was difficult to examine which reform was working well and what elements impacted student success the most. She also argued that corequisite developmental courses often will produce the same stigma that prerequisite developmental courses have because students still understand that they need additional time to reach college-ready levels. Nevertheless, the ability to choose to take developmental courses with gateway courses is a positive motivational factor. Students choose based on their confidence levels or whether they believe they need additional support. She commented that students who wanted additional support to ensure their honors level status selected the corequisite support option.

Cho, S. W., Kopko, E., Jenkins, D., & Jaggars, S. S. (2012). *New evidence of success for community college remedial English students: Tracking the outcomes of students in the Accelerated Learning Program (ALP)* [CCRC Working Paper No. 53]. Community College Research Center. <http://ccrc.tc.columbia.edu/media/k2/attachments/ccbc-alp-student-outcomes-follow-up.pdf>

In February 2012, the Community College of Baltimore County shared data with the Community College Research Center to complete a second analysis of accelerated learning program (ALP) student and course data. Descriptive analyses, regression analyses, and propensity score matching were conducted on data from 5,545 students who enrolled in traditional developmental education sections and 592 students in ALP sections from Fall 2007 through Fall 2010, tracking them through Fall 2011. The researchers controlled the sample for race, socioeconomic status and placement test scores, and they measured outcomes including successful 1st-year writing course completion, subsequent college-level course attempt and completion rates, term-to-term and year-to-year persistence, degree completion rates, and transfer rates.

The researchers found that ALP students were more likely to complete the 1st-year writing courses than students in traditional developmental education. ALP students, across racial groups and socioeconomic status, performed as well as the students enrolled in traditional developmental education sections. ALP students had higher term-to-term and year-to-year persistence, and they were more

likely to complete more courses than non-ALP students. Students enrolled in the traditional developmental education had lower college enrollment, completion rates and transfer rates than ALP students. When the controls for race and demographics were applied, students who were Black showed stronger gains in ALP sections than White students, and students from lower socioeconomic backgrounds showed boosts in completion of the writing sequence. Finally, when comparing students who traditionally placed into the 1st-year writing course to the ALP-students, some negative results appeared in ALP sections, including slightly lower pass rates and completion rates for both 1st-year courses for students who traditionally placed in the initial 1st-year course. The researchers attributed the lower pass and completion rates to social dynamics of a learning community and instructors devoting more time to the ALP students, leaving some traditionally placed students feeling left out of a social connection.

Complete College America. (2016).

Corequisite remediation: Spanning the divide.

<http://completecollege.org/spanningthedivide/>

This report summarized data related to overplacing students in prerequisite remediation, comparing traditional remediation paths to corequisite paths, and reporting on the states that have legislatively made corequisite developmental reforms. After implementing corequisite courses, success rates in gateway mathematics and English courses doubled or tripled in Colorado, Georgia, Indiana, Tennessee, and West Virginia. Complete College America (CCA) reported remediation rates in many states that are part of the CCA movement.

They presented pillars for creating a corequisite program: improving the advising and placement process based on the students' career goals, supporting students through college-level coursework by adopting corequisite rather than prerequisite models, and realigning curricula based on programs of study. The summary extended into advising, pathways, and other CCA programs rather than solely on corequisite reform.

Daugherty, L., Gomez, C. J., Carew, D. G., Mendoza-Graf, A., & Miller, T. (2018). *Designing and implementing corequisite models of developmental education: Findings from Texas community colleges*. https://www.rand.org/pubs/research_reports/RR2337.html

As corequisite mandates were implemented in the Texas community college system in Fall 2016, the Texas Higher Education Coordinating Board, RAND Corporation, and the American Institutes for Research studied the effectiveness of the implementation (Daugherty et al., 2018). They completed a randomized control trial with five community colleges that implemented a one-credit integrated reading and writing corequisite course that used the extended instructional time model, accelerated learning program (ALP) model, or academic support services. Additionally, the researchers collected data and conducted interviews, surveys, and observations with participants at 36 institutions to identify implementation and instruction needs. The study identified five common corequisite models: paired courses, extended instructional time, ALP, academic support services, and technology-mediated support.

Challenges with the implementation process included faculty, staff, and student buy-in; scheduling and advising issues; limited professional training and support; and rapid implementation and uncertainty regarding the mandate. Several recommendations addressed the challenges, included clarifying the mandate guidance; ongoing collaboration and communication between stakeholders; encouraging participation; identifying qualified and passionate faculty; increasing funding for resources and training in best practices; and reducing class size.

Daugherty, L., Karam, R., Basco, D., & Kaufman L. (2019). *Tools for improving corequisite models: A guide for college practitioners*. RAND Corporation.

Responding to the trend of corequisite course mandates, this work provides guidance on more effectively administering the associated professional development needs. It is structured as a toolkit to address implementation challenges using data and reflection. The focus is on evaluation for the purpose of quality improvement in adopting, delivering, and scaling corequisite course models. A continuous improvement cycle, Plan-Do-Study-Act (PDSA) is also proposed and described.

Denley, T. (2017). *Co-requisite remediation full implementation 2015-16* [Tennessee Board of Regents Technical Brief No. 3]. Tennessee Board of Regents. <https://www.tbr.edu/sites/tbr.edu/files/media/2016/12/TBR%20CoRequisite%20Study%20-%20Full%20Implementation%202015-2016.pdf>

This report was the first offered after Tennessee's statewide implementation of the corequisite model. In the traditional prerequisite model, only 30.9% of developmental writing students completed their respective gateway courses. This led to a reassessment of developmental education in Tennessee and a mandate for corequisite learning in 2015. When corequisite models were implemented, 62% of students passed gateway writing courses, most during the first semester. In academic year 2016, the gains were greater, with 81% of students passing gateway writing courses, most during the first semester.

Achievement gaps by minority status, age, and income status were also examined. Seventy-nine percent of minority students and 80% of low-income students passed the writing corequisite and gateway courses, and 83% passed the second gateway writing course the subsequent semester. Success rates for low-income students were similar to the rates for the population as a whole at 60.8% for writing students. Finally, students who took corequisite courses were also able to complete approximately 85% of the hours they attempted.

Doran, E. E. (2019). Building a community of practice for teaching developmental courses. *Journal of Developmental Education*, 43(1), 12–19.

Using an instrumental case study approach, Doran (2019) explored how student retention and transfer support programs in Texas encouraged student success through faculty professional development. These programs primarily served Latinx students and students from marginalized populations. Particularly, intensive professional development in these

programs aided faculty in becoming more culturally aware of their classroom practices and of social responsiveness with their students. Twelve faculty who taught integrated reading and writing corequisite courses at six campuses during the 2016-2017 academic year were recruited to participate in interviews.

The interview results revealed three themes related to supporting a community of practice for participating faculty. One theme involved faculty engagement through learning communities, which was the result of using common readings, completing deep readings of the texts, and making a habit of reflection for themselves and their students. A second community-related theme involved connecting throughout the professional development experience and integrating the culturally responsive practices with faculty and staff at their home campuses to eliminate institutional barriers. Because of the intense practices of cognitive and noncognitive support for students and the layers of interaction within the program, some faculty reported high levels of exhaustion. A third theme of increased connection and sense of community with the students and within the classroom was also found. Not only did faculty increase their understanding of the challenges they face, but higher levels of community within the classrooms have meant better faculty-to-student and student-to-student connections on campus. The program provided faculty with a renewed understanding of the benefit of community and an understanding of how cultural awareness improves connection, no matter the faculty member's background.

Edgecombe, N., Jaggars, S. S., Xu, D., & Barragan, M. (2014). *Accelerating the integrated instruction of developmental reading and writing at Chabot College* [CCRC Working Paper No. 71]. Community College Research Center.
<http://ccrc.tc.columbia.edu/media/k2/attachments/accelerating-integrated-developmental-reading-and-writing-at-chabot.pdf>

Edgecombe et al. conducted a quasi-experimental study to track and compare student success outcomes for 1st-time college students in traditional, two-semester developmental English courses and accelerated, corequisite courses at Chabot College. The intent of the study was to determine the characteristics of quality developmental education programming to inform policy and practice. The data were collected from Summer 1999 through Fall 2010, and participants were tracked for five years. The researchers noted that the participants in the accelerated courses included more students who were Asian, traditional-aged, financial aid recipients, and full-time students.

Quantitative outcomes measured included course completion with a C or better, grade point average, degree completion, and university transfer, which was measured at years one, three, and five. The measures were disaggregated to perform regression analyses and propensity score matching, sorting by demographics, English language learner status, participation in a learning community, and placement test scores. The results revealed positive outcomes for accelerated students in writing sequence completion, number of college credits earned, university transfer, grade point average, and degree attainment.

Students in the accelerated courses earned 1.60 to 4 more college credits on average than students who enrolled in traditional developmental courses. By the five-year time frame, the accelerated students had earned four more college-level credits, maintained a slightly higher grade point average, and were 4% to 6% more likely to transfer to a university than the students who completed traditional developmental writing courses. One area of concern was discovered with students in the accelerated course who scored low on the placement exam or who were English language learners. Both groups had higher dropout rates than students in the traditional developmental course sequence at the end of year one but not by year three. Overall, however the students in the accelerated courses experienced greater long-term success.

For the qualitative portion of the study, the researchers interviewed faculty, staff, and administrators; conducted student focus groups; and completed classroom observations. Through employee interviews, the researchers tied the accelerated course's success factors to helping to maintain momentum by reducing exit points, using scaffolding to promote higher levels of thought, and improving motivation through self-placement. Faculty also thought that the one-semester approach helped maintain momentum more than the two-semester approach, yet they mentioned concerns about English language learners potentially needing more than one semester to build self-efficacy and make cognitive connections necessary for academic writing.

Education Commission of the States. (2015). *Core principles for transforming remediation within a comprehensive student success strategy: A joint statement*. Author. https://www.ecs.org/wp-content/uploads/core_principles_nov9.pdf

Six organizations, including Achieving the Dream, American Association of Community Colleges, Charles A. Dana Center, Complete College America, Education Commission of the United States, and Jobs for the Future updated the six core principles to guide institutions embarking on developmental education student success initiatives. These principles included (a) intake and direction into coursework; (b) aligned placement with programs of study and prioritized college-level course enrollment; (c) embedded academic and nonacademic support within coursework; (d) aligned, efficient, and rigorous prerequisite remediation for students who are not ready for college-level coursework; (e) alignment of curricula with the student's program of study; and (f) systematic data and student progress reviews to move students toward a credential. The third core principle promoted corequisite courses as alternatives to prerequisite coursework, embedding academic, nonacademic, and college support directly into the classes as additional lab hours or cohort models. The fourth core principle focused on students who needed more remediation than a corequisite model offers. It described two-semester, embedded, or parallel support models that could be accelerated or traditionally paced based on students' needs, and it recognized that both academic and nonacademic skills, specifically time management and study skills, should be emphasized. In addition to

the principles, the report discussed alignment of college-ready skills with K-12 programming, workforce development goals, and adult basic education programs. It also contained a section encouraging institutions not to pilot but to scale up the reforms quickly.

Ganga, E., Mazzariello, A., & Edgcombe, N. (2018). *Developmental education: An introduction for policymakers*. https://www.ecs.org/wp-content/uploads/Developmental-Education_An-Introduction-for-Policymakers.pdf

Ganga et al. reported data showing large numbers of students placed in developmental sequences, the costs for development education, and the racial and socioeconomic inequities created by inaccurate placement tests and placement policies. The purpose was to offer recommendations for policymakers. The first recommendation was to improve the accuracy of assessment and placement using academic and nonacademic placement indicators. These multiple measures could include SAT or ACT scores, high school grade point average, and noncognitive measures. The second recommendation related to accelerating developmental education by offering corequisites or compressing skills development coursework to eliminate levels that may have become barriers. The goals were to intensify support and help students reach gateway courses more quickly. The final recommendations involved the alignment of the curriculum, providing comprehensive supports, and integrating academic and nonacademic support institutionally. The recommendations were offered with the

caveat that more research was needed to determine the best approach to the changes.

Goudas, A. M., & Boylan, H. R. (2013). A brief response to Bailey, Jaggars, and Scott-Clayton. *Journal of Developmental Education*, 36(3), 28-32. <https://files.eric.ed.gov/fulltext/EJ1067287.pdf>

In a discussion of corequisite reforms and developmental education cuts, this article offered a response to Bailey, Jaggars, and Scott-Clayton's "Characterizing the Effectiveness of Developmental Education: A Response to Recent Criticism." Goudas and Boylan described how the regression discontinuity approach was misapplied to developmental education, as it is more appropriate for single treatment studies, and developmental education is more comprehensive than a single treatment. They noted that developmental education encompasses instruction and support services, and it is properly accomplished with the guidance of adult learning and developmental theory. They argued that the treatment developmental courses administer is not the same as that of corequisite or college-level courses, nor should it be, as students' needs differ across these levels. The authors stated that one measure of student success cannot measure the diverse learning needs for an entire state or system. They asserted that analyses needed to extend into specific and comparable models at institutional or classroom levels to learn what approaches lead to the most effective changes. By not disaggregating the data by institution, model, or instructional approach, the research was too broad to be used effectively. The researchers agreed on the same needs for more research and reform in the following areas: evaluating model effectiveness, aligning the developmental

and college curricula, placing students using multiple measures, and offering academic and noncognitive support across the college and in the classroom.

Hern, K. (2017). Unleashing students' capacity through acceleration. In P. Sullivan, H. Tinburg, & S. Blau (Eds.), *Deeper reading: Teaching reading in the writing classroom* (pp. 210-226). National Council of Teachers of English.

This chapter described the author's history and transition from traditional reading instruction to an accelerated instructional practice. It presented pass rates, success rates, an instructional cycle to illustrate her practices, and her use of growth mindset. It also described the California Acceleration Project and the ensuing reform movement in that state.

Hern described her former teaching practices in a traditional reading-only classroom that focused on main idea and support points but failed to engage students, support higher-order thinking, and encourage more complex discussions. She contrasted this with the dynamics of her accelerated classroom at Chabot College, describing how she began with a more complicated text that tied more deeply into students' experiences, education, and practical world application. Without drilling students, she uses her classroom discussions to illustrate how communication in general works and students can then apply that understanding to build their reading and writing skills. The author claimed that this change helped students clarify their reading skills, which helped them learn how to improve their writing skills. In the reform, she identified three curriculum changes: (a) shortening the developmental sequence, (b)

increasing rigor, and (c) improving scaffolding to higher levels of thinking.

Hayward, C., & Willett, T. (2014).

Curricular redesign and gatekeeper completion: A multi-college evaluation of the California Acceleration Project. The Research and Planning Group for California Community Colleges.
<http://cap.3csn.org/files/2014/04/RP-Evaluation-CAP.pdf>

Following a developmental English and mathematics redesign through the California Acceleration Project in 2011-2012, student outcomes for 2,498 students at 16 California community colleges were tracked through Spring 2013. Common components of the redesign included condensing the sequence by at least one semester, aligning the curriculum, ensuring rigorous coursework, and scaffolding students' learning. The researchers surveyed the colleges to learn which redesign principles they adopted, and they studied variables including the number of attempts, cumulative grade point averages excluding developmental courses, demographic data (e.g., age, disability, ethnicity, gender, and Pell grant status), English language learner status, and Extended Opportunity Programs and Services (EOPS) status. Using a multivariate logistic regression model, the researchers applied several academic and demographic controls to the samples, which included 1,836 students in the accelerated English sequence and 22,354 students in the traditional English sequence. The students in the accelerated English sample were more likely to have a recommendation into lower-level developmental coursework, a disability, and an EOPS status. They were also more likely to be Black or Latinx and a Pell grant recipient. These accelerated

students were slightly less likely to be high school graduates, but both groups were similar regarding age, gender, and grade point average.

The English students were 1.5 times in the accelerated model and 2.5 times in the high-acceleration model more likely to finish college-level coursework than students in the traditional model. Completion rates were 30% in the accelerated model and 22% in the traditional model. In the high-acceleration model, they were 38% versus 20% in the traditional sequence. The researchers reported that all racial groups benefited from acceleration. Latinx students completed the college-level English course at a rate of 38% in the accelerated model compared to 26% in the traditional model. The researchers acknowledged that the study did not assess which redesign components were most impactful. Further, they noted that the timeframe of twelve to eighteen months would not have been long enough for students who placed at lower levels of developmental coursework to complete the sequence, nor could long-term success rates be assessed during that time period.

Jaggars, S. S., & Bickerstaff, S. (2018).

Developmental education: The evolution of research and reform. In M. B. Paulsen (Ed.), Higher education: Handbook of theory and research (pp. 469–503). Springer International Publishing.

This article offered a historical perspective of developmental education reforms in the 21st century. It identified several problems such as poorly aligned placement tests, lengthy developmental sequences, poor instructional approaches, lack of noncognitive skills support (e.g.,

time management, self-regulation skills, self-directed learning, intrinsic motivation, strategic learning, learning strategy transfer, life skills support, resilience support, etc.), lack of integration of academic and student services, K-12 to college misalignment, and use of advisement and reflection in students' matriculation. The researchers identified acceleration as a first wave reform that included compression, corequisite classes, tutoring or supplemental instruction, modularization, and integrated or contextualized learning. They emphasized that compressed and accelerated courses offered new options for students, especially in systems where placement reliability is uncertain. They stated that programs that integrate or contextualize support are better for students who are more certain about their college goals and have chosen a major.

The researchers noted how most reforms changed policy, format, or time spent in developmental education, but little research addresses instructional support directly. Recommendations for best practices in instruction included bridging knowledge; practicing and distinguishing between comprehension, summarization, and interpretation; critical thinking; contextualization and interdisciplinary connection; high engagement; and metacognition. They presented popular trends in need of more empirical research, including contextualization, pathways, integrated reading and writing, and bridge programs. They also addressed how comprehensive reforms, such as those from the 2016 Institute for Education Sciences recommendations, are necessary but difficult to implement. Finally, they noted that much of the research shows that reform is helping students through gateway courses, but it does not show support for long-term success

outcomes, such as completion and graduation.

Jenkins, D., & Bailey, T. (2017). *Early momentum metrics: Why they matter for college improvement* [CCRC Brief No. 65]. Community College Research Center. <https://ccrc.tc.columbia.edu/media/k2/attachments/early-momentum-metrics-college-improvement.pdf>

This report focused on the importance of early momentum in order for college students to reach goals of degree completion. This was described as credit momentum, gateway momentum, and program momentum. Credit momentum encourages students to complete 15 credits in the first semester and 30 credits within the first year. Program momentum focuses on earning at least nine credits within the program of study in the first year. Gateway momentum relates to corequisite reform, in that a student passes gateway mathematics and English courses within the first year. They noted that colleges should remove traditional prerequisite sequences through compressed, corequisite, or similar parallel instructional support methods, helping the student complete the gateway course during year one. Each of these methods, they stated, related to improved completion rates, although no research showing long term success outcomes was offered or cited.

Jenkins, D., & Cho, S.-W. (2012, January). *Get with the Program: Accelerating Community College Students' Entry into and Completion of Programs of Study* [CCRC Working Paper No. 32]. Community College Research Center. <https://ccrc.tc.columbia.edu/media/k2/attachments/accelerating-student-entry-completion.pdf>

Jenkins and Cho analyzed a sample of more than 20,000 first-time community college students at 23 institutions in a single state. These students entered college from Summer 2005 through 2006 and were tracked on their selection of a program of study, course-taking behaviors, and five-year degree completion rates. The researchers found that students who did not choose a program of study within one year of beginning college were less likely to earn a college credential. They set three courses in a program as the threshold. They sorted students according to their program of study, marking those who completed nine credit hours as concentrators, those who did not as “failed attempters,” and those who did not attempt nine hours as “non-attempters” (p. 6).

Jenkins and Cho reported that about 14% of students in the cohort earned a credential, 11% transferred to a university without a credential, 6% earned a bachelor degree, and 9% earned 30 or more credits within five years. Of the students who declared a program of study in liberal arts, 21% earned a credential, 15% transferred without a credential, and 14% earned a bachelor degree. Of the students who declared career-technical programs of study, more than 35% earned either an associate or bachelor degree within five years. None of

the students who failed to declare a program of study earned an associate degree, just 1% of failed attempters finished a bachelor degree, and 1.5% of non-attempters earned a bachelor degree. Within the five-year span of the study, 85% of students who identified a program of study within the first two years completed a credential.

Their findings suggested that colleges must integrate systematic processes to assist students in choosing a program of study early on in their enrollment. They recommended processes colleges should use to improve degree completion rates from connection and entry through progress and completion. An important conclusion offered was that the whole college, not advising and developmental education alone, must be involved in supporting student completion.

Jenkins, D., Speroni, C., Belfield, C., Jaggars, S., & Edgecombe, N. (2010). *A model for accelerating academic success of community college remedial English students: Is the accelerated learning program (ALP) effective and affordable?* [CCRC Working Paper No. 21]. Community College Research Center. <https://ccrc.tc.columbia.edu/media/k2/attachments/Remedial-english-alp-effective-affordable.pdf>

In order to measure the effectiveness of the accelerated learning program (ALP) reform that began in 2007-2008, the Community College of Baltimore County (CCBC) requested third-party efficacy and cost analyses from the Community College Research Center. Using data from 104 ALP students and 2,070 traditional developmental

students who enrolled at the college for the first time in fall 2007 through fall 2008, Jenkins et al. conducted multivariate analyses of writing course sequence pass rates, term-to-term and year-to-year persistence rates, success rates in college-level courses, and degree completion rates. Although the ALP students' placement scores were higher than the traditional students' scores, a significant difference was not present. The demographics of the ALP sample included younger students and students who had taken at least one dual enrollment coursework in high school. The ALP sample also included a higher percentage of White students than the traditional section.

The results showed that the students in the ALP sections were more likely than students in the traditional developmental course to attempt and complete both 1st-year writing courses, but the two groups were similar in comparison regarding course grades, persistence rates, and success rates. The researchers controlled for English language learner status, transfer student status, demographics, faculty status, and campus, but the results remained consistent. They noted that the pass rates for the second 1st-year writing course was a better indication of how well students performed because the ALP students no longer had the companion course. The researchers noted possible selection bias and student composition issues between the courses, and they acknowledged that inferences rather than correlations should be made with the data.

Cost-effectiveness and cost-benefit analyses were also conducted, comparing the cost of smaller ALP sections versus the traditional developmental sections and pass rates for the developmental and 1st-year writing sequence. The cost-effectiveness

analyses revealed similar per student costs in both baseline and adjusted models, but the cost-benefit ratio revealed that the benefits of ALP are more than double the costs.

Kelly-Riley, D. (2020). Engaging accountability: Faculty-led, statewide, implementation of a corequisite model of first year writing across two- and four-year public institutions. *Composition Studies*, 48(2), 35-53.
<https://files.eric.ed.gov/fulltext/EJ1269335.pdf>

This article provided background and data for English 101Plus, Idaho's answer to a statewide corequisite mandate. Faculty from Boise State University and College of Western Idaho created the corequisite course by redesigning 1st year outcomes, creating the corequisite course, and revising writing placement to directed self-placement. After the class was piloted and professional development sessions conducted on teaching the Plus model, adaptation suggestions for urban, rural, 2-year, and 4-year institutions were described. By the 2014-15 school year, the state fully scaled the corequisite model. The data offered spanned academic years 2011 through 2015. The data reported overall racial and age student demographics but did not include a breakdown of success rates in the prerequisite and corequisite courses by race or age. However, the data revealed higher pass rates for the Plus students than students who took remedial classes and for students who did not need developmental support.

McGee, K. (2020, February 13). *Starting college behind.*

<https://interactive.wbez.org/2020/developmental-education>

As part of an Education Writers Association grant, case study observations were conducted for one semester in four classrooms at Wilbur Wright College. The author reported on the developmental education reform debate, showing that more than corequisite reforms were needed to support students to meet new state goals. She described the complicated nature of student needs through the life of Luis, a 19-year-old college student taking developmental coursework, managing a job, and caring for ill family members. It was reported that two-thirds of students who were newly enrolled in Chicago's City Colleges placed into developmental mathematics or English in 2013, but only 11% graduated within three years. Citing national data that nearly 70% of community college students were placed into developmental courses with only 26% graduating within three years and placing it further in context to the state's goal of 60% of Illinois residents having a degree by 2025, McGee explored the push for legislation that would require corequisite rather than traditional developmental courses throughout the state. Faculty pushed back by advocating that developmental instruction could be improved without state mandates by restructuring courses, integrating reading and writing, and improving the placement test. The author cited reform data, noting that corequisite reform in Tennessee did not result in higher numbers of students graduating. She argued that more holistic reforms in advising, career services, financial aid, and curriculum

pathways were needed campus wide to improve graduation rates.

Nix, A. N., Jones, T. B., Brower, R. L., & Hu, S. (2020). *Equality, efficiency, and developmental education reform: The impact of SB 1720 on the mission of the Florida College System. *Community College Review*, 48(1), 55–76.*

<https://doi.org/10.1177/0091552119876327>

An embedded case study at 10 Florida colleges from 2014 and 2018 examined the impact on equity and access to higher education following the signing of Florida Senate Bill 1720, which rendered developmental education optional for students. Through focus groups and interviews, the researchers discussed the legislation's impact on equity with 544 college representatives, including presidents, administrators, faculty members, staff members, and students. The researchers used Labaree's theoretical framework on the goals of American higher education to explore how concepts of equality, social mobility, and efficiency interact within the post-mandate system.

Early in the implementation process, some faculty and administrators noted how the mandate was in conflict with the mission and would fail; however, many participants supported the expected long term outcomes. One faculty member commented that although the classes contained a mixture of academically prepared and underprepared students, they were able to support them through to success. An administrator commented that the reforms doubled success rates for Latino males, but which of the reforms produced that result was not clear. Concerns regarding acceleration and computer-integration were also cited early

on as a barrier to open access. However, faculty commented that compressed acceleration seemed to work for more students. Regardless of whether students had technology at home, they were able to find resources (e.g., computer labs, computer loans, and modularized approaches). One recommendation that emerged was that colleges should provide accelerated options but study other reforms as well. Concerns that some students need more time in class supported an argument for keeping traditional course timelines for students who needed it.

**Oklahoma State System of Higher Education. (2016). *Corequisite at scale guidance*.
<http://www.okhighered.org/complete-college-america/corequisite-at-scale-docs/corequisite-at-scale-guidance.pdf>**

In June 2016, the Oklahoma State System of Higher Education joined Complete College America's (CCA) initiative in scaling up corequisite education. The system set a goal of 75% of developmental education students being enrolled in corequisite remediation by Fall 2017. By the end of the academic year 2018, they anticipated that they would double the completion rates of college-level mathematics and English courses. Each institution was guided to select a corequisite model, whether the accelerated learning program (ALP) model, mandatory lab or tutoring, a compressed sequence, or other models using backward design to align college-level curricula. The state combined efforts with CCA to offer corequisite academy sessions, progress tracking, and evaluation methods from Fall 2015 throughout the scale-up timeline.

**Oklahoma meets national scaling corequisite initiative goals. (2018, December 5). *Targeted News Service (USA)*.
<https://www.okhighered.org/news-center/Corequisite-initiative-goals-2018.shtml>**

The Oklahoma State Regents for Higher Education reported that the state met the goals from the June 2016 corequisite scale-up directive and initiative they were completing in coordination with Complete College America. All 25 Oklahoma public institutions of higher education were able to ensure that 90% of developmental students were able to choose from corequisite options and that 75% of students were enrolled in corequisite courses if needed. No data on efficacy was presented.

**Ran, F. X., & Lin, Y. (2019). *The effects of corequisite remediation: Evidence from a statewide reform in Tennessee* [CCRC Working Paper No. 115]. Community College Research Center.
<https://ccrc.tc.columbia.edu/media/k2/attachments/effects-corequisite-remediation-tennessee.pdf>**

Ran and Lin studied the impact of Tennessee's state-wide math and English corequisite reform. The researchers collected data from the state's 13 community colleges, focusing on 1st-time students who enrolled in gateway and developmental math or English during the fall term of 2010 and 2011 and 2016 and 2017. Using regression discontinuity and difference-in-regression discontinuity methods and tracking outcomes through Spring 2018, they analyzed ACT scores, grade point average, credits attempted and earned, degree

completion, and transfer data collected from the Tennessee's Board of Regents and the National Student Clearinghouse. The analytic sample excluded students with very low ACT scores, limiting the scores to just below and just above cut off levels between 18 and 20 for math, reading, and writing. The researchers also noted a difference in racial makeup, with the analytic sample being less diverse than the full sample used for comparison. The average age of participants for both samples was 18, and 75% of the students were within one year of having earned their high school diploma. The findings showed that students who completed the English corequisite course were 13% more likely to pass the level one gateway English course within one year of enrollment. However, they also reported that the effects of corequisite support lessened by the third year of college. Keeping in mind that the participants placed near college-ready levels, the researchers also found no significant difference in students' ability to pass English gateway courses with or without corequisite support. Their findings showed no significant impact on enrollment persistence, degree completion rates, college completion rates, or four-year transfer rates.

Rutschow, E. Z., Scott Cormier, M., Dukes, D., & Cruz Zamora, D. E. (2019, November). *The changing landscape of developmental education: Practices findings from a national survey and interviews with postsecondary institutions.* <https://ccrc.tc.columbia.edu/media/k2/attachments/changing-landscape-developmental-education-practices.pdf>

A national survey on developmental education support was administered during the 2015-2016 academic year to public two-

and four-year colleges and to private nonprofit four-year colleges. Semi-structured interviews were also conducted with faculty, staff, and administrators and with state leaders from states that mandated reforms, including California, Florida, New York, Tennessee, and Texas. The report examined current practices in developmental education assessment, placement, instructional delivery, and support (e.g., advising, tutoring, and other services). Rutschow et al. used a random sample of 1,712 colleges and 3,127 public and private universities collected from Integrated Postsecondary Education Data System (IPEDS) data to identify survey participants. Due to low response rates from private four-year institutions, the researchers excluded that data, leaving the final sample with 1,055 public two- and four-year colleges. The data were analyzed in comparison to results from a similar survey conducted in 2011 to illustrate changes over time. The results indicated that large-scale changes have been made at more than half of the nation's public higher education institutions. Some colleges continue to use high-stakes tests for placement and prerequisite developmental coursework, but 51% of public two-year and 54% of public four-year institutions apply multiple measures (e.g., tests, high school grades, high school grade point average, Common Core assessments, program of study, and noncognitive assessments) to assess English readiness. About 50% of private colleges used standardized tests and fewer than 20 percent used other or multiple measures to gauge college readiness. Two-year colleges offered about the same amount of developmental support as they had in previous years, but four-year institutions increased developmental course offerings.

Although multiple-course,

prerequisite models composed a substantial amount of developmental course offerings in reading and writing (67% two-year, 44% public four-year, 49% private four-year), many colleges were using corequisite models, compressed models, integrated reading and writing courses, flipped models, self-paced courses, pathways, and learning communities, with all reform models comprising more than half of developmental course offerings. Corequisite models were reported as more prevalent in developmental reading and writing courses (56% two-year, 42% public four-year, 30% private four-year) than mathematics (28% two-year, 27% public four-year, 13% private four-year). Reading and writing corequisite models were scaled at 16% of two-year colleges and 21% of public four-year colleges. Most institutions used multiple reforms with 86% of two-year colleges and 60% of public four-year colleges reporting using two or more instructional approaches and 70% of two-year colleges and 40% of public four-year colleges using three or more approaches. This blending of approaches has made determining best practices difficult. The survey also reported that more than 42% of developmental students at two-year institutions and 49% to 52% at public four-year colleges received mathematics or reading and writing support through supplemental instruction or tutoring services.

Scott-Clayton, J. (2018, March 29).

Evidence-based reforms in college remediation are gaining steam – and so far living up to the hype (Evidence Speaks Series). The Brookings Institute.

[https://www.brookings.edu/research/evidence-based-reforms-in-college-remediation-are-gaining-](https://www.brookings.edu/research/evidence-based-reforms-in-college-remediation-are-gaining-steam-and-so-far-living-up-to-the-hype/)

steam-and-so-far-living-up-to-the-hype/

This study reported on the drop in the numbers of students who needed remediation since reform efforts began in 2008 and 2009. The author attributed this drop and the push for innovative reforms to sharing data to make informed policy and practice decisions regarding accurate placement, low success rates in developmental sequences, and success rates for those skipping developmental sequences altogether. The report offers a table of legislative changes and mentions that in states like Florida, where the overall success rates in the gateway courses dropped slightly, the increase in the number of students who were attempting and succeeding in those courses meant that the reforms were working, especially for minority students. The article was a summary of the impact of reforms, but it did not center on corequisite research or contribute to efficacy evaluation.

Shanahan, T. (2020). Pedagogical framework for integrating developmental writing and English composition through the accelerated learning program corequisite model. *Journal of Higher Education Theory and Practice*, 20(10), 159-172. <https://doi.org/10.33423/jhetp.v20i10.3660>

Using past developmental and corequisite frameworks as foundations along with social and cognitive best practices, a conceptual framework and implementation plan was proposed for the integrated reading and writing corequisite classroom. The first framework outlined corequisite objectives, including learning foundational writing

skills, applying writing skills in a meaningful context, and developing noncognitive skills. The second framework demonstrated a recursive teaching and learning process needed for the development of foundational reading and writing skills. The conceptual framework underscored how growth mindset, metacognition, and formative assessment linked students to building an understanding of the rhetorical situation needed to complete an assignment. Additionally, practices were described that created a culturally responsive community of practice, including active learning, collaborative learning, differentiation, student choice, contextualization, and authentic application as crucial pedagogical aides. Several assignments were offered to demonstrate how instructors could apply and connect the framework to teaching practices. Recommendations for professional development were offered and adaptations to the framework were described for larger corequisite classes.

Stahl, N. A. (2017). Integrating reading and writing instruction in an accelerated curriculum: An interview with Katie Hern. *Journal of Developmental Education*, 40(3), 24-27.
<https://files.eric.ed.gov/fulltext/EJ1184228.pdf>

An interview with the co-director of the California Acceleration Project (CAP) focused on the history and theoretical foundation for her large-scale advocacy for and implementation of accelerated learning programming and integrated reading and writing approaches. Hern attended a meeting in 2005 where the participants discussed multiple barriers to success for students who needed developmental support. The concerns included long developmental

sequences; decontextualized content; lack of rigor, engagement, scaffolding, and higher-order thinking skills in developmental classes; delays in graduation; and high dropout rates during the developmental sequence. Hern was already teaching a corequisite writing support class and knew it addressed many of the issues discussed. She began more thoroughly analyzing student data from her college and disaggregating the data by demographic to analyze success rates, which were 20% to 25% higher than those in the traditional developmental sequence. It also showed improvements with students who have been historically marginalized. Scaling corequisite courses reduced the number of students taking developmental courses from 65% to 22%, with 77% of those students having passed the first-year college-level courses with corequisite support. The accelerated integrated reading and writing approach moved the composition program away from decontextualized, deficit-focused feedback approaches toward scaffolding and developing students' abilities to read and write independently and critically through thematic approaches on authentic, engaging topics through collaborative and peer learning. Hern also addressed issues surrounding placement when using a cognitive assessment alone and described a college transition from placing students using standardized testing to students self-reporting their high school GPA.

Zinshteyn, M. (2020a, January 12). Tests give way to grades; Report says colleges are using students' marks to determine if remedial courses are needed. *Daily News of Los Angeles (CA)*, 17.

This article reported on the impact of higher education's placement reforms,

specifically the shift from using standardized tests for admission or placement to using multiple measures or high school grade point average and corequisite models. Findings from the Community College Research Center and MDRC survey of postsecondary institutions showed that 57% of community colleges and 63% of four-year public universities were using multiple measures, high school grades, or high school grade point average to place students in college-level courses. According to national data, it was not unusual for more than 70% of students to be placed in developmental coursework, but some districts were reporting 84% of students being placed into developmental courses, with many of those students coming from minority backgrounds. Further, it was reported that more universities were integrating developmental support in 2016 than were in 2000, and corequisite reforms constituted much of the change in developmental education support. It was noted that compliance in corequisite-only approaches was not happening in all states where mandates were not in place for all institutions of higher education.

Zinshteyn, M. (2020b, January 20).

Rethinking remedial education: New study shows college students did better in 'corequisite' courses built around extra instruction and support.

<https://www.the74million.org/article/rethinking-remedial-education-new-study-shows-college-students-did-better-in-corequisite-courses-built-around-extra-instruction-and-support>

Zinshteyn reported on Ran and Lin's findings in the Tennessee corequisite study, noting specifically that the researchers found

direct evidence for corequisite support leading to gateway course completion but no evidence that corequisite support led to higher levels of degree completion or transfer to a university. Students in Tennessee were more likely to pass the introductory course with corequisite support, and these students were also likely to pass the next mathematics or English course in the sequence. The author noted that Ran advocated moving toward all corequisite courses, though ascertaining which corequisite model had the biggest impact was not clear. He commented on wrap-around supports based on New York City's Accelerated Study in Associate Programs model as showing the most promise beyond corequisite support.

Discussion and Conclusion

This compilation of research references and annotations was done to inform scholars and practitioners about the trend in corequisite developmental education. It was an attempt to collect all scholarly and research literature from 2009 to 2020. It includes annotations of descriptive and efficacy studies, dissertations, working papers, and articles.

This work offers a comprehensive view of what is available regarding corequisite model descriptions and dimensions, instructional strategies, support components, and efficacy measures. Consumers of this literature can gauge the extent to which the corequisite developmental education model is being implemented properly, assessed for effectiveness, compared properly to the benchmark ALP and other academic intervention options, and evaluated for improvement. Consumers might also learn

the various ways in which the model has morphed and performed as it is scaled nationally. The next issue of *Research in Learning Assistance and Developmental Education* will present a similar resource for corequisite developmental mathematics.

Fenecia Foster is the Dean of Curriculum and Instruction at Southeast Technical College in Sioux Falls, South Dakota.

References

- ALP (Accelerated Learning Program). (2022). *What is ALP?* <http://alpdev.org/what-is-alp-exactly/>
- Community College Data. (2020). *Resources on corequisites.* <http://communitycollegedata.com/resources/corequisites/>
- Complete College America. (2012). *Remediation: Higher education's bridge to nowhere.* <https://files.eric.ed.gov/fulltext/ED536825.pdf>
- Saxon, D. P., Martirosyan, N. M., & Sides, M. L. C. (2020). NADE/NOSS members respond: What's in a name? Part 1. *Journal of Developmental Education*, 43(2), 26-28, 32.

Acknowledgements

Shannon McGregor is the Director of Adult and Alternative Education at Lake Land College in Mattoon, Illinois.

D. Patrick Saxon is a Professor and Doctoral Program Director at Sam Houston State University in Huntsville, Texas.

Nara M. Martirosyan is an Associate Professor at Sam Houston State University in Huntsville, Texas.