PRACTITI NER TO PRACTITI NER

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The NOSS *Practitioner to Practitioner* publishes articles of interest for developmental education professionals including administrators, faculty, learning assistance personnel, academic counselors, and tutors who are interested in the discussion of practical issues in post-secondary developmental education. *Practitioner to Practitioner* is published electronically twice each academic year. Articles in *Practitioner to Practitioner* are indexed in ERIC.

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Articles should relate to issues that inform and broaden our understanding and practice of teaching and learning in developmental education. The subject of the article may emphasize innovative approaches, best practices, how meaningful research affects teaching and learning, or techniques to enhance student performance. Review the "Call for Manuscripts" on page 2 for more information.

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MISSION

NOSS exists to assist education professionals in making a positive difference in the lives of students.

NATIONAL ORGANIZATION FOR STUDENT SUCCESS **PRACTITISMER** TO **PRACTITISMER**

"Promoting Communication among Education Professionals Who Care About Student Success"

Call for Manuscripts

Practitioner to Practitioner is a publication of the National Organization for Student Success (NOSS). NOSS invites articles of interest for professionals in higher education that relate to issues which inform and broaden members' understanding and practice. The subject of the article may emphasize innovative approaches, best practices, or techniques to enhance student access, performance and/ or retention. Researched or non-researched articles are accepted.

Please follow these guidelines when submitting your manuscript:

- There is no deadline for submission. All submissions are accepted for review at any time. *Practitioner to Practitioner* is published twice each academic year. Issues are published electronically on the NOSS website.
- NOSS will acknowledge receipt of manuscripts via email within ten days.
- Articles are **not** refereed.
- Articles are written for faculty, counselors, support service professionals, and academic administrators. The subject matter must be relevant to the journal's audience.

Practitioner to Practitioner

Volume 10, Number 7 | Spring 2021 Deborah B. Daiek, Ph.D., Editor National Organization for Student Success (NOSS) PO Box 963, Northport, AL 35476 office@thenade.org| www.thenoss.org Tel: 205.331.5997 | Fax: 866.519.1331

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- *Practitioner to Practitioner* articles are generally between 1200 and 1500 words and should conform to current APA Style.
- Articles must be proofread and edited. Hyperlinks/URLs **must** be verified. Authors are responsible for content and accuracy of their work.
- References, citations in the text, tables, figures or a bibliographic section are only necessary with researched articles.
- The manuscript must include:
 - 1. Title of the article
 - 2. The name, credentials, job title, and employer of each author
 - Name, address, and email of author responsible for correspondence. All communication will be with the lead author, who is responsible for communication with other author(s).
- The body should be double-spaced with oneinch margins, 11-point font. Do not justify the right margins.
- The manuscript must not have been published previously nor be scheduled for publication in any other publication.
- Manuscripts must be submitted electronically in .doc or .docx format as an attachment to an email addressed to <u>practitioner@thenoss.org</u>

Lessons learned from a Virtual Superhero

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Education has dramatically changed! We, as educators, have been faced with transitioning our teaching from a face to face to an online format. What exactly does this mean for us? There is no doubt that many of us were unprepared and surprised by this educational transformation. The look of online teaching and learning seemed fairly simple on the outside but the execution of this was nevertheless daunting. As we prepare for our fall semester of developmental teaching and learning, it is worth taking time to reflect on our virtual experiences.

Of course, the entire transition to complete online teaching and learning created a great deal of stress on all involved especially to those of us who had not previously taught in this manner. Thank goodness, for me, I had dabbled in a variety of tech tools for face to face classes, but the question was how I was going to successfully do this for online courses. Furthermore, I knew that as an educator that no matter what was going to happen, students would look to me for guidance, encouragement and assurance that we would all get through this new experience together. The success of my students in this online environment was a priority. Their well being was paramount. I knew I had to change my classroom educator mindset to an online educator mindset in order to be successful for myself and my students. Moreover, I knew I had to help facilitate the changing mindset of my students. This is when metacognition and critical thinking jumped into action. I put aside all my emotions to rise to the occasion for my students. Then, somehow, I magically transformed into a virtual superhero.

So, I flew into action, as any superhero educator would do, studying the issues I was having, whether it was lack of computer tools, reliable internet, or students themselves not knowing what to do. I brainstormed solutions. My job now became a twentyfour-hour position. I had to rethink how to deliver my lessons with a variety of educational tech tools. The learning curve was high. I was constantly trying to experiment with new virtual technologies and new ways of doing things. Definitely, by the end of the Spring Semester, I learned a lot about online superhero traits and abilities. Specifically, I learned:

- Be open-minded. Try new things, new tech tools, new ways of evaluating and assessing students. Be open to new ways of doing things. Investigate, explore and experiment with new technology. You will get ideas and tips from a variety of sources.
- 2) **Be brave.** Making mistakes with new technology is expected. Just take a deep breath and do it. We are learning as well as our students. Remember that we learn from our failures and mistakes. In this manner, we are building our level of expertise and confidence.
- 3) **Listen more.** Colleagues and students will give advice and feedback on what is working and not working in our online courses.
- 4) Be patient. Conducting online classes takes a lot of time investment. No one expects us to be perfect. Your students need your patience as well since they are dealing with their own stressful moments.
- 5) **Maintain a growth mindset.** We need to maintain positive, encouraging, engaging and meaningful experiences so that we can nurture a growth mindset in all of us.
- 6) **Communicate.** Maintain open lines of communication with students, colleagues, and your workplace. Praise colleagues and students for successes and talk through the failures. We all need support and encouragement.
- 7) **Reflect.** Make a routine of looking back on how to improve your experiences and those of your students. Include your students in this process.

8) **De-stress.** Keep a healthy mind and body! Take time out to relieve stress. Keep in mind that students can detect when we are stressed which creates stress in them.

Definitely, the good news is that all of us are more prepared for the upcoming online semester. Our educational experiences, points of view, expertise and tools have changed and grown. Along with all of these new technological experiences, we, as educators, will continue to maintain high expectations for our students. We do need to exercise our new found superhero traits and abilities as we travel through this technological world of teaching and learning. All the tech tools in the world will not replace effective teaching and learning without our superhero mindset. More than ever, commitment and dedication to deliver outstanding online teaching and learning are essential. We should remember that this journey still is quite new to both educators and students but we are getting better each day as we navigate through it together. As they say, the proof is in the pudding! And we will continue to make and eat our superhero pudding. So, let's applaud all the virtual superheroes and help each other fly to success!

Co-Requisite Remediation: A Pilot Study on Expanding the Placement Range into Co-Requisite Courses

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Abstract

Different developmental mathematics programs are offered at various institutions across the United States. Many vary from state to state, and even college to college within states. One of the designs that has emerged as a frontrunner is the co-requisite model. This pilot study builds on previous success of the model by exploring the effect of pass rates when the placement range for co-requisite courses is expanded. The goal is for the pilot results to help indicate whether or not more students should place directly into the co-requisite model, bypassing the prerequisite stand alone. Results are promising, and continue to show success for this model. Keywords: Corequisite, mathematics, remediation, developmental

I. Introduction

Every academic year, millions of students across the United States enroll in developmentall courses. In fact, it is estimated that about 59% of community college students and 33% of students at four-year public universities are underprepared in mathematics [15, 22]. Evidence suggests that only 33% of students placed in developmental mathematics courses ever complete the pipeline to earning a college mathematics credit within three years [4]. Research continues to suggest that students who place in developmental courses have "consistently worse" academic outcomes than those who do not [18]. This population of students is often times first generation, low income, underprepared, and minority [4, 18, 27].

There are many different types of developmental programs across the nation to address this shortfall. Many vary from state to state, and even college to college within states [7, 19, 30]. Traditionally, developmental programs consist of as a sequence of courses designed to progress students through developmental mathematics beginning with an elementary algebra or a similar course and ending with a college credit gateway2 algebra course. The structure of this traditional sequence in practice can pose barriers to student success [4, 28]. As a result, now, and especially in the most recent decade, developmental program designs have shifted to include other types of design such

Developmental and remediation are used interchangeably throughout the paper

² Gateway is used to describe a required college-level credit mathematics course

as modular, self-paced, compressed, the emporium model, and so on in place of the traditional sequence [6, 28].

One in particular, the co-requisite model, has gained traction in recent years and has emerged alongside the math pathways reform movement across the nation [9, 10, 12, 28]. Co-requisite remediation can be designed in a variety of ways, but for this study, we will consider it as an opportunity for students to take their college-credit gateway course at the same time as a developmental support course, thus bypassing a standalone developmental course [11, 24].

2. Literature Review

According to several studies, co-requisite remediation is an upcoming reform strategy and has shown to improve student success in remediation [14, 15, 21, 22]. In Tennessee, under the co-requisite model, student pass rates jumped from 12% with the prerequisite model to 51% with the co-requisite model [32]. Complete College America reports that in states that have scaled the co-requisite model, the percent of students successfully completing gateway math or English courses in one academic year has doubled or tripled [12]. In addition, the California Acceleration Project advocates for student placement in college-level math pathways courses along with co-requisite supports. When controlling for demographic and academic factors, student's completion of a college-level course within two academic years increased from 12% in traditional developmental courses to 38% with the accelerated courses [17]. Co-requisites are designed to accelerate students through the sequence of developmental study, often times saving students not only time, but also money [5, 11], which can be a challenge for low-income students who are overrepresented in developmental courses [3].

The lack of success in developmental courses can discourage students from completing their college studies [26]. Scott-Clayton [30] reports that if students who are assigned to remediation courses were given the chance to begin with college-level courses, 25% to 33% of them could have earned a B or higher. According to him, community college students have been over diagnosed as underprepared. Since

most content of developmental mathematics courses are similar to mathematics knowledge which students learn when they are in high school [23], a lot of students lose momentum and interest in their developmental study [1]. To compare with the students who haven't been placed into developmental mathematics courses, students who are in developmental courses are also more likely to drop or delay their degree [4].

When considering the co-requisite model in mathematics remediation, one challenging factor is how students are placed and if they are being placed appropriately [25]. Many colleges require new freshmen to take a placement test when they get to campus or to use test scores already taken for placement, such as ACT or SAT, to determine mathematics course placement. Depending on students' performance on these placement exams, they may or may not need developmental courses before enrolling in college-level work. According to data from The Center for Community College Student Engagement [8], 86% of students agree/strongly agree that they are academically prepared to succeed in college, however, 68% of community college students take at least one developmental course [20].

Expanding research on the co-requisite mathematics program design and placement is more important now than ever [10]. It is recommended to continue to contribute to the developmental mathematics reform, and to observe and explore the effect of modifications to the co-requisite model to ensure student success [2]. As noted by Scott-Clayton [30], "As long as a virtuous cycle between research, policy, and practice continues, outcomes for students will hopefully keep moving in the right direction" (p. 9). This leads to the following research question:

How does modifying student placement effect co-requisite course pass rates?

In the following sections, we will present our data collection and analysis, results, and discussion.

3. Data Collection and Analysis

This study takes place at a midsize southern four-year public institution where the co-requisite model for developmental mathematics has been in place since summer 2016. The model consists of courses for two pathways: College Algebra (for STEM majors) and Quantitative and Mathematical Reasoning (QMR, for non-STEM majors). For the College Algebra pathway, there are three placement options: Foundations of College Algebra (pre-requisite); College Algebra with Lab (co-requisite) and College Algebra (standalone). For the QMR pathway, there are also three placement options as follows: Foundations of QMR (pre-requisite); QMR with Lab (co-requisite); and QMR (standalone).

The foundations courses are designed for students who need a full semester of mathematics remediation to prepare for college-level math. Upon passing the foundations course with an A, B, or C, then he or she enrolls in the gateway course within the aligned pathway the next semester. The co-requisite courses are designed to allow students to enroll in college-level mathematics along with a developmental support lab during the same semester. The support lab is a onehour developmental course that takes place typically either right after or right before the college-level course. During the lab, instructors typically review pre-requisite material needed for the college-level course and/or use the time for activities and group work. The co-requisite courses have the same instructor, and students receive the same grade for each. Lastly, the standalone courses are a typical three-hour college-level credit gateway course.

At this institution, approximately 300-400 students are enrolled in developmental courses each semester,

about half in the foundations courses and half in the co-requisite courses. Students place into each pathway based on their major and test scores (see Table 1).

Previously, at this University, data from summer 2016 to fall 2017 were analyzed qualitatively with respect to the co-requisite model. Analysis found that the pass rate for co-requisite courses was 75% (402 out of 539) and the pass rate for foundations courses was 59% (273 out of 463). Further analysis indicated that only 28.5% (132 out of 463) of the students who completed the foundations course, enrolled and passed the gateway course to earn college math credit. In other words, students were still getting lost in the pipeline from foundations to gateway courses [11]. As a result of these findings, in spring 2019, a small pilot study was conducted to observe what would happen with student pass rates in co-requisite courses if the following changes were made to placement:

- All students who would normally place into Foundations of QMR were allowed to enroll in co-requisite Quantitative and Mathematical Reasoning. This included students whose ACTMath is less than or equal to 15
- 2. All students with ACTMath 16-17 who would normally place into Foundations of College Algebra were allowed to enroll in co-requisite College Algebra.
- 3. All students whose high school GPA was 3.0 or higher were allowed to enroll in co-requisite courses regardless of placement exam grade(s).

	Foundations QMR College (Non-STEM Algebra major) (STEM major)		Co-Re	equisite	Standalone		
			QMR College (Non-STEM Algebra major) (STEM major)		QMR (Non-STEM major)	College Algebra (STEM major)	
ACTMath	15 or less	17 or less	16-18 18-20		19+	21+	
COMPASS	40 or less	42 or less	41-43 43-44		44+	45+	
ACCUPLACER	59 or less	69 or less	60-76 70-79		77+	80+	
SATMath	460 or less	489 or less	470-514	490-529	515+	530+	

 Table I. Mathematics test score placement

In essence, the goal was to explore the effect of allowing more students into the co-requisite courses to eliminate the pipeline from foundations to co-requisite. Since this was a pilot study and students did not satisfy the current placement guidelines, central advisors sought out students who fit the criteria given in 1-3, and gave them overrides for the appropriate course(s). This results in a small sample size, however, the goal was to gain some insight on whether or not expanding the placement range ("the bubble") of co-requisite courses increases students' chances for success or not, even if this meant not having a large sample size.

Data was collected from the Office of Institutional Research and included student ACTMath sub scores and course grades for students enrolled in foundations courses, co-requisite courses, and college-level standalone courses for each pathway. For 1 and 2, pilot students were identified as not having met the ACTMath cut off requirement, and not having any pre-requisite course(s). For 3, students were identified who did not meet the co-requisite cut off, whose high school GPA was 3.0 or higher, and who were enrolled in the co-requisite courses.

SAS programming was used to organize and analyze the data with respect to test scores and pass rates for each cohort. Passing for the foundations courses includes grades of C or higher. A passing grade for the co-requisite and standalone courses is considered D or higher. For this pilot study, the ACTMath was used as the primary tool for placement. The ACTMath is the most commonly accepted placement test at this University and therefore, was more appropriate to focus on, rather than others such as SAT or Accuplacer.

4. Results

For the first part of the pilot study, all students who would normally place into Foundations of QMR were allowed to enroll in co-requisite QMR. This included students whose ACTMath is less than or equal to 15 (For standard placement scores see Table 1). In Table 2, results indicate that students whose ACTMath≤ 15 passed co-requisite QMR at 50%, while students with ACTMath 16-18, those typically placed in the course, passed co-requisite QMR at 54.5%. There were several students who were enrolled with ACTMath \geq 19 possibly due to choice or scheduling reasons. Interestingly, they had the same pass rate as those with ACTMath \leq 15.

3	I	4	I	50
5	0	6	4	54.5
			I	50
	3 5	3 I 5 0	3 I 4 5 0 6	3 I 4 I 5 0 6 4 I I I

Table 2. Co-Requisite QMR Pass Rates* indicates pilot students

While the pass rates for spring 2019 in co-requisite QMR were not high, pilot students still performed the same as those who were typically placed in the course. In addition to comparing pass rates for ACTMath scores for the co-requisite QMR course, pass rates were also compared to the standalone QMR course (see Figure 1).

Pass rates for standalone QMR were higher the lower the ACTMath score, however, the sample size is very small, and some of these students in the standalone QMR may have been enrolled in the foundations course as a pre-requisite. For ACT \geq 19, the cutoff for the course, the average pass rate was 50%, about the same as for the co-requisite courses.

The second part of the pilot study allowed students with ACTMath 16-17 who would normally enroll in Foundations of College Algebra to enroll in co-requisite College Algebra. In Table 3, results indicate that students with ACTMath 16-17 passed with an average of 82.4%. This is higher than those with ACTMath 18-20 who typically place in the course, who passed with a rate of 68.9%. There were also seven students with ACTMath≥21 who would have qualified to take standalone College Algebra, but perhaps due to choice or scheduling reasons, were enrolled in the co-requisite College Algebra. These students passed with a rate of 57.1%, surprisingly, not as high as the lower ACTMath scores.

	Ν	Α	В	С	D	F	W	%
*ACT 16-17	34	4	5	16	3	4	2	82.4

ACT 18-20	29	5	8	5	2	4	5	68.9
ACT ≥21	7	2	Ι	I	0	Ι	2	57.I
Table 3. Co-Requisite College Algebra Pass Rates								

*indicates pilot students

In addition, the pass rates of the co-requisite College Algebra courses were compared with the pass rates of the standalone College Algebra course with relation to the ACTMath scores (see Figure 2).

Findings indicate that those in the co-requisite courses did very well compared to those in the standalone courses. In fact, for ACTMath 16-17, the co-requisite students passed at a rate 15.4% higher. Note that for students with ACTMath lower than 21 in the standalone course, they had most likely taken Foundations of College Algebra, or an equivalent, before enrolling.

For the last part of the pilot study, any student whose high school cumulative GPA was 3.0 or higher were allowed to enroll in co-requisite courses regardless of low testing placement scores. It was very difficult to figure out which students were placed based on GPA alone, and not on other factors. A lot of the time, ACTMath or other scores determined the placement, not the high school GPA. In the cases where it looked like the high school GPA was the reason for placement, there was not enough data overall to make any conclusions.

5. Discussion

Based on the results from the first part of the pilot study, it was found that students with ACTMath ≤ 15 who would normally place into Foundations of QMR passed at about the same rate as those with ACTMath \geq 16 who place into co-requisite or standalone QMR. Compared to our previous study which found that 47.5% of students enrolled in Foundations of QMR completed with a passing grade, at 50%, although not high, it is still better than the previous Foundations of QMR course pass rate [11]. It is also better than the pipeline completion rate (28.5%), and findings indicate it is also about the same pass rate as those already placed in the course. Based on these results, it is suggested to eliminate the course Foundations of QMR to allow all students who would normally place into this course into co-requisite QMR. This will allow all non-STEM major students to begin the QMR pathway in a college-level credit course, increasing the odds to retention and graduation, and eliminating the pipeline to nowhere [4, 15, 30]. In addition, since pass rates are not high for the QMR courses, it is suggested to look at ways to improve overall pass rates in these courses. Since it is difficult to teach students to identify



Figure I. QMR Pathway Pilot Results

mathematics in context [16], it is important that faculty be given professional development support to enhance quantitative reasoning in their courses [13]. The ability to think quantitatively plays a central role in undergraduate education, and while there is no single pedagogy, problem centered or inquiry focused learning approaches may be best [13].

For the second part of the pilot study, it was found that students whose ACTMath 16-17 with no prior foundations course, did very well in the co-requisite College Algebra with a pass rate of 82.4%. In fact, although numbers are small, pilot students passed 13.4% higher than those who normally place into the courses (ACTMath 18-20). The previous study indicated that 62.2% of students enrolled in Foundations of College Algebra passed the course. In addition, these pilot students would have also entered the pipeline with a 28.5% completion rate to earn college-level math [11]. Thus, based on these results, it is suggested to expand the range of test scores for co-requisite entry to include ACTMath 16-17 and have other similar placement tests expand their range accordingly as well (i.e. SAT, Accuplacer, etc.). If students have a better chance at earning college math credit, then they should be allowed to do so, again bypassing the pipeline to nowhere [4, 15, 30]. The success in the co-requisite courses mirrors the success that others

have noted [14, 15, 21, 22]. It is important to continue to contribute to literature in this area to validate the ongoing research on the co-requisite model [2].

As an overview, it appears that placement based into pre-requisite courses based on ACTMath is not indicative of potential achievement in co-requisite courses. This confirms the literature that placement tests may be mis-assigning students, with most being misplaced into remediation courses [29]. Atkins and Beggs [2] found that "students who were unable to demonstrate acceptable mathematics proficiency based on the ACT were able to demonstrate college-level mathematics mastery" with the co-requisite model. This confirms the idea that little is known about the quality of these exams, other than the validity reports published by the test-makers [30]. As a result, it may be important to examine institution placement policies, and to push for alternatives to placement, such as multiple measures, which may be more indicative of student success in developmental courses [25].

6. Conclusion

More and more states are adopting the co-requisite model for developmental education. Evidence suggests that it may help more students pass college level math, increasing student retention and eventually



Figure 2. College Algebra Pathway Pilot Results

graduation rates [10, 12, 31]. This one-semester model decreases cost, a burden for many, especially low income students [2]. Many students feel they are prepared for college-level math after high school [8], and research has shown they are able to perform well despite their misplacement [29].

In the future, it may even be worthwhile to explore what happens if all students were allowed to enroll in co-requisite College Algebra, despite test scores. If numbers show that they can perform as well as those typically placed, it could give these students a better shot at ever finishing and completing a college-level math course, and long term, a college degree. In addition, more research is needed on evaluating and adjusting placement test score cut-offs. This may include incorporation of multiple measures, such as inclusion of high school GPA or prior math achievement as indicators for success.

There are some limitations to this study. First, although the sample was objective and diverse, the sample size is small. Since this is a pilot study, we relied on advisors to place students accordingly, and this in return, turned out with small numbers. In addition, the number of students who come to the University with these test scores is small to begin with, again, limiting the number for the pilot study. The results presented here, while promising, are by no means definitive. Once the suggestions are implemented, a rigorous study will need to be conducted with much more data to confirm placement success.

References

- Ashford, E. 2019. Math misalignment shuts many out of STEM careers community college daily. *Community College Daily*. American Association of Community Colleges. <u>https://www.ccdaily.</u> <u>com/2019/12/math-misalignment-shuts-many-outof-stem-careers/</u>
- Atkins, C., and C.T. Beggs. 2017. Commuting the math sequence: Accelerating developmental mathematics using the co-requisite model. University of Central Missouri. *NADE Digest*. <u>https://files.eric.</u> ed.gov/fulltext/EJ1178226.pdf.

- Attewell, P., Lavin, D., Domina, T. and T. Levey. 2006. New evidence on college remediation. *Journal of Higher Education*, 77(5).
- Bailey, T., Jeong, D.W., and S.W. Cho. 2010. Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29(2), 255–270.
- Belfield, C., Jenkins, D., and H. Lahr. 2016. Is corequisite remediation cost-effective? Early findings from Tennessee. New York, NY: Community College Research Center, Teachers College. Columbia university. <u>https://ccrc.tc.columbia.</u> edu/media/k2/attachments/corequisite-remediation-cost-effective-tennessee.pdf.
- Bickerstaff, S., Chavarin, O., and J. Raufman. 2018. Mathematics pathways to completion setting the conditions for statewide reform in higher education. New York, NY: Community College Research Center.
- Bryant, G., Seaman, J., Whitman, L., Kelkar, S., and J. McBratney. 2020. *Hitting their stride: Shifting the developmental education reform movement from policy to practice*. Tyton Partners. <u>https://strongstart.org/sites/default/files/resource-center/pdfs/ HTS%20SSTF%20Tyton%202020%20Final%20 Copy_FOR%20PUBLICATION.pdf
 </u>
- Center for Community College Student Engagement. 2016. *Expectations meet reality: The underprepared students and community colleges*. Austin, TX: The University of Texas at Austin, College of Education, Department of Educational Administration, Program in Higher Education Leadership.
- Center for the Analysis of Postsecondary Readiness. 2020. New York, NY: Community College Research Center. <u>https://ccrc.tc.columbia.edu/re-</u> <u>search-project/center-analysis-postsecondary-read-</u> <u>iness.html</u>
- Charles A. Dana Center. 2020. Austin, TX: The University of Texas at Austin. https://www.utdanacenter.org/ .

- Childers, A.B., Lu, L., Hairston, J., and T. Squires. 2019. Impact and effects of co-requisite mathematics remediation. *PRIMUS*, 1-20.
- Complete College America. 2020. <u>https://completecol-lege.org/</u>.
- Elrod, S. 2014. Quantitative reasoning: The next "across the curriculum" movement. *Peer Review*, 16(3).
- Emblom-Callahan, M., Burgess-Palm, N., Davis, S.,
 Decker, A., Diritto, H., Dix, S., Parker, C., and E.
 Styles. 2019. Accelerating student success: The case for co-requisite instruction. *Inquiry: The Journal of the Virginia Community College*, 22(1).
- Ganga, E., and A. Mazzariello. 2018. *Math pathways: Expanding options for success in college math. Center for the Analysis of Postsecondary Readiness.* Education Commission of the States. <u>https://postsecondaryreadiness.org/</u> <u>math-pathways-expanding-options-success/.</u>
- Hallett, D. H. 2003. The role of mathematics courses in the developmental of quantitative literacy. Quantitative literacy: Why numeracy matters for schools and colleges. The National Council on Education and the Disciplines.
- Hawyard, C., and T. Willett. 2014. Acceleration effects of curricular redesign in the California Acceleration Project. Berkeley, CA: The Research and Planning Group for California Community Colleges. http://accelerationproject.org/Portals/0/ Documents/rp-evaluation-cap.pdf.
- Herman, P., Scanlan, S. and D. Carreon. 2017. Comparing enrollment, characteristics, and academic outcomes of students in developmental courses and those in credit-bearing courses at Northern Marianas College (REL 2017-269).
 Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Pacific. http://ies. ed.gov/ncee/edlabs.

- Hodges, R., et al. 2020. Developmental Education Policy and Reforms: A 50-State Snapshot. *Journal* of Developmental Education, 44(1).
- Jaggars, S., and G.W. Stacey. 2014. *What we know about developmental education outcomes*. New York, NY: Community College Research Center, Teachers College, Columbia University. <u>http://</u> <u>ccrc.tc.columbia.edu/media/k2/attachments/</u> <u>what-we-know-about-developmental-educa-</u> <u>tion-outcomes.pdf.</u>
- Jones, S. 2015. The game changers: Strategies to boost college completion and close attainment gaps. *The Magazine of Higher Learning*, 47(2), 24-29.
- Logue, A.W., Douglas, D., and M. Watanabe-Rose. 2019. Co-requisite mathematics remediation: Results over time and in different contexts. *CUNY Academic Works*. https://academicworks.cuny.edu/ gc_pubs/540.
- Min Kim, B. 2013. Do developmental mathematics courses develop the mathematics? Addressing missing outcome problem in regression discontinuity design. https://pullias.usc.edu/wp-content/ uploads/2014/11/BoMKim_2013-JMP_Missing-in-RDD.pdf
- New Mexico Department of Higher Education. 2016. New Mexico Math Remediation Taskforce Report. https://files.eric.gov/fulltext/ED572828.pdf.
- Ngo, F., and T. Melguizo. 2016. How can placement policy improve math remediation outcomes?
 Evidence from experimentation in community colleges. *Educational Evaluation and Policy Analysis*, 38(1), 171-196.
- Rosin, M. 2012. Passing when it counts: Math courses present barriers to student success in California Community Colleges. *EdSource Issue Brief*. <u>https://</u><u>files.eric.ed.gov/fulltext/ED606403.pdf</u>.
- Rutschow, E.Z. 2018. Making it though: Interim findings on developmental students' progress to college math with the Dana Center Mathematics Pathways. New York: Center for the Analysis of Postsecondary Readiness.

Rutschow, E.Z., and A.K. Mayer. 2018. Early findings from a national survey of developmental education practices. Center for the Analysis of Postsecondary Readiness. <u>https://postsecondaryreadiness.org/</u> wp-content/uploads/2018/02/early-findings-national-survey-developmental-education.pdf.

- Scott-Clayton, J., Crosta, P.M., and C. Belfield. 2014. Improving the targeting of treatment: Evidence from college remediation. *Educational Evaluation and Policy Analysis*, 36(3).
- Scott-Clayton, J. 2018. Evidence-based reforms in college remediation are gaining steam-and so far living up to the hype. Washington, DC: The Brookings Institute.
- Smith, A. 2016. Evidence of remediation success. Inside Higher Education. <u>https://www.insidehigh-ered.com/news/2016/04/05/tennessee-sees-sig-nificant-improvements-after-first-semester-state-wide-co-requisite</u>
- Tennessee Board of Regents. 2015. *Co-requisite remediation pilot study – Fall 2014 and Spring 2015.* Nashville, TN: Tennessee Board of Regents.



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Coaching for Surprise: Adding Emersonian Reflection to Academic Coaching

Jonathan Kadjeski, Achievement Plus, King's College

In the 1841 essay "Intellect," Emerson wrote: "The growth of the intellect is spontaneous in every expansion" (p. 305). No matter the Carnegie designation or remnant hold a liberal arts idealism has on our core curriculum, all of us who serve and teach undergraduates are in the same boat. We pull the same two oars: on one side, hoping our students grown and learn from all their courses; on the other, steering our students through their major program of study. Admittedly, we are not all equally passionate in our advocacy of general education goals, but my recommendation here does not require that. What I propose today is that we embrace not merely what Emerson describes as "the means, the mode of that spontaneity" of expansion (p. 305). Rather, it is the spontaneity itself that can, if encouraged, be a cornerstone of our advising and mentoring conversations. Much of the essay advances Emerson's broader argument, that people "are all capable of intellectual self-reliance" through our capacity to constantly question and verify our views (Holzwarth, 2011, p.314). I draw our attention to a particular section of the essay that distinguishes willful thinking from instinctual thought. It is a lesson I learned by accident, by casual trial: Embrace the spontaneous by actively seeking it.

If the mission of education is preparing students to live well, then living well depends on an independent and genuine growth of the intellect. The intellect grows independently, not always in a manner predicted by our syllabus, scheduling, or program design. Excellence in education enables the necessary "continuous self-improvement" that Emerson finds as the intellect's chief quality (Holzwarth, p.332). This self-improvement must include both growth and regression, and care must be taken to avoid mentoring conversations bogged down in the muck and mire of GPA and academic progress (as critical to our work as these are). This self-improvement sets excellence as its lofty goal, but we can mentor students towards excellence only if we acknowledge both the "context-dependent nature" and "important value judgments" implied by the very evaluation of educational excellence (Terzi, 2020, p.98). We need no large reminders of our students' heterogeneity. The expanse of undergraduate diversity demands not merely our differentiation of methods (teaching, tutoring, and coaching). We must support our students' "evolving ability of autonomous self-determination" (Terzi, 2020, p.99). Our students' intellects root, whither, and ripen in predicted and unpredictable ways. Emerson argues that "this instinctive action never ceases in a healthy mind," but even he admits that autonomy needs direction. He uses active verbs: "when we of set purpose sit down to consider...we keep the mind's eye open" (Emerson, p. 308). These are the moments students need our guidance, when they are tempted to view learning as complete.

Students have been conditioned to examine grades, to assess performance in a quantitative way. We have the mission to help students understand that success means "staying on course to your desired outcomes and experiences" (Downing, 2011, p.3). Downing urges us to neglect neither destinations nor detours. A student's experience in a general education class outside their field influences their spontaneous intellectual development at least as much as the culmination of dozens of credits in a particular sub-discipline. We have a duty to help our students see that what sets them off course – the good, bad, and unexpected – are all worthy of introspection. As we end a semester, we all ask students some variation of these two essential questions.

- 1. What went right for you/what worked for you?
- 2. What do you want to avoid next time?

These are cornerstones of best academic coaching practices, but if we are to embrace the mentoring aspects of academic coaching, we must go beyond quantitative success (Pechac and Slantcheva-Durst, 2019; Capstick et al, 2019). We must broaden our conversation by asking a question that does not have an answer predictable by final grade, GPA, or major. Too often, we talk about the habits that students can control at the expense of the experiences they have. This is why I have added a third question to my end of semester conversations: Which course surprised you most?

During the semester, academic coaches naturally focus on the challenges each student faces. Students' schedules are filled with classes, extracurriculars, and athletics; many also manage work, parenting, household, and caregiving responsibilities. Counselors are similarly busy, and they understandably desire focused, efficient coaching sessions. Broad reflection is neither prioritized nor practical when assignments are due, exams approach, course registration nears, and financial cost looms. Unlike either informal mentoring or formal advising, which are "often major or career path specific," academic coaching's goal is "to help the student navigate the college and disciplinary environment" (Capstick 2019, p. 221). Tactically, advisors and coaches use questioning strategies in conversations that often have more in common with Socratic seminars than the technique-focused athletic connotation of "coaching." At our best, we offer what Levinstein (2020) describes as a "holistic, intrusive" approach; we intervene as necessary to help students adapt the best practices for their academic, personal, and professional goals. By asking "which course surprised you most," we are deliberately catching the student off-guard, asking a question with no automatic or desired answer.

Pechac and Slantcheva-Durst (2019) characterize academic coaching as the coach using "active listening and questioning to help a student focus on her or his learning experiences, address a problem, and work towards a specific goal" (p. 2). What is most compelling about this formulation is the conjunction, *and*. This triune focus wholly encompasses the vast portfolio of student success. Helping students address problems includes time management skills, tutoring services, and financial support. Helping a student focus on learning includes both academic and the many holistic services our institutions provide to address mental and physical health concerns, food insecurity, fiscal and transportation barriers, and more. We do so much for our students that we can easily neglect the object of our students' focus. What it is we want them to be able to focus on? Their learning experiences. We must not overlook Emerson's point, that "the experience of intellect cannot be reduced to analytical processing" (Holzwarth p. 327). While analytical success, measured quantifiably, may be the focus of our coaching during the semester, there comes an ideal moment near the end of the semester for a switch to reflection.

The reflective question, "which course surprised you most," can be answered before or after a course actually ends; in fact, it may be better to ask this question before a student receives grades (less they color a students' perceptions of their skills or experiences). Asking about surprise focuses on students' experiences, not their skills or results. A student expects to do well (or not well) in a particular class, sometimes because of her content interest or perhaps he chose the course because of a particular professor. Without intrusively asking about experience, it can be particularly difficult to gain insight into how a semester went for a student whose grades were the same across their courses. I have also found that asking about surprise is especially useful when coaching consistently high-performing and/or career-focused students. How do you raise the stakes of a coaching conversation with a student who has never missed Deans' List, or with a student who knows exactly how each course will or will not affect her career pathway? Look to be surprised. Encourage the surprise. The insight gained from a student who says that he "always thought I was bad at Math" or that she "always found history boring" enables us to use our students' own stories to further encourage their curiosity in ways that apply to the general education curriculum and their major programs of study. Emerson reminds us that "the intellect is a whole, and demands integrity in every work" (p. 315). By asking our students "what course surprised you most," we encourage a view of the whole learning experience and gain invaluable insights into our students as learners.

References

- Capstick, M. K., Harrell-Williams, L., Cockrum, C. D., & West, S. L. (2019). Exploring the effectiveness of academic coaching for academically at-risk college students. *Innovative Higher Education*, 44(3), 219-231.
- Downing, Skip. (2011). On Course: Strategies for Creating Success in College and in Life. (Study Skills Plus ed.). Wadsworth Cengage.
- Emerson, R.W. (1883). "Intellect." In *Essays*. Houghton Mifflin. (pp. 301-323).

Holzwarth, J. (2011). Emerson and the democratization of intellect. *Polity*, 43(3), 313-336.

Pechac, S., & Slantcheva-Durst, S. (2019). Coaching toward completion: Academic coaching factors influencing community college student success. *Journal of College Student Retention: Research, Theory & Practice*, 1-25. https://doi.org/10.1177

Terzi, L. (2020) On educational excellence. *Philosophical Inquiry in Education*, 27(2), p.92-105.

Technology and Teamwork to the Rescue

Odile Blazquez, Associate Professor, English, Sauk Valley Community College

This past year has been one of many changes indeed. Last spring, many of us teaching in-person classes on campus had to switch to online format from home in the middle of the semester and do so quickly. At our institution, we had the choice to teach online synchronously or asynchronously. I was teaching three developmental ELA classes at the time, so I chose a synchronous format using Google Meet. I would be there with the students to provide guidance and support during each class, albeit virtually.

The first problem we had was the obvious issues with technology. Some students did not have laptops, or the ones they had did not have a microphone or a webcam. Others did not know how to access or work with these features. Eventually, though, those hurdles were cleared.

The second problem was not so easily solved. Many students disliked or even downright hated the webcams and would not turn them on. They became little colored circles or cartoonish avatars on the screen. Some were present, as evidenced by their quick replies when called upon, but many were not. They had either drifted off to sleep, were busy on their phones, or had simply logged in to the call and then left. A short writing exercise for a new unit provided clear evidence of this lack of engagement: too many students did horrendously bad. The subsequent major writing assignment showed lack of effort and disregard for the assignment specifics to a much greater degree than usual (to provide context, I've been doing this for 21 years). Some papers were so poor that they required several re-writes to bring them to acceptable levels.

It was, to a point, understandable – students were dealing with a pandemic, loss of jobs, sick relatives, and the anxiety brought on by college classes in a format they were not accustomed to. However, as the semester went on, it was clear that they were not assimilating the lectures, not paying attention, and not following up on their own afterwards. We made it through the rest of spring 2020, but I knew that I needed to do something different next time to boost engagement.

To ensure that students learned the material, I added many more short exercises to the course -a lot more - in the fall semester. I gave students a short assignment after almost every class. If they didn't pay attention, they'd need to review my PowerPoints and other class notes or dive into their textbooks to do these little assignments.

To provide more incentive, I also redistributed the assignment weights. Instead of the practice exercises (short writing exercises, reading exercises, and grammar quizzes) not being worth much and the bulk of the course grade being determined by the major writing assignments, I lowered the worth of the major assignments (not too much) and increased the worth of the practice ones. Daily work was now more important.

At first, there were many zeroes. Once again, students hated the webcams and would not turn them on. Some participated well, but many others did not, and it was a constant struggle with the webcams. As grades began plummeting, though, more students began to "be there." Instead of the goofy avatars and colored circles, more webcams were turned on, although aimed at their foreheads or knit hats, which was fine by me. The catch, however, was the amount of grading. There was really no way around it. If I didn't assign points to these exercises, many students would simply not do them, and the virtual medium provided them with the best excuse: "I had no Internet last night." Although they were short, these assignments and activities involved reading and writing, so multiple choice was never an option. I was grading non-stop.

Enter Google Meet breakout rooms. Early in the semester, I learned my way around breakout rooms and started using them. Rather than assigning these exercises for homework, I began to use the second half of most classes for these activities. I divided the students into pairs or groups of three, depending on the assignment, and I set the drop boxes to close at the end of class, so there would be no alternative. My grading was now reduced by half, but most importantly, students were coming alive. Even though teams can be assigned randomly with one click, I did so manually to ensure that students didn't get the same partner every time. When the next major paper came, I was thrilled. Having to do all those little assignments in class was forcing students to focus on and engage with course material, and it showed.

And so it went. I honestly believe that this approach made the difference for some borderline students who would otherwise not have passed the course.

I am once more doing the same thing in spring 2021. When I pop into the breakout rooms to see how students are doing, there are some without their webcams on or aimed at the ceiling or even an open closet – the psychological effect of webcams is a topic for another discussion – but I hear them. They're talking and debating their assignment and flipping pages as they look for answers. They know how to share their screens in the breakout rooms, so I see them typing. They're engaging with the material, and the grades reflect this. Almost everyone is passing the course.

Some students are highly motivated and will do well regardless of course format, but many, especially in developmental classes, need to be pushed and prodded into engaging with course material, as we all know. Online classes are not for everyone, and even when synchronous, they do make it easier for the more vulnerable students to detach themselves from the class and sabotage their own success. Unfortunately, that reality was forced upon us, and we've had to make the best of it. Using breakout rooms for collaborative work, doing a lot more of it, and giving more weight to these smaller, weekly activities has worked very well in my developmental classes.

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Wisely PICK Educational Technology for Student Success

Caroline Flaherty, Mathematics Instructor, Foundation Program, Gulf University for Science and Technology, Kuwait

As a current online, synchronous educator there is a natural c uriosity about educational technology tools. Their features, activities, and colorful appearances would appeal to anyone's inner child. At first glance, it is obvious that they can have the power to add a "wow" factor to any lecture and presentation. A consequence of investigating these amazing technology educators is attending a plethora of professional development seminars, webinars, courses, conferences including watching countless YouTube videos and engaging in dialogue with colleagues to share educational technology experiences, and reading several research papers regarding the increased engagement and learning of integrating specific educational technology into our courses. However, there are so many choices of educational technology tools available that it can be overwhelming and confusing. Furthermore, it is easy to lose sight of what exactly technology should do for us. Is the technology a fun activity to entertain and tantalize students or is it a true tool that supports meaningful teaching and learning? Educators must truly reflect on what is expected from the technology and how it would serve a purpose in their courses.

Indeed, many educators, including myself, have legitimate concerns about technology. We, all, do not want to jump onto the technology bandwagon without reason. We do not want to have technology purely as an entertainment piece that has no real significance or relevance in advancing the teaching and learning of our students nor do we just want to integrate technology into our courses to fulfill some unmindful need to boast that we use technology. Educators want educational technology to be a useful, meaningful, and relevant tool that would enhance our teaching and learning of already established measurable course goals and objectives. We want technology to support student success.

Definitely, our awareness of and fascination with educational technology has increased this year. The COVID-19 pandemic hit us all with a bang! Overnight educators and students were catapulted from an in-person classroom experience to a virtual classroom. Boom! The overwhelming concern of how to best deliver the curriculum while serving the needs of my students in this new classroom became paramount. Some of us were engaged in synchronous courses and others in asynchronous courses. Now, everyone was compelled to use educational technology whether they liked it or not!

Educational technology tools evolved at a phenomenal pace by adding and tweaking features. Hence, it seemed that a competition between technology tools and platforms grew. Even new educational technology tools appeared on the scene. Thousands, if not millions, of educators, were watching endless webinars, attending virtual conferences, and investigating how to create the best virtual experience for our students. The loveliest thing of all is that several technology tools integrated together; a dream come true for many of us as we could, now, find many tools in one place! Yeah! This seemed like a wonderful dream come true for some educators. More than ever, it seemed imperative that we understand how to make informed and meaningful technology choices for our online courses. Through my journey to decide which educational technology tools to implement in my online courses, I would like to share a system I developed for myself to wisely PICK educational technology tools. PICK stands for Purpose, Implement, Collect Feedback and Keep Moving Forward. The details are provided below:

 Purpose: We should review the purpose of our courses and individual lectures. This includes reviewing the teaching and learning goals, objectives, and outcomes of our individual courses. From this, we can create a checklist for evaluating appropriate technology tools. The technology tools should support our teaching and learning needs. Our courses should be purpose-driven not technology-driven. Of course, this means you must take time to investigate and learn about different technologies and their features but it is well worth it.

- 2) Implement: Once we have shortlisted your technology tools, it is time to start implementing our new-found technology. Students are very open-minded and willing to try new experiences with technology. I would suggest finding a student volunteer to experiment with the technology before it implemented in the entire class so we understand how it will work. Furthermore, experimenting with it ahead of time will allow us to feel confident when we decide to implement it.
- 3) **Collect Feedback:** As soon as we implement technology, it should be clear as to what works and what does not for us and the students. It is imperative to include students in evaluating educational technology as they will be vocal in letting us know if they find the tools valuable and relevant to them. They will immediately inform us of what is working, not working, and what they like and dislike about the technology. They may even find a feature that we did not know existed. Finally, we should look at the analytical feedback features that many technologies offer. This data can assist us in determining if the technology is beneficial to our courses.
- 4) Keep Moving Forward: Once an educational tool is evaluated as useful for our course, we should keep moving forward and keep learning about its features to make the most out of it. However, if we have not found the "right" tool, start this cycle over and go back to our purpose. Eventually, we will find the "best" tool for your courses.

As we run through the cycle of discovering how to wisely PICK the "best" educational technology to enhance our courses, we continually need to remind ourselves that technology does not have to be complicated or stressful for any of us including our students. We need to feel comfortable and confident in utilizing the chosen educational technology tools.

Overall, whatever educational technology tools that educators choose, they must support excellent teaching and learning for our courses. The enormous amount of time and effort that educators invest in researching and experimenting with technology tools is well worth it. The bottom line is that we live in a world filled with all sorts of technology that we need to embrace but we must be wise in our selections. Our students deserve that we take the time to pursue best practices to support their success. So, invest the time to wisely PICK the ideal technology tools and enjoy the technology experience.

Using a "Learning Guide" to Enhance Student Learning in Online Developmental Education Courses

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Sandra Lee Coleman, Assistant Professor, Math Department, College of the Mainland

Developing and delivering online developmental education courses could be challenging for many instructors, especially for those who are not provided with adequate professional development on teaching online. It becomes even more challenging when they are asked for a sudden shift from face-to-face to a fully online environment as it happened recently due to the COVID-19 pandemic. Very little research exists on the efficacy and appropriateness of delivering developmental education courses online (Martirosyan, Saxon, & Skidmore, 2020) which makes it even harder for instructors to rely on research-based best practices when designing their own classes. There is, however, a vast amount of research available on teaching online in general, whereby researchers and instructors offer evidence-based practical tips for online classes. The importance of providing clear and explicit instructions for online courses is one of the most important and commonly suggested tips for online instructors (Martirosyan et al., 2020; Moore & Hodges, 2020). In this brief paper, we describe the idea of using a learning guide as a way of providing weekly instructions in online developmental education courses to increase student engagement and facilitate effective learning practices. We also provide a sample learning guide (see Appendix A) for a developmental mathematics/prealgebra class.

The idea of implementing a learning guide developed specifically for online classes belongs to late Dr. William White, a professor and scholar in developmental education who was one of the pioneers in delivering online classes in early 2000s. Although he initially used learning guides for online graduate education, we have adopted it for both undergraduate and graduate classes. Moreover, many instructors teaching developmental education courses have shared how helpful learning guides are for their classes.

When teaching online, we divide the course into weekly units. In each weekly unit, we include a learning guide, which is a one-page document and consists of four parts: (a) introductory remarks about the topic(s) for the unit, (b) learning objectives for the unit, (c) a list of required and suggested readings, resources, media materials, etc., and (d) assignments for the unit with specific due dates included. In the first part, we emphasize the main points in the reading, bring students attention to things that are crucial for meeting the learning goals for the unit, ask them to watch a particular video tutorial, PowerPoint presentation(s), screen capture, or anything else that is part of the unit. It should not be a long reading but rather a brief highlight of the unit/readings/study materials.

In the second part, we list the objectives of the unit. Depending on the class and on the content covered, we try to have 1-3 objectives. Students like seeing what "their" objectives are and why they have been asked to read or to engage in a particular activity included in the unit. Spelling out objectives each week is helpful for instructors as well in terms of keeping track of course progress, meeting the objectives, etc. In the third part, we provide a list of required readings, resources, and multimedia materials (if any), and, depending on the topic/unit, we might also suggest supplemental resources. The final part covers assignments for the unit. We include descriptions of each assignment along with its specific due date(s). We suggest having one or two assignments each week to avoid student procrastination.

When using learning guides in online classes, we offer a few more recommendations to consider:

- Run the course on a weekly basis it is a better way to keep students on track and engaged.
- Inform students about the availability and purpose of the learning guide at the beginning of the semester and let them know that each week will have a learning guide. Be consistent and include a learning guide in every week's unit.
- Open up weekly materials week by week to avoid confusion. We normally make the "week" available on the weekend for the following week.
- Have students engage in specified activities and complete assignments within a week. Try not to carry assignments over to the next week except major projects and papers. When carrying over some assignments to the following week, include a reminder in the learning guide about such assignments and their upcoming due dates.

As instructors teaching online, we are continuously challenged to maximize successful learning experiences and minimize student frustration in an online environment. Using learning guides could be helpful for any online class. Learning guides help students remain focused, engage in class readings and relevant activities in timely manners, and manage their course workload better.

References

- Martirosyan, N. M., Saxon, D. P., & Skidmore, S.
 T. (2020, February 14). *Teaching Developmental Education Online: Challenges and Instructional Practices* [Paper presentation]. Southwest Educational Research Association Conference, Arlington, TX.
- Moore, S., & Hodges, C. B. (2020, March 11). So you want to temporarily teach online. *Inside Higher Ed.* <u>https://www.insidehighered.com/advice/2020/03/11/</u> practical-advice-instructors-faced-abrupt-move-online-teaching-opinion

Appendix A – Sample Learning Guide for Developmental Mathematics/Prealgebra Class

Week II: Counting and Introduction to Probability

Dear students,

This week we explore introductory concepts in counting and probability. Specifically, you will learn how to create tree diagrams and how to calculate probabilities of simple experiments.

In conversation, we often discuss the chances or probability of a given result occurring. We might say that the chance of rain is 70% or that the probability of winning the grand prize of a lottery is 0%. Of course, this probability is not actually 0%, but it might be very close! Conversely, as you may have guessed, results that are certain to happen have a probability of 100%. Can you think of some occurrences that will happen beyond a shadow of a doubt? You might say that the sun will come up tomorrow or that death is inevitable. Because this is the way these occurrences have happened for billions of years, you might defend that the probability of these results is 100% (or close to it).

In other words, probabilities range from 0 to 100%, from no possibility to certainty. When you express these percentages as decimals, the range of probability values is 0 to 1, inclusive (i.e., including 0 and 1). From this, we know that we will never have a negative probability, or the chance of having a negative probability is 0%! With rolling a die or spinning a spinner, for example, each of these chance happenings is called an *experiment*, and the possible results of these experiments are called *outcomes*. When you roll a six-sided die, the experiment, one outcome is getting a 4.

We can create tree diagrams to visually depict the outcomes of an experiment, and you will construct these diagrams in Section 8.5. By creating tree diagrams, you will discover that experiments have a certain number of possible outcomes. When any number of outcomes are considered together, it is called an *event*. For example, when tossing a coin twice, **H**, **H** is an event and so is **T**, **H**, etc. Please note that the "**probability of an event is a measure of the chance**

or likelihood of it occurring" (Martin-Gay, 2019, p. 589). In this section, you will calculate the probabilities of events that occur when tossing dice, randomly choosing colored marbles from a bag, spinning spinners, and randomly selecting playing cards from a deck.

We will also delve deeper into probability by discussing this topic in this week's discussion forum. Please review the instructions for the discussion on probability located within *MyMathLab* before posting. The discussion forum will run from Wednesday through Sunday (April 7-11). Please create your original post no later than Friday, April 9, and respond to two classmates before Sunday, April 11, at 11:59 PM.

Reference

Martin-Gay, E. (2019). *Prealgebra* (8th ed.). New York: Pearson.

Learning Objectives

Students will:

- 1. use a tree diagram to count outcomes.
- 2. find the probability of an event.

Required Multimedia Content within MyMathLab

Lecture video for Section 8.5–Use the *Video Organizer* to take notes.

PowerPoint for Section 8.5

Optional Reading

Textbook or eText - Section 8.5 (pp. 588-594)

Assignments

This week you are required to complete the following assignments:

- MyMathLab homework for Section 8.5 (15 questions) – due Sunday, April 11, by 11:59 PM
- 2. Discussion forum Probability (April 7-11)
 Your original post is due on Friday, April 9; additional postings are due on Sunday, April 11.
- 3. Quiz 4 within *MyMathLab* over Chapter 8 (10 questions) due Sunday, April 11, by 11:59 PM

A Whole New World

Ella Moore-Boyd, Jackson State University, Instructor of Reading

March 2020, the world turned upside down—more specifically for me, March 15, 2020. I was finishing my visit with my mother as she celebrated her 93rd birthday that day and Spring Break was culminating. As I was preparing to leave, I received an email from work that one of our students had contracted THE VIRUS and was being quarantined! Feared gripped me and I returned to my childlike instincts. I just wanted to stay with my mama where I have always felt safe; but I had a home and a job and I had to return to them both. Soon more emails followed and the campus closed and eventually "the world."

Being a reading instructor, I had always protested, "Reading classes need to be taught face-to-face and never online!" Most of my students lack understanding of printed text and my course emphasizes comprehension skills which I *thought* was better explained and practiced face-to-face. Well, March 2020 changed *everything*! Faculty scrambled to devise Sustainability Plans for the reminder of the semester and had a little over a week to do so. I had never used Canvas, let alone Zoom! Learning and developing the shells for Canvas was almost as scary as the virus, but I was forced to do it.

From March 2020 to present, I still teach virtually. Yes, we all get "Zoomed out;" but I have found a few things that work in this new normal. Since it is a reading class and my textbook has lots of practices, I keep the students engaged because they have to read aloud. I may stop a student in the middle of a sentence and ask another to continue. Since they don't know who's next, there is a tendency to stay alert. Also, whatever we are reading, we apply to real life situations. Just like me, many students love to share life experiences. Sometimes they think they're getting me off track, (I've taught many years and I know the trick, ha-ha!), but I allow them to share. We all need a break from the mundane and sharing is one way we do it. We as a class have become one and I have really gotten to know a lot about many of them— as they have about me.

Another tactic I use is the "waiting room" on Zoom. The students are generally there at the beginning of class for about 5 minutes. I try to give the sleepy heads and late Lauras/Larrys an opportunity to get to class. After that window closes, no more admissions unless I was previously informed. If I notice students doing something else or being inattentive, I simply put them back in the waiting room. I have found that students *hate* that! They immediately start to text or email me stating, "I'm in the waiting room." Oh, the power of the finger! Sometimes at the beginning of class I may have to confer with a student before I let the others in and I'm sure you've guessed it—the texts and emails start—*I'm in the waiting room* (as if I can't see it and control it!). The waiting room works!

Lastly, to develop critical reading and thinking skills, I play a game that I call the "frame game." It's like reading a personalized tag. I always tell them how many words are in the phrase and the first person that types the correct answer in the chat directly to me receives 5 point which I use at the end of the semester. This game is very competitive and really gets them thinking. Some students say it makes their brain hurt to which I reply, "Don't let your brain cells die!" They must think outside the box but base it upon the box. That sounds a lot like making inferences or drawing conclusions which is a higher level reading skill. A Frame Game example may look like this:

105NE1

Answer: Tennis anyone

I still prefer to teach face-to-face; but until this pandemic is over, I will continue to use my newly acquired skills to accentuate my true passion—teaching. I now know that reading can be effectively taught virtually, be fun-oriented and student engaged. Why? Because teachers can do *virtually* anything!

Lose the Term "At-Risk" Adjusting our Language, Perceptions and Approach when Working with Students by John B. Craig, EdD

Commentary: This is a keynote address which was delivered virtually to faculty of Indiana University of Pennsylvania in December 2020.

When we think about students who have been labeled "at-risk," what comes to mind, exactly? What does that term even mean?

According to the Glossary of Education Reform: The term at-risk is often used to describe students or groups of students who are considered to have a higher probability of failing academically or dropping out of school. The term may be applied to students who face circumstances that could jeopardize their ability to complete school, such as homelessness, incarceration, teenage pregnancy, serious health issues, domestic violence, transiency (as in the case of migrant-worker families), or other conditions, or it may refer to learning disabilities, low test scores, disciplinary problems, grade retentions, or other learning-related factors that could adversely affect the educational performance and attainment of some students.

This sounds harmless enough, right? After all, the term is being used to describe factors which could lead to students to not be successful in school. However, what this term also does, which, in my opinion and in the opinion of other education-thought leaders, like Gloria Ladson Billings and Ivory Toldson, it places a label on students which saddles them down with the stigma they carry with them during their K-12 and into their post-secondary years. This label often leads to unconscious bias and discriminatory programming, while often well-meaning, realistically cripples the students from reaching the vistas of success of which they are absolutely capable of achieving with support.

So, you may now be asking, well, how do we describe such students? How do we adequately describe these students? How are they characterized? How do we label them? Ivory Toldson recommended to the Kirwan Commission, whey they were developing a framework for the Maryland Commission on Innovation and Excellence in Education, to simply call them, students. His point was simply this: why label the students with a term which does nothing but continue to victimize students who are only "at-risk" because of no fault of their own? Why continue using a term that negatively stigmatizes a whole swath of students and makes it difficult for them to excel?

Please hear me when I say this: I am not suggesting that using this term alone is what leads to students not being successful. What I am saying is that using this term more often than not leads to negative perceptions of students to whom this label has been attached, which leads me to my next point: we must change our perceptions.

Realistically, how do you envision students who are considered to be "at-risk?" Honestly, do you inadvertently consider them to be less than? And how did you arrive at this perception? Do you have some unconscious bias happening? These questions are not meant to make you feel badly. They are designed, however, to make us all reflect on how our perceptions of students may be problematic. When you adjust your perception and start really looking for the strengths that each student brings to the table, then you will begin building upon their strengths, instead of only teaching to their weakness. Words matter, my friend. Perceptions matter.

When we adjust our language and perception, then we can meaningfully adjust our approach. Affectively educating students is not a stagnant enterprise. In other words, our approaches must continue to evolve to meet the ever-evolving needs of our students, all students. We must not rest on our laurels. We must continue to innovate and use the data and ask the right questions about students. For example, we must challenge our admissions and enrollment management colleagues to look at more than just a score to determine who may benefit from our developmental programs, like ACT 101, here in Pennsylvania. At West Chester University, while admissions makes the first pass at the applications and refers students to our office for consideration, it our team who does a deeper dive into the students' application packets. We're looking at grades, specifically in English and Math, student activities, teacher recommendations and student responses to our specific application questions to determine admission into our program.

Additionally, our approach has continued to evolve such that the only non-credit developmental courses we now offer are in Math. Our first-year English and Reading/Study Skills courses are now credit-bearing and count towards graduation. This happened because in the field of developmental education, we are seeing success in reimagining developmental, or what used to be referred to as remedial courses. When I came to WCU in 2016, I became very concerned about time to degree completion and the debt load. So, I began working with both the English and Literacy departments on ways to redesign courses that developmental students took in our mandatory summer program. Prior to me getting to WCU, the English department had already developed a Writing Self-Placement process, which uses a few data points, including a student survey to determine which 100 level credit-bearing English course incoming students take. I approached our partners in the Literacy department and asked them to redesign the developmental Reading course that did not count towards graduation into one which did. They did and it passed through the WCU curriculum and policies committee. So, now students can conceivably complete our summer program having earned 6 college-level credits which count towards graduation and they enter their first fall semester with a GPA. Earning a GPA was always part of the deal in our program, though. So, we altered our approach to ensure that we are staying relevant and meeting the needs of today's students.

As a team, we also have a shared reading each year. Last year, we read Angela Duckworth's Grit. The year before, we read Teach Students How to Learn by MacGuire. And the year before that, we read Carol Dweck's Growth Mindset. As director, I constantly push our team to reimagine our approach and challenge our perceptions when it comes to our students.

In short, I want to challenge all of us to reimagine how we talk about, perceive, and approach the students in developmental and/or special admission-programs. Our duty is to uplift, support and prepare students to soar. However, I argue that students will not be able to soar to their highest heights until we unburden them by removing the heavy bags of the term "at-risk" from them. Let's just call them what they are: students!

I'd like to share a story about a bright-eyed young man, who grew up in South Philadelphia. He was raised by his grandmother because his mother and father were teenagers and were in no position to adequately be the parents he needed. This young man had the benefit of a strong support network which included, his grandmother, his great grandmother, uncles, aunts, cousins, and family friends who took great interest in him. Additionally, he grew up in a home where Christian values were the norm, where Sunday was a day of worship and where education was a must. This young man excelled. He was the president of the student government in high school. He won several awards and was a student-athlete who ran track. He won several scholarships; however, although he took the SAT twice, his scores were not good. He attended a college-prep program in high school where he took 4 years of math, English, French, etc. He graduated in the top 10 percent of his class with a strong 3.5 GPA; however, again, he had low SAT scores.

He applied to Temple University and was granted admission through the ACT 101 program. He thrived at Temple and finished his coursework in 3.5 years and did student teaching in English at one of Philadelphia's most academically rigorous schools. He then earned a master's degree from Temple and a doctorate from the University of Pennsylvania. Ladies and gentlemen, that young man is me. Imagine if ACT 101 wasn't an option for me? Imagine if the staff in ACT 101 treated me like I was "at-risk" and not as I was simply a student who could benefit from a little extra support.

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Colleagues, I implore all of us who work with students to lose the term "at-risk." By continuing to use that term, we are doing more harm than good.

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Works Cited

- *The Glossary of Education Reform*. Retrieved from: https://www.edglossary.org/at-risk/#:~:text=The%20term%20at%2Drisk%20is,or%20dropping%20out%20of%20school. April 26, 2021.
- Toldson, Ivory A. Wisconsin Center for Education Research. Why It's Wrong to Label Students 'At-Risk.' Retrieved from: <u>https://wcer.wisc.edu/news/</u> <u>detail/why-its-wrong-to-label-students-at-risk</u> April 6, 2021

Pandemic Pedagogy and Creating Community with Podcasts

Heather Chandler, Assistant Professor, English Faculty, Academic Foundations, Temple College

Pandemic Pedagogy began in survival mode. An extra week of spring break quickly became a panicked full-course redesign taking our face-to-face classes straight into an LMS, all while watching the news of the pandemic unfold live on the television. Most of us realized that our goals for that semester were reduced from our carefully planned learning objectives to surviving the shift and the pandemic. I stripped away many of my activities in order to focus on those major assignments required for course completion, and I know I wasn't alone. We all were. If only we knew right before that spring break spiral, we would have hugged our co-workers, helped our students figure out the LMS systems, and come up with a plan together. Instead, we went home. And we stayed there. The fear and isolation began to wear at us as that spring semester turned into the summer semester. By June, we knew we'd be online for another school year, and we couldn't just scrape by. We had to make some big changes if this was going to work and if our students were going to move forward with the knowledge and skills they need.

It's hard to learn in isolation, and while discussion groups can help with connection, too many of those assignments across every class a student takes loses its effectiveness. They become assignments, and even drudgery. Requirements are often required to get students to interact with each other. "Please respond to at least two peers," is simply more work than real connection. Discussions in class rarely work like this. My students miss authentic conversations, and so do I.

In the midst of the summer, we brought on a new professor in our department, and I can't imagine a harder time to be thrown to the wolves of academia than entering your first full-time classroom on the school website during a pandemic. We began exchanging emails, and then chatting on the phone. Oh, glorious! How I missed chatting away with my co-workers! And that got me thinking about how I missed these conversations with my students, too. I asked her if she'd like to record some of our conversations about composition and rhetoric together and put them into a podcast for our students. Fortunately, she obliged, even though neither one of us had ever recorded a podcast.

Our first podcast discussed professional emails, but it felt like storytelling and authentic sharing. We talked about the worst ones we've received, the best ones, and why they matter. And that led to discussions of audience and the fear we all have composing to someone in a position of power. Then we talked about those great tools out there to help us, and how we too, use Grammarly before sending an email off to the boss. I recorded that 20-minute conversation where we felt more like friends getting to know each other connecting over a discussion of business etiquette than two professors writing curricula.

My son was sheltering with us at home since his college classes were also online, and he reluctantly agreed to help me take the recording and turn it into a podcast. After he listened, he said, "this sounds like a real podcast." I had the approval of my curmudgeonly 19-year-old, and that was the golden approval I needed. We added in a short music intro, took a picture of my cat for the cover, and sent it "out to the Internet," as Johnny would say in *Cobra Kai*.

I was overwhelmed with my students' response. They loved it. Well, most of them. I still have a few that struggle with opening up any of the files, even with an adorable chubby cat promising them a break from the screen. But most of my students responded with enthusiasm. They felt like they belonged in a real college classroom, and that's something I later discovered was backed up by scholarship on podcasting. Podcasts can help online students to feel less isolated (Lee and Chan, 2007).

Now, podcasting in the classroom isn't new. There are a lot of studies conducted on podcasts and the benefits and challenges of adding them to a classroom, but I want to share some of the information my coworker and I learned while implementing them in our classrooms over the last year.

Podcasts should never replace your lecture. Instead, consider them as a similar practice that takes place in the classroom after the lecture. In my classroom, we are often discussing the material, seeing how it fits into the world, and using some examples from the real world, or in my case, pop culture. Natural conversations are important here. And this means while an outline is very helpful, you probably don't want a full script. And even more important, invite a co-host. I loved those times in college when I could listen in on a panel of my professors discussing big topics. I could hear how those academic conversations unfolded, how to ask good questions, and how to disagree with grace. In a sense, Melissa and I were modeling academic discussions to our students, while also sharing our enthusiasm for the subject.

Having the technology and creating podcasts isn't enough. A poorly produced podcast can be even more harmful than not using one at all, since it trains students to disregard the information you wish to cover. If we lack enthusiasm, why expect it from our students? If we are simply reading our lecture, why would a student who read the material find the podcast helpful? Give them something new here. Students use podcasts to help them gain a better understanding of the material, not as the main source of material. Remember, these are ways you can connect with your students and help them to connect your content to the bigger picture. This is about building relationships. Your students need a relationship with you to feel connected to the scholarly community in the midst of a pandemic. And you need your students to connect this course to their world-at-large.

Some studies show another problem with podcasting: too much time is spent editing the material (Makina, 2020). But I argue that you shouldn't spend too much time editing. We aren't going for perfection here, but progress. It's okay to be authentic with your students. Tell them you aren't Joe Rogan or Brene Brown, and don't try to set your expectations of your podcast up for preplanned disappointments. We want to make good use of our time, so quality matters; however, I want to stress here that quality is not in the sound bites or the music intro. It's in the material, and it's in the way you are connecting with your audience. Your voice is so important to student success. In fact, it's one of the most important ways to inject personality into your classroom (Bell, Cockburn, Wingkvist, and Green, 2007). Audio gives us a way to convey our feelings, our attitudes, and our atmosphere. In fact, some studies suggest this is biggest influence in a podcast. We remember more of how we feel and general opinions than the smaller details, like who was John Adam's Postmaster, unless, of course, your story is about Joseph Habersham.

Pandemic pedagogy is too isolating for us and our students, but podcasts can help us to reconnect. Try reaching out to your coworkers and see if you can find someone brave enough to try some podcasts together. You will connect with your coworker better. You will remember why you love academia. Your students will love listening to you. And both of you will create content together that is usable, and somewhat reusable, as long as your references and jokes are still relevant. But here's the good news. These podcasts are fun enough to keep creating. It doesn't feel so isolating for me anymore, and my students are breaking away from the computer, and continuing their learning beyond the screen. And more so, they know we care about them and the world around them. And they know they, too, are scholars making sense of the world in the midst of uncertainty. Invite them to the conversation and see how your students respond.

