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Article Abstracts:

Contextualizing Developmental Reading Through Information Literacy
By Mary Zimmerer, Susan Troncoso Skidmore, Kim Chuppa-Cornell, Tricia Sindel-Arrington, and Janelle Beilman

ABSTRACT: This study focused on a redesigned reading program that integrated project-based activities through the contextualization of reading and information literacy strategies using library databases. Students completing the new reading curriculum were compared to students who had completed a traditional reading curriculum to assess for differences in information literacy and reading skills, course completion, persistence, and gateway course registration. Students in the contextualized reading curriculum outperformed students in the textbook curriculum on information literacy skills, and both groups grew in reading strategies. Further, the contextualized group—comprised of students who scored at one or more levels below college ready—were on par with the textbook group—comprised of students only one level below college ready—in completion, semesterto-semester persistence, and subsequent course registration.

Implementing State Policy: Effects on Enrollment at One University
By Linda Reichwein Zientek, Julie Albert, Ananda Manage, Xiaohong Li, and Amber Sechelski

ABSTRACT: Statewide policies can impact enrollment patterns of students. At one Texas University, 11th-grade Texas Assessment of Knowledge and Skills scores were predictive of success in students’ first college-level mathematics course, but many students—those most at risk of failure—seem to have avoided taking a mathematics course in their first year at the institution. When placement accelerates a student’s path through precollege-level sequences, it is not clear that the reduction of time to college-level coursework is concomitantly achieved. We recommend emphasizing the importance of completing mathematics courses early in students’ academic careers.

Increasing Student Success: Structural Recommendations for Community Colleges
By Sim Barhoum

ABSTRACT: Structural practices used by community colleges to assess, place, and teach students are undergoing transformation. Many recent changes have been shaped by the idea that barriers to success, combined with traditional policies, work against helping students pass through the developmental writing pathway. This article’s purpose was to investigate the most promising structural practices by community college developmental writing programs. The article first looks at the challenges faced by developmental writing students. Then, a synthesis of relevant literature takes place, followed by a nationwide study of 42 successful developmental writing faculty. From this survey, an empirical framework emerged and is presented for the structural domain. Finally, this article offers specific and practical practices that administrators and educators can use to improve their developmental writing programs.

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High School Teachers’ Perceptions of Developmental Education
High School Teachers’ Perceptions of Developmental Education
By Mitchell R. Williams, Patrick Tompkins, and Betty Rogers

ABSTRACT: Developmental education has been examined from the perspective of students, college instructors, administrators, and policy-makers. However, the perspectives of one important stakeholder group—high school teachers—has not been included in the research literature on this topic. The purpose of this study was to allow teachers to be heard on the factors affecting the placement of recent high school graduates in developmental courses and how to reduce the number of such placements in the future. Teachers were eager to be heard on this topic, and the paper calls for greater communication and collaboration between high school teachers and college instructors and administrators, particularly on curricular issues.

Imbalanced Researcher-Practitioner Relationships: Biasing the Data
By Cheryl Burk, Lori Dees, and Laura Kalbaugh

ABSTRACT: As part of the Community College Research Center’s (CCRC) Analysis of Statewide Developmental Education Reform Learning Assessment Study, Wake Technical Community College’s partner team believes the recommendation and implications in the CCRC’s Developmental Reading and English Assessment in a Researcher-Practitioner Partnership. Working Paper No. 85 (Perin, Raufman, & Kalamkarian, 2015) are biased as a direct result of an imbalanced researcher-practitioner partnership. In this first-hand account, we provide insight into how valuable a mutually respectful researcher-practitioner partnership is to the design of research methodologies and subsequently the authenticity of a study’s data.

Supplemental Instruction: Helping Disadvantaged Students Reduce Performance Gap
By Hongtao Yue, Ruby Sangha Rico, Mai Kou Vang, and Tosha Aquino Giuffrida

ABSTRACT: This study examined how Supplemental Instruction (SI) visits help traditionally disadvantaged students reduce the performance gap in their courses. A student is defined as holding a “disadvantaged” status when he or she can identify with the following factors: underrepresented minority status, first-generation status, Federal Pell Grant eligible status, and English/mathematics remedial status. This study revealed that students including both disadvantaged and nondisadvantaged would benefit from an increase of SI participation. The more disadvantaged students gained larger performance improvement than less disadvantaged students with more SI visits, indicating the importance of regular SI participation for disadvantaged students to close the performance gap with nondisadvantaged students.
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Computer Based Mastery Learning in Developmental Mathematics Classrooms
By Annie Burns Childers and Lianfang Lu

ABSTRACT: Failures of developmental mathematics education are no secret. As a response to improve the success of students enrolled in these courses, different redesign efforts have been implemented across the country. This study reports on one redesign effort that began in Fall 2012. The new design consisted of mastery learning in computer-based developmental mathematics classrooms. Data from the design were gathered and statistically analyzed with regard to completion rates, length of completion time in the program, success in college-level mathematics courses upon program completion, and contributing factors to students’ success in the program. Findings indicate that this type of redesign may not lead to dramatic results in student success and outcomes of these courses. Further research is needed to continue to find ways to better serve this population of students.

Effective Evaluation of Developmental Education: A Mathematics Example
By Sara W. Wheeler and Nathaniel Bray

ABSTRACT: This study examined whether a correlation was present between demographic variables and academic success at a two-year institution in Alabama. Developmental status, gender, and race were compared with pass/fail status in the first college-level math class and graduation status. Results indicated that the developmental math classes were effective because the developmental students performed as well as the non-developmental group in each of the variables on academic success tested. This study concluded that developmental status, gender, and race were related to student success outcomes of college-level math pass/fail status and graduation status.

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Article Abstracts:

Online Developmental Mathematics: Challenging Coursework Traditions
By Taylor Martin, Scott Smith, Sarah Brasiel and Ian Sorensen

ABSTRACT: Many students must take remedial or developmental mathematics coursework to gain skills and knowledge necessary to satisfy college-level quantitative literacy requirements; however, large numbers of those students struggle to complete such coursework and are consequently unable to graduate. This issue implies the need to reform developmental
mathematics curricula, and modern developmental mathematics curriculum standards have been used as a basis reforming developmental mathematics curricula and programs at a number of community colleges and universities. We report an analysis of developmental mathematics assessment practices based on a large dataset, and how assessment practices indicate alignment with reform-oriented curriculum standards. We conclude with suggestions for improving developmental mathematics curricula.

Waiting and Help-Seeking in Math Tutoring Exchanges  
By Dayna Jean DeFeo, Dan Bonin, and Megan Ossiander-Gobeille

ABSTRACT: Drop-in peer tutoring is the most popular model on college campuses, but a high student-tutor ratio suggests that students will spend the majority of their lab time working without the aid of a tutor. This study observed students in a drop-in tutoring center serving developmental math students and explored what they do in that independent time. The ethnographic research method identified five distinct student types, distinguishable by their behaviors, help-seeking strategies, and participation in tutoring exchanges. The analysis reviews both the form and function of these distinct typographies, considers students’ needs for learning and student services, and makes recommendations for tutors and managers.

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Student-Perceived Interferences to College and Mathematics Success  
By T. W. Acee, W. J. Barry, D. A. Flaggs, J. P. Holschuh, S. Daniels, and M. Schrauth

ABSTRACT: Nationally, developmental mathematics courses have some of the highest failure and withdrawal rates of postsecondary courses. A wide range of factors may be contributing to students' struggles in these courses. In order to help identify these factors, we asked students enrolled in developmental mathematics to identify factors interfering with their college success. Results suggested that students in these courses perceive a diverse set of academic and nonacademic interferences to their college success. Perceived nonacademic interferences related negatively with academic achievement and persistence. Our findings provide a holistic framework for conceptualizing additional academic and nonacademic support students might need.

A Framework for Assessing Developmental Education Programs  
By Molly Goldwasser, Kimberly Martin, and Eugenia Harris

ABSTRACT: This paper presents a framework for educators, administrators, and researchers to assess distinct facets of developmental education programs. The researchers review the literature on best practices in developmental education with regards to program cost, program structure, and student placement procedures. This paper also identifies seven model institutions in these areas and includes qualitative research from interviewed individuals who work at these institutions. The evaluation tool developed via this research is rooted in both the research-based best practices and qualitative research from administrators at the identified model institutions. The paper concludes with recommendations for implementation of this assessment tool.
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Article Abstracts:

Four Decades of JDE Interviews: A Historical Content Analysis
By Norman A. Stahl, Jennifer C. Theriault, and Sonya L. Armstrong

ABSTRACT: This content analysis examines the topics, trends, and issues impacting developmental education and its professionals as evaluated by interviews that have appeared in the Journal of Developmental Education (JDE) between the issuance of Volume 1 through Volume 39. A total of 76 interviews were analyzed with attention to interviewees, major foci, and additional sub-topics.

Boredom: That Which Shall not Be Named
By Jason Weinerman and Cari Kenner

ABSTRACT: Boredom carries a significant weight: It is not often spoken within the academic environment. However, by ignoring how developmental and first-year students experience boredom, instructors are avoiding a topic that most students will encounter. We present information on the common causes of boredom, ways to detect boredom, and the outcomes of boredom within the academic environment. We conclude with a lesson plan to assist instructors in recognizing the idea of boredom and how students can overcome academic boredom.

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Article Abstracts:

Mediated-Efficacy: Hope for "Helpless" Writers
By Eileen Kogl Camfield

ABSTRACT: Building on previous studies of college students' writing self-efficacy beliefs, this article presents the empirical foundation for a reconceptualized understanding of this identity process. The study assessed 131 college freshmen enrolled in a developmental writing course who were evaluated holistically using grounded theory methodology. The study identified (a) major theoretical categories revealing the nature of students' initial pessimism about themselves as writers and sense of learned helplessness, and (b) a subsequent shift toward optimism and self-efficacy triggered by a particular learning relationship formed with their instructors, the core of the posited mediated-efficacy theory. Implications for college-level developmental writing pedagogy are explored.

Mathematics Readiness of First-Year University Students
By Francis Atuahene and Tammy A. Russell

ABSTRACT: The majority of high school students, particularly underrepresented minorities (URMs) from low socioeconomic backgrounds are graduating from high school less prepared academically for advanced level college mathematics. Using 2009 and 2010 course enrollment data, several statistical analyses (multiple linear regression, Cochran Mantel Haenszel [CMH] Chi-Square test, and independent t-test) were conducted to examine students' readiness in select college mathematics courses in a four-year public university in United States. A multiple regression analysis show that SAT-Math score marginally contribute to students’ performance in college-level mathematics. The CMH χ2MH test shows a statistically significant difference in the row means score between male and female students and regular and special admitted students. The results of the independent t-test shows significant difference between majority White and URMs’ performance in select math courses.

Instructional Support Sessions in Chemistry: Alternative to Remediation
By Tiffany L. Hesser and Jess L. Gregory

ABSTRACT: A lack of college readiness can affect student success in the classroom and impact retention rates. It has been recommended that all students be placed in courses with college-level content but that added support be provided for students identified as underprepared. This study examines the impact of added instructional time and support embedded within a college-level chemistry course for students who tested below college level in math. The results indicate that weekly instructional sessions for students identified as academically underprepared can help them achieve course outcomes indistinguishable from those of their chemistry-ready peers.
Peer Study Groups as Catalyst for Vocational Exploration
By David R. Arendale and Amanda R. Hane

ABSTRACT: Postsecondary peer assisted learning programs often cite improving academic achievement for students. This qualitative study investigated the potential effect of serving as student facilitators of a peer study group on their future vocation. This was a replication of previous studies of personal and professional outcomes for study group facilitators. Findings of this study suggest the facilitator experience strongly influenced facilitators’ interest in careers, especially related to the teaching profession. This study explores why these programs generate these outcomes through linking leading theories to the research outcomes. Peer study group programs present a cocurricular experience that could be more powerful if it was intentional for professional development outcomes of the student facilitators and participants. With the highly competitive job market for today’s college graduates, institutions must use every opportunity to increase job readiness skills of its graduates.

Acceleration and Compression in Developmental Mathematics: Faculty Viewpoints
By Brian Cafarella

ABSTRACT: Community colleges are facing increased pressure to accelerate students through their developmental mathematics sequence. However, many individuals feel that some state legislatures and college leaders are frequently bypassing developmental math faculty expertise when implementing acceleration and compression initiatives. This qualitative study focuses on faculty viewpoints with regard to acceleration and compression in developmental math. Guiding this study was the research question: Based on faculty experience, what is the best fit for the practices of acceleration and compression in developmental math? Data has been gathered using a structured interview format for six developmental math instructors, two at each of three community colleges. Findings from this study suggested that the practices of acceleration and compression are a proper fit for students who are comfortable with computer software. Incoming skill level and individual student learning style are also imperative when considering acceleration and compression for developmental math students. Individual instructor comfort level is another significant detail for consideration with regard to the aforementioned practices.

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Article Abstracts:

Accelerated Developmental Arithmetic Using Problem Solving
By G. Michael Guy, Jonathan Cornick, Robert J. Holt, and Andrew S. H. Russell

ABSTRACT: After many years of extremely low success rates, a radical new design of the first semester arithmetic remedial course was implemented and studied. Students at a large urban community college could take a traditional semester-long traditional lecture-based remedial arithmetic course or a new accelerated 4-week 20-hour problem-solving based alternative remedial arithmetic course. Students taking the accelerated course passed a common exit exam at a statistically significant increased rate. However, those students did not pass the subsequent remedial algebra class at a statistically significant different rate, suggesting that, although the shorter problem-solving based class format improved student achievement in an individual class, more is required to sustain a lasting impact. The pedagogical and structural changes involved in this redesign are also discussed.

Theory to Practice: Cultivating Academic Language Proficiency in Developmental Reading Classrooms
By Heather N. Neal
ABSTRACT: Academic language plays a key role in reading comprehension, disciplinary thinking, and overall academic success. However, many approaches to teaching academic language, such as a focus on academic vocabulary, overlook other language features that can pose challenges for students. Systemic Functional Linguistics (SFL), arguably one of the three bodies of knowledge that have most substantially contributed to disciplinary literacy theory, sheds light on the nature and functional purpose of academic language. This article explores academic language through the lens of SFL and identifies viable strategies for academic language instruction within the developmental reading classroom.

Summer Bridge’s Effects on College Student Success
By Beth Bir and Mondrail Myrick

ABSTRACT: This study considered whether participation in a rigorous, intense summer bridge program had a significant effect on the academic success of African-American male and female students in developmental education, compared to nonparticipants, at a four-year Historically Black University in terms of retention, progression, and graduation from 2008-2012. Participants in the summer bridge program entered with significantly lower test scores and high school grades than nonparticipants, yet for all cohorts combined the summer bridge participants achieved significantly higher college GPAs and were retained to the second and third year at significantly higher rates. Female participants showed the greatest gains in all categories, with significantly higher GPAs and retention, for all cohorts. Male participants’ GPAs and retention, were, overall, not significantly higher. Graduation rates for females were also encouragingly higher, though they did not reach a level of significance.

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Article Abstracts:

Impact of Learning Assistance Center Utilization on Success
By Keith A. Wurtz

ABSTRACT: A large number of community college students are developmental students. One of the most important challenges for community colleges today is to create programs that effectively educate community college developmental students. This study examines the effect of learning assistance centers on the success and persistence of students at a Southern California community college that utilized learning assistance centers to improve student success. Sequential logistic regression was used to predict the effects of learning assistance center utilization on success and persistence while controlling for self-selection and prior skill level. The results indicate that learning assistance center utilization increased the probability of success and persistence more than prior skill level and self-selection. Students who utilized a learning assistance center were three times as likely to be successful in their course and almost twice as likely to persist to the subsequent term. Implications for future practice include the recommendation for requiring students to utilize learning assistance centers.

Factors Influencing College Persistence for First-Time Students
By Sheilynda Stewart, Doo Hun Lim, and JoHyun Kim

ABSTRACT: Using Tinto’s (1993) longitudinal model of institutional departure, this study examined demographic variables, family characteristics, precollege and college academic performance factors, and extent to which mandatory placement in remedial courses predict persistence at a public research institution. This study also examined the relationship between ACT composite scores, high school GPA, first-semester college grade point averages, and persistence. Longitudinal data with 3,213 students were analyzed using factorial analysis of variance (ANOVA), Pearson’s product-moment correlations, and multiple regression analysis. Results showed significant mean differences for ethnicity, financial aid, and remedial status on persistence. High school GPA and first-semester college GPA were found to be significant predictors of persistence. Findings indicated that traditional college students who were academically prepared to take college-level coursework were more
likely to persist than students placed in mandatory remedial coursework. Implications from this study suggest that support services such as tutoring, mentoring, counseling services, early intervention systems, and financial aid assistance will improve study participants’ academic deficiencies and increase persistence beyond the first year.

Students’ Reflections on Mathematics Homework Feedback
By Mara Landers and Daniel Reinholz

ABSTRACT: Homework is considered an important aspect of learning mathematics, but little research has considered how students utilize feedback as part of the homework process. This mixed methods, quasi-experimental study examines how community college students in a developmental intermediate algebra course participated in a feedback reflection activity throughout a semester and compares their outcomes with a class that did not engage in this activity. Although developmental math students are often positioned as deficient in skills and motivation, most students took this activity as an opportunity for self-assessment, documenting resources for success and critiquing their work for improvement. These students did not outperform peers on summative course assessments; however, there were differences in their growth as effective learners.

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Article Abstracts:

Investigating Academic Literacy Expectations: A Curriculum Audit Model
By Sonya L. Armstrong, Norman A. Stahl, and M. Joanne Kantner

ABSTRACT: Although much research has examined students’ readiness levels as they prepare to transition from high school to college, little published research exists on the specific literacy expectations students will face in their early college experiences. This article provides an overview of a model for determining the reading demands and expectations in such early-college courses. The evaluative model allows faculty teams to examine the academic literacy expectations for introductory-level general education and career technical courses and simultaneously explore the curricula in developmental reading courses. Using the model, evaluators can determine the degree of alignment of text difficulty levels, expectations for student literacy competencies, and standard literacy practices within and across courses.

Developmental Mathematics Success: Impact of Students’ Knowledge and Attitudes
By Babette M. Benken, Jorge Ramirez, Xuhui Li, and Scott Wetendorf

ABSTRACT: In order to improve student success within developmental programs, we conducted a study of 1st year students taking required, developmental mathematics courses at a large, urban public university. Findings suggest that merely the number of years of mathematics that students take in high school is not a precise indicator of student readiness and that passing courses in high school does not necessarily imply that students are prepared for the level of rigor expected in postsecondary institutions. Furthermore, results advocate for the re-evaluation of developmental mathematics courses to include student outcomes that focus on attitudes about mathematics in addition to content and skills.

Ideas in Practice: Professional Development to Promote Universal Design for Instruction
By Carrie A. Rodesiler and Joan M. McGuire

ABSTRACT: Given changing enrollment patterns in higher education that include more diverse learners, efforts to design instruction to be more inclusive are well documented. Developmental education programs comprise a dynamic environment for applying inclusive teaching strategies that promote learning. A grant-funded initiative for professional development that used the framework of Universal Design for Instruction (UDI) included activities in developmental reading, writing, and math courses. Participants, most of whom were part-time instructors, engaged in an intensive administrator-led, 2-day workshop followed by participant-led activities that extended over multiple semesters. Elements of the training are described; examples of strategies used by these instructors based on UDI principles are included; and insights into the value of designing teaching to incorporate UDI principles are shared. Participant feedback affirmed the benefits of professional development time with colleagues to share teaching ideas and to reflect on elements in the instructional cycle that lend themselves to deliberate planning. Recommendations for future initiatives to foster inclusive teaching practices are offered.
Innovative Developmental Education Programs: A Texas Model
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Innovative Developmental Education Programs: A Texas Model
By Eric A. Booth, Mary Margaret Capraro, Robert M. Capraro, Nandita Chaudhuri, James Dyer, and Miner P. Marchbanks III

ABSTRACT: This article provides insights from a 2-year, cross-site evaluation of state-funded developmental education sites and serves as a focus article for response by those sites. Receiving grants from the Texas Higher Education Coordinating Board (THECB), nine sites (5 community colleges and 4 universities) implemented innovative developmental education programs in Texas. The Public Policy Research Institute at Texas A&M University was charged with evaluating the nine sites. A cross-site program evaluation collected quantitative data from the sites to determine success rates for students enrolled in their programs. Qualitative methods were used primarily to interpret the quality indicators present across sites. Data in the form of interviews, focus groups, and self-reports were applied. The successes and challenges were organized into four thematic categories: Curriculum Design and Instructional Strategies, Faculty and Staff Supports, Structures Supporting Learning, and Policy Issues. Findings show that accelerated approaches via redesigned curriculum for shortened, completely or partially self-paced, corequisite, and blended courses helped accelerate student completion or transition to credit bearing courses for the motivated students. Alternative instructional strategies provided a high level of interaction between students and instructors and on-line, on-demand tutoring at the sites. Focused professional development for the DE instructors and administrators was found to be useful in learning to deal with specific student problems.

e-Sponsor Mentoring: Support for Students in Developmental Education
By Russ Hodges, Emily Miller Payne, Albert Dietz, and Michelle Hajovsky

ABSTRACT: Researchers investigated the use of two mentoring programs for students who were part of a support component of Fundamentals of Conceptual Understanding and Success (FOCUS), a comprehensive intervention grant for students enrolled in developmental mathematics coursework at a large public Texas university. The technology-based mentoring program, titled e-Sponsor Program, was compared to a campus-sponsored mentoring program. The programs differed in terms of mentor-types, mentor training, and use of technology. Results of an end-of-semester survey revealed no statistically significant difference between groups in terms of participants’ quality interactions or perceived helpfulness of their e-Sponsor or mentor. The quantitative data confirmed that, regardless of group, more frequent quality interactions resulted in participants perceiving the interactions with mentor or e-Sponsor as very helpful. When participants’ perception of helpfulness of the e-Sponsor and mentor was examined in terms of form of communication, the only statistically significant finding was face-to-face interactions. In the qualitative portion of the study, four categories of quality interactions emerged from participants: (a) receiving study and scheduling tips, (b) practicing to interact with professors by practicing with e-Sponsors, (c) receiving helpful advice that could generalize to other courses, and (d) learning to advocate for themselves in academic and practical situation.

Faculty Advising to Support Student Learning
By Laurel V. Williamson, Rebecca A. Goosen, and George F. Gonzalez, Jr.

ABSTRACT: This article describes the implementation of a program undergirded by the theme of faculty and staff supports that physically brings advising to the point of instruction. Research shows that establishing a strong institutional connection with students improves retention, persistence, and success. What better way to do this than take advising into the classroom and create a strong partnership between faculty and student services to provide support, information, and career direction? Sustained through an ongoing dialogue between instruction and student development professionals, classroom
activities and wrap-around support services can be uniquely focused on the individual student. The college found that advising becomes a tool delivered by a faculty-student services team that holds students accountable while providing needed assistance along the student’s educational pathway.

FOCUS: Sustainable Mathematics Successes
By Selina V. Mireles, Taylor W. Acee, and Lindsey N. Gerber

ABSTRACT: The FOCUS (Fundamentals of Conceptual Understanding and Success) Co-Requisite Model Intervention (FOCUS Intervention) for College Algebra was developed as part of the Developmental Education Demonstration Projects (DEDP) in Texas. The program was designed to use multiple services, courses, and best practices to support student completion of a credit-bearing mathematics course. The curriculum design and instructional strategies of the College Algebra FOCUS band are described and examples are included to expand on the richness of the model. Using repeated measures of students’ mathematics proficiency and baseline comparison group data of students’ course grades, we present evidence linking the FOCUS Intervention with increased mathematics proficiency, fewer course withdrawals, and improved course grades.

Transforming Developmental Education in Texas
By the Texas Higher Education Coordinating Board

ABSTRACT: In recent years, with support from the Texas Legislature, the Texas Higher Education Coordinating Board has funded various developmental education initiatives, including research and evaluation efforts, to help Texas public institutions of higher education provide more effective programs and services to underprepared students. Based on evaluation results from the various initiatives, especially the Developmental Education Demonstration Projects, a number of identified promising practices continue to be scaled and further evaluated in developmental education projects funded through August 2015. This report provides an update on the progress of developmental education initiatives and recommendations for future efforts to effectively and efficiently improve the persistence and success of underprepared students as they strive to reach their academic and career goals.

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Article Abstracts:

- Analogical Processes and College Developmental Reading
  By Eric J. Paulson
  ABSTRACT: Although a solid body of research concerning the role of analogies in reading processes has emerged at a variety of age groups and reading proficiencies, few of those studies have focused on analogy use by readers enrolled in college developmental reading courses. The current study explores whether 232 students enrolled in mandatory (by placement test) developmental reading courses in a postsecondary educational context utilize analogical processes while engaged in specific reading activities. This is explored through two separate investigations that focus on two different ends of the reading spectrum: the word-reading level and the overall text-comprehension level. The two investigations reported here build on comparable studies of analogy use with proficient readers. Results indicate clear use of analogy at the decoding level of reading with trends toward some types of analogy use facilitating comprehension at whole-text levels of reading.

- Study Skills Course Impact on Academic Self-Efficacy
  By Brenna M. Wernersbach, Susan L. Crowley, Scott C. Bates, and Carol Rosenthal
ABSTRACT: Although study skills courses improve student retention, the impact of study skills courses on students’ academic self-efficacy has not been investigated. The present study examined pre- and posttest levels of academic self-efficacy in college students enrolled in a study skills course (n = 126) compared to students enrolled in a general education course (n = 111). Students enrolled in study skills courses had lower initial levels of academic self-efficacy and demonstrated greater increases than comparison students, reaching equivalent levels or surpassing the comparison students at posttest. Results are considered in light of the broader issue of student retention and in the context of current practice.

Effective Student Assessment and Placement: Challenges and Recommendations
By D. Patrick Saxon and Edward A. Morante

ABSTRACT: Recent research on entering college student assessment instruments and placement practices has been critical. Critics suggest that commonly used assessment instruments are inaccurate, misused, and lack predictive validity. This article describes valid criticisms and appropriate uses of assessment instruments. It also lists challenges and provides recommendations to improve several common inadequacies in college assessment and placement processes. Finally, we discuss the role of assessment and placement as it is impacted by efforts to eliminate or redesign developmental education.

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By Lauretta Garrett

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Critical Thinking: Intellectual Standards Essential to Reasoning Well Within Every Domain of Human Thought, Part 3
By Linda Elder and Richard Paul

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Article Abstracts:

Flawed Mathematical Conceptualizations: Marlon’s Dilemma
By Lauretta Garrett

ABSTRACT: Adult developmental mathematics students often work under great pressure to complete the mathematics sequences designed to help them achieve success (Bryk & Treisman, 2010). Results of a teaching experiment demonstrate how the ability to reason can be impeded by flaws in students’ mental representations of mathematics. The earnestness of the subject’s efforts and the frequent detours his learning took create a vivid portrait of what happens in the lives of students for whom “the dream stops” at developmental mathematics (Bryk & Treisman, 2010, p. 19). Results provide teachers with a clearer picture of what is needed to help their students build mathematical understanding.

Academic Engagement: Hispanic Developmental and Nondevelopmental Education Students
By Stephanie J. Brickman, Edna C. Alfaro, Amy A. Weimer and Karen M. Watt

ABSTRACT: The purpose of this research is to identify any differences in the academic engagement of Hispanic students enrolled in a developmental course compared to those enrolled in a retention initiative course. Researchers proposed that personal interests and perceptions of instrumentality to future goals would help develop, guide, and direct successful academic engagement. The participants (N = 407) were Hispanic college freshmen. MANCOVA and SEM were employed to examine whether group differences emerged. Analyses revealed perceptions of instrumentality were a stronger predictor of self-regulation for nondevelopmental course students than for developmental education students.
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Critical Thinking: Intellectual Standards Essential to Reasoning Well Within Every Domain of Thought, Part Two
By Richard Paul and Linda Elder

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Article Abstracts:

Using Formative Assessment and Metacognition to Improve Student Achievement
By John Hudesman, Sara Crosby, Bert Flugman, Sharlene Issac, Howard Everson, and Dorie B. Clay

ABSTRACT: This paper describes a multistep Enhanced Formative Assessment Program (EFAP) that features a Self-Regulated Learning (SRL) component. The program, which teaches students to become more effective learners, has been applied in a wide range of academic disciplines. In this paper we report on how the EFAP-SRL model can be applied to the area of developmental mathematics. In a 3-year series of studies, EFAP-SRL students enrolled in associate degree developmental mathematics courses consistently earned higher pass rates in the course as well as higher pass rates on the mathematics portion of the ACT. In addition, there is some evidence that program students transferred this learning into subsequent college-level mathematics courses.

Readiness, Behavior, and Foundational Mathematics Course Success
By Kevin Li, Richard Zelenka, Larry Buonaguidi, Robert Beckman, Alex Casillas, Jill Crouse, Jeff Allen, Mary Ann Hanson, Tara Acton, and Steve Robbins

ABSTRACT: This study examines the effects of math readiness and student course behavior (e.g., attendance, participation, homework completion) on knowledge gain and course success using two samples of students enrolled in foundational skills (noncredit-bearing) mathematics courses. As hypothesized, entering student mathematics readiness and course behavior predicted posttest mathematics knowledge. Posttest knowledge and course behavior predicted course success (i.e., passing the course). Results highlight the importance of mathematics readiness and student behavior for understanding mathematics knowledge gains and course success. Implications for institutional policy and practice using effective diagnostic testing and behavioral monitoring are discussed.

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Causal Attributions and Student Success in Developmental Mathematics
By Jacob Arthur Dasinger

Student Responsibility and Self-Directed Learning: An Interview with Christine McPhail
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Commentary: Characterizing the Effectiveness of Developmental Education: A Response to Recent Criticism
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On the Developmental Education Radar Screen – 2013
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Article Abstracts:

Causal Attributions and Student Success in Developmental Mathematics
By Jacob Arthur Dasinger

ABSTRACT: This research examined differences in causal attributions and an exam score in a developmental mathematics course based on student classification: traditional, minimally nontraditional, moderately nontraditional, and highly nontraditional as well as grade and gender among nontraditional students. Statistical analysis revealed significant differences on the Revised Causal Attribution Scale (CDSII) in the Personal Controllability dimension for low-graded students, and in both the Personal and External Controllability dimensions for high-graded students. Based on gender, low-graded, nontraditional students showed a significant difference in the Locus of Causality dimension whereas no significant differences appeared among high-graded, nontraditional students.

Commentary: Characterizing the Effectiveness of Developmental Education: A Response to Recent Criticism
By Thomas Bailey, Shanna Smith Jaggars, and Judith Scott-Clayton

ABSTRACT: Research conducted by the Community College Research Center (CCRC) and others was criticized in an article by Alexandros M. Goudas and Hunter R. Boylan (2012) published in the Journal of Developmental Education, Volume 36, Issue 1. They raise specific contentions related to the methodology applied in the CCRC studies, the review of related literature, and stated findings. Their article claims that we and others have overgeneralized, misrepresented, and misapplied the data and research to advance a reform agenda that involves replacing prerequisite with corequisite developmental education. In this commentary we show that their key claims do not stand up to scrutiny. Moreover, we point out that, although we think research so far suggests that corequisite models have potential as part of a comprehensive reform of developmental education, we have never called for the elimination of prerequisite remediation. We conclude with some general suggestions—based on our research findings—for strengthening the services that community colleges provide to students with weak academic skills.

A Brief Response to Bailey, Jaggars, and Scott-Clayton
By Alexandros M. Goudas and Hunter R. Boylan

ABSTRACT: Shortly after we published "Addressing Flawed Research in Developmental Education" (2012) in the Journal of Developmental Education, Thomas Bailey, Shanna Smith Jaggars, and Judith Scott-Clayton from the Community College Research Center (CCRC) wrote a response rebutting several of our claims. Though their response corrects some confusion and clarifies a few of their positions on the debate, Bailey et al. appear to persist in a lack of understanding of the content and function of developmental education courses. Compounding the problem is that they solely rely on a relatively new and imperfect method for analysis, the quasi-experimental regression discontinuity design study. Based on these studies, Bailey et al. have consistently argued that developmental education as a whole is ineffective. In this brief response to Bailey et al.’s counterarguments, we elaborate on one of our original paper’s main points and discuss what we consider to be a fundamental flaw in their interpretation of data. The flaw apparently stems from a misunderstanding of what actually happens in remedial courses. As a result, they assume these courses should make remedial students perform better than statistically equivalent nonremedial students. We moreover point out other possible errors in the regression discontinuity approach and its application in developmental education.

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NADE News: Policy Preparation Should Be By Professionals, Not Politicians
By Patti Levine-Brown, NADE President

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Article Abstracts:

Cost of Developmental Education: An Update of Breneman and Haarlow
By Joshua Pretlow III and Heather D. Wathington

ABSTRACT: Since Breneman and Haarlow (1998) first estimated the national cost of developmental education to be approximately $1 billion dollars, the developmental education landscape has shifted in numerous ways. This paper provides an update to their estimate in light of both these changes and improved data that disaggregates the cost to community colleges and four-year public institutions. An updated national cost estimate of developmental education to public institutions in the academic year 2004-2005 is estimated to be $1.13 billion, a 13% increase over the estimate of Breneman and Haarlow. This paper calls for states to make data on developmental education both transparent and publicly available in order to accurately derive a precise cost of developmental education both at the local and national levels.

Developmental Mathematics: Challenges, Promising Practices, and Recent Initiatives
By Barbara S. Bonham and Hunter R. Boylan

ABSTRACT: Developmental education has increasingly become part of the national debate in higher education. This is particularly true for developmental mathematics courses which, in general, have the highest rates of failure and noncompletion of any developmental subject area. This manuscript describes the current state of the art in developmental mathematics, discusses major initiatives designed to reform and improve success rates, and identifies research-based teaching practices associated with improved student performance in developmental mathematics courses.

Ideas for Practice: A Collaborative Look to the Classroom
By Dorothy A. Osterholt and Katherine Barratt

ABSTRACT: Many developmental students begin college ill-equipped in the social and emotional competencies to be successful. Thus, it is essential that institutions of higher education address the broader needs of these students. The purpose of this article is to present collaborative learning as a tool for addressing the social and emotional inhibitors that may prevent success during this time of transition. We address potential concerns for making this pedagogical shift and present reasons for considering this approach. We also provide specific classroom applications of this process that increase the chance that all students acquire the full spectrum of skills crucial for academic success through cooperatively-shared experiences.

Improving Supervision of Part-Time Instructors
By Patricia R. Eney and Evelyn Davidson

ABSTRACT: With an increasing number of colleges and universities turning to part-time instructors to teach courses at their institutions, developmental education professionals are faced with the task of finding appropriate ways to train, serve, and evaluate these instructors. Unfortunately, there is little published information on how to accomplish these tasks. Therefore, the authors have drawn on best practices and research in the field to develop recommendations for supervising part-time instructors.

Refocusing Developmental Education
By Thomas Brothen and Cathrine A. Wambach

ABSTRACT: Dissatisfaction with student success has caused a crisis in developmental education. Critics from both inside and outside the field question whether remedial courses really prepare students for future college work or even if they are properly part of the college mission. In this article, we review research and present information that suggests developmental educators should redefine core principles and key concepts to reinvigorate theory and practice in the field.

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Article Abstracts:

Addressing Flawed Research in Developmental Education
By Alexandros M. Goudas and Hunter R. Boylan

ABSTRACT: Much of recent research in postsecondary developmental education leaves the distinct impression that most remedial courses in community colleges are unsuccessful in helping students and that they should be entirely overhauled. Legislators and administrators are now taking these recommendations very seriously and are ready to cut programs that are ineffective out of their budgets. However, if this research is read in depth, it is clear the data do not completely support such claims of inefficacy. In fact, if one were to use solely the data from these studies, one could conclude that indeed community colleges are at least somewhat successful with their current developmental programs. The interpretation depends on how developmental education is defined, how success is defined, and how data is interpreted within a larger context. This paper explores the recent research’s primary claims regarding the effectiveness of developmental education, the data supporting those claims, their conclusions, and some potentially harmful results. We include different interpretations of that same data along with other infrequently cited studies to help shed light on what the current state of developmental education is with our nation’s nearly 1,200 community colleges.

Feedback on Developmental Writing Students’ First Drafts
By Beth Gulley

ABSTRACT: Many writing teachers provide feedback to their students through writing conferences; however, the existing literature indicates teachers may unintentionally harm their weaker students by using this strategy. To better understand the effect of the writing conference on developmental writing students, the researcher created a mixed design ANCOVA to answer the research question: What is the effect of oral feedback delivered via student teacher conferences on significant revisions to content, structure, grammar, and style for developmental writing students? The study found no statistically significant difference among treatment groups. Therefore, the researcher concluded that students improved their drafts regardless of the feedback method.

Strategies to Increase Enrollment, Retention, and Graduation Rates
By Patricia Y. Talbert

ABSTRACT: Student retention in postsecondary institutions continues to be a vexing problem, as graduation rates have continued to decline over the last decade. To be a competitive force in the global economy, it is crucial to keep students in school. This research uses a conceptual data model to introduce academic leaders’ (N = 104) perspectives to increase enrollment, retention, and graduation rates in higher education. The study is composed of two different facets. First, a review was conducted on a subsegment of the Minnesota Measures data regarding student enrollment and performance in two- and four- year degree programs in higher education in the state of Minnesota. Second, strategic methods are introduced from academic leaders involved in planning and developing programs to increase enrollment, retention, and graduation rates; findings provide special attention to reaching out to the minority population, first-generation students, and new attendees.
Article Abstracts:

The Consequences of Delayed Enrollment in Developmental Mathematics
By David S. Fike and Renea Fike
ABSTRACT: Though a large percentage of U.S. students enter higher education with mathematics deficiencies, many institutions allow these students to decide the timing of their enrollment in developmental mathematics courses. This study of 3476 first-time-in-college students entailed the review of student outcomes (Fall GPA, Fall-to-Spring retention, Fall-to-Fall retention) for those who enrolled in developmental math during their first semester compared to those who delayed enrollment. The findings suggest that policy requiring mandatory enrollment during the first semester for developmental math students may be in the best interest of students and their institutions.

Ideas in Practice: Toward a Participatory Approach to Program Assessment
By Patrick L. Bruch and Thomas Reynolds
ABSTRACT: Drawing on critical multicultural education scholarship, this article discusses an alternative assessment of academic support programs. It highlights the importance and value of supplementing traditional assessments with direct student participation. Through a discussion of data from a summer bridge program at a large research university, the article examines how a participatory approach can illuminate strengths in a program as well as enduring challenges that might block student success.

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Article Abstracts:

Unsuccessful and Successful Mathematics Learning: Developmental Students Perceptions
By Laurel Howard and Martha Whitaker
ABSTRACT: Limited research has been published that examines newly successful mathematics students’ perceptions of what hindered their acquisition of basic math skills in the past and their beliefs about what enables them to be successful now and in the future. This article describes a qualitative study that examines the perspectives and experiences of newly successful developmental mathematics students. Each student could identify a negative turning point in their past that led
to unsuccessful mathematics experiences and the mathematics concept associated with it. They each also reflected on the change in their mindset, a positive turning point, that fueled a shift in their strategies and resulted in successful mathematics experiences. Understanding students’ perceptions about their shift from unsuccessful to successful mathematics students can inform practice and fuel additional research.

Ideas in Practice: Professional Development to Manage Atypical Learner Behaviors
By Anthony G. Colarossi, Rachelle Maltzman, Hope Parisi, Christine M. Rudisel, and Tara Weiss

ABSTRACT: Issues of atypical learners in the developmental English classroom of an urban community college prompted a faculty collaborative “Group” response. Instructors and tutors were unable to help these students progress in their learning and the classroom atmosphere was impacted. The Group reached out to frustrated instructors and planned strategies for improving academic outcomes, offered collegial support, and provided professional development to tutors and instructors. Applying current action research-based models and focusing on a case-study format, the Group’s structure evolved to support more effective integration of atypical learners in the classroom.

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Article Abstracts:

Cost of Developmental Education: An Update of Breneman and Haarlow
By Joshua Pretlow III and Heather D. Wathington

ABSTRACT: Since Breneman and Haarlow (1998) first estimated the national cost of developmental education to be approximately $1 billion dollars, the developmental education landscape has shifted in numerous ways. This paper provides an update to their estimate in light of both these changes and improved data that disaggregates the cost to community colleges and four-year public institutions. An updated national cost estimate of developmental education to public institutions in the academic year 2004-2005 is estimated to be $1.13 billion, a 13% increase over the estimate of Breneman and Haarlow. This paper calls for states to make data on developmental education both transparent and publicly available in order to accurately derive a precise cost of developmental education both at the local and national levels.

Spelling Facilitates Good ESL Reading Comprehension
By Gail August

ABSTRACT: Adult ESL students were given reading comprehension and vocabulary tests, followed by spelling tests based on words in these assessments. The results showed that spelling knowledge of specific words in a reading selection affected reading comprehension of that text. However, the spelling of vocabulary words did not affect performance on a vocabulary test. The effect of spelling on reading comprehension may be related to information contained in English orthography and the role of spelling in the efficient storage and retrieval of words. The results suggest that integration of spelling instruction with vocabulary acquisition can facilitate college reading comprehension.

Ideas in Practice: Collaborative Problem-Based Learning in Intermediate Algebra
By Leslie B. Goldstein, Brian L. Burke, Amy Getz, and Paul A. Kennedy

ABSTRACT: A key goal in developmental education has been optimizing student success in future college-level classes. This study compared three sections of a problem-based collaborative learning pilot course of Intermediate Algebra to the original course section at a four-year public liberal arts college. The pilot course differed from the original course in three main areas: structure, content, and assessments. Results showed that student performance and satisfaction with the pilot course
did not differ significantly from the usual course but that success in College Algebra the following semester was significantly higher among students from the pilot course sections, especially for Native Americans.

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**Article Abstracts:**

**Developmental Mathematics: Challenges, Promising Practices, and Recent Initiatives**
By Barbara Bonham and Hunter R. Boylan

**ABSTRACT:** Developmental education has increasingly become part of the national debate in higher education. This is particularly true for developmental mathematics courses which, in general, have the highest rates of failure and noncompletion of any developmental subject area. This manuscript describes the current state of the art in developmental mathematics, discusses major initiatives designed to reform and improve success rates, and identifies research-based teaching practices associated with improved student performance in developmental mathematics courses.

**Incorporating Study Strategies in Developmental Mathematics/College Algebra**
By Selina Vasquez Mireles, Joey Offer, Debra D. Ward and Carol W. Dochen

**ABSTRACT:** The purpose of this paper is to discuss the effectiveness of incorporating study strategies in a developmental mathematics/college algebra program. Both quantitative and qualitative data were collected through a quasi-experimental methodology. Results show that students reported increases on the Learning and Study Strategies Inventory (LASSI) scales in study strategy usage, and this new strategy usage was supported by comments students made on open-ended surveys. A discussion of conclusions, limitations, recommendations, and suggestions is also included.

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**Techtalk: The Community of Inquiry Model for an Inverted Developmental Math Classroom**
Article Abstracts:

Increasing Student Success and Retention: A Multidimensional Approach
By Paul R. Fowler and Hunter R. Boylan

ABSTRACT: Students who are seriously academically deficient, those who are underprepared in all subjects, face many academic challenges as they begin their coursework in higher education. However, students also face nonacademic and personal issues that create additional barriers to success. The results of this study suggest that increases in student success and retention may be achieved if developmental educators also address the nonacademic and personal factors related to student success. The student success documented in this study was achieved through the use of: (a) clear student guidelines, (b) integrating first-year transition coursework, (c) intrusive academic advising to treat the nonacademic and personal factors, and (d) traditional developmental education coursework and tutoring to address the academic factors delivered via a Pathways to Success Program. The increase in the mean grade point average of program students as compared to nonprogram students, from 1.503 to 2.151, was statistically significant (p = .000). Increases in the number of students in good academic standing, increases in success in developmental education courses, and increases in the 1-year retention rate were also noted for participating students.

The Effectiveness of Computer-Assisted Instruction in Developmental Mathematics
By Kathy Spradlin and Beth Ackerman

ABSTRACT: This quasi-experimental study compared academic performance of students enrolled in a developmental mathematics course using traditional instruction (i.e., lecture) and traditional instruction supplemented with computer-assisted instruction. In addition, gender differences in mathematical performance were also investigated. There was no statistically significant difference in the posttest scores of students receiving traditional instruction and traditional instruction supplemented with computer-assisted instruction. There was a significant difference in the posttest scores of females and males, with females outperforming males in both modes of instruction.

Ideas for Practice: A Collaborative Look to the Classroom
By Dorothy A. Osterholt and Katherine Barratt

ABSTRACT: Many developmental students begin college ill-equipped in the social and emotional competencies to be successful. Thus, it is essential that institutions of higher education address the broader needs of these students. The purpose of this article is to present collaborative learning as a tool for addressing the social and emotional inhibitors that may prevent success during this time of transition. We address potential concerns for making this pedagogical shift and present reasons for considering this approach. We also provide specific classroom applications of this process that increase the chance that all students acquire the full spectrum of skills crucial for academic success through cooperatively-shared experiences.

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Bridging the Evidence Gap in Developmental Education
By Michael L. Collins; Invited Contribution

ABSTRACT: This article addresses conflicting perspectives regarding research in developmental education. Subsequent to examining opinions regarding the rigor of research in the field to date, recommendations for a research agenda are proposed. The study’s review of research strengths and weaknesses suggests multiple types of evidence, potentially pointing college leaders and policymakers to better strategies and approaches.

A Comprehensive Cost/Benefit Model: Developmental Student Success Impact
By Alejandro J. Gallard, Frank Albritton, and Mark W. Morgan

ABSTRACT: Colleges are facing an increasing population of students who begin their college experience in developmental education classes in reading, math, and/or English. Many of these students are unsuccessful in attaining a degree, sometimes because they are deterred by their lack of preparation and the delay of two or more semesters before they begin their college-credit courses. One community college in Florida has implemented an intervention in its developmental education program funded through a U.S. Federal Title III-A grant, achieving increases in course completion rates and student retention with an enhanced tutoring program. The authors present the cost/benefit of the tutoring intervention, demonstrating a surprisingly large return on the investment both to the college and society.

Questions for Practice: Reflecting on Developmental Mathematics Using 19th-Century Voices
By Marcus E. Jorgensen

ABSTRACT: In this article the author has used 19th-century arithmetic and algebra textbooks as a way to reflect on current practices in developmental mathematics education. Five areas of special interest were found: motivation, relevance, depth, pedagogy, and textbooks. Philosophic and practical statements from vintage textbook authors remind educators of a number of questions and issues within each of those areas of interest. In some respects, little has changed over the years and many issues remain unresolved or little progress has been made. One hundred years from now will things be the same, or is it time for a change, a rethinking?

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Article Abstracts:

Postsecondary Literacy: Coherence in Theory, Terminology, and Teacher Preparation
By Eric J. Paulson and Sonya L. Armstrong

ABSTRACT: Postsecondary literacy instruction -- the teaching of basic writing and transitional, or developmental, reading in community colleges and 4-year colleges -- is an important and growing field, but also one still developing in key areas. In this article, we discuss three of these areas within which postsecondary literacy instruction can continue to develop. Specifically, we discuss current issues in theory, terminology, and teacher preparation within the field. We also explore specific suggestions for increasing coherence and consider focal points for further inquiry in each area.

Underprepared, Ethnically Diverse Community College Students: Factors Contributing to Persistence
By Peter Barbatis

ABSTRACT: The purpose of this study was to gain an understanding of the perceptions of underprepared college students who had participated in a first-year learning community at an urban, culturally diverse, commuter campus in the
southeastern United States. Perceptions of graduates and those who earned at least 30 college-level credit hours were compared to their learning community peers who did not persist and had dropped out of college. A total of 22 students participated: 6 graduates, 12 persisters, and 4 dropouts. The factors included personal attributes, support systems, and other characteristics. Findings suggested the following ways to enhance the academic experience of underprepared college students: (a) include critical pedagogy, (b) integrate cocurricular activities with the academic disciplines, and (c) increase student-faculty interaction.

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Article Abstracts:

Is a Writing Sample Necessary for "Accurate Placement"?
By Patrick Sullivan and David Nielsen

ABSTRACT: The scholarship about assessment for placement is extensive and notoriously ambiguous. Foremost among the questions that continue to be unresolved in this scholarship is this one: Is a writing sample necessary for "accurate placement"? Using a robust data sample of student assessment essays and ACCUPLACER test scores, we put this question to the test. For practical, theoretical, and conceptual reasons, our conclusion is that a writing sample is not necessary for "accurate placement." Furthermore our work on this project has shown us that the concept of accurate placement itself is slippery and problematic.

American Indian/Alaska Native College Student Retention Strategies
By Raphael M. Guillory

ABSTRACT: This article presents findings from a qualitative study examining the similarities and differences between American Indian/Alaska Native student perceptions of state representatives, university presidents, and faculty about persistence factors and barriers to degree completion specific to American Indian/Alaska Native students at three land-grant universities across Washington, Idaho, and Montana. A comparative analysis of themes emerging from interview data reveals conflicting perceptions among participant cohorts. Retention-to-graduation strategies are offered for institutions of higher education desiring to better serve these students and their respective tribal communities. The strategies offered, including specialized forms of culturally-sensitive career and academic counseling, peer mentoring, and Supplemental Instruction, can also help professionals delivering developmental education programming better serve this student population.

A Curriculum Focus Intervention’s Effects on Prealgebra Achievement
By David Yopp and Richard Rehberger

ABSTRACT: This paper discusses a pilot study of the effects of a curriculum focus intervention on students’ Prealgebra achievement. Elements of the intervention include identification of high-priority learning objective; structured repeatable testing; and a coherent, rubric-based feedback component. This research differs from traditional mastery learning research in that it focuses on a subset of high-priority learning objectives, as opposed to the entire curriculum, and focuses on assessing students’ ability to structure, represent, and communicate their processes and thinking skills, as opposed to assessing only whether the solution and processes are correct. Students in the treatment and control groups were given general (not mathematics specific) academic efficacy measures, a course-specific measure, and a common course final exam. Only the differences in the means on course specific measures were statistically significant, with the treatment group outperforming the control group on both the course-specific efficacy measure and the final. A possible negative effect was that students in the treatment group dropped out at a higher rate than students in the control group.
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Article Abstracts:

Literary Letters: Developmental Readers’ Responses to Popular Fiction
By Marty Frailey, Greta Buck-Rodriquez, and Patricia L. Anders

ABSTRACT: This article describes elaboration in “literary letters” (Atwell, 1984, 1987) written by developmental reading students. Nineteen community college students received instruction in “elaborative thought patterns,” or types of elaboration, to improve the quality of their responses to popular fiction. This instruction was part of a literature-based component intended to foster positive changes in comprehension and attitude toward reading. Data were derived from (a) letters analyzed according to a coding system, (b) questionnaires, (c) focus-group discussions, and (d) self-evaluations. Students demonstrated improvements in quality of elaboration; they also reported positive changes in comprehension, writing, literature discussions, self-efficacy, and attitude.

The Paraprofessional-to-Teacher Pipeline: Barriers and Accomplishments
By Jorgelina Abbate-Vaughn and Patricia C. Paugh

ABSTRACT: This study examined barriers experienced by veteran school paraprofessionals attempting to complete a 4-year degree leading to public school teaching credentials. The study followed culturally and linguistically diverse, nontraditional student participants through their 1st and 2nd years as sophomore/junior students in a large urban university. The population exhibited a variety of academic, organizational, financial, and counseling needs typical of developmental learners. With significant numbers of adult learners re-entering baccalaureate degree-granting institutions, the notion of developmental education might be applied to such students; they bring a mix of academic needs and success through resilience based in their cultural funds of knowledge.

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Article Abstracts:

Instructional Delivery in Developmental Mathematics: Impact on Retention
By Carol A. Zavarella and Jan M. Ignash

ABSTRACT: Studies of students enrolled in computer-based instruction have yielded mixed results, with some reporting a high dropout rate. This article describes a quantitative study examining the probability of students' withdrawal from a computer- versus lecture-based developmental math course based on learning style, reasons for selecting the instructional format, and entry test scores. Students in the computer-based format were more likely to withdraw from the course compared to those in the lecture-based format, and personal reasons for choosing a specific format appeared to influence completion rates. Implications for practice include suggestions for providing appropriate information to students prior to their enrollment in online developmental education courses.

Targeted Intervention for Developmental Education Students (T.I.D.E.S.)
By Hunter R. Boylan

ABSTRACT: This manuscript proposes a theoretical model that provides an alternative for assessing, advising, and placing underprepared students in colleges and universities. It advocates combining cognitive and affective assessment data along with information about students’ personal circumstances to make more precise placement decisions via advising that targets both course and service recommendations. The article also includes a detailed description of the model and how it might be implemented. The assumption underlying this model is that although the traditional practice of placing students into remedial courses based on a single cut score on a cognitive assessment instrument is efficient, it is not necessarily effective. The use of the alternative model, referred to as “Targeted Interventions for Developmental Education Students,” should enable institutions to place their underprepared students more accurately and serve them more effectively.

College Preparedness and Time of Learning Disability Identification
By Carla Abreu-Ellis, Jason Ellis, and Richard Hayes

ABSTRACT: This paper discusses the results of the Learning and Study Strategies Inventory (LASSI) administered to college students in order to identify similarities and differences between time of diagnosis of a learning disability and the development of learning strategies related to will, self-regulation, and skill components. Findings indicate that early identification (in K-12) and providing students with test-taking strategies may ameliorate academic success in higher education for students with learning disabilities. Recommendations for action will assist developmental educators to better serve college students with learning disabilities in higher education.

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Article Abstracts:

Placement Tools for Developmental Mathematics and Intermediate Algebra
By William J. Donovan and Ethel R. Wheland

ABSTRACT: This paper investigates the placement of students at an urban Ohio college campus in developmental mathematics and Intermediate Algebra courses. We have found that the ACT Mathematics and COMPASS Domain I (Algebra) Placement scores both correlate well with success in the Intermediate Algebra course and that, although females have lower placement test scores than males, they have a higher success rate in the course. We determined that the existing cutoff for placement in the Intermediate Algebra course is accurate in predicting students to be more likely to succeed than fail the Intermediate Algebra course at this institution.

Developmental Education Literature: A Proposed Architecture
By Michael Preuss

ABSTRACT: Developmental education is an area of practice in higher education which continues to develop and expand. To date, it has been without a system portraying the logical relationships between various constructs employed in the field. A descriptive content analysis, considering 796 individual units from five different sources to construct a proposed architecture
of the literature of developmental education, is presented. The project seeks to portray, in respect to the literature sampled, both the logical relationships existing between various topics in the literature of developmental education and the weight given to any particular topic. The result provides an overview of the field of developmental education and its literature based on the topics addressed and purposes advanced by the many practitioners and scholars who authored the manuscripts surveyed.

Community College Library Practices in Developmental Education
By Ann Roselle

ABSTRACT: This qualitative study examines current community college library practices in developmental education. Based on semistructured telephone interviews with 27 librarians across the United States, analysis of the results shows that there are librarians who proactively integrate basic library skills into developmental education and academic success courses, collaborate with developmental educators in designing library sessions and class assignments, interact with learning assistance and tutoring centers, and help reduce library anxiety and build student confidence.

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Article Abstracts:

First Generation College Students: A Study of Appalachian Student Success
By Christie Hand and Emily Miller Payne

ABSTRACT: First-generation students represent a crucial population in institutions of higher education. Often considered “at-risk” in academic persistence and retention discussions, these students present both a challenge and opportunity to postsecondary education. This study focuses on a subgroup of first-generation students, those from Appalachia, and the factors contributing to their academic persistence.

The participants were students from the Student Support Services program at a major Appalachian university. The phenomenological method was employed, enabling the themes to flow from the data rather than being presupposed by the researcher. The themes (“factors) emerging from the students’ experiences were the importance of home culture and family, financial concerns, significance of an internal locus of control, relationships and emotional support, and communication of information. Each of these has shown a definite impact on the students’ academic persistence.

Ideas in Practice: Instructional Design and Delivery for Adult Learners
By Julia Simms and Dave S. Knowlton

ABSTRACT: A pertinent question for developmental educators is not whether computers should be used in developmental education but how (Dotzler, 2003; Rapp & Gittinger, 1993). Instructional design models appropriate for courses delivered electronically should be applied because part of the how requires ensuring that adult students who are enrolled in developmental courses experience computer-based instruction that is well-designed in terms of both efficiency and relevance of delivery. This article begins by describing the needs of adult students who are enrolled in developmental courses. Then, it describes a project in which Morrison, Ross, and Kemp’s (2004) curvilinear instructional design model was used to create computer-based instruction about fractions. Both the design and developmental phases are described. The article concludes with implications for others who might apply the model to various areas within developmental education.

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Impact of the Supplemental Instruction Experience on Science SI Leaders
By Nancy M. Lockie and Robert J. Van Lanen

ABSTRACT: This qualitative study describes the experiences of SI leaders in science courses. Analysis of data using Colaizzi's phenomenological approach has indicated the following advantages of the SI experience for SI leaders: (a) greater appreciation of the diversity of student learning styles, (b) increased understanding of the subject matter, (c) greater self-confidence as a learner, (d) development of closer relationships with faculty, (e) application of the strategies and skills learned as an SI leader in other courses, and (f) realization of the importance and value of collaborative learning. The results of this study can be used by Learning Center professionals and faculty to successfully recruit new SI leaders and to customize the SI model to maximize the effectiveness.

Ideas in Practice: Graphing calculators in Beginning Algebra
By Aimee Martin

ABSTRACT: This paper reports on a project to improve Beginning Algebra students' understanding of basic algebraic concepts through fully integrated use of the TI-83 graphing calculator. The methodology incorporated an intervention case study including approximately 700 Beginning Algebra students at an open-door community college of 8,500 students in the Southwest. Pass rates, empirically calculated at points before and after the implementation of the graphing calculator project, clearly showed an increase with the use of graphing calculators.
ABSTRACT: Retrospective Miscue Analysis (RMA) is presented as an instructional strategy for postsecondary reading instruction. Oral reading miscues, which form the core of the RMA approach, are briefly described, and RMA is discussed as a one-on-one instructional approach utilizing the reader’s own miscues. The theoretical and underpinnings of RMA are discussed and detailed procedures for implementing RMA are provided. Examples from several RMA sessions that illustrate RMA procedures are presented.

Ideas in Practice: Strategic Note Taking in Developmental Mathematics
By Carol Eades and William M. Moore

ABSTRACT: This article conveys the importance of note taking in postsecondary developmental mathematics. It presents a strategic note-taking methodology that is designed to help students increase self-regulation and facilitate learning. Although the note-taking system is applied to developmental mathematics, it can be used for any course. The article also describes what note-taking strategies can and cannot do for students and instructors. The authors conclude by inviting readers to analyze the success of this systematic process in their own classes.

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Academic Motivation and Performance of Developmental Education Biology Students
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Critical Thinking: The Art of Socratic Questioning
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Techtalk: Assistive Technology
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Article Abstracts:

Does Faculty Employment Status Impact Developmental Mathematics Outcomes?
By David S. Fike and Renea Fike

ABSTRACT: This study assessed the impact of faculty employment status on student outcomes in developmental mathematics. The sample consisted of 1318 students enrolled in Intermediate Algebra classes at a community college. Multivariate analyses revealed that faculty employment status (full time or part time) was not associated with students’ final grades or completion rates. Faculty education level was correlated with course final grades, with faculty possessing graduate degrees having better student outcomes. Student gender, race, and age were associated with outcomes; semester hours attempted were not. These findings should help equip administrators to make informed decisions regarding faculty assignments that lead to improved student outcomes and help faculty to target interventions for “at-risk” students.

A Retention/Persistence Intervention Model: Improving Success Across Cultures
By Geneva Escobedo

ABSTRACT: This article describes a 3-year pilot study that addressed persistence and retention of developmental students at a multi-campus community college in the Southwest. The study was conducted as part of a U.S. Department of Education Hispanic Serving Institution grant program. Qualitative research and formative evaluation with outcomes on data for three fall cohorts were collected and analyzed. Analysis of the data revealed that there was a significant difference between the persistence rates of three fall cohorts compared to the general population. The intervention strategies applied to the fall cohorts resulted in increased persistence rates.

Academic Motivation and Performance of Developmental Education Biology Students
By Randy Moore

ABSTRACT: At the beginning of classes, 1st-year developmental education students in an introductory biology class are confident that they will earn high grades and do extra-credit work if given the opportunity to do so. However, in this study fewer than 25% of students submitted such work, despite the fact that the extra-credit was guaranteed. Students who did the extra-credit work (a) were more likely to come to class, lab, and optional help-sessions and (b) earned higher grades than students who did not do the extra-credit work, even when the points earned by the work were not considered in
calculations. These results indicate that the most successful developmental education students have a variety of motivation-related behaviors that maximize success, and the least successful students are often unwilling to expend the effort necessary to succeed.