

# Developmental Education: Teaching Challenges and Strategic Responses

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*As shown in this research study, developmental students bring academic, social, and emotional challenges to the classroom that must be addressed by the faculty using specific pedagogical skills, and the community college by providing customized faculty professional development and administrative support for the developmental education program.*

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Overall enrollments in U.S. higher education institutions between academic year 2000-2010 increased by 37% (5.7 million students), and 46% of all students are in public 2-year institutions. Additionally, as a result of shifts in minority enrollments over the past 10 years, community colleges have become more diverse; 75% of all Hispanic students and 50% of Asian/Pacific Islander, Alaskan Native, and Black students attended a 2-year institution (Mullen, 2012). These increased enrollments are of socioeconomic importance for both the students and the country as, according to Holzer and Lerman (2007), 45% of all job vacancies between 2004 and 2014 will be in the middle skills category requiring more than a high school education but less than a four-year degree, and 33% will be in the high skills category. Moreover, an associate's degree generally increases wage earnings 20% to 30% over a high school diploma (Carnevale & Desrochers, 2004). Nonetheless, these increased enrollments come with challenges, especially for the community colleges and their faculty.

One study shows that only 43% of the high school students who earn a diploma are college ready (McCabe, 2000), thus it is not surprising that 58% of public two-year college freshmen take at least one remedial course and 44% took between one and three remedial courses (Attewell, Lavin, Domina and Levey, 2006). Although there is hope that responsibility for remediation will shift to the high schools, McClenney (2004) states that "as far as we can see into the future, there is going to be a continuing and critical need for community colleges to be engaged in a significant amount of remedial education" (p. 15).

The presence of under-prepared students in courses challenge faculty to meet the students' needs while trying to maintain the academic integrity of the institution (Pitts, White, & Harrison, 1999). Not much research has been conducted on (a) faculty adaptation of college-level teaching methods, content, and evaluation for developmental courses and (b) professional development currently available for community college faculty who teach developmental courses. Therefore, the purpose of this study was to (a) examine how community college faculty who are

assigned to developmental courses perceive the challenges associated with teaching academically under-prepared students, (b) discover how faculty address these problems, and (c) identify ways in which community colleges can enhance their support of developmental education.

## Definitions of Terms

Two definitions are particularly important to understanding this research study: (a) remedial instruction and (b) developmental instruction. Remedial instruction is teaching delivered in the subject areas of reading, writing, and mathematics for students lacking skills necessary to perform academic work at the level required by their institution (Merisotis & Phipps, 2000). Developmental instruction is concerned with academic knowledge acquisition, but it also incorporates non-cognitive or developmental factors such as self-concept, attitudes toward learning, and self-sufficiency (Boylan & Saxon, 2005). The developmental component in courses may consist of college culture skills with instruction in the areas of note-taking, test-taking, time management, dealing with anxiety, and students understanding their own learning styles.

## Literature

A brief summary of four topics in the literature provides an enhanced understanding of the study: (a) the theoretical framework; (b) the genesis of developmental education in community colleges; (c) the issues of assessment and placement, and (d) the link between student needs, developmental education, and college persistence.

### *The Theoretical Framework*

Critical to the success of students in developmental courses is their persistence, and as stated by McClenney (2004), "The plain truth of the matter is that if students don't succeed in developmental education, they simply won't have the opportunity to succeed anywhere else" (p. 15). Stage and Hossler's (2004) Student-Centered Theory of

Persistence is based on 20 years of research, and it provides explanations concerning student experiences that lead to persistence. Each student considers options based on their own academic achievement, economic circumstances, and aspirations. College preparation and diligence are largely affected by the degree to which students actively pursue these options, and motivation is important as a real and conceptual foundation for subsequent college success (Stage & Hossler, 2004). Students' beliefs and attitudes strongly affect their level of active, self-initiated participation in education, and faculty can play a considerable role in cultivating a positive and proactive mind-set in their students.

### *The Diverse Population of Developmental Education*

Musil (1997) traces the increasing diversity of students back to several historical events including the post WWII G.I. Bill, Civil Rights, the Women's Movement, and the 1965 Immigration Act which contributed to opening the doors of higher education for those who previously had limited access to formal education beyond high school. Additionally, with more community colleges emerging during the 1960's and 1970's, the philosophy of increasing access to higher education for all resulted in the need to provide more remediation (Brint & Karabel, 1989). Remediation "started as a simple approach to equity through lowering the access barriers . . . [but] turned into an educational revolution involving all of higher education" (Cross, 1976, p. 9). As more diverse students enroll into post-secondary education, those requiring remedial and developmental education were also increasingly diverse: "Their educational, cultural, and socioeconomic backgrounds differ, as do their motivations and goals for pursuing higher education" thus the extent and variety of need for remediation grew in complexity (Oudenhoven, 2002, p. 38).

### *Testing - Assessment and Placement Issues*

Many states have educational policies that mandate assessment and placement of incoming community college students. The purpose of placement tests is to determine whether students are ready for college-level courses or if they first need developmental education. Placement tests are typically standardized multiple choice tests administered and scored by computer such as Accuplacer, Asset, and COMPASS. Grubb (1999) found that "in using these tests, colleges assume that they are valid measures of the ability to do college-level work . . . but the value of these test[s] is the subject of much confusion" (p. 176). Astin and Antonio (2012), Spann (2003), and Jenkins (2002) have reported similar findings. The concern appears to be that the placement tests are not correlated to the colleges' offered curriculum. This testing often creates further problems for under-prepared students who are not correctly assessed and placed into the

courses that would benefit them the most. Additionally, a study reported findings that 30% of students referred to developmental courses actually enrolled, and only about 60% of students enrolled into the referred developmental course to which they were tested and placed into (Bailey, Jeong & Cho, 2010). Inappropriate student placement can lead to increased student dissatisfaction and attrition.

Another emergent problem is that as student enrollment into community colleges increases, more students are testing into developmental courses and this has at least three important implications for teaching. First, students in developmental courses who are substantially below college-level work present enormous challenges to developmental faculty (Kozeracki, 2005). Second, given the large number of developmental students with dramatically diverse backgrounds, the needs of these students are extremely varied. And third, "community college developmental instructors' abilities to respond to the needs of their students depend on the knowledge, training, and experience they bring to the classroom" (Kozeracki, 2005, p. 39). Few faculty will come to the developmental classroom with the pedagogical knowledge and skills they need to address these challenges.

### *Student Needs beyond Academic Deficiencies*

The processes of choosing which institution of higher education to attend and deciding whether or not to persist in postsecondary education are complex. Based on a review of the related research studies, students who select and matriculate into community colleges possess more challenging characteristics or hindering circumstances than those who enter four-year institutions. It is clear that at-risk characteristics have a major impact on student success. These characteristics may include nontraditional status, underrepresented minority, socioeconomic status (SES), first-generation, financial need, employment over 20 hours/week, or being a single parent. At-risk students are less likely to persist in college because of lower achievement and limited academic and non-academic support (CCSSE, 2010).

The argument that supplemental college success instruction beyond academic skills improves academic performance of under-prepared students is well documented in the research literature (Boylan, 2002). Many developmental students have little understanding of the strategies required to learn new information and develop critical thinking skills (Boylan, 2002). Martin and Arendale (1992) found that developmental instruction resulted in improved grades in freshman academic courses. Perin (2012) reports that students who received supplemental developmental instruction as part of their program had higher rates of persistence than students enrolled in developmental programs that did not offer this type of support.

This research study examined the challenges of teaching developmental courses from a community col-

lege faculty perspective. Related factors discussed in this summary of literature were integrated into the data collection including student diversity, needs, placement, and advising, as well as opportunities for faculty development.

## Methods

The inquiry used a qualitative case study design and was guided by four research questions:

1. How do faculty maximize the effectiveness of developmental courses in preparing students for college level work?
2. What are the challenging aspects of teaching developmental students?
3. What works and what does not work when addressing those challenges?
4. What types of institutional support would assist these faculty and potentially strengthen the developmental education programs?

### Two Case Studies

The two case study institutions, one in New York and the other in Texas, were selected because they were public comprehensive community colleges that supported open admissions policies, offered developmental programs, provided excellent access for the researchers, and presented an opportunity to incorporate geographic diversity. Based on Carnegie classification, both colleges are Associates serving large public rural areas. The New York college services more full-time students, but the Texas college has a larger total enrollment (Table 1). Because these two colleges are in different geographic regions and contexts, similarities in the findings could support some transferability of conclusions and provide broader insights that give direction to future research.

The New York state community college enrolls approximately 5,500 students each year and employs 279 faculty members of which 53% are full-time. The student-faculty ratio is approximately 20:1 with most faculty teaching overloads (additional sections of classes taught above the average teaching load of five courses). About 65% of the students are age 24 or younger, 72.7% are full-time, and

over 50% are first generation students. The college is predominantly commuter based; however, 15% of the students live in the on-campus dormitories. Approximately 10 % of the students are people of color, and a growing immigrant population in the area has enriched the college's diversity. Twenty-one different countries are represented on campus. The college offers primarily occupational oriented degree and certificate programs in business, engineering technology, health care, education, graphic communication, science, liberal and fine arts, and criminal justice. The surrounding area, referred to by some as the "Rust Belt," is home to a community in transition; when manufacturers moved out of the region employment opportunities declined. But the city has been partly re-energized by the important role it plays in hosting a immigration center that assists newly arriving refugees with resettlement services.

The West Texas community college serves approximately 9,000 students each semester, and employs 425 faculty members of which 61% are full-time. The college's recent enrollment growth has been accommodated through an increase in the number of faculty who teach overloads. However, as resources have become available, additional full-time faculty have been hired in key instructional areas. The use of part-time instructors remains low as compared to other state institutions. Approximately 79% of all students are age 24 or younger; this is attributed to the growing number of traditional college-age students and dual credit high school students enrolling in college courses. Based on a recent student survey, 42.1% of the respondents indicated they were the major wage earner in their household and more than 72% indicated they were first generation college students. In recent surveys students also indicated that their primary reason for taking courses is to meet requirements for a chosen occupation.

Both colleges have an open door admission policy resulting in a student population with a variety of special needs that must be met in order for them to achieve their primary educational goals. Among these needs are financial aid, general college information, academic and educational planning, academic support, motivation, and special services based on particular situations (veterans, international students, disability, and ESL).

**Table 1. Characteristics of the Case Study Community Colleges**

Characteristics	New York	Texas
Student Enrollment	5,500	9,000
Full Time Students	72.7%	48.4%
Students Under Age 24	65%	79%
Student to Faculty Ration	20:1	22:1
Faculty	279	425
Full Time Faculty	53%	62%

### Data Collection and Analysis

The three data sources used for this study were institutional documents, developmental classroom observations, and semistructured interviews. The documents were obtained from the colleges' Web sites, institutional research offices, and administrators during the fieldwork. The review of institutional documents provided information about policies and programs for developmental classes and the faculty who teach developmental courses. Documents also included course syllabi and statistical data concerning students (e.g., enrollment, recidivism, certifi-



cate completion, and transfers). Field notes were written to record data gathered during the classroom observations in developmental English, reading, and mathematics classes.

Purposeful criterion sampling was used to select 16 participants for semi-structured interviews. The New York community college participants comprised seven full-time faculty who teach developmental courses, one administrator directing professional development, and one student testing and placement administrator. Texas community college participants were five full-time faculty who teach developmental courses, one administrator directing professional development, and one student testing and placement administrator.

The interview questions (see Appendix) led participants to talk about their experiences and thoughts, while providing a detailed description of what it is like to teach developmental courses or advise developmental students at an open admissions community college. The intent was to identify and discuss prominent events in the participants' own terms. Use of a semi-structured interview format enabled asking additional clarifying or amplifying questions to ensure a correct understanding of the participants' responses and perspectives.

Initially the data from each case were analyzed separately to develop a detailed, holistic picture of the individual institution. The results of the parallel studies were subsequently compared, contrasted, and then integrated into the findings presented in this article.

### *Validity and Reliability*

After completing audio-recorded participant interviews, cassette tapes were transcribed verbatim. The transcriptions were emailed to the participants with a request that they review the statements and correct, clarify, and add to the noted responses. Adhering to interview protocols ensured consistency of procedures, and research validity was strengthened by employing participant checks to increase the accuracy of the transcribed participant responses. Additionally, data triangulation was conducted in the case studies individually. Specific to each case, all sources of data identified in the research design were reviewed and analyzed together, so that each case study's findings are based on the convergence of information from different sources. Lastly, the initial research report was sent to an expert in the field for review and comment.

## Findings

A similar finding from both case studies was that the community colleges do not require their developmental education faculty, part-time or full-time, to have training specific to teaching developmental education. Moreover, the majority of faculty do not receive pedagogical support. Some faculty members experienced positive interaction

with assigned or adopted mentors, but most were left to their own means in dealing with challenges of teaching developmental classes. Specific findings from the two case studies are presented in four categories: (a) diversity of students and needs, (b) perceptions of placement tests, (c) the developmental component, and (d) faculty characteristics.

### *Diverse Students Present Diverse Needs*

In addressing research question 2, what are the challenging aspects of teaching developmental students, faculty agreed that remedial/developmental students are typically more diverse and have a different "mindset" as compared to college-ready students. Faculty also tended to group students into categories when describing their teaching strategies. The most prominent groups include traditional-aged students attending immediately after high school; non-traditional-aged students who have served in the military, worked, or raised families; students who are first generation; and students for whom English is not their first language. Moreover, some students are in more than one category thus increasing the complexity of addressing their needs.

These students may have had a "bad experience" in the past and now "feel doomed to fail"; they are described by faculty as exhibiting a "mental block." Most faculty placed great emphasis on their desire to "reach" these students and to persuade them that success is possible. One instructor explained that developmental students need more personal attention than college-ready students.

With these at-risk students, they do not necessarily have the skills to go ahead and initiate the assignment on their own. They may be afraid of it, or they will forget about it, or they get half-way through and don't know how to finish. So, I have discovered that walking them through the first few steps of doing a homework assignment is about the only way I can guarantee that they're going to bring it back completed. I open [the class] a certain way, I transition certain ways between discussion and activities in a class, and I close the class a certain way. And, I've learned that from experience. You know, I cannot rely on students just to read the syllabus and go do the homework assignment. I have to verbally point it out and walk them through. So, definitely I would say that there needs to be awareness among developmental faculty members what classroom management involves, and the success of students does involve quite a bit of orienting them to expectations in college courses.

Traditional developmental students are those who recently left high school and are under-prepared for college-level courses. They typically assume less responsibility for completing assignments and putting forth the effort necessary to be successful in developmental courses. The complete transition from high school to college level expectations has not occurred. One professor explained that some "students come in with a bad attitude or no real sense of what's going on." Another states "with these

at-risk students, they do not necessarily have the skills to go ahead and initiate the assignment on their own. They may be afraid of it, forget about it, or they get half-way through and don't know how to finish."

First generation students are those whose parents have not attended post-secondary education. These students are not necessarily acculturated into the college environment and participants explain that students lack essential skills in time management, note taking, or using learning resources competently. First generation students need clarification of instructions and modeling. One faculty participant explained, "I have to verbally point it out and walk them through assignments." Additionally, "the success of students involves quite a bit of orienting them to expectations in college courses."

The non-traditional students are typically older, more socially mature, and have the determination to succeed once the anxiety barrier has been crossed. They typically ask more questions, draw cognitive connections to course content, and are more respectful to faculty. One faculty member explained that non-traditional students "need the encouragement, where someone will say yes, you can do it! What can I do to help you?" Another instructor states, "I think they are wonderful because they usually are very highly motivated and have a good work ethic. For them it is more of a confidence builder than it is any skill deficiency."

English as a Second Language (ESL) students face challenges predominately with language. Faculty must offer explanations that are understood by these students. At the New York community college, ESL students were identified as falling into two categories: (a) self-acknowledged as ESL and (b) ESL students not wanting to be labeled as ESL. The self-acknowledged ESL students lacked U.S. cultural background information and faced challenges in reading and communication, but they were

**Table 2. Faculty Perceptions: Types of Students and their Challenges**

Developmental Student Groups	Challenges
Students in General	1. Lack self-confidence and are easily distracted 2. Lack college skills 3. Receive little or no academic advising
Traditional	1. Lack maturity and responsibility 2. Lack college skills 3. Bad attitude and/or low motivation 4. Expectations do not match reality
Non-Traditional Students	1. Academic anxiety 2. Lack college skills and expectations. 3. Time management – juggling work and family 4. Underestimate their abilities
1 <sup>st</sup> Generation/ Lower SES	1. Lack college skills and expectations 2. Minimal parental support to attend college 3. Lack self-confidence

not necessarily academically below college-level. Many of these students were proficient in math but would take developmental math courses as a way to increase their English comprehension. By having a supporting knowledge in the subject matter, they were able to focus on developing language skills. On the other hand, the ESL students not wanting to be labeled ESL did not self identify. Although they were able to speak English, they did not write well. They often had a negative attitude causing boredom, frustration, and a negative class dynamic with other students. The challenge to faculty with this group was in identifying them as ESL and recommending placement with ESL trained faculty.

Table 2 summarizes some of the challenges associated with teaching students in remedial/developmental classes; the students are divided into six categories. Table

**Table 3. Strategies to Improve Remedial (or Developmental) Programs**

Strategy	Faculty Recommendations
Pedagogy	1. Get to know who the students are cognitively and socially while building rapport with them. 2. Incorporate a variety of teaching formats (lecture, technology, discussion, group work, student presentation). 3. Explain college-level expectations and institute a class attendance policy. 4. Assess learning styles and focus on pedagogy - instruct the class together on the topic but use unique strategies for each group. 5. Provide personal attention (conferences). 6. Be very positive with students - point out their strengths.
Curricular	1. Test students at the beginning of the semester for correct course placements. 2. Recommend students retake the placement test (based on academic level). 3. Recommend students take specific courses tailored to ESL, if appropriate. 4. Restructure course content - adjust the course to meet the needs of the students.
Advising	1. Train faculty advisors to better match course and student capability combinations. 2. Accurate identification of non-disclosed ESL students to take the ESL track courses. 3. Counsel students to refine their educational goals or direction.
Teacher Characteristics	1. Uses a student-centered orientation 2. Demonstrates patience, encouragement, and enthusiasm 3. Pursues teacher training opportunities 4. Values student success 5. Maintains flexibility
Professional Development	1. Institutional support for faculty to attend conferences 2. Teaching Learning Cooperative - to address professional development for faculty at the institution 3. Institutional membership in NADE (National Association for Developmental Education)

3 summarizes (a) the strategies that emerged from the participants' responses to questions regarding how faculty address the challenging aspects of teaching developmental students (research question 3) and (b) their recommendations to maximize opportunities for enhancing the effectiveness of remedial (or developmental) programs (research question 1). It is important to note that solely raising students' academic abilities is a necessary but not a sufficient condition for student success; therefore, faculty also must incorporate student developmental skill building within their instructional strategies.

### *Teacher Perceptions of Placement Tests*

The faculty participants held differing opinions about the reliability of the placement test results depending on the subject. In Texas, the reading and English faculty thought the Texas Higher Education Assessment (THEA) is better at evaluating reading comprehension because it is a paper and pencil test that is scored by faculty, while the Accuplacer is a computerized test graded by a computer software program. They believe that the absence of a human grader can lead to problems. For example, a student can write an essay off topic and still receive a passing score based primarily on writing mechanics such as grammar, spelling, and punctuation. For an additional measure of accuracy in course placement and to create individual base-line scores, some faculty have decided to test students placed into their courses using the Nelson-Denny test (at no charge); they feel it is more precise in assessing vocabulary, comprehension, and reading rate. The Nelson-Denny is a standardized test for college students, and if students score 12 or above, they are placed into college-level courses.

### *The Necessary Developmental Component in Remedial Courses*

As noted previously, remedial students are diverse and so are their developmental needs. The literature explains that remedial and developmental programs must be utilized in conjunction with each other (Boylan, 2002). Although both institutions provide student services in counseling and advising, they do not mandate a college readiness course unless the students have already been placed on academic probation. Advisors may suggest taking the developmental skills course, but it is often not taken by students who are deficient in the developmental skills needed to succeed in college-level work. Fortunately, faculty who teach developmental courses attempt to bridge this gap.

All of the faculty participants interviewed incorporated teaching college culture and developmental skills into their courses. Faculty encouraged students to build their confidence, clarified instruction, motivated, and trained students to take responsibility for their own learning. They taught students time management, note-taking,

test preparation, and where to go for additional help. One developmental reading instructor explained her philosophy regarding the developmental needs that faculty who teach developmental courses should keep in mind:

I think it is real important for you to understand where these students are coming from. You can certainly be sympathetic, but you shouldn't lower the bar. You don't want to take anything for granted. You cannot assume that they understand the college culture. Because really, for many of them [developmental students], they just have no idea. Set the bar and make them reach it.

### *Taking an Interdisciplinary Approach to Developmental Education*

Developmental education is not typically an end in itself, but rather a supporting mission to the other college missions. Students take developmental courses to gain access to college-level courses so they can transfer to 4-year colleges, pursue an associate degree, or receive a vocational certificate. Considering the large number of students who rely on developmental education and the impact these students have on the institution, it is essential that college administrators, faculty (from all disciplines), and staff work together in developing an organizational approach to helping under-prepared students succeed.

Developmental students are not just taking developmental math, English, and reading. At the New York state community college, some students were required to have a "full load" of courses which caused them to take some college-level courses in conjunction with developmental courses. Faculty from other disciplines were working with developmental students thus they also need to understand the students and the students' needs across the broader college curriculum. Taking a more *interdisciplinary* approach to developmental education allows for more organizational support from all faculty. For example, faculty who taught developmental reading would work with faculty who taught sociology by using portions of the sociology text in the reading course. This was of benefit to the students in both courses.

### *Capitalizing on Faculty Characteristics*

Teaching developmental courses is not "typical" of college-level with respect to student diversity in academic and developmental needs; therefore, effectively preparing developmental students for college-level presents special demands on the faculty. It is essential that the "right" people be assigned to teach these developmental courses. The following quotes from faculty participants identify their perceptions of the characteristics of the "right" people.

1. "Be flexible. You're going to have a wide variety of students. Have fun with it. The students are scared enough when they come in anyway."



2. "Obviously a huge dose of patience is a requirement, and flexibility." "Also, a sense of humor and a very positive attitude.
3. "The remedial courses are the most important courses that you'll have. They'll probably be more challenging, but even more rewarding."

Another aspect of having the "right" faculty is supporting and retaining them by (a) gaining insights into how these faculty maintain their motivation and attend to their professional development needs. Participants were asked the question "What are some of the rewards experienced from teaching developmental courses?" Every faculty participant stated that their greatest reward was in seeing their students achieve success. Their student centered focus and personal dedication are key factors in assisting students to meet learning outcomes. Regarding faculty development, faculty participants thought it essential for administration to provide support through workshops, training, in-services, conferences, and memberships in professional organizations directly related to remedial and developmental issues. Faculty release time and travel budgets to attend educational training also were identified as important elements of institutional support.

## Recommendations for Practice

The faculty participants were very vocal in making suggestions to improve institutional practices, faculty support, and services for developmental education thus addressing research question 4. During the data analysis, participant recommendations emerged to form six categories: (a) professional development, (b) resources, (c) course scheduling / time management, (d) curricular changes, (e) faculty as advisors, and (f) hiring practices.

### *Professional Development*

The participants spoke openly about professional development recommendations they think would benefit full-time and adjunct faculty. Both colleges provide travel budgets and release time to their full-time faculty to pursue professional development through regional and national conferences. However, most faculty participants said that they have focused primarily on developing their academic subject area or technology-related learning through these past professional development opportunities. Three areas of particular importance were cited by participants pertaining to institutional professional development through faculty informational/training programs: (a) understanding the developmental students' learning styles and needs, (b) effective teaching strategies, and (c) classroom management. Recommendations also included conducting regular professional meetings that inform faculty of institutional and state policy changes and establish-

ing an on-campus faculty center to support professional development (workshops, resources, facilities). For new hires to the community college, the recommendations were to introduce, prepare, and support new hires by providing them with a detailed orientation session and an orientation packet of institutional materials, pairing them with a mentor, and providing shadowing opportunities.

### *Resources*

The New York state community college faculty who taught developmental courses had a high number of teaching "overloads." Faculty participants' additional classes or administrative duties ranged from one to three overloads beyond the typical five courses. The faculty explained that they requested overload courses for the financial compensation. The college also depended heavily on adjunct faculty to cover many of the courses. The adjunct faculty turnover rate was challenging to administrators. Most adjuncts were transient because of military circumstances, the declining technical job opportunities of the region, and "testing the waters of teaching at the community college." Thus recommendations for resources included increasing faculty salaries, hiring more faculty to lower faculty overloads, and increasing monetary compensation for adjuncts in order to raise the level of talent in the adjunct pool. Classroom resource recommendations included smart classrooms – equipping classrooms with at least a Web-live computer which can be accessed by students -- and complete computer labs that developmental classes may use.

### *Course Scheduling and Time Management*

Due to the faculty overloads, course scheduling and time management were an issue. Faculty commented on the importance of increasing faculty-to-student and faculty-to-faculty interaction. Not only did faculty desire to spend more conference time with students, they wanted to increase their opportunity to collaborate with other faculty. The most valuable and often cited teaching resource was each other. In New York, departmental faculty offices are housed in the same area thereby facilitating opportunities to share teaching experiences and curricular ideas. Faculty recommendations to accommodate these initiatives included (a) scheduling classroom use and class time to permit faculty-to-student communication before and after classes and (b) creating faculty course schedules that include weekly common time for faculty to communicate and meet.

### *Curricular Changes*

A recommendation made by participants at both colleges was to require students who were tested and assessed as below college-level to take a college seminar

that provides instruction on developing their educational plan or understanding degree requirements. At the Texas community college, students are only required to take these courses after they have been placed on academic probation. The administrator for testing and placement was adamant that based on student backgrounds, past academic experiences, and assessment test scores, more mandatory placement into these college skills courses would be beneficial. She felt that a more proactive approach to developmental education would lead to increased student success and persistence.

At the New York state community college, there is basically one level for developmental courses. For example, the Mathematics Department offers two courses in basic math skills – one is standard classroom instruction and the other is self-paced. This differs from the Texas community college where there are three developmental course levels to progress through before reaching college-level credited courses. The recommendation by New York faculty was to section developmental classes by ability to allow for a (a) better classroom instruction pace and (b) better transition from developmental or ESL to college-level.

### *Faculty as Advisors*

At the New York state community college, faculty also serve as general advisors for students. They advise students in scheduling their coursework and orienting them to institutional support services. As noted previously, for students who take full loads combining developmental and college-level courses, advising complementary course combinations to satisfy general requirements necessitates that the advisor have experience and an understanding of developmental students' abilities in relation to course content. Because faculty advisors receive no formal training and may have an advisee to advisor ratio up to 40:1, faculty recommend that the most experienced and knowledgeable general advisors be assigned to work with first-year students, and more specifically, developmental students.

### *Faculty Hiring Practices*

Another administrative recommendation pertaining to building a teaching experienced, student-centered developmental team dealt with faculty hiring practices. Participants offered several suggestions for hiring faculty who teach developmental courses:

1. Hire full-time faculty who hold a master's degree in a discipline related to their teaching assignment.
2. Hire faculty who have had secondary school teacher education training and experience.
3. Hire faculty who have knowledge of learning types and teaching strategies.
4. Hire faculty who demonstrate awareness that devel-

5. Do not hire faculty solely to teach developmental courses. (Faculty knowledge of course content on the developmental and college-level aids in preparing students for curricular success.)

In summary, key recommendations for administration-led sponsorship of faculty development included regular professional activities that provide faculty with information on state policy changes, participation in annual curriculum reviews, training in diversified teaching strategies, and inclusion through a collaborative departmental approach.

## Conclusions

As shown in this research study, developmental students bring academic, social, and emotional challenges to the classroom that must be addressed by the faculty using specific pedagogical skills, and the community college by providing customized faculty professional development and administrative support for the developmental education program. Faculty participants in this study stressed the importance of understanding their students' developmental needs so they could apply appropriate teaching strategies. Thus, faculty development programs should include this type of training. By addressing the challenges of anxiety, attitude, motivation, and college culture skills, faculty felt that they could maximize the effectiveness of developmental courses to better prepare students for college-level work. The literature and findings of this study point toward the need for programmatic reform in the area of addressing institutional policies for preparing faculty who teach developmental courses. It is essential that faculty be provided with training that will enable them to better understand the developmental needs of students and related teaching techniques that can be incorporated into their pedagogical practices in the classroom.

While our analysis provided an overview of faculty's perceptions of teaching challenges and recommended solutions, throughout the study other questions arose that point toward recommendations for future research including (a) examining the suitability of different assessment (placement) tests, (b) examining the academic advising process, and (c) assessing the effectiveness of college seminar courses in enhancing student success.

## Authors' Note

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# Appendix

## *Interview Protocol*

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Position: \_\_\_\_\_ Gender: \_\_\_\_\_  
Ethnicity: \_\_\_\_\_  
Subject(s) taught: \_\_\_\_\_  
Highest degree held: \_\_\_\_\_  
Years taught (developmental): \_\_\_\_\_ Secondary Teaching Experience? \_\_\_\_\_

1. What are the institutional and/or informal policies for training faculty to teach developmental courses?
2. Have you received professional development training specific to teaching developmental courses? If so, will you please describe the training?
3. Have you independently pursued professional development for teaching developmental courses? If so, what type of professional development have you done?
4. How has administration supported or not supported you in addressing the problems associated with students in need of developmental courses?
5. What are the challenging aspects of teaching developmental students? How do you feel about them?
6. How are developmental students different from college-level students?
7. What are your thoughts on how administration can better support faculty who teach developmental courses?
8. What has worked well for you in addressing those challenges?
9. What has not worked well for you when trying to address these challenges?
10. Are there any recommendations that you can make for new teachers of developmental courses with regard to identifying and dealing with the challenges?
11. Have course content and assignments been modified for developmental students? If so, how?
12. Have you modified your student evaluation criteria for developmental students? If so, how?
13. Have you had to modify your teaching strategies for developmental students? If so, how and why? How do you feel about it?
14. Are faculty raising students to a collegiate level? If not, what do they need to do?
15. What are some of the rewards experienced from teaching developmental courses?
16. Do you have any other comments that you would like to make concerning teaching developmental students or faculty development that is tailored to addressing the needs of this student population?

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