

**Latinas/os in Community College Developmental Education:
Increasing Moments of Academic and Interpersonal Validation**

Nancy Acevedo-Gil
Doctoral Candidate
University of California, Los Angeles

Daniel G. Solorzano
Professor
University of California, Los Angeles
Director
University of California, All Campus Consortium on Research for Diversity

Ryan E. Santos
Doctoral Candidate
University of California, Los Angeles

This Scholarly Paper was commissioned for the 9th Annual Conference of the American Association of Hispanics in Higher Education, 2014.

Running Head: LATINAS/OS IN COMMUNITY COLLEGE
DEVELOPMENTAL EDUCATION

Title

Latinas/os in Community College Developmental Education: Increasing Moments of Academic and Interpersonal Validation

Abstract

This qualitative case study examines the experiences of Latinas/os in English and math developmental education courses. Critical race theory in education and the theory of validation serve as guiding theoretical frameworks. The authors find that institutional agents provide academic validation by emphasizing high expectations, focusing on social identities, and improving academic skills. The authors conclude by conceptualizing a critical race validating pedagogy to implement among students that place in community college developmental education courses.

Keywords

Latinas/os, Community College, Developmental Education, Critical Race Theory, Pedagogy, Academic Validation

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The United States has underproduced the number of college-educated workers required for economic gains and income equality since the 1970s (Carnevale & Rose, 2011). To close the underproduction of college-educated individuals and income inequalities, the United States must produce 15 million bachelor degrees (Carnevale & Rose, 2011). The United States must also ensure the college success of Latinas/os, who represent the largest and fastest growing group in the K–12 education sector¹ (Lopez & Fry, 2013; U.S. Census Bureau, 2012). However, Latinas/os are drastically underrepresented in four-year colleges and in degree-attainments (Solórzano, Villalpando, & Oseguera, 2005).

Nationwide, over half of first-time Latina/o college students begin their higher education pathway in a community college or two-year college (American Association of Community Colleges, 2012). The state of California maintains the largest community college system in the nation, contributes the largest share of the nation's gross domestic product, and over half of students in the K-12 system are Latina/o (Bureau of Economic Analysis, 2012; California Department of Education, 2013; Reed, 2008; Solórzano, 2012). In 2010, 80% of California Latinas/os who entered the postsecondary system enrolled in community colleges (Moore & Shulock, 2010). By fall 2013, Latinas/os represented 40% of students

¹ Currently, Latinas/os represent 17% of the overall United States population (U.S. Census Bureau, 2011b). This percentage is expected to continue increasing since Latinas/os have (a) the highest U.S. birth rate, at 18.7 births per 1,000 population (Martin, Hamilton, Ventura, Osterman, Wilson, & Mathews, 2012), (b) a life expectancy of 81.4 years, the highest in the United States, and (c) large and growing immigration numbers from Latin America (Hoyert & Xu, 2012).

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enrolled in the California Community College (CCC) system (California Community Colleges Chancellor's Office, 2014a). Thus, California community colleges serve as an essential starting point to examine the experiences of Latinas/os pursuing college degrees.

Studies find that the majority of Latina/o community college students aspire to transfer to a four-year college (Arbona & Nora, 2007; Crisp & Nora, 2010; Gándara, Alvarado, Driscoll, & Orfield, 2012). Although two-year colleges were established to prepare students for transfer to four-year colleges (Knoell, 1997), the institutions now provide basic skills education, life-long learning opportunities, and career and technical education (CTE) (Jurgens, 2010). Unfortunately, once in community colleges, few Latinas/os complete a college degree, in large part due to high participation rates in developmental education (Acevedo-Gil, Santos, Solórzano, 2014). The existing studies that address student pathways in developmental education focus on non-Latina/o students. Therefore, this study examined the experiences of Latinas/os in developmental education to understand how institutional agents support and/or hinder Latina/o students attempting to complete developmental education course sequences.

Developmental Education Nationwide

Developmental education is also called “remedial” or “basic skills” education. Students are required to enroll in the courses if they are assessed as

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needing preparation to pass college-level coursework.² Developmental education courses include English writing and reading, English as a second language, and math. The authors examine the experiences of Latinas/os in English writing and math.

After submitting a California community college admissions application, colleges generally require students to take a standardized multiple-choice placement test to measure academic competencies in math, English writing, and English reading.³ Test scores determine whether students can enroll in college-level courses. Those who test below college-level math or English must enroll in developmental courses to increase their skill sets.⁴ In the CCC, assessment measures and placement are determined by each of the 112 community colleges. Students can place anywhere from college level to four levels below college level (California Community Colleges Chancellor's Office, 2014b). If students place below college level, they must complete the required preparation course(s) to become eligible for enrollment in college- and/or transfer-level "gatekeeper" coursework (Grubb et al., 2011a). During 2012, 85% of all

² The assessment levels for English are (a) Level 1—One level below Freshman Composition; (b) Level 2—Two levels below Freshman Composition; (c) Level 3—Three levels below Freshman Composition; and (d) Level 4—Four levels below Freshman Composition. The assessment levels for Mathematics are (a) Level 1—Intermediate Algebra/Geometry; (b) Level 2—Beginning Algebra; (c) Level 3—Pre-Algebra; and (d) Level 4—Arithmetic. See: Perry, Bahr, Rosin, & Woodward (2010).

³ An expanded explanation of California math assessment and placement procedures can be found in Melguizo, Prather, & Bos (2013). States, such as Florida recently changed state laws and no longer require students to take an exam.

⁴ For more information regarding course requirements for transferring, certificates, and degrees see: Fong, Melguizo, Prather, & Bos (2013).

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California community college students assessed below transfer-level math and 72% below transfer-level English,⁵ which is above the national average of 60% (Bailey, 2009; Scott, 2012).

If developmental education courses function as intended, students progress through them and move on to coursework that advances them toward certificates, associate's degrees, or transfer to four-year colleges. However, students who begin in low levels of developmental education face numerous challenges and will likely not complete the course sequences (Bailey, 2009; Bailey, Jeong, & Cho, 2010; Burdman, 2012; Grubb et al., 2011b; Hern, 2012; Solórzano, 2012). Students typically do not receive graduation or transfer credits for developmental courses, which slows their time to gain a certificate, degree, or transfer. This can also cut into their financial aid packages, creating an additional financial burden (Burdman, 2012). In particular, the majority of Latina/o students do not progress through the developmental education course sequence in a timely manner (Acevedo-Gil, et al., 2014; Solórzano, et al., 2013).

Previous studies demonstrate that a students' initial placement in developmental education can put them on a path that affects whether they persist to degree or transfer successfully. (Solórzano, et al, 2013; Acevedo-Gil, et al., 2014). When Latina/o students begin a CCC trajectory with developmental

⁵ The exact percentage for Latinas/os is unavailable since the California Community College Chancellor's Office (CCCCO) does not collect data disaggregated by race for the students who place below developmental education.

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education courses, the lower they are placed below transfer-level English courses, the lower the likelihood of success in the related transfer-level coursework. In California, only 36% of Latinas/os who placed in developmental English during fall 2009 passed the transfer-level course in a four-year period (Acevedo-Gil, et al., 2014). Latina/o students have even greater difficulty advancing through developmental math course sequences, and their success is again related to initial placement. Approximately 17% of Latina/o students who enrolled in developmental math during fall 2009 completed a transfer-level math course within four years (Acevedo-Gil, et al., 2014). Previous research reaffirms the need to examine the experiences of Latinas/os in developmental education through a qualitative analysis to provide an in-depth understanding of the context (Acevedo-Gil, et al., 2014).

High-stakes standardized exams are the customary practice to measure college readiness and determine whether a student should take developmental coursework. However, the assessments are inaccurate measures of college readiness (Belfield & Crosta, 2012; Burdman, 2012; Grubb & Gabriner, 2013). As Conley (2007, 2012) notes, assessment tests measure only two of the four college-ready factors. Researchers argue that institutions should be concerned more with psychosocial or non-cognitive factors to understand the behaviors that shape students' ability to learn, such as academic persistence and motivation (Farrington, Camile, et al., 2012). Although the high-stakes tests are not

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diagnostic and do not determine academic needs, they allow to college administration systems to work more efficiently (ACT, Inc., 2006; College Board, 2003; Hughes & Scott-Clayton, 2011). Finally, previous studies find a lack of predictive validity among assessments (THECB, 2009)

Regrettably, the majority of students take placement exams without preparing for the exam (Fay, Bickerstaff, and Hodara, 2013; Venezia, Bracco, & Nodine, 2010). On the other hand, high school courses are better predictors of course placement and success in college (Belfield & Crosta, 2012; Ngo, Kwon, Melguizo, Prather, & Bos, 2013). After assessing into developmental education, about two-thirds of students do not enroll in the coursework (Bailey, et al., 2009). Lastly, assessing into developmental education can be a key event that lowers the academic confidence of students, and more research is needed to examine the effect of the placement exam on a student's pursuit of academic goals (Bickerstaff, et al., 2012). Despite the downfalls of developmental education assessment, in 2009–2010, California spent 1.8 billion dollars on placement tests (CCCCO, 2011).

Developmental Education Teaching Approaches

A review of the literature establishes an overall need to improve teaching approaches in developmental education. Instructors in math and English developmental education courses often use a “remedial pedagogy,” which emphasizes the correct answer through drilling and practice of small subskills

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(Grubb and Gabriner, 2013). A remedial pedagogy is problematic because the approach is decontextualized, does not emphasize student interactions, and leads to student disengagement (Grubb and Gabriner, 2013). Developmental education instructors in community colleges may be unfamiliar with multiple methods of teaching and lack the resources to implement engaging teaching approaches (Gerstein, 2009; Grubb, 1999). Contreras and Contreras (2014) find that educators generally perceive developmental education students in a deficit perspective, do not value the courses, and maintain low expectations of students. The pedagogical practices in developmental education are important because learning environment in classrooms and instructor pedagogies often account for student perceptions of learning (Bickerstaff, Barragan, Rucks, Ahidiana, 2012; Cox, 2009). Furthermore, a student's self-perceptions about intelligence and ability to learn are associated with the levels of academic effort and achievement (Dweck, 2006; Gurin & Gurin, 1970). Previous studies find that students experience validation and invalidation during college (Rendon & Linares, 2011). Rendón Linares and Muñoz (2011) explain that validation entails validating "students as creators of knowledge...as valuable members of the college learning community...(and fostering) personal development and social adjustment" (p. 12).

Oftentimes, instructors who maintain deficit perspectives and low expectations of Students of Color result in a lack of collegiate identity and poor academic performance for (Howard, 2003; Steele & Aronson, 1995). Research

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finds that Students of Color, low-income, and first-generation students do not succeed in invalidating and sterile classroom (Belenky, Clinchy, Goldberger, & Tarule, 1986; Rendon, 1994; Terenzini et al., 1994). The Statway project in developmental math education finds that student uncertainty about belonging in college and their beliefs about learning correlate with student engagement and academic performance in mathematics (Yeager, Muhich, & Gray, 2011).

Studies find that students are more likely to learn in classroom environments that are validating, link the curriculum to student experiences and culture, and perceive students from a strength-based approaches (Cazden, 2002; Gonzalez & Moll, 2002; Grubb, Lara, and Valdez, 2002; Pradl, 2002). Regardless of context, validation is associated with academic performance and persistence. Since previous literature does not focus on Latina/o students, more research is needed to understand how community college institutional agents create validating experiences for Latinas/os in developmental education (Bickerstaff, et. al., 2012).

Research Questions

Given the dearth of literature that examines the experiences of Latinas/os in developmental education and the gap in the literature that fails to establish the link between developmental education and academic validation, this study examined the following research questions:

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1. What pedagogical and curricular experiences do Latinas/os who place in developmental education encounter inside and outside of class?
2. How do the pedagogical and curricular experiences inform the academic self-perceptions and outcomes of Latinas/os?

Theoretical Frameworks

Critical race theory (CRT) in education and theory of validation guided this study. Combined, they serve as theoretical frameworks to examine the experiences of Latina/o participants in developmental education. CRT is an interdisciplinary framework that aims to challenge dominant ideologies found in educational theories, policies, and practices (Solórzano, 1998; Yosso, 2006). Since race, gender, and class continue to be a focal point of the quality of educational resources available during the college choice process (Terranishi, Allen, & Solórzano, 2004; Yun & Moreno, 2006), CRT provides a social justice lens to examine the educational experiences, conditions, and outcomes of People of Color (Smith-Maddox & Solórzano, 2002). Solórzano (1998) establishes the five tenets of CRT in education. This study aligned with the five tenets as outlined below:

1. Centrality and Intersectionality of Race and Racism

Critical race theory is grounded in the idea that race and racism are enduring social constructs in the United States. Race is a powerful analytic tool, which has been used by CRT scholars to examine historic inequality in the field of law, education, and other crucial societal institutions. CRT in education begins

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by centralizing race and racism at the point of analysis, but recognizes intersections with other forms of oppression. Race and racism, fluidly and simultaneously, intersect with other constructs such as class, gender, sexual orientation, phenotype, language, citizenship, and disability. Thus, this study places a focus on race and racism, yet actively searches for sites of intersection.

2. Challenging the Dominant Perspective

Critical race theory in education challenges long-established notions of objectivity, meritocracy, color and gender blindness, race and gender neutrality, and equal opportunity in educational institutions (Solórzano, 1998). The authors challenge the dominant perspective of Latina/o developmental education students by way of careful examination of pedagogical and curricular practices.

3. Commitment to Social Justice

A critical race theory of education is motivated by a firm commitment to social justice and ending all forms of oppression. Historically, a quality education has been seen a gateway to social mobility and as an instrument of social change. The authors share this vision of social justice, and towards this goal, seek to improve the experiences of Latinas/os in developmental education.

4. Valuing Experiential Knowledge

Critical race theory in education honors the individual and collective experiential knowledge of Communities of Color. CRT recognizes the value of knowledge gained through lived experiences, and asserts that these experiences

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are appropriate for use in scholarly research. Experiential knowledge may take the form of storytelling, family and community history, scenarios, parables, biographies, narratives, chronicles, and songs (Solórzano, 1998). The recognition of experiential knowledge has informed the authors' choice of data for this study. They highlight the powerful voice and insightful experiences of Latina/o community college developmental education students.

5. Maintaining an Interdisciplinary Perspective

Critical race theory in education calls for an interdisciplinary focus and historical considerations of racism and other forms of subordination. Historical contexts of educational issues are imperative to properly understand the evolution and future direction of a problem. An interdisciplinary perspective allows CRT scholars to draw upon a wide array of interdisciplinary knowledge and methodological approaches. In this study, the authors draw from a variety of disciplines and remain open to the possibility of new approaches for future research.

Theory of Validation

The authors also use a foundational framework to examine the validation experiences of nontraditional students is established by Rendon (1994) with the theory of validation. Rendon (1994) elaborates that validation is an “enabling, confirming, and supportive process.” Rendon (1994) notes that validation allows students to feel capable of learning and exists in two forms: academic and

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interpersonal. Rendon and Muñoz (2011) explain that academic validation occurs when institutional agents assist students with increasing their self-trust in the capacity to learn and to “acquire confidence in being a college student” (Rendon, 1994, p. 40). Furthermore, the more a student receives validation, the richer the academic and interpersonal experience. Validation occurs during interactions with institutional agents. Several studies have used Rendon’s (1994) validation as a theoretical framework to examine the college experiences of low-income Students of Color (see Rendon Linares & Munoz, 2010).

While CRT allows the authors to centralize how race, racism and other forms of oppression impact the experiences of Latinas/os in developmental education, the theory of validation allows them to examine how institutional agents and others support the success of Latinas/os in the courses. Rendon’s theory of validation aligns with this study’s purpose to examine how Latina/o students experience pedagogical and curricular environments in developmental education classrooms. The use of the two frameworks is evident in the authors’ conceptualization of recommendations, where they merge the two theories with the findings to establish a critical race validating pedagogy.

Methods and Data

This paper draws from the Pathways to Postsecondary Success research project (Solórzano, Datnow, Park, & Watford, 2013), a five-year, multi-method study funded by the Bill & Melinda Gates Foundation. Specifically, the authors

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hone in on the Los Angeles case study component, which addressed three distinct academic pathways at three community college campuses in the greater Los Angeles area. These pathways include developmental education/basic skills, career and technical education, and “transfer tracks” to four-year universities.

Between December of 2010 and September of 2012 the Pathways team conducted three waves of semi-structured interviews with 110 low-income students at three different community colleges. Of the 110 students, 87% are between 18-24 years of age. The majority of students were raised in low-income households, as 87% identified that they received free or reduced cost lunch during their K-12 education. Additionally, of the 110 students, 56% are female and 44% are male. Sixty-six percent of the sample were Latino, 10% are Asian American, 9% are African American, 4% are white, 3% are Pacific Islander/Native Hawaiian, and 8% identified as “other.” Sixty percent of the participants are second generation Americans (signifying that their parents are immigrants to the United States). It is also important to note that approximately 90% of students indicated they attended school full-time during the first wave of interviews but this status fluctuated through the three-phase interview process.

Among Los Angeles case study students who participated in all three waves of the research, 92% placed in basic skills in at least one subject; 77%

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placed in both math and English basic skills.⁶ A full 90% of participants in the Wave 3 sample placed in basic skills math and 78% were placed in basic skills English. Qualitative data for this study was derived from interviews conducted during the second-wave of data collection with 30 Latina/o participants enrolled in developmental English and math at one college campus. The second-wave of interviews occurred between November 2011 and April 2012. All interviews took place on each respective college campus, in a reserved private conference room or an empty classroom.

Data Analysis

The data for this paper was analyzed using deductive and inductive approaches. First, Pathways Project researchers coded the data utilizing pre-established codes but remained open to the emergence of new codes. The pre-established codes included community college discrimination, academics, peer agent, and academic goals. Emergent codes included: out of class interaction, risk, and help-seeking. Pathways Project researchers coded the data using Atlas.Ti (2010) computer analysis software.

Data analysis for this paper entailed the four authors selecting data from the established codes of “basic skills,” “academic invalidation,” and “academic validation.” Academic invalidation was originally defined during the Pathways

⁶ For more information on the specific English and math developmental education levels at the community college site, see Appendix A.

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Study as any action taken to invalidate students' capacity to learn and to acquire confidence in being a college student. Rendon (1994) informed the conceptualization of academic validation, which was defined as any action taken to assist students to trust their innate capacity to learn and to acquire confidence in being a college student.

The individual authors each conducted axial coding by analyzing and coding the select validation data to find subcategories. They then met, and through peer debriefing, refined the axial codes and established connections between categories and subcategories. An example of subcategories that emerged from the pre-established codes includes pedagogical and curricular practices. They also discussed the relationship between sub-categories that emerged, such as the ability of counselors to engage in validating pedagogical practices. They then conducted another round of axial coding individually and finally met to conduct selective coding. In the selective coding process they identified core categories and constructs to answer the research questions and refined their conceptual framework to limit moments of invalidation and increase moments of validation experienced by Latina/o developmental education students.

Findings

The authors find that the participants experienced moments of invalidation and validation within developmental education courses and outside of the classes. Within English and math developmental education courses, the

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participants most often encountered invalidation through curricular practices. These invalidating events can have a negative effect on the educational experiences of students, and should not be overlooked. However the majority of the findings will focus on the encounters of validation. The authors highlight validation, which occurred through pedagogical practices with instructors in developmental education courses and outside of the classroom with other institutional agents. Before exploring these moments of validation, they must acknowledge and unpack some of the invalidation experiences Latina/o developmental education students encountered.

Academic Invalidation

Data analysis revealed that the participants experienced academic invalidation in various spaces, even after completing the developmental education course sequence. The participants expressed how the moments of academic invalidation often hindered their investment in all courses, not just the developmental education course. For instance, even upon completing the developmental education course sequence, participants explained how instructors invalidated their academic progress, which resulted in tempered aspirations. Thus, one of the first themes to emerge is that participating in developmental education creates a sense of academic invalidation through the use of deficit pedagogies and disengaged academic systems of support.

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Placing in developmental education as a form of academic invalidation.

Even prior to taking developmental education courses, interview data reveals that placing in developmental education is an academic invalidation. One of the participants, Anaís, elaborated on the invalidation effect that placing in developmental education had for their academic motivation. She explained,

“I feel bad ‘cause it takes longer to get to the college courses and it’s overwhelming ‘cause you’re like, ‘I wanna do this already,’ but you can’t because you have to take all those classes before...I’ve been trying to register for classes, but it’s so hard because there’s some classes you want, but it says that the prerequisites are English 101...So it [is] kind of harder because I have to wait until I take those classes to take the other classes that I actually need. So it’s overwhelming.”

Her frustration with placing in developmental education is evident from the explanation. Although Anaís was determined to succeed academically, her inability to take certain courses hindered her high aspirations. During the interview, Anaís, detailed that she could not enroll in certain transfer-preparation courses until she completed college level English. Although she attempted to take the developmental education English courses, she had not passed the English 28 course, which was required before college-level English. Thus, Anaís’ initial frustration and academic invalidation was reinforced at the end of the term by having to attempt passing the developmental English course for a second time.

Deficit and Demeaning Pedagogical Practices as Invalidating.

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Likewise, Denise presents another clear example of pedagogical invalidation affecting the participants' negatively in their success of developmental education courses. Denise was enrolled in a developmental math course and the instructor's deficit and demeaning pedagogical practices led to the participant lowering her academic self-confidence. Denise explained,

[My] math teacher is not so great. She's not approachable, she kind of makes fun of you, dumbs you down, makes you feel dumb... This one girl asked, 'Can you show me something on the calculator?' and she's like, 'It's right there. You can't see it?'—in front of the whole class. I never ask her any questions. Even if I need to know something, I just will not ask a question in that class.

Denise argued clearly that the math instructor had poor pedagogical practices due to her lack of approachability and her negative comments towards students. Denise's experiences not only highlight the humiliation tactics utilized by the instructor but also the deficit perspective the instructor had of students. As a result of the pedagogy, the participant felt "dumb." Although the participant did not experience the moment of academic invalidation directly, she witnessed the incident. Moreover, the participant refused to ask any questions in the course—even when she needed help. Thus, the participant will need to resort to other sources of support if she needs academic assistance in the course, which could directly affect the academic success in the developmental education math course.

Overall, the participants shared experiences with academic and interpersonal invalidation enacted by institutional agents, which resulted in the

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participants tempering: educational aspirations, academic self-confidence, and self-efficacy. Despite the negative effects of academic invalidations, the participants revealed their strengths and resilience in attempting to complete the developmental education course sequences multiple times. Moreover, the participants shared how students created supportive networks in response to instructors who had invalidating pedagogies. Although the data analysis process was saturated with academic invalidation, the authors will now focus on the pedagogical approaches, which institutional agents used to support participants to complete developmental education courses and maintain aspirations to transfer.

Curricular and Pedagogical Moments of Academic Validation

As noted earlier, data analysis revealed that the participants not only encountered moments of invalidation but also experienced incidents of academic and interpersonal validation. The validations resulted from curricular and pedagogical approaches of institutional agents. The following section provides exemplars from student interviews, which reveal that the curricular and pedagogical validations were rooted in strength-based approaches. Overall, the validation agents maintained high expectations of students, related to the student's social identities, and emphasized the improvement of the participants' academic skill sets. The authors begin by sharing the curricular and pedagogical strategies used by institutional agents, which entailed the use of caring pedagogies and critical course curriculum selection. The caring pedagogies and critical selection

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of curricula entailed the use of bridging high aspirations with high expectations, relating to student identities, and focusing on improving academic skill sets.

Denise's experiences with an English instructor exemplified how faculty members can have a wide impact among students through curricular and pedagogical approaches. Denise argued,

That's the one with the good professor. He gives us good topics to write about, and I enjoy it. He'll tell you, "You should talk about this right here," corrects your paper. He also talks to you like, "How have you been? How's it going?"...He's cool... He relates. I was having a hard time and he was like, 'It's okay. Don't worry about the paper. I know you're a great writer.'" I was like, "Oh."... I enjoy my English class—I look forward to it. My math class is just a headache...I need to take Tylenol with me.

Denise's experiences with the instructor provide two strands of academic validation; the first provided through caring interactions and individual interactions through the choice of course assignments. The instructor, classified as "good" by Denise, organized his English writing course in a manner that students could connect with the reading and writing assignments. Moreover, the instructor was approachable so that students, such as Denise, could ask for support on an individual basis. During one-on-one interactions, the professor was warm and friendly by joking with the student. However, he was also serious in providing guidance with writing and reassurance that Denise possessed the academic abilities to be a "good writer." This resulted in Denise enjoying the class and investing time in her academic success within the English developmental coursework.

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Bridging high aspirations with high expectations.

Other participants provided a more in-depth understanding about how developmental education course instructors and other institutional agents supported the academic success and persistence of students through the use of validation. Victor's interactions with his instructor for an English developmental course illustrated how the instructor used validation to bridge high aspirations with expectations. Victor recalled,

He's a really good teacher. He was teaching us [English] 21 [developmental course]...but he was teaching us at a different level, he's an English teacher of 101 [transfer-level English] as well. He didn't even use the book that we were supposed to use for English 21...He wasn't teaching 21...he was teaching a little higher...He's actually teaching us the proper way of writing...I learned a lot...I'm hoping I can learn more the next semester. I'm gonna be with him again.

He had experienced college preparatory English coursework during high school in an Advanced Placement course but placed into developmental English in community college. As such, Victor argued that the English instructor was not implementing low academic expectations by only teaching grammar and instead taught a rigorous English course by going beyond teaching the basic grammar requirements. Thus, the instructor's high expectations are visible in his choice of books and assignments. Victor was academically validated by the high expectations and argues that he "learned a lot" in the English developmental course. Moreover, he feels confident in his ability to learn by expressing that he hopes to continue learning in the next level of English. Overall, Victor feels

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prepared to take the next level of developmental English and hopes to continue benefiting from the instructors strong pedagogy.

Similar to Victor, Sonia was able to bridge her high aspirations with high expectations after she met with her counselor. During the fall semester of 2011, Sonia was prepared to pause her community college education. She explained, “I was doing good, good, good. In the middle of the semester it just went, whoop, down, and I had to drop one [class]. Then I ended up staying in the two, and I failed those two. I was just like, ‘Eh, forget it. School’s not for me.’” Having to drop a course served as an academic invalidation moment, which resulted in Sonia becoming disinvested in her academics. As a result, she failed her two courses and Sonia questioned whether she belonged in college.

Fortunately, Sonia continued to attend college and decided to audit a developmental math course. During that term, she met with a counselor who provided her with academic guidance and validation. Sonia explained,

I thought that I had just wasted my time this whole time that I had been there and she was like, “What do you think you’re doing? You’re doing great!” Then she saw the classes that I thought that I needed and she was like, “These classes you actually do need.” So I didn’t feel like I was wasting my time anymore. “Cause she was like, “You’re doing great. You’re on the right path.”...She cleared everything 'cause I didn’t know what I needed to transfer. I didn’t know none of that, you know?...So we did a plan, and I’m getting my associate’s first, and then I plan to transfer. That all came clear when we spoke. Before that, I was like, “I don’t know what I’m doing. I’m just going to school.”

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Thus, after having to drop a course and failing two other courses, Sonia also questioned her academic efficacy. However, the counselor informed Sonia that she was taking the correct courses and provided validation to bridge her aspirations to transfer with the expectations of meeting her goal. While meeting with the counselor, Sonia's plans to transfer were validated and she was able to leave the meeting believing that she was "doing great." Prior to her meeting, Sonia felt uncertain about where her educational pathway would lead. However, the counselor maintained high expectations, evident by the support she provided Sonia with establishing a transfer plan.

Relating to student identities.

In addition to bridging transfer aspirations with expectations, the participant data also revealed that institutional agents provided academic and personal validations by referencing to the participants' identities. In such instances, the institutional agents acknowledged the social positions of the participants, such as the participants' race/ethnic background or neighborhood. For example, Ulises explained how his counselor reinforced the notion that he could meet his academic goals. Ulises recalled the academic validation,

He was of color, so he would sit down with me. He will tell me, "Look, I'm from where you're coming from...I'm from South Central too. I came from right there too...And I'm black and you're Hispanic. You're Mexican...If I could do it, you could do it too".

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Ulises' counselor at the community college was also a male of color who grew up in the same low-income neighborhood. Since the counselor aligned himself with Ulises' identities, the approach allowed Ulises to embrace his counselor's academic validation. By identifying with Ulises' background, the counselor was able to provide reassurance from a realistic perspective that he would succeed academically. Thus, Ulises benefitted from the academic validation and believed he would meet his academic goals.

Peers referencing social identities to provide academic validation.

As the participants explained, validation also occurred among peers. In these moments of academic validation, the peers were more likely to reference the participants' social identities—regardless if they could relate directly or shared the social position. The academic validation among peers focused on the participants' abilities to succeed in college and meet academic goals. The peers emphasized that they believed in the participants and that they were invested in supporting their academic success, which reinforced the participants' academic self-confidence and ability to persist in college.

For example, Erendira recalled that her boyfriend was a big source of support and motivation. As an undocumented Latina student, Erendira was feeling frustrated because at the time she could not access financial aid or adequate transportation to campus. She recalled how her boyfriend emphasized her strengths and provided academic validation,

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He tells me, “I see that you're able to do anything, that you're able to pass this class, and I see that you're gonna make it, that you're gonna get through college and you're gonna graduate and get your bachelor's.” Then I tell him that I feel bad for not having a license so I can feel more secure driving. He tells me, “Well, one day you'll have that opportunity, but right now you have to be more careful... You're gonna do it. You're gonna be able to do it. You're gonna be able to do this. If you've gone this far in your education, you could do more.” My motivation comes from him.

Erendira's boyfriend provided academic validation by reaffirming that despite the additional layers of obstacles resulting from being an undocumented student, she had the drive and academic ability to succeed in college. Erendira noted how her boyfriend acknowledged that being low-income and undocumented delayed her ability to succeed in college but he emphasized that her strengths would overcome the dilemmas.

Anaís provides another exemplar where peers served to overcome the academic invalidating pedagogical practices of a developmental math instructor due to her status as a low-income student. In addition to being a low-income student, like all of the participants, Anaís, she was struggling financially because she received her financial aid award a few months into the school year and could not afford to purchase the math book. She recalled,

The Math 125 teacher would just write it, briefly explain it, and then say, “Do the rest.” It was hard, but I think I got it because most of my classmates were like, “Help me, help me.”... My partner—she's a sweetheart—she made copies of every chapter of the homework 'cause he would give it to us in a packet, so she would copy every single paper and she would give them to me. I was like, “I love her.” I was gonna pay her, but she didn't let me... You know how in textbooks they explain it in the beginning? That was hard 'cause I couldn't see that.

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Anaís expressed her struggle with the developmental mathematics course when the instructor expected the students to complete the work independently. Due to being a low-income student, like all of the participants, she could not afford to purchase the book. However, Anaís' friend understood that socioeconomic status could hinder academic success and thus invested resources to copy and share the math book because she believed in Anaís' academic ability to complete the course. In doing so, the peer provided academic validation for Anaís, which prevented academic invalidation from the instructor's pedagogical practices.

Improving academic skill sets.

Although acknowledging the student's social identities was a valuable strategy to provide academic validation, this study also finds that institutional agents also provided academic rigor and focused on improving academic skill sets as a form of validation. By aiming to improve academic skill sets, the institutional agent provides helpful feedback to participants on an individual level, without a deficit lens. Instead, the institutional agent provided concrete advice and resources, which resulted in improved academic skills.

Sonia explained that a developmental English instructor provided academic validation by centralizing race and social justice. The intersection of addressing student identities and increasing academic skills is evident. She noted,

She has a broad theme—social justice...She composed this book of different readings of justice and racism and that's interesting to me. So

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now I like reading. I like looking forward to my reading assignments 'cause they're not boring...I'm engaged...I'm not dragging through the class. I'm actually keeping up at a steady pace and I'm following along.

Sonia expressed why she looked forward to attending the English class. She focused on the course addressing issues of racism and social justice, which made her become interested in the readings. The English curriculum was structured to address issues of social justice, which resulted in the participant feeling validated and increasing her academic and reading skills. Sonia felt prepared academically because she succeeded in a rigorous course. Thus, she feels prepared to undertake future academic endeavors.

Similarly, when asked what every instructor should do when teaching a course, Anaís explained,

To explain their stuff or take the time to sit down with the student and explain. My English 26 teacher...we had to meet with her twice in the semester and she would set us down and she would be like, "You did good here and you need more help here, so you should focus on this." I think that would be better—a teacher to actually sit down with students.

She highlighted the value of an instructor making time to sit down with students on an individual basis to address necessary improvements in academic skills. As opposed to previous examples of academic invalidation, where instructors point out a student's need for academic improvements in front of the class and with a deficit tone, her developmental English instructor required students to meet her on an individual basis. Furthermore, as noted by Anaís, the instructor focused on the academic strengths of the student.

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Finally, Emelia provides a final exemplar to understand how validating pedagogies in developmental math resulted in increased academic skills and confidence. Although she did not provide details to explain how the math instructor learned about their strengths and weaknesses, Emelia recalled,

The teacher was really good. She explained everything while we took notes. We took a quiz each week...She would give a lot of examples. She would give us homework...She would make us go to the board and work on the problem and if we didn't understand, she would go over the problem...A lot of students would tell me that their teachers would let them do their study and know the subject on their own. They would have to take notes on their own...She was funny; everyone got along with her. She knew everyone and our weakness and strengths, she was really good.

Emelia emphasized that the pedagogical and curricular course allowed for a smooth transition into community college math coursework from high school math. She highlighted the day-to-day support that the students received as a class, which occurred by the instructor providing helpful notes and walking through the problems at a steady pace. Additionally, Emelia explained how helpful it was for the instructor to know the student's academic strengths and weaknesses on an individual level. Finally, she defined the instructor as "funny," which signaled that the instructor aimed to connect with students on a personal level, not just academically. Emelia understood that she was fortunate to have a positive experience with her math instructor, as opposed to her friends whose instructors based the grades on tests and did not have a caring pedagogy. As a result of

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academic validation, she felt comfortable with math and did not doubt her academic abilities to complete a math course.

Summary of Findings

Overall, the authors found that the participants experienced both academic invalidation and validation when interacting with institutional agents. The invalidating instances occurred through the use of curriculum and pedagogical practices. Invalidation had a negative effect on the educational experiences of the participants, which often led to the participants questioning their academic abilities to complete a developmental education course. However, the authors' findings focused on the different approaches of institutional agents and peers when providing academic validation. Overall, validation affected the participant's expectations to be successful in developmental education courses and other academic goals. These high expectation validations are rooted in the student's social identities, and emphasized the improvement of the participants' academic skill sets. The emphasis on validation calls attention to the positive practices already being implemented in developmental education classrooms, and can be used as models to prevent further moments of invalidation.

Discussion and Implications

This study reaffirms findings from by previous literature that invalidating environments and traditional counseling practices do not work well for Students of Color (Rendon, 2002). Therefore, the authors conceptualize a critical race

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validating pedagogy, which is informed by their findings, the tenets of critical race theory, and validation theory. They find that when provided with validating pedagogical practices and guidance, the participants succeeded academically in developmental education courses. As noted in the theoretical framework section, CRT in education serves as a social justice lens to account for the role of race and racism, in the educational experiences, conditions, and outcomes of Students of Color in the United States (Solórzano, 1998). Consequently, critical race scholars have been active in conceptualizing ways a CRT analysis can improve pedagogical practices used with Communities of Color. Lynn (1999) conceptualized critical race pedagogy (CRP), which served as a response to the class centered approach found in McLaren and Dantley's (1990) "critical pedagogy of race." Lynn initially defined CRP as:

"an analysis of racial, ethnic, and gender subordination in education that relies mostly on the perceptions, experiences, and counterhegemonic practices of educators of color. This approach necessarily leads to an articulation and broad interpretation of emancipatory pedagogical strategies and techniques that are proved to be successful with racially and culturally subordinated students" (1999, p. 615).

Thus, critical race pedagogy is an attempt to challenge race, racism, and other forms of oppressing through liberating educational praxis. The expanding literature on CRP has strengthened the authors' understanding of the applications and possibilities of this tool (Jennings & Lynn, 2005; Hughes, 2008; Lynn, 2004; Lynn & Jennings, 2009; Solórzano & Yosso, 2001). Particularly helpful, Lynn,

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Jennings, & Hughes (2013) provide four tenets of critical race pedagogy, which offer additional insight into this concept. Lynn, et al's (2013) four tents of CRP are (a) understand the endemic nature of racism; (b) recognition of the importance of understanding power dynamics that are inherent in American society; (c) emphasize the importance of self-reflection, or reflexivity; and (d) encourage the practice of an explicitly liberatory pedagogy (p.618-621).

These tenets of critical race pedagogy reflect their epistemological roots in critical race theory. The authors believe that critical race pedagogy has great potential to improve the experiences of Latina/o developmental education students, especially when combined with other complementary approaches.

The theory of validation argues for creating “enabling, confirming, and supportive” environments, which allow students to feel capable of learning and gain confidence in being a college student (Rendon, 1994). Therefore, the authors propose critical race validating pedagogy as a process where Latinas/os reflect on their social identities and positions within developmental education courses (e.g., race, class, gender, and immigration status). A critical race validating pedagogy within developmental education entails establishing an environment where students: (a) confront previous moments of academic invalidation with math and/or English; (b) believe in their ability to complete transfer-level math and English; (c) view their social identities as a source of strength to complete transfer-level math and English; and (d) experience culturally-relevant and social

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justice developmental education courses. This study recommends that community college administrators prepare and support faculty and staff to implement a critical race validating pedagogy. In a critical race validating pedagogy, institutional agents build an environment that requires:

1. *Self-reflecting about previous moments of invalidation in math, English, and/or reading.*

Since previous studies establish that academic invalidations occur prior to attending a postsecondary institution, it is important to address any long-lasting effects to a student's academic self-confidence (Bickerstaff, et al., 2012; Howard, 2003). More specifically, research conducted by Steele and Aronson (1995) establishes that Students of Color often experience stereotype threat, which is a social psychological dilemma resulting from the stereotype of intellectual inferiority of Students of Color and women. Moreover, Steele (1997) finds that anxiety results from stereotype threat and when students are aware of the existing stereotypes, they perform poorly on an exam or subject matter. When applying Steele's (1997) stereotype threat, the authors can infer that if Latinas/os have previous experiences with academic invalidation, they are more likely to become anxious and perform poorly on placement exams. Moreover, they found the very act of placing in developmental education resulted in the participants' experienced academic invalidation. Therefore, the authors propose that a critical race validating pedagogy acknowledge the educational inequities experienced by

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Students of Color in the K-12 system and provide an outlet for students to reflect and counter previous moments of academic invalidation. This would occur prior to taking the math and English placement exams and if they place in developmental education courses. The purpose of addressing previous moments of invalidation is to confront the systemic educational inequities and deficit notions that relate to the intellectual capacity of Students of Color.

2. Bridging high educational aspirations with expectations to complete developmental education coursework.

The authors' findings align with previous research, which establishes that Latina/o high school and college students have high educational aspirations (NWLC & MALDEF, 2009; Pew Hispanic Center, 2005; Venezia, Kirst, & Antonio, 2003). However, scholars argue that the most vexing problem in education is the gap between high aspirations and low expectations (Roderick, Ngaoka, & Allensworth, 2006). The authors find that when students experienced moments of academic invalidation, they expressed self-doubt in their academic abilities to complete developmental education. On the other hand, when the participants had interactions with educators who provided validating experiences, the participants looked forward to and felt prepared for the next course level in the developmental education sequence. Thus, the authors propose that a critical race validating pedagogy, counter deficit arguments that Latinas/os do not care about education and tap into the high educational aspirations of Latinas/os bring to their

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developmental education courses. They argue that individuals committed to implementing a critical race validating pedagogy must aim to increase the academic self-confidence of Latinas/os to complete developmental education course sequences.

3. Improving academic skill sets and academic confidence to complete developmental education courses.

The findings of the authors' study show that some instructors within developmental education provided the participants with constructive feedback to improve writing and math skills. As a result, the participants were aware of their academic strengths and needs for improvement. Moreover, upon experiencing an instructor who provided critical but supportive feedback, their findings align with previous research that indicates the level of academic confidence impacts student motivation and academic behaviors (Bickerstaff, et al., 2012). In a critical race validating pedagogy, developmental education instructors emphasize providing helpful feedback in a caring and consistent manner to students.

4. Acknowledging students' social identities/positionalities as a source of strength to complete developmental education coursework.

The findings showed how institutional agents and peers moments of validation rooted in the participants' social identities can be reasons for the likelihood of success within and beyond developmental education courses. The findings align with Yosso's (2005) concept of community cultural wealth, by

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displaying the use of multiple forms of capital within Communities of Color, including navigational and aspirational capital. Moreover, Barnett (2011) finds that faculty can provide validation through by appreciating diversity (Barnett, 2011). Finally, a recent study finds that first-generation college students benefit from discussing class differences (Stephens, Hamindany, & Destin, 2014). Therefore, the authors propose that a critical race validating pedagogy facilitates engaging discussions with students and allows for students to reflect on their resiliency and determination as low-income, (un)documented, first-generation, Latinas/os who likely experienced under-resourced K-12 systems.

5. Implement a culturally relevant and social justice curriculum

Previous studies argue that culturally relevant curriculum in math and English contribute to increased achievement levels for Students of Color (Gutstein, Lipman, Hernandez, De los Reyes, 1997; Pradl, 2002; Rendon, 2002; Tate, 1995). Similarly, the authors find that participants who experienced culturally relevant curricula, were more engaged and satisfied with the learning process. Therefore, a critical race validating pedagogy entails developmental course instructors implementing a curriculum that includes readings and instruction materials, which integrate culturally relevant examples. Moreover, the pedagogical and curricular practices must also align with a social justice lens that does not perpetuate deficit interpretations of cultural examples.

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The authors argue that combined, the five elements of a critical race validating pedagogy create an environment that supports the success rates of Latinas/os in developmental education coursework and improve the completion of college degrees. Moreover, the elements should not be implemented alone but instead in a unified format to create a validating campus environment for students to complete developmental education coursework.

Site to Develop Critical Race Validating Pedagogy

Rendon (2002) finds that the Puente Project⁷ builds validating environments. The program serves 59 community college campuses and 33 high schools in California. Puente is designed to assist students in completing community college courses and transferring successfully to four-year institutions. In addition to counseling and mentoring, the program provides students with an accelerated writing course sequence that incorporates Mexican American/Latino and multicultural literature through which students progress from pre-transfer level writing through the transfer-level English composition class, in one year.

Although Puente serves as an exemplar of a validating environment, the authors recommend an expansion of the program. For the most part, students are only eligible to apply for Puente if they enroll full-time in college-courses and are eligible to enroll in one-level below transfer English. Moreover, Puente has not

⁷ For more information on the Puente Project, visit: <http://www.puente.net>

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provided developmental education math courses. Therefore, the authors propose the expansion of the Puente model to increase the numbers of Latinas/os students who placed in developmental education courses. They propose the addition of culturally relevant developmental mathematics. They also argue that the expanded Puente model is an ideal site to incorporate a critical race validating pedagogy.

Policy Recommendations

In addition to practical recommendations, the authors also provide policy recommendations to support critical race validating pedagogical practices.

1. Provide validating counseling for students who place in developmental education courses. Increased student awareness of the developmental education process will allow for more informed decisions at a critical stage.
2. Invest financial resources in developmental education instruction. This entails providing developmental education instructors with opportunities to improve validating pedagogical practices. This also includes paying the instructors for time invested in meeting with students individually throughout the term.
3. Ensure that students receive validating guidance counseling session and adequate support if they do not pass a developmental education course. Strong institutional support to nurture student persistence can counter a student's perceived lack of success and result in increased completion rates.

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4. Eliminate policies that place a cap on the amount of times that a student can attempt to pass a course. Steele's (1997) conceptualization of stereotype threat shows the negative impact of stigmatized psychological pressure to a student's sense of academic identification and indeed validation. Course attempt limits can create added pressure to succeed, and amplify feelings of doubt from past unsuccessful attempts.

Conclusion

Since the majority of Latinas/os enroll in community colleges and place in developmental education, completion rates must improve. In-depth and qualitative research is needed to establish successful developmental education placement mechanisms, pedagogical practices, and course pathways. By addressing shortfalls of the community college developmental education system, a sustainable bridge to degree completions for Latinas/os can be created.

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**Appendix A: Levels and Descriptors of Developmental Education Math and
English Courses at Case Study Site**

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References

- Acevedo-Gil, N., Santos, R., & Solórzano, D. (2014). Examining a rupture in the Latina/o college pipeline: Developmental education in the California Community College system. *Perspectivas: Issues in Higher Education Policy and Practice*. American Association of Hispanics in Higher Education, Educational Testing Services, and University of Texas, San Antonio.
- ACT, Inc. (2006). *COMPASS/ESL reference manual*. Iowa City, IA: Author.
- Alon, S., & Tienda, M. (2005). Assessing the “mismatch” hypothesis: Differences in college graduation rates by institutional selectivity. *Sociology of Education*, 78(4), 294-315.
- Arbona, C., & Nora, A. (2007). The influence of academic and environmental factors on Hispanic college degree attainment. *The Review of Higher Education*, 30(3), 247-269.
- Association of Community Colleges. (2012) *Community College Fast Facts*. <http://www.aacc.nche.edu/AboutCC/Documents/FactSheet2012.pdf>
- ATLAS.ti. Version 6. [Computer software] (2010) Berlin, Scientific Software Development.
- Bailey, T. (2009). “Challenge and opportunity: Rethinking the role and function of developmental education in community college.” *New Directions for Community Colleges*, No. 145 (pp. 11–30). San Francisco, CA: Jossey-Bass.
- Bailey, T., & Cho, S. W. (2010). Developmental education in community colleges. *Issue brief prepared for the White House Summit on Community Colleges*. New York: Teachers College, Columbia University.
- Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1986). *Women's ways of knowing*. New York: Basic Books.
- Belfield, C., & Crosta, P. M. (2012). Predicting success in college: The importance of placement tests and high school transcripts. CCRC Working Paper No. 42. New York, NY: Columbia University, Teachers College, Community College Research Center.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

- Bickerstaff, S. E., Barragan, M., & Rucks-Ahidiana, Z. (2012). "I Came in Unsure of Everything": Community College Students' Shifts in Confidence. CCRC Working Paper No. 48. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Burdman, P. (2012). Where to begin? The evolving role of placement exams for students starting college. Washington, DC: Jobs for the Future.
- Bureau of Economic Analysis. (2012). *Widespread economic growth across states in 2011*. U.S. Department of Commerce. Retrieved from: http://www.bea.gov/newsreleases/regional/gdp_state/2012/pdf/gsp0612.pdf
- Cabrera, A. F. & S. M. La Nasa (ed). (2000). *Understanding the college choice of disadvantaged students: New directions for institutional research*. Number 107. San Francisco: Jossey-Bass Publishers.
- California Community Colleges Chancellor's Office. (nd a). *Annual/Term Student Count Report*. Management Information Systems Data Mart. Retrieved on January 1, 2014 from http://datamart.cccco.edu/Students/Student_Term_Annual_Count.aspx
- California Community Colleges Chancellor's Office. (nd b). The Basic Skills Progress Tracker: Introduction and instructions. Management Information Systems Data Mart. Retrieved on October 4, 2013, from http://datamart.cccco.edu/Outcomes/BasicSkills_Cohort_Tracker.aspx
- California Community Colleges Chancellor's Office. (2011). *CCC Assess: Centralizing student assessment in the California Community Colleges*. Sacramento, CA: California Community Colleges Chancellor's Office.
- California Community Colleges Chancellor's Office. (2013). *Key facts: Impact of budget cuts on the California Community Colleges & value of the system to California*. Sacramento, CA: California Community Colleges Chancellor's Office.
- California Department of Education. (2011). *Research on School Counseling Effectiveness*. Accessed from: <http://www.cde.ca.gov/ls/cg/rh/counseffective.asp>

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

- California Department of Education. (2013). *Statewide enrollment by ethnicity, 2012-13*. Sacramento, CA: Author. Retrieved from:
<http://dq.cde.ca.gov/dataquest/EnrollEthState.asp?Level=State&TheYear=2012-13&cChoice=EnrollEth1&p=2>.
- Carnevale, A., & Rose, S. J. (2011). *The undereducated American*. Washington, DC: Georgetown University Center on Education and the Workforce.
- Cazden, C. B. (2002). A descriptive study of six High School Puente classrooms. *Educational Policy, 16*, 496-521.
- Contreras, F. & Contreras, G. HSIs: A report card and analysis on completion and success rates. *Journal of Hispanics in Higher Education*. Manuscript submitted for publication.
- Coley, R. J. (2000). *The American Community College Turns 100: A Look at Its Students, Programs, and Prospects*. Policy Information Report.
- College Board. (2003). *ACCUPLACER OnLine: Technical manual*. New York, NY: College Board.
- Conley, D. 2007. *Redefining college readiness*. Eugene, OR: Educational Policy Improvement Center.
- Conley, D. 2012. *A complete definition of college and career readiness*. Eugene, OR: Educational Policy Improvement Center.
- Crisp, G. & Nora, A. (2010). Hispanic student success: Factors influencing the persistence and transfer decisions of Latino community college students. *Journal of Latinos and Education, 10*, p. 86-105.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.
- Edgecombe, N. D. (2011). *Accelerating the academic achievement of students referred to developmental education*. CCRC Working Paper No. 30. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Engstrom, C., & Tinto, V. (2008). Access without support is not opportunity. *Change: The Magazine of Higher Learning, 40*(1), 46-50.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL EDUCATION

- Farrington, Camille, et al. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance: A critical literature review*. Chicago, IL: Consortium on Chicago School Research, University of Chicago.
- Fay, M., Bickerstaff, S., & Hodara, M. (2013). *Why students do not prepare for math placement Exams: Student perspectives*. New York, NY: Columbia University, Teachers College, Community College Research Center. Brief 57.
- Fong, K., Melguizo, T., Prather, G., & Bos, J. (2013). *A different view of how we understand progression through the developmental math trajectory*. Los Angeles: University of Southern California.
- Fong, K., & Visher, M. G. (2013). *Fast forward: a case study of two community college programs designed to accelerate students through developmental math*. New York: MRDC.
- Gandara, P. (2002). "A Study of High School Puente: What We Have Learned About Preparing Latino Youth for Postsecondary Education." *Educational Policy*, 16, 474-495.
- Gandara, P., Alvarado, E., Driscoll, A., & Orfield, G. (2012). Building Pathways to Transfer: Community Colleges That Break the Chain of Failure for Students of Color. *Civil Rights Project/Proyecto Derechos Civiles*.
- Gerstein, A. (2009). *Community college faculty and developmental education: An opportunity for growth and investment*. Problem Solution Exploration Papers, The Carnegie Foundation for the Advancement of Teaching.
- Gonzalez, N., & Moll, L. (2002). Cruzando el Puente: Building bridges to funds of knowledge. *Educational Policy*, 16, 623-641.
- Grubb, N. W. (1999). *Honored But Invisible: An Inside Look at Teaching in Community Colleges*. New York, New York: Routledge.
- Grubb, N., Boner, E., Frankel, K., Parker, L., Patterson, D., Gabriner, R., & Wilson, S. (2011a). *Understanding the "crisis" in basic skills: Framing the issues in community colleges*. Basic Skills Instruction in California Community Colleges, Working Paper No. 1. Stanford, CA: Policy Analysis for California Education.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

- Grubb, N., Boner, E., Frankel, K., Parker, L., Patterson, D., Gabriner, R., & Wilson, S. (2011b). *Innovation in developmental education: The landscape and the locus of change*. Basic Skills Instruction in California Community Colleges, Working Paper No. 3. Stanford, CA: Policy Analysis for California Education.
- Grubb, W. N. & Gabriner, R. (2013). *Developmental education: Basic skills education in community colleges: Inside and outside of classrooms*. New York, New York: Routledge.
- Grubb, W. N., Lara, C. M., & Valdez, S. (2002). Counselor, coordinator, monitor, mom: The roles of counselors in the Puente program. *Educational Policy*, 16, 547-571.
- Gurin, G., & Gurin, P. (1970). Expectancy theory in the study of poverty. *Journal of Social Issues*, 26(2), 83–104.
- Gutstein, E. (2005). *Reading And Writing The World With Mathematics: Toward a Pedagogy for Social Justice*. New York: Routledge.
- Gutstein, E. & Peterson, B. (Eds.). (2005). *Rethinking Mathematics Teaching Social Justice by the Numbers*. Milwaukee, WI: Rethinking Schools Publication.
- Hern, K., with Snell, M. (2010). *Exponential attrition and the promise of acceleration in Developmental English and math. Perspectives*. Berkeley, CA: Research and Planning Group.
- Herrera, A. and Jain, D. (2013), Building a Transfer-Receptive Culture at Four-Year Institutions. *New Directions for Higher Education*, 163, 51–59.
- Howard, T. C. (2003). “A tug of war of our minds”: African American high school students’ perceptions of their academic identities and college aspirations. *The High School Journal*, 87(1), 4–17.
- Hoyert, D., & Xu, J. (2012). *Deaths: Preliminary data for 2011*. National Vital Statistics Reports, 61. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL EDUCATION

- Hughes, S. A. (2008). Maggie and me: A black professor and a white urban school teacher connect autoethnography to critical race pedagogy. *Educational Foundations*, 22(3), 73-95.
- Hughes, K. L., & Scott-Clayton, J. (2011). *Assessing developmental education assessment in community colleges*. CCRC Working Paper No. 19, Assessment of Evidence Series. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Jenkins, P. D., Speroni, C., Belfield, C., Jaggars, S., & Edgecombe, N. D. (2010). *A model for accelerating academic success of community college remedial English students: is the Accelerated Learning Program (ALP) effective and affordable?* CCRC Working Paper No. 21. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Jennings, M., & Lynn, M. (2005). The house that race built: Toward a critical race analysis of critical pedagogy. *Educational Foundations*, 19(3-4), 15-32.
- Jurgens, J. C., (2010). The evolution of community colleges. *College Student Affairs Journal*, 28(2), p. 251-261
- Knoell, D., M. (2006). California community colleges. *Community College Journal of Research and Practice*, 21(2), 121-136.
- Kurlaender, M. (2006). Choosing community college: Factors affecting Latino college choice. *New Directions for Community Colleges*, 2006(133), 7-16.
- Laden, B. (2000). The Puente project: Socializing and mentoring Latino community college students. *Academic Quarterly Exchange*, 4, 90-99.
- Lee, J., Contreras, F., McGuire, K., Flores-Ragade, A., Rawls, A., Edwards, K., & Menson, R. (2011). *The college completion agenda 2011 progress report: Latino edition*. New York: The College Board. Retrieved from http://advocacy.collegeboard.org/sites/default/files/progress_report_latino_2011.pdf.
- Leonard, J. & Martin, D. (Eds.). (2013). *The brilliance of black children in mathematics: Beyond the numbers and toward new discourse*. Charlotte, NC: Information Age Publishers.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

- Levin, H. (1987). Accelerated schools for disadvantaged students. *Educational Leadership*, March, 19-21.
- Levin, H., Garcia, E., & Morgan, J. (2012). *Cost-effectiveness of accelerated study in associate programs (ASAP) of the City University of New York (CUNY)*. Center for Benefit-Cost Studies of Education, Columbia University Teachers College. Retrieved from www.cuny.edu/academics/programs/notable/asap/Levin_Report_WEB.pdf
- Lopez, M., H., & Fry, R. (2013, September). *Among recent high school grads, Hispanic college enrollment rate surpasses that of whites*. Pew Research Center. <http://www.pewresearch.org/fact-tank/2013/09/04/hispanic-college-enrollment-rate-surpasses-whites-for-the-first-time/>
- Lynn, M. (1999). Toward a critical race pedagogy: A research note. *Urban Education*, 33(5), 606–626.
- Lynn, M. (2004). Inserting the ‘race’ into critical pedagogy: An analysis of ‘Race-based epistemologies.’ *Educational Philosophy and Theory*, 36(2), 153–165.
- Lynn, M., & Jennings, M. (2009). Power, politics, and critical race pedagogy: A critical race analysis of black male teachers’ pedagogy. *Race Ethnicity and Education*, 12(2), 173–196.
- Lynn, M., Jennings, M. E., & Hughes, S. (2013). Critical race pedagogy 2.0: lessons from Derrick Bell. *Race Ethnicity and Education*, 16(4), 603-628.
- Martin, D. (Ed.). (2009a). *Mathematics teaching, learning, and liberation in the lives of black children*. London: Routledge.
- Martin, D. (2009b). Researching race in mathematics education. *Teachers College Record*, 111, 295–338.
- Martin J., Hamilton, B., Ventura, S., Osterman, M., Wilson, E., & Mathews, T. (2012). Births: Final data for 2010. *National Vital Statistics Reports*, 61. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_01.pdf.
- Moore, C., & Shulock, N. (2010). *Divided we fail: Improving completion and closing racial gaps in California’s community colleges*. Sacramento, CA: Institute for Higher Education Leadership and Policy.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

- Melguizo, T., Prather, G., & Bos, J. (2013). *Are community colleges making good placement decisions in their math trajectories?* Los Angeles: University of Southern California.
- Moses, R. & Cobb, C. (2001). *Radical equations: civil rights from Mississippi to the algebra project.* Boston, MA: Beacon Press.
- National Women's Law Center & Mexican American Legal Defense and Educational Fund (2009). *Listening to Latinas: Barriers to high school graduation.*
- Ngo, F., Kwon, W., Melguizo, T., Prather, G., & Bos, J. (2013). *Course placement in developmental mathematics: Do multiple measures work?* Los Angeles: University of Southern California.
- Nunez, A., M., & Elizondo, D. (2013). *Closing the Latino/a transfer gap: Creating pathways to the baccalaureate.* Perspectives Issues in Higher Education Practice and Policy. (Policy Brief 2). Retrieved from http://www.aahhe.org/_resources/pdf/Perspectivas-Vol2.pdf
- Oakes, J. (2004). Investigating the claims in Williams v. state of California: An unconstitutional denial of education's basic tools? *Teachers College Record* 106(10): 1889–1905.
- Ornelas, A., & Solórzano, D. (2004). The transfer condition of Latina/o community college students in California: Policy recommendations and solutions. *Community College Journal of Research and Practice*, 28, 233–248.
- Perna, L. W., & Thomas, S. L. (2006). *A framework for reducing the college success gap and promoting success for all.* Washington, D.C: National Postsecondary Education Cooperative.
- Perry, M., Bahr, P., Rosin, M., & Woodward, K. (2010). *Course-taking patterns, policies, and practices in developmental education in the California Community Colleges.* Mountain View, CA: EdSource. Puente Program Website: <http://www.puente.net/>. Last retrieved October 21, 2013.
- Pew Hispanic Center. (2005). *Hispanics: A people in motion.* Washington, DC: Pew Hispanic Center.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL EDUCATION

- Pradl, G. M. (2002). Linking instructional intervention and professional development: Using the ideas behind Puente high school English to inform educational policy. *Educational Policy, 16*, 522-546.
- Provasnik, S. & Planty, P. (2008). Community colleges: Special supplement to the condition of education 2008. U.S. Department of Education: Institute of Education Sciences, National Center for Education Statistics.
- Reed, D. (2008). *California's future workforce: Will there be enough college graduates*. Public Policy Institute of California. San Francisco.
- Rendon, L. (2002). Community college Puente: A validating model of education. *Educational Policy, 16*, 642-667.
- Rendón Linares, L. I., & Muñoz, S. M. (2011). Revisiting validation theory: Theoretical foundations, applications, and extensions. *Enrollment Management Journal, 2*(1), 12-33.
- Rivas, M., Perez, J., Alvarez, C., & Solórzano, D. (May 2007). *Latina/o transfer students: Understanding the critical role of the transfer process in California's postsecondary institutions* (Research Report No. 9). Los Angeles: UCLA Chicano Studies Research Center. Retrieved from http://www.chicano.ucla.edu/files/RR9_001.pdf.
- Scott, J. (2012). *Basic skills accountability: Supplement to the ARCC Report*. Sacramento, CA: California Community Colleges Chancellor's Office. Retrieved from http://californiacommunitycolleges.cccco.edu/Portals/0/reportsTB/REPORT_BASICSKILLS_FINAL_110112.pdf
- Smith-Maddox, R., & Solórzano, D. G. (2002). Using critical theory, Paulo Freire's problem-posing method, and case study research to confront race and racism in education. *Qualitative Inquiry, 8*, 64-82.
- Solórzano, D. (1998) Critical race theory, racial and gender microaggressions, and the experiences of Chicana and Chicano Scholars. *International Journal of Qualitative Studies, 11*, 121-136.
- Solórzano, D. (2012). *Developmental education and the Latina/o community college pipeline: The case of California*. Essay Prepared for The White House

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

Commission on Educational Excellence for Hispanics Enriching America
Through the 21st Century: Increasing Latino Postsecondary Completion.

Solórzano, D. (2012). *Developmental education and the Latina/o community college pipeline: The case of California*. Essay Prepared for The White House Commission on Educational Excellence for Hispanics Enriching America Through the 21st Century: Increasing Latino Postsecondary Completion.

Solórzano, D., Acevedo-Gil, N., & Santos, R. (2013). *Latina/o Community College Students: Understanding the Barriers of Developmental Education* (Policy Brief No. 10). Produced by the Pathways to Postsecondary Success Project at UC/ACCORD (All Campus Consortium on Research for Diversity), University of California, Los Angeles. Retrieved from Pathways to Postsecondary Success website: <http://pathways.gseis.ucla.edu/publications/>.

Solórzano, D., Datnow, A., Park, V., & Watford, T. (2013). *Pathways to Postsecondary Success: Maximizing Opportunities for Youth in Poverty*. Final Report of the Pathways to Postsecondary Success Project at UC/ACCORD (All Campus Consortium on Research for Diversity), University of California, Los Angeles. Retrieved from Pathways to Postsecondary Success website: <http://pathways.gseis.ucla.edu/publications/PathwaysReport.pdf>.

Solórzano, D., Villalpando, O., & Oseguera, L. (2005). Educational inequities and Latina/o undergraduate students in the United States: A critical race analysis of their educational progress. *Journal of Hispanic Higher Education*, (4), 272–294.

Solórzano, D. G., & Yosso, T.J. (2001). Maintaining Social Justice Hopes within Academic Realities: A Freirean Approach to Critical Race/LatCrit Pedagogy. *Denver University Law Review*, 78(4), 595-621.

Steele, C.M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, 52, 613–629.

Steele, C. M. (1997). “A threat in the air: How stereotypes shape intellectual identity and performance”. *American psychologist*, 52(6), 613.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, 69(5), 797–811.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL EDUCATION

- Student Success Taskforce. (2012). *Advancing student success in California Community Colleges: The recommendations of the California Community Colleges student success task force*. California Community Colleges.
- Stutz, T. (2013, November 21). *Texas education board approves compromise on Algebra II requirement*. *Dallas News*.
<http://www.dallasnews.com/news/politics/headlines/20131121-state-education-board-approves-compromise-on-math-requirement.ece>
- Terenzini, P. T., Rendon, L. I., Upcraft, M. L., Millar, S. B., Allison, K. A., Gregg, P. L., & Jalomo, R. (1994). The transition to college: Diverse students, diverse stories. *Research in Higher Education*, 35, 57–73.
- Texas Higher Education Coordinating Board [THECB]. (2009). *Statewide developmental education plan, 2010-2011 biennium*. Retrieved from <http://www.thecb.state.tx.us/files/dmfile/DevelopmentalEducationPlan.pdf>
- Tinto, V., Goodsell-Love, A., Russo, P., & Parsley, K. (1994). *Building learning communities for new college students: A summary of research findings of the Collaborative Learning Project*. Pennsylvania State University, National Center on Postsecondary Teaching, Learning, and Assessment.
- U.S. Census Bureau. (2011a). *Current population survey*. Washington, DC.
- U.S. Census Bureau. (2011b). *Population estimates program (PEP)*. Washington, DC.
- U.S. Census Bureau. (2012). *Statistical Abstract of the United States: 2012* (Table 279). Washington, DC.
- U.S. Bureau of Labor Statistics. (2013). *Earnings and unemployment rates by educational attainment*. http://www.bls.gov/emp/ep_table_001.htm
- U.S. Department of Education. (2011). *Digest of education statistics*. Washington, DC: National Center for Educational Statistics. Retrieved from <http://nces.gov/programs/digest>.
- Venezia, A., Bracco, K., & Nodine, T. (2010). *One shot deal? Students' perceptions of assessment and course placement in California's community colleges*. San Francisco: WestEd.

LATINAS/OS IN COMMUNITY COLLEGE DEVELOPMENTAL
EDUCATION

- Visher, M. G., Wathington, H., Richburg-Hayes, L., & Schneider, E. (2008). The learning communities demonstration rationale, sites, and research design. A National Center for Postsecondary Research Working Paper.
- Weisser, W. (2013, November 21). Texas board of ed votes to drop algebra II mandate. *Huffington Post*. http://www.huffingtonpost.com/2013/11/22/texas-algebra-ii_n_4323831.html
- Weissman, E., Butcher, K., Schneider, E., Teres, J., Collado, H., & Greenberg, D. (2011). *Learning communities for students in developmental math: Impact studies at Queensborough and Houston Community Colleges*. National Center for Postsecondary Research Paper.
- Yeager, D., Muhich, J., & Gray, N. (2011, December). *What we're learning about productive persistence: Early evidence from the Statway*. Presentation at the Carnegie Foundation for the Advancement of Teaching's Winter Quantway Institute.
- Yosso, T.J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race, Ethnicity, and Education*, 8(1), 69-91.
- Yun, J. T., & Moreno, J. F. (2006). College access, K-12 concentrated disadvantage, and the next 25 years of education research. *Educational Researcher*, 35(1), 12-19.
- Zarate, M.E. & Gallimore, R.G. (2005). *Gender differences in factors leading to college enrollment: A longitudinal Analysis of Latina and Latino students*. Harvard Educational Review, Cambridge, MA.

