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COLLEGE READINESS FOR STUDENTS WITH SPECIAL LEARNING NEEDS: A CRITICAL ANALYSIS OF THE LITERATURE

Jacob R. Chandler, John R. Slate, George, W. Moore, and Wally Barnes
Sam Houston State University

Abstract

This article serves as an extensive review of the literature within the field of college readiness, as it relates to students identified as: (a) economically disadvantaged, (b) Limited English Proficient, and (c) special education. Specific topics discussed herein include: (a) an overview of college readiness, (b) an overview of college readiness in relation to the demographic groups included within this study, and (c) an overview of the theoretical framework as it relates to college readiness. Serious issues are exposed in this review with the current college-readiness standards. The process of fully preparing a student for college involves much more than high-stakes testing and tracking GPAs.

INTRODUCTION

According to Boote and Beile (2005), "A researcher cannot perform significant research without first understanding the literature in the field" (p. 3). In this article, a synthesis of related literature is presented within the field of college readiness as it relates to students identified as: (a) economically disadvantaged, (b) Limited English Proficient, and (c) special education. Search criteria for primary articles were first defined by delineating timeframe, online databases, search terms, and other criteria. The timeframe included any articles published since 2005 because of their relevancy and currency. The following online databases were used as an initial step because of their ease of use and their inclusion of many journals: (a) Wilson Web Education Search, (b) ERIC, and (c) EBSCO Academic Search Complete. The following terms were used independently and jointly: (a) college readiness, (b) economically disadvantaged, (c) Limited English Proficiency, and (d) special education. Results were reviewed and articles were selected based on their relevancy to the topic of this study. The synthesis of the articles is presented in the following sections, which are organized as follows: (a) an overview of college readiness, (b) an overview of college readiness in relation to the demographic groups included within this study, and (c) an overview of the theoretical framework as it relates to college readiness. These sections are followed by a concluding summary.

College Readiness

Much time and effort has been devoted to examining college readiness (Barnes & Slate, 2013; Barnes, Slate, & Rojas-LeBouef, 2010; Combs et al., 2010). High school students can narrow the college persistence gap by taking a rigorous course of study that includes four years of English, math, and science (Adelman, 1999; Horn & Kojaku, 2001; Warburton, Bugarin, & Nunez, 2001). In addition, it has been noted that the completion of a high-level high school math class (e.g., algebra II, pre-calculus, trigonometry, calculus) is the single best secondary school predictor of performing well in college (Adelman, 1999, 2006). Students who graduate from high school who are academically prepared are best positioned to do well in college regardless of race, gender, or socioeconomic status (Gladieux & Swail, 1998; Horn & Kojaku, 2001; Martinez & Klopott, 2003; Warburton et al., 2001). Researchers have identified that students who are college-ready are more likely to be academically proficient and successful than their counterparts who are not college-ready (Cline, Bissell, Hafner, & Katz, 2007; Conley, 2007a, 2007b; Young & Ley, 2002, 2003). Furthermore, college-ready high school graduates will more readily integrate themselves into the complex, bureaucratic global society and be more likely to develop and perpetuate personal attributes (i.e., cultural, social, and economic capital) and become engaged citizens, in comparison to students who are not college-ready (Bourdieu & Passeron, 1977, 1979; Bourdieu & Wacquant, 1992; Dougherty, Mellor, & Smith, 2006; Kirsch, Braun, Yamamoto, & Sum, 2007).

Federal and state legislations widely support the concept of college readiness, although also indicating the dire state that exists, due to students not generally being prepared for college. The United States legislature has attempted to improve college-readiness rates of high school graduates through more than fifty years of federal legislation including the National Defense Education Act (1958), Civil Rights Act

(1964), Elementary and Secondary Education Act (1965), National Commission on Excellence in Education (1983), Educate America Act (1994), Improving America's Schools Act (1994), and the most recent, No Child Left Behind Act of 2002 (NCLB). Much of this legislation was built upon the legislation that came before it, and ultimately created the high-stakes standardized testing and accountability measures that are prevalent in many schools today.

Barnes and Slate (2013) addressed the development of what they termed a one-size-fits-all college-readiness agenda:

> Although national legislation and federal policies mandated for public school systems since the 1950s have appeared to be in the best interest of student learning, most of the decisions to increase academic rigor were predicated on fear, which allowed the federal government a stronghold in public education, and whether intended or not, has created a stifling, ineffective one-size-fits-all college-readiness agenda. (p. 2)

Barnes and Slate (2013) also argued that the NCLB Act shifted the emphasis toward high-stakes testing as the primary method for determining student learning and school quality. Barnes and Slate (2013) posited that "high-stakes standardized state tests and harsh, punitive accountability measures" might result in students, teachers, and schools focusing on test preparation rather than the academic preparation necessary to be successful in postsecondary education (p. 3).

While a lack of college readiness and academic preparedness has been documented in much of the literature, some researchers have presented other perspectives that counter those dire opinions of the current state of education. In the 1990 report, *Perspectives on Education in America*, also known as the Sandia Report, researchers demonstrated that educational trends appear to be steady over decades of time and that variances can often be explained by changes in sizes of demographic groups (Carson, Huelskamp, & Woodall, 1993). Although overall average SAT scores appear to be decreasing, the average SAT score by ethnic subpopulation is staying relatively consistent and the decrease in overall average SAT scores can be attributed to different rates at which demographic proportions are changing (Carson et al., 1993). Additionally, these researchers used census data to extrapolate the percent of the population completing high school and college from 1940 to 1990, and determined that percentages are increasing and are holding consistent with population growth (Carson et al., 1993). Many other statistics and charts are presented in this report, and, although the results are not always optimistic, the data demonstrated steady trends and were not quite as dire as some researchers posited. However, the Sandia report does have its detractors. Stedman (1994) acknowledged the steady trends demonstrated within *Perspectives on Education in America*, but concluded, the report "is seriously flawed by errors in analysis, insufficient evidence, mischaracterizations of the international data, and a failure to consider evidence that U.S. students are performing at low levels" (p. 133).

Though the concept of college readiness is widely supported by researchers as well as legislation, how college readiness is defined can be quite varied (Barnes et al., 2010; Conley, 2008; Olson, 2006). Barnes and Slate (2013) stated, "Most policy makers, administrators, advocates, researchers, and practitioners agree that rigorous academic

preparation is essential for today's young people to meet the demands of the 21st century global society" (p. 3). By many current definitions, college readiness should most likely be redefined as academic preparedness (Barnes et al., 2010). That is, definitions of college readiness range from simple quantitative measures of academic preparedness, as is the case within the state of Texas, to more complex definitions of which academic preparedness is only one component and is coupled with other social and environmental factors to present a more holistic view of what is required to be successful in college (Conley, 2008, 2010; Perna, 2002). St. John and Musoba (2002) provided a similar term, *academic access*, which considers "whether students are qualified for initial and continued enrollment" (p. 182). As Musoba (2005) stated, "Academic access includes the academic preparation necessary to meet admissions standards set by colleges" (p. 24). Ensuring students are college-ready is the responsibility of many groups of people (i.e., higher education institutions, high schools, parents, and students) in achieving academic preparedness (Hernandez, Denton, & Macartney, 2009; Musoba, 2005; Noddings, 2010). Noddings (2010) also stressed the importance of ongoing interaction between educators and students: "Simply stating what students must know and be able to do is not enough to ensure the desired outcomes" (p. 29).

Conley (2008) defined college readiness in a way that comprises several domains: (a) cognitive and metacognitive capabilities, (b) content knowledge, (c) academic self-management behaviors, and (d) application and acculturation to college. As one of the most important elements of college success, cognitive and metacognitive capabilities include the critical-thinking skills of "analysis, interpretation, precision and accuracy, problem solving, and reasoning" (Conley, 2008, p. 3). Students must also possess specific content knowledge in the key areas of math, writing, and reading (ACT, 2004; College Board, 2006, 2007a, 2008a, 2009a, 2010, 2011, 2012a; Conley, 2008). To also be included are academic self-management behaviors, such as study skills and time management capabilities. Lastly, students must possess an understanding of the college application process and the acculturation to a college environment.

College and career readiness can be achieved when a high school graduate has the academic knowledge and skills in literacy and mathematics to attend and succeed in postsecondary coursework or job training (Achieve, Inc., 2012). Also, Achieve, Inc. (2012) indicated that English language arts should be considered a core subject area, but this subject does not serve as an indicator of college and career readiness by itself, and should therefore be combined with a broad, rigorous curriculum. Additionally, Achieve, Inc. (2012) reported that the general perception of college and career readiness should include more than academic preparation while also acknowledging that academic preparation is "clearly an essential part of readiness for college, career, and life in the 21st century" (p. 6).

Many of the college readiness initiatives do not consider the "other requisite skills and strategies necessary for college success – creativity, critical thinking, self-efficacy, and self-regulation" (Barnes et al., 2010, p. 2). Ryan, Matheson, and Morgenthau (2003) argued that the NCLB Act is "perhaps the most important federal education law in our nation's history", but that "although the Act is supposed to promote excellence and equity, it may work against both" (p. 934). Other researchers have also questioned the legitimacy of a one-size-fits-all high-stakes accountability practice (Barnes & Slate, 2010, 2013; Nichols & Berliner, 2006, 2008; Noddings, 2010; Rosenbaum, Stephan, &

Rosenbaum, 2010). Researchers have also questioned the standardization of college-readiness criteria. As Noddings (2010) commented, "When standardization is taken to mean universalization, the result may well be lower achievement for many students" (p. 29). Despite the varying definitions of college readiness, more emphasis is placed on this topic through research and legislative mandates that aim to increase academic rigor in high schools while college-readiness rates continue to be low for high school graduates nationwide. Treatments for improving college-readiness rates have typically focused on implementing standards that are more stringent and tests (e.g., exit exams) for students. Dee and Jacob (2011) observed that legislative efforts (i.e., NCLB Act) had a statistically significant impact on improving the average math performance of fourth graders (Cohen's d effect size = 0.23), but results were even more moderate for eighth graders and for fourth-grade reading achievement. Interestingly, many legislators use high school exit exams as indicators of college readiness. However, some researchers have published results concerning the merit of high school exit exam indicators and, in some cases, have shown that such exams actually have higher correlations with students who do not complete high school. Warren and Jenkins (2005) observed that high school exit exams were not a good indicator of a student's likeliness to drop out of school regardless of racial and socioeconomic status. Warren, Jenkins, and Kulick (2006) noted that high school exit exams were associated with lower high school completion rates, especially in states with low-income or high minority populations.

Many programs exist that stem from local initiatives (e.g., mentoring, summer bridge programs) and some come from more widespread initiatives, such as GEAR UP (Cabrera et al., 2006; Cates & Schaefle, 2011; Perna, 2002; Swail, 2000). However, many of these programs lack sufficient research regarding their effectiveness (Cabrera et al., 2006, Gándara & Bial, 2001; Perna & Swail, 2001). As such, further research is needed to understand the effects of academic enhancement programs (Perna, 2002; Yampolskaya, Massey, & Greenbaum, 2006). Cates and Schaefle (2011) documented strong relationships between long-term participation in GEAR UP and both healthy college expectations and enrollment in college-track classes among Hispanic students, but also reemphasize prior research recommendations that continue to investigate the effects of college preparations programs on educational attainment, especially related to enrollment and persistence in college.

Still, over 80% of former students indicated that they would have "worked harder if their high schools had demanded more of students, set higher academic standards, and raised expectations of how much course work and studying would be necessary to earn a diploma" (Achieve, Inc., 2005, p. 13). Though increasing academic standards and graduation requirements may result in higher levels of college readiness, some researchers question the merits of this approach. For example, Betts, Reuben, and Danenberg (2000), in their study of California schools, posited that introducing higher standards, if not equally supported and implemented across all school types, may result in further expanding socioeconomic and racial achievement gaps. In fact, some researchers (Lillard & DeCicca, 2001; Marchant & Paulson, 2005) have reported that raising graduation requirements does little to improve graduation rates and, in some cases, may lower graduation rates. Other researchers (Koretz, 2008; Rothstein, Jacobsen, & Wilder, 2008) have argued that such accountability standards and high-stakes testing shift focus away from subjects that are not tested and toward subjects that are tested, such as

mathematics and reading. Neal and Schanzenbach (2010) posited that schools may shift resources away from students who are high- or low-performing, in order to focus on students in the middle of the spectrum that, with some additional attention, can meet the standards and, thus, help the overall performance of the school. By focusing on students in the middle of the spectrum, the students at either end of the spectrum may suffer (Neal & Schanzenbach, 2010).

To find a solution, high schools and postsecondary institutions must work together to create environments that prepare students to graduate college-ready, which will allow them to be academically and socially adept at the college level (Conley, 2007b; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Moore et al., 2010; Roderick, Nagaoka, & Coca, 2009). By working together to create a more rigorous, engaging high school curriculum, these partnerships can increase the odds of persistence toward a 4-year college degree (Adelman, 1999, 2006; Horn, Berktold, & Bobbitt, 1999; Horn & Kojaku, 2001). According to Kuh et al. (2006), programs to assist the transition from high school to college for students at risk should include, but are not limited to, the following student success initiatives: "(a) orientation, (b) transition courses and first-year seminars, (c) learning communities, (d) intrusive advising, (e) tutoring, (f) supplemental instruction, (g) peer tutoring, (h) study groups and summer bridge programs, (i) study skills workshops, (j) mentoring and student support groups, (k) student-faculty research, and (l) senior capstone projects" (p. 57).

Additionally, some researchers recommended taking a fresh look at the current readiness agenda to determine if these college-readiness standards and preparation programs are and should be prescriptive for all students (Barnes & Slate, 2013). Noddings (2010) argued that differentiation, rather than standardization, was the key to success, and also indicated that the nation should face the unpopular and harsh reality that some students have "neither the interest nor aptitude" for certain subjects (para. 8). By focusing on differentiation of academic offerings, improving quality for those students who show interest and aptitude for a given subject, and providing clearly focused career path that correlate to academic or vocational degree offerings, college and career readiness can be achieved (Barnes & Slate, 2013; Noddings, 2010).

College Readiness and Students Considered Economically Disadvantaged

Students who completed high school and were classified as being from middle and high-income families were more likely to attend a two or four- year college, than were their peers who were classified as low-socioeconomic status (Cabrera, Burkham, & La Nasa 2003; Choy, Horn, Nunez, & Chen, 2000). At a rate 17% lower than the national average for similarly qualified students, Cabrera and LaNasa (2001) observed that students with high abilities from low socioeconomic backgrounds were less likely to apply to four-year colleges. Researchers have consistently shown an unequal opportunity for student learning that is related to a lack of access to educational opportunities and/or high-quality teachers for some minority students (Bustamante et al., 2010; Perna, 2006; Peske & Haycock, 2006). Reflected within these studies may be a broader issue considering that, within five years of enrollment, over 40% of the most advantaged students received a Bachelor's degree or higher (Gladieux & Swail, 1998). Kuh et al. (2006) stated that "enrollment and persistence rates of a) low-income students, b) African

American, Latino, and Native American students, and c) students with disabilities continue to lag behind White and Asian students, with Latino students trailing all other ethnic groups" (p. 1).

Additional factors influence the educational plans of students. Using a newly developed conceptual model, Hossler and Stage (1992) reported that parental expectations had the strongest influence; however, parents' education level, student gender, high school GPA, and high school experiences also significantly influenced student educational plans. For students from families who are poor, Black or Hispanic, and whose parents dropped out of school, course requirements had the biggest predictive effects on high school completion rates (Lillard & DeCicca, 2001). Using data from the Bureau of Labor Statistics National Longitudinal Surveys, London (2006) observed that high aptitude, local access to two-year colleges, and availability of financial aid loans were key predictors of the success of female welfare recipients in obtaining a postsecondary education.

College Readiness and Students Considered Limited English Proficient

English Language Learners (ELLs) are a growing population and, thus, have greater effects on the overall college-readiness rates of the nation. Shin and Kominski (2010) indicated that, of the population of people surveyed, 8.1% did not speak English at all and 16.3% did not speak English well, with the majority (62.3%) of the total ELLs speaking Spanish or Spanish Creole. Within the state of Texas, 10.1% did not speak English at all and 15.6% did not speak English well (Shin & Kominski, 2010). The percentage of people who spoke a language other than English at home increased overall by 140.4% for all languages and by 210.8% for Spanish or Spanish Creole (Shin & Kominski, 2010). Approximately 27% of children in immigrant families live in linguistically isolated households in which no one over the age of fourteen speaks English proficiently (Hernandez et al., 2009). Fry (2008) noted that native English speakers are less likely to attend low-achieving schools than are English Language Learners. King (2006) identified four major groups (i.e., ELL, low-income children, children with disabilities, and children with behavior problems) of U.S. children at risk for academic failure. The 2005 NAEP indicated that 73% of 4th grade ELL students scored below the most basic level in reading compared to 33% of non-ELL students, and 46% of 4th grade ELL students scored below the most basic level in math compared to 17% of non-ELL students (U.S. Department of Education [DOE], 2005).

An ELL student may not become proficient enough in English to participate in an academic context for approximately three to seven years (Hakuta, Butler, & Witt, 2000; Thomas & Collier, 1997). Moreover, the age at which a child acquires English-language skills may be an indicator for long-term development. That is, ELLs who are not proficient in English when they enter school lag behind those students who are not ELLs (Halle et al., 2012; Kieffer, 2008). However, ELL children who are proficient in English by the time they enter kindergarten perform similarly to their non-ELL peers on academic outcomes by 5th grade (Halle et al., 2012; Kieffer, 2008). In the context of this study, these factors are important because they provide foreshadowing for future performance and warning indicators for those students who enter school after kindergarten and who are not English-proficient. With respect to participation in advanced classes, high school

completion rates, and postsecondary enrollment and retention, Meltzer and Hamann (2005) indicated that high school students who were not ELLs performed better than their ELL counterparts.   Fry (2007) documented similar findings when comparing ELL students to White students: (a) 35% of 4th grade ELL students were behind in math, (b) 47% of 4th grade ELL students were behind in reading, and (c) 51% of 8th grade ELL students were behind in both math and reading. One explanation for poor postsecondary performance has been a lack of social and cultural capital among immigrant students in U.S. high schools (Cabrera et al., 2006; Contreras, 2005). In relation to college readiness indicators for those public school students who took the SAT, English was not the exclusive first language for 25% of the students, which was an increase from 23% five years prior (College Board, 2012c). Additionally, 46% of the students requesting SAT fee waivers indicated that English was not exclusively their first language (College Board, 2012c).

College Readiness and Students Enrolled in Special Education

One of the key challenges in secondary education and transitioning is ensuring that students with disabilities have "access to and full participation in postsecondary education" (National Center on Secondary Education and Transition, 2003, p. 1). With its enactment in the 1997 and the 2004 amendments, the Individuals with Disabilities Education Improvement Act (IDEA) mandates increased emphasis of promoting college enrollment among students with disabilities. The effects of legislative efforts have been that the number of students with disabilities attending post-secondary institutions has tripled since the 1970s (Wagner, Newman, Cameto, Garza, & Levine, 2005), and the number of students with learning disabilities has more than doubled from 1988 to 1994 (Henderson, 1995). Despite these increases, general education students are three times more likely to attend college than are students with a disability (Cameto, Levine, & Wagner, 2004). Though a great deal is known overall about predictors of post-secondary success, far less knowledge exists about students with disabilities who enroll in four-year colleges and universities.

Studies regarding students with disabilities conducted since the mid-1990s are extremely limited (O'Brien, 2011). Achievement, participation in extracurricular activities, quality of instruction received in secondary schools, transition planning, parent and student satisfaction with high school, parent involvement, parent expectations, educational aspirations, and enrollment in college prep classes are all related to successful achievement of a high school diploma and can be predictors of enrollment in postsecondary education (Halpern, Yovanoff, Doren, & Benz, 1995; Miller, Snider, & Rzonca, 1990; Rojewsky, 1996).

Marcotte, Bailey, Borkoski, and Kienzel (2005) established that postsecondary education is linked to increased earning potential for youth who continue their education after high school, even for those youth who have not earned a degree. However, employment outcomes continue to be relatively low for individuals with disabilities in comparison with those individuals without disabilities. For people with disabilities between the ages of twenty-one and sixty-four, the U.S. Census Bureau reported that 45.6% were employed in 2005 (Brault, 2008). The U.S. Bureau of Labor Statistics

(2012) reported that the employment-to-population ratio for persons with no disability was 63.6%, compared to only 17.8% for persons with a disability.

Although most of these researchers have focused on postsecondary education as a whole, which does not distinguish between college education and training received for a trade, increased emphasis should be placed on further advancing this research while focusing on the successful transition from high school to college, as well as the success factors for those students with disabilities who enrolled in college. Madaus (2006) demonstrated that college graduates with learning disabilities have employment rates and earnings consistent with the U.S. workforce in general. Wilson, Hoffman, and McLaughlin (2009) documented the current efforts of states to increase college readiness among student with disabilities as well as noting the paucity of existing research related to the topic.

College Readiness and the ACT

The ACT defines College Readiness Standards, which are "sets of statements intended to help students, parents and educators understand the meaning of test scores" (ACT, 2012a, p. 3). Benchmarks are defined by the ACT (2012a) to represent "the minimum score needed on an ACT subject-area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college courses, which include English Composition, Algebra, Social Science and Biology" (ACT, 2012a, p. 3). Interestingly, the ACT (2012a) claimed, "the ACT is the only college readiness test for which scores can be tied directly to standards" (p. 3). The ACT (2012a) defines college readiness benchmark standards to consist of an 18 on the English ACT test, 22 on the Mathematics ACT, 21 on the Reading ACT, and 24 on the Science ACT.

The ACT provided the following recommendations for improving scores, although all recommendations focus heavily on mathematics or sciences and exclude English Language Arts altogether. Regarding mathematics, the ACT (2012a) recommends that students take academically appropriate courses, indicating that "53% of the students who took three or more years of math beyond Algebra I, Algebra II, and Geometry were college ready" (p. 4). Additionally, the ACT (2012a) recommended that students take more than three years of natural science courses because 29% of those students who took more than three years of science were considered college ready as compared to the 11% of students who took less than three years of natural sciences.

College Readiness and the SAT

The College Board (2012c) has stated that the SAT "serves as both a measure of students' college readiness and as a valid and reliable predictor of college outcomes" (p. 3). Similar to the ACT, the College Board has defined benchmarks for college readiness, which are used as one method of determining college readiness within the state of Texas (Table 5). These benchmarks indicated a "65% probability of obtaining a first year GPA (FYGPA) of a B- or higher, which in turn is associated with a high likelihood of college success" (College Board, 2012c, p. 21). The College Board (2012c) identified that meeting or exceeding the benchmark resulted in students that had a higher likelihood of

enrolling and persisting at a four-year college. However, the College Board (2012c) does acknowledge that students scoring below the benchmarks can still succeed in college.
The College Board (2012c) indicated that the SAT measures the skills that students need to be successful in college as well as being part of a rigorous high school curriculum. In relation to this study, the reading (e.g., ability to draw inferences, synthesize information, distinguish between main and supporting ideas, and understand contextual vocabulary) and mathematics (e.g., applying mathematical concepts, solving problems, and using data literacy skills in interpreting tables, charts, and graphs) sections are paramount. The College Board continues to enhance and develop new programs, and have developed a College and Career Readiness Pathway, which entail a series of integrated assessments that are designed to measure college readiness from the eighth through twelfth grades.

Theoretical Framework: Capital, Reproduction, and Habitus

Bourdieu (1986) identified three forms of capital: (a) social capital, (b) economic capital, and (c) cultural capital. Each of these three forms of capital is discussed below as well as the manner in which they are reproduced. Although these terms are discussed independently, it is important to note the symbiotic relationship between the terms. In addition, a discussion of how capital relates to college readiness is included.

Social Capital

Relationships are at the core of social capital. Bourdieu (1986) stated that the size and influence of the relationships or groups to which a person belongs influence the amount of social capital that a person possesses. Moreover, this volume of capital cannot be subdivided into an individual's own social capital or the social capital of an individual's acquaintances; rather, social capital is a product of both. Since Bourdieu's original notion, researchers have varied the definition of social capital over the years. For example, Greenhow and Burton (2011) described two general types of social capital: "bridging capital derived from weak ties ('friends of friends') that afford us diverse perspectives and new information and bonding capital derived from strong ties ('the shoulder to cry on') that comes from our close friends and family" (p. 226). However, social capital consists of three key components: (a) networks, (b) trust, and (c) social norms (Billett, 2012).
The bridging and bonding described by Greenhow and Burton (2011) fit into what Billett (2012) termed as "networks." Bridging is the term given to vertical relationships that "cut across class, cultural and gender systems" (Billett, 2012, p. 10). These ties are weaker than bonding ties, but contribute to social advancement. Bonding is the term given to horizontal relationships that "connect individuals of homogenous backgrounds" (Billett, 2012, p. 10). These relationships may consist of familial or close-knit peer groups, and are usually the deepest ties that individuals form.
These networks of relationships can often create opportunities for members to use their collective relationships and economic and cultural capital to reinforce and grow the volume of all three forms of capital. To leverage these relationships or networks, members must have trust, which exists in two forms: (a) thick and (b) generalized (Billett, 2012). Thick trust is a type of trust that is shared across bonding networks, and

can be characterized as the sharing of those resources that are our most prized (Billett, 2012). Generalized trust is the trust that we share across bridging networks, and is a general expectation or outlook that most people are honest in their actions (Billett, 2012). Trust is possible because of established patterns of behavior known as social norms (Billett, 2012).

With the advent of technology and the ubiquity of social media, the ways in which social capital can be affected have expanded beyond in-person relationships and often include social network sites and online multi-player videogames (Greenhow & Burton, 2011). Some researchers (e.g., Kraut et al., 2002; Nie, 2001) have indicated that use of the Internet and social media is hindering face-to-face communication and social interaction and, thus, decreasing overall social capital and increasing social isolation. Other researchers have reported that use of the Internet and social networking sites (e.g., Facebook and MySpace) help students to enhance identity development, promote social bonding relationships, increase bridging capital, and promote higher self-esteem (Ellison, Steinfield, & Lampe, 2007; Greenhow & Burton, 2011; Steinfield, Ellison, & Lampe, 2008; Valenzuela, Park, & Kee, 2009). In relation to the students in this study, Greenhow and Burton (2011) specifically focused on the increase in self-esteem and social capital of low-income students.

Economic Capital

Often, economic capital is needed to fund educational opportunities (Bourdieu, 1986). For some students, economic capital is gained by attending the public education system. For other students, gaining economic capital may require an economic expenditure in the form of tuition payments and books, among other items, to private school or in attending higher education. The idea of economic capital is often easiest to identify because tangible goods such as money or property are representative forms of economic capital.

However, it is important to note that, for some demographic groups, economic capital is not gained until later in life. In relation to the groups within this study (e.g., economically disadvantaged, Limited English Proficient), economic capital is likely a scarce commodity. Billett (2012) indicated that:

> For young people, mobility (economic and cultural) cannot be achieved until [academic] studies are completed and financial independence achieved. Until then, they are restricted to the economic and cultural capital of their family. For young people of impoverished backgrounds, this can mean a daily battle to obtain the necessities of life. (p. 13)

Rather than leveraging bridging relationships to maximize their capital, many low-income or impoverished youth rely upon bonding networks to reinforce the status quo (Billett, 2012). However, students with larger amounts of economic capital leverage that capital to expand their bonding networks through participation in cultural events such as movies or concerts (Billett, 2012).

Cultural Capital

Cultural capital is a form of capital that embodies the accumulation of "long-lasting dispositions of the mind and body" (Bourdieu, 1986, p. 243). These dispositions may include the acquisition of knowledge, skills, and traits that are focused on self-improvement. This accumulation occurs over time and has with it associated opportunity costs. Cultural capital must be gained first hand and is not easily or immediately transferrable because of the nature by which it must be accumulated, which "occurs mainly through the socialization process at home and through parental investment in the 'right' kinds of cultural training" (Dumais & Ward, 2010, p. 247). Bourdieu (1986) referred to this long-term accumulation or embodiment as an individual's habitus. Cultural capital can be represented and institutionalized in the form of educational credentials such as degrees that then enable the possessor to use that knowledge and credentials to generate economic capital by producing goods and services. Bourdieu (1986) indicated that it is likely that cultural capital will be "unrecognized as capital and recognized as legitimate competence" (p. 49). Dumais and Ward (2010) contended, "One is able to acquire institutionalized cultural capital when one has high levels of embodied cultural capital, which is held in high regard in the educational system" (p. 247).

Cultural capital "can be acquired, to a varying extent, depending on the period, the society, and the social class" (Bourdieu, 1986, p. 245). Thus, cultural capital is comprised of properties that are inherited and acquired. The inherited properties are those properties that are derived through a person's inherited status within a society or social class or those talents with which a person was born. Acquired properties are those properties that individuals accumulate throughout the course of their lives.

Reproduction and Habitus

Many researchers have analyzed the manner in which social and cultural capital are reproduced. Some researchers (e.g., Collins, 1971; Hanushek, 1989; Levin, 1974, 1989) have noted the economic nature of how capital is replicated through societal norms, including education. Tramonte and Willms (2010) varied this idea in their study, which indicated that students' social and cultural interactions with parents and others, deemed relational cultural capital, has stronger effects on school outcomes than static cultural capital, which is a "measure of socioeconomic advantage" mostly related to the social and cultural status of one's parents (p. 201). Citing Swidler and Farkas, Tramonte and Willms (2010) argued that "low-income parents fail to support their children in succeeding in school not because they see too low a payoff to such action, but because they lack the skills, habits, and knowledge needed to effectively assist them" (p. 201).
One indicator of social and cultural capital is parents' educational attainment (Perna, 2000b) and, in 2006, 32.4% of Latino students reported that their parents had less than a high school diploma compared to 4.0% of White students (NCES, 2008). As further evidence, of all students enrolled in a "less than standard" curriculum, 43% had a parent with less than a high school education (NCES, 2007, p. 13). Additionally, comparing 12th-grade students whose parents had completed high school or less versus those students whose parents had a graduate or professional degree, a difference of thirty-two

percentage points was present in the percentage of 12th-grade students' intent to graduate from a four-year college (NCES, 2012). Most students develop educational and occupational aspirations through approximately the ninth grade (Stage & Hossler, 1989), and parental encouragement (or lack thereof) plays a key role in establishing and encouraging educational and occupational ideas (Cabrera & La Nasa, 2001; Hossler, Braxton, & Coopersmith, 1989; Nora & Cabrera, 1992). Performance on standardized testing is also affected by a student's amount of social and cultural capital (Contreras, 2005; Walpole et al., 2005). In short, the habitus of these parents and students is not equivalent to other parents with greater economic, social, or cultural capital. Sullivan (2001) similarly indicated that cultural capital eventually materializes in the form of educational credentials, occupational, and social success. However, Sullivan (2001) attributed the habitus experienced through parents or important role models as the major contributing factor of student success in school.

Lareau (2001) described another key term in Bourdieu's model: the field. The concept of Bourdieu's field is sometimes compared to a sports field. In this analogy, fields may be used for different purposes, and no two fields are alike regardless of how similar they may appear. Based on the age, climate, other players, and coaches, the field is always changing and how an individual plays a game on the field differs based on a wide variety of factors. When considering fields in relation to Bourdieu's concept of capital, these factors may include demographics, geography, ability, teacher quality, socioeconomic status, and much more. Considering the system of higher education as a field, Laureau (2001) argued:

> The field involves many different venues: universities, liberal arts colleges, and community colleges. The field would also include ideas of what constitutes the canon, power relations among provosts, deans and department chairs, the stance of students as they move through colleges to get their degrees, and the meaning and value of their degrees in the broader social world. (p. 84)

The factors in a given field compose a network of highly interactive aspects. Additionally, fields can interact with each other, and these interactions form a "matrix of perceptions, appreciations, and actions and makes possible the achievement of infinitely diversified tasks" (Bourdieu & Wacquant, 1992, p. 18). Individuals are not always aware of these matrixed interactions, but the interactions can become quite evident when conflicts exist. Lareau (2001) stated, "When the habitus of, for example, working-class families confronts the habitus of middle-class teachers, there can be conflicts. Families, particularly working-class families, can feel the 'weight' of the difference of dispositions" (p. 85).

College Readiness and Capital

Hossler and Gallagher (1987) proposed a commonly accepted model for understanding the college enrollment process, which was created to describe a three-stage process for college enrollment: (a) predisposition, (b) search, and (c) choice. Cates and Schaefle (2011) stated, "The predisposition phase involves students making the decision to pursue a college education" (p. 323), which is a critical first step to enrolling in college

(Perna, 2000a). Social capital consists of benefits that are accrued via social networks and relationships (Bordieu, 1986; 2001). These relationships contribute to the academic or financial success of an individual, and are deliberate and entrenched in our society. In 1977, Bourdieu and Passeron developed the idea of cultural capital, which consists of the "cultural symbols, skills, attitudes, dispositions, preferences, competencies, goals, formal knowledge, and behaviors that are required and rewarded in contexts, such as schools, to achieve academically or succeed professionally" (Bustamante et al., 2010, p. 5). It is beneficial for students to have the social networks and relationships as well as having an understanding of the cultural capital that is necessary to be college-ready (Cabrera et al., 2006; McDonough, 1997). Cabrera et al. (2006) concluded that social networks help to mold and inform college ambitions and background regarding what it means to be college ready (e.g., expected behaviors, financial preparation, admissions processes). Two significant student-level predictors of college enrollment are: (a) knowledge and information about college and (b) support of family (Perna, 2006). Wang, Haertel, and Walberg (1997) noted students' propensity to achieve is in direct proportion to their opportunities to learn. Consequently, if students do not have the access to the economic, social, or cultural capital necessary to achieve, their opportunities are diminished.

The lenses of cultural and social capital can help to illuminate differences in college-readiness rates between students enrolled in regular education classes and the three special needs demographic groups (i.e., economically disadvantaged, Limited English Proficient, and special education) included in this study. The argument being constructed in this study is that these special needs students encounter greater challenges in their opportunities to learn and, thus, achieve. In relation to Bourdieu's (1986) and Bourdieu and Passeron's (1977) theories of social and cultural capital, many researchers (e.g., Barnes & Slate, 2010; Bustamante et al., 2010; Cabrera et al., 2006; Contreras, 2005; Hong & Youngs, 2008; Lareau & Horvat, 1999; McDonough, 1997; Perna, 2000b) have used these theories to help conceptualize the challenges that these demographic groups encounter in achieving college readiness. Moreover, the ongoing perpetuation of these social and cultural norms results in generations repeating and reinforcing the same status quo. Barnes and Slate (2011) concluded, "lower socioeconomic, ethnically diverse students were at a disadvantage with students from middle- and upper-socioeconomic environments because of the cultural and economic capital disparities of their parents" (pp. 17-18). These findings are appalling, but not unexpected. The College Board (2009a) also calculated that the SAT critical-reading and mathematics tests revealed an average composite score of 866 for students from Texas whose parents did not graduate high school and an average composite score of 1,114 for students whose parents attained a master's degree. The College Board (2009a) attributed this 248-point differential to the increased cultural and social capital of the parents who had attained through the furtherance of their education by obtaining a master's degree.

CONCLUSION

In this review of the literature, an overview of college readiness in general as well as in relation to specific demographic groups was presented. Then, a discussion of college readiness was provided as it related to two exams (i.e., SAT and ACT) that are used to determine college readiness. An overview of Bourdieu's ideas on capital was

presented, as well as a discussion of the cultural reproduction of capital. Lastly, this article concluded with a section to tie together the concepts of college readiness, capital, and reproduction. Specifically included was a discussion of capital and reproduction as it related to the transition from high school to college and the challenges that various demographic groups face because of their lack of social or cultural capital.

This review of the literature highlights several issues with the current college-readiness standards. Primarily, determining that a student is fully prepared for college involves more than high-stakes testing and tracking GPAs; however, these methods are often chosen presumably because of their ease of administration. Second, the manner in which college readiness is approached brings to mind the quote that is of unknown authorship: No treatment is more unequal than the equal treatment of unequal people (unknown, n.d.). That is, educators often use the same methods to educate and test college readiness when not all learners are the same and, thus, have different needs regarding preparation for college. College-readiness is not one-size-fits-all (Barnes & Slate, 2013).

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AUTHOR BIOGRAPHIES

Dr. Jacob Chandler is the Associate Vice President of Enterprise Services at Sam Houston State University. He recently completed his doctoral degree in Educational Leadership at Sam Houston State University.

John R. Slate, Ph.D. is a Professor in the Department of Educational Leadership and Counseling at Sam Houston State University where he teaches basic and advanced statistics, academic and professional writing, and proposal courses. His research interests are in the use of state and national education databases for school improvement and reform efforts. Dr. Slate has published 7 books and more than 350 articles.

Dr. George W. Moore is an Associate Professor at Sam Houston State University where he teaches methods and leadership courses in the Master's and Doctoral programs in educational leadership program. He completed 30 years of service in K-12 education as a teacher and central office administrator. His research agenda includes Advanced Placement participation and performance, dual credit programs, and college readiness.

Wally Barnes, Ed.D. is Director of the Reading Center at Sam Houston State University where he teaches developmental reading classes. His research interests are in college readiness and developmental education issues.

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