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Community College Journal of Research and Practice

ISSN: 1066-8926 (Print) 1521-0413 (Online) Journal homepage: https://www.tandfonline.com/loi/ucjc20

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To cite this article: Angelica M. G. Palacios & J. Luke Wood (2016) Is Online Learning the Silver Bullet for Men of Color? An Institutional-Level Analysis of the California Community College System, Community College Journal of Research and Practice, 40:8, 643-655, DOI: 10.1080/10668926.2015.1087893

To link to this article: https://doi.org/10.1080/10668926.2015.1087893

COMMUNITY COLLEGE JOURNAL OF RESEARCH AND PRACTICE
2016, VOL. 40, NO. 8, 643–655
http://dx.doi.org/10.1080/10668926.2015.1087893

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Is Online Learning the Silver Bullet for Men of Color? An Institutional-level Analysis of the California Community College System

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ABSTRACT

The spread of online courses and programs in community colleges across the nation has contributed to a redefinition of open-access education. Accordingly, the growth in online courses has drawn attention to the value of different instructional modalities, particularly with regard to their effectiveness in learning, retention, and success. As a result, this study sought to determine whether or not there were differences in students' academic success and course retention for community college men by racial/ethnic affiliation. This study used institutional data on men enrolled in California's community college system to provide greater insight into the effect of online learning on student success. Findings illustrated that Asian, Black, Latino, and White men were more likely to have higher success outcomes when engaged in face-to-face modalities. There were no clear patterns in which online modality was better than others with regards to success, except for Black men. For these men, asynchronous with multimedia was identified as the second most effective online modality pertaining to success. This research has demonstrated the manifold benefits of face-to-face instruction. As such, face-to-face courses seemed to be the best type of modality for community college men. For that reason, careful consideration must be taken when promoting online learning to Asian, Black, Latino, and White men in community colleges. Though, further research is needed to better understand variation in the presentation of online learning materials and the structure of interactions within online classrooms.

The proliferation of online courses and programs in community colleges across the nation has contributed to a redefinition of open-access education. Online learning has enabled college leaders to expand the boundaries of their service regions (Hagedorn, 2014), and educate those students for whom a solely face-to-face instructional model is inhibitive (e.g., working students, students in remote areas, students with families). Moreover, in an era of increasing enrollment coupled with continuous declines in state funding allocations, college leaders and policymakers have advocated for online learning as an affordable way to serve more students (Xu & Jaggars, 2013). As such, several online instructional styles have emerged for online learning: for example, regular asynchronous (i.e., nonreal time), asynchronous with media (i.e., nonreal time with media), and synchronous styles (i.e., real-time virtual teaching).

The efficacy of online learning modalities has been regularly investigated and debated in the extant research. Such investigations have interpreted "success" in varying ways, examining course completion, student learning, and achievement (through course Grade Point Averages [GPA]) (Allen

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& Seaman, 2008; Cavus & Ibrahim, 2007; Howell, Laws, & Lindsay, 2004; Jahng, Krug, & Zhang, 2007; Liu, Gomez, Khan, & Yen, 2007; Moore, Bartkovich, Fetzner, & Ison, 2003). However, the results from prior research of student success in online courses have demonstrated complexities. Some research has shown that online students have lower course completion rates than their peers who have enrolled in face-to-face courses (Beatty-Guenter, 2003; Moore et al., 2003). This may be due to a series of factors, including more limited teacher-student interactions (Bambara, Harbour, Davies, & Athey, 2009); technological barriers; and the need for students to have higher levels of motivation (Liu et al., 2007).

Other research has demonstrated that students who complete online courses have course content acquisition that is equivalent to their face-to-face instruction (Jahng et al., 2007; Sitzmann, Kraiger, Stewart, & Wisher, 2006; Zhao, Lei, Yan, Lai, & Tan, 2005). However, a slightly revised perspective on learning acquisition emerged in a seminal evaluation of online courses conducted by Means, Toyama, Murphy, Bakia, and Jones (2009). They examined thousands of empirical studies conducted over online learning, which delimited the research to 51 studies that employed rigorous research designs. Their analysis of this literature determined students in online and partially online courses had a higher likelihood of achieving course learning outcomes than those in face-to-face instruction. Essentially, learning course content for online students may not necessarily translate to its equivalent in grades. For instance, using a randomized assignment process, Mentzer, Cryan, and Techlehaimanot (2007) examined course learning and grade outcomes for online and face-to-face students. They found that there was no significant difference in test scores between online and face-to-face learners. However, they found that online students were less likely to turn in their assignments, which resulted in lower course grades despite the similar test scores.

Fewer studies of online learning have been conducted that focus specifically on the community college context. However, two recent, large-scale studies have helped to re-conceptualize the benefits of online instruction for community college students. Xu and Jaggars (2011) examined course completion and grade outcomes for students enrolled in entry-level English and math courses across 23 Virginia colleges. Using multilevel, propensity score matching, it was found that students who participated in online courses had significantly lower course persistence rates and grades than their face-to-face peers. Expanding upon this work, Xu and Jaggars (2013) conducted a similar study focused on 34 public-2-year colleges in the state of Washington. Their 2013 study produced similar results, demonstrating the negative effect of online instruction for community college students. These findings are particularly salient given that students taking online courses in community colleges are more likely to have computer proficiency (Harrell & Bower, 2011) and to be college-ready (not needing remediation) than those who take face-to-face courses (Jaggars & Di Xu, 2010). In both cases, Xu and Jaggars (2011, 2013) attributed their findings to the unique demographics of community college students who often work, are academically underprepared, first-generation, and have familial responsibilities.

Purpose of the study

Despite the increasing research on online learning, several core limitations of extant studies have been identified. Jaggars and Bailey (2010) have noted that one critical linchpin in the literature on online learning is the inadequate attention to different types of instructional models. For example, they noted that research studies have prioritized comparisons between face-to-face and asynchronous (i.e., nonreal time learning), often ignoring the existence of hybrid (mixed online and face-to-face) and synchronous (i.e., real-time) modalities. Jaggars and Bailey also noted that many studies employed very limited sample sizes, have been conducted with well-prepared students at 4-year colleges and universities, and have not been attentive to historically under-represented and underserved students (e.g., students of color, low-income students, and those who are academically underprepared). Many studies of online teaching (due to limited sample sizes) avoided the level of disaggregation necessary to determine whether online instruction has

the same effect on outcomes for specific population subgroups. For instance, prior research has shown that online environments produce more favorable learning conditions for women than men (Sullivan, 2001; Young & McSporran, 2001) who benefit from greater perceptions of teacher support, student-to-student interaction, collaboration, and relevancy of the course content in online courses (Ashong & Commander, 2012). This raises the importance of conducting research to better understand the differential experiences of men in online learning. While some researchers have examined racial/ethnic group differences in the perceptions of online environments (Rockinson-Szapkiw, Dunn, & David, 2010), few studies have investigated student outcome differences for men based on racial/ethnic affiliation in the community college. This notion points to the importance of this study, which has sought to determine whether or not there are differences by racial/ethnic affiliation in students' academic success and course retention for community college men. This study employed institutional-level data on men enrolled in California's community college system to provide greater insight into the effect of online learning as a result of course modality on student success. This research contributes to the litany of studies in this area by exploring whether or not there are differences in male students' academic success and course retention in the community college based on course type. Ultimately, the researchers' purpose is to explicitly underscore findings that are associated with student success so that academic outcomes could be improved for men. Given this manuscript's analysis on men enrolled in community college, the next section addresses the necessity for this focus.

Men in the community college

Across the nation, colleges and universities have focused their efforts (e.g., programs, policies, practices) on improving student success outcomes for men (Buchmann & DiPrete, 2006). These efforts are spawned by student outcomes data, which demonstrate that women out-enroll and outperform their male counterparts (Buchmann, DiPrete, & McDaniel, 2007; DiPrete & Buchmann, 2006). In the community college, much of the concern on male student outcomes has centered on men of color. This has resulted in an increase of minority male initiatives and programs focused on enhancing student success outcomes for historically underserved men of color (e.g., Black, Latino, Native American, Pacific Islander, and Southeast Asian men) (Harris III & Wood, 2013). The studies noted below, which have underscored the group differences among male student outcomes, illustrate why this particular topic has received national attention.

Nationally, in a 6-year time frame, 30.2% and 32.1% of Latino and Black men will earn a certificate, degree, or transfer from a community college to a 4-year university. In contrast, 43.4% and 39.8% of Asian and White men are able to accomplish these markers of success within the same time frame (Wood, Harris III, & Xiong, 2014). In the state of California, while Latino and Black men have higher 6-year completion rates than the national average at 38.1% and 38.6%, respectively, the gaps between these men and their Asian and White peers are more pronounced. Specifically, 65.1% and 51.9% of Asian and White men will complete their goals within 6-years. The diversity in California's community colleges also allows for a more nuanced understanding of outcomes for other underrepresented men of color, demonstrating that Native American and Pacific Islander men also experience low completions rates at 37.8% for both groups (Wood & Harris III, 2014).

A series of prior studies have examined factors influencing the outcomes for men and men of color in the community college (e.g., Alvarez, 2014; Bush & Bush, 2010; Flowers, 2006; Glenn, 2003; Harper, 2009; Harris & Wood, 2013; Harrison & Palacios, 2014; Mason, 1998; Palacios, 2014; Perrakis, 2008; Sáenz, Bukoski, Lu, & Rodriguez, 2013; Vasquez, 2012; Wood & Harris III, 2013; Wood & Ireland, 2014; Wood, 2014). Holistically, these studies have demonstrated the importance of campus climates and cultures that affirm, validation, authentic caring, and value diversity. Such environments have been shown to foster healthy noncognitive outcomes (e.g., focus on school, confidence in academic abilities, value of school), and as a

result, promote student success (e.g., persistence, achievement, attainment, transfer) (Alvarez, 2014; Bauer, 2014; Guaracha, 2014; Harrison & Palacios, 2014; Heineman, 2014; Palacios, 2014). Accordingly, not only is maintaining a healthy campus climate one primary factor for sustaining minority male success; research has also demonstrated that other contributing factors to academic success are associated with environmental pressures and masculine identity. Many institutions do not account for men's personal environmental pressures and male identity when making connections to the impact campus climate could have on academics. While environmental pressures do not directly influence campus climate, as do masculine identity and the interactions between faculty and staff; the environment does influence the way men will interpret their campus climate.

Several studies have illustrated the role of environmental pressures on student success (Guaracha, 2014; Harris III & Wood, 2013; Mason, 1998; Wood & Williams, 2013). Environmental pressures refer to factors outside of college that affect students' success inside of college. Common examples of environmental pressures include work, familial obligations, stressful life events, and transportation concerns. However, as noted by Harris III and Wood (2013), effecting changes on environmental pressures is often difficult for colleges, as these factors often fall outside the institution's realm of control. Moreover, research from Wood, Newman, and Harris III (2014) demonstrated that campus ethos factors account for two to three times the variance (across racial/ethnic groups) in student effort placed in school than do environmental pressures and background characteristics combined.

Another line of inquiry has addressed the role of identity on male student success, with a focus on masculine, racial, and spiritual identities (Gardenhire-Crooks, Collado, Martin, & Castro, 2010; Harris III & Harper, 2008; Sáenz et al., 2013; Wood & Essien-Wood, 2012; Wood & Hilton, 2012; Wood, 2014). While these studies have shown the role that positive regard towards one's own race and spiritual commitments play in student achievement; much of this work was centered on masculine identity. For example, Harris III and Harper (2008) have shown that men who seek-out help perceive school as a domain equally suited for men and women; and they view breadwinning as a responsibility that should be shared by men and women. These men were more likely to succeed in community college. Similarly, Sáenz et al. (2013) conducted a phenomenological study of Latino men in the Texas community college system. They found that some men were reluctant to seek out help for fear that doing so would contradict masculine notions of pride and control. They also affirmed the role that expectations of men to serve as breadwinner have on students' continuation in school, noting that pressure to assume this role led some men to leave college prematurely.

Finally and most relevant to this current study, the body of research on men of color in community college has also explored the influence of faculty-student interactions on student success and how these interactions have had an impact on men's interpretation of their campus climate (Bush & Bush, 2010; Flowers, 2006; Wood & Ireland, 2014; Wood & Turner, 2010; Wood, 2014). For instance, Wood (2014) has shown that Black men expressed an apprehension to engage in the classroom with faculty. Students' apprehension to engage was attributed to faculty members' perceptions of these men as academically unintelligent. Specifically, students noted that faculty members perceived them as "dumb," "ignorant," and "stupid." These perceptions aligned with general stereotypical perceptions of Black men in wider society. As noted by Wood (2014), heightened perceptions of stereotypes in the classroom resulted in students' withdrawing their active and collaborative engagement in class as a protective mechanism against extant stereotypes. This is a concerning finding, given results from Bush and Bush's (2010) mixed methods study on Black males in a California community college that showed faculty-student engagement was a strong predictor of Black male persistence, achievement (operationalized via GPA), and transfer to a 4-year college. However, other studies have also shown the existence of racism and prejudice towards men of color. For example, Gardenhire-Crooks et al. (2010) conducted interviews and focus groups with 87 men from Black, Latino, and Native American backgrounds in the southeastern and southwestern United States. They noted that men experienced racism and stereotypes across groups. In particular, they

reported that participants "routinely experienced stereotypical attitudes that linked them to thuggery and violence, among many other negative associations," as their "very existence made them suspect in the eyes of some" (p. 21). Thus, feelings of an unhealthy campus climate were very much prevalent within these excerpts.

Bearing the aforementioned points in mind, it could be hypothesized that online course enrollment options may present a more fair environment for men of color, particularly in environments that are asynchronous (nonreal time), as their identities may be less apparent to course faculty. In essence, this *virtual veil* could conceivably enable men of color to engage course material, interact with faculty, and collaborate with students in a manner where their racial/ethnic and gender identities were less salient to others. In contrast, research has also demonstrated that relationships with men of color are the most important feature when interacting with faculty. Specifically, Wood, Harris III, and White (2015) collected data from faculty who had a successful track record of working with men of color. They found that effective pedagogy was integral to student success but was a secondary consideration. They noted that personal relationships typified by trust, mutual respect, and authentic care were necessary and were primary conditions that foregrounded effective pedagogy. In essence, they noted that relationships with men of color were more important to their success than the actual pedagogy employed in the classroom. Such findings illuminated the importance of personal relationships that may be easier to develop and maintain in face-to-face teaching environments. Possibly, the notion of *relationships before pedagogy* demonstrates that face-to-face teaching environments may be more beneficial for men of color than online courses.

Guided by these two contrasting notions of the virtual veil and relationships before pedagogy, this exploratory study sought to determine whether online teaching modalities (e.g., synchronous, asynchronous) or face-to-face instruction may result in better academic success and course retention rates for men of color. As such, the research question for this study was this: Are there differences by racial/ethnic affiliation and course modality in students' academic success and course retention for community college men? The researchers of this study hypothesized that online course types, particularly asynchronous courses, would be most beneficial to White men and men of color. Thus, the researchers predicted that the null hypothesis would be rejected. The next section provides an overview of the methodological procedures employed in examining the efficacy of these instructional modalities.

Methods

Data from this study drew from the California Community Colleges Chancellor's Office website via the management information systems commonly known as Data Mart. Data Mart reports on students/headcounts, student services, faculty and staff, courses/calendar, and outcomes. Particular to the data retrieved from this site, data were obtained from the outcomes section of the database, which reports on student outcomes with regard to enrollment and programs. The sample size was not actually an unduplicated figure, as the Data Mart figures account for multiple courses and repeats, which substantially elevate the student count. The demographic breakdown of this dataset was also available. Data collected were on credit-course retention and success rates. This data represented 3,936,284 students sampled in 112 community colleges in California (N = 3,936,284). This study examined whether or not there were differences in students' course retention and academic success for community college men by type of course modality, racial/ethnic affiliation, and the interaction of these factors. The courses examined within the data were distinguished solely by course type. No mention of course name was made available through the data definition glossary other than that the courses were "an organized pattern of instruction on a specified subject offered by a community college pursuant to subdivisions (a), (b), or (c) of section 55002" (CCCC Data Mart). Course retention was defined, by the rate at which students completed courses and did not drop or withdraw from them. With regard to "course success," this variable was defined, by the rate at which students completed courses with a grade of P (pass) or with a C grade or better.

Given the purpose of the study, the data was delimited to Asian, Black, Latino, and White men creating a new sample size of 1,771,203 men (n = 1,771,203). The category for Asian includes all Asian subcategories except Filipino and Pacific Islander. This can shield outcome differences experienced by historically underserved Asian students such as Southeast Asians. Due to the data collection methods drawn from the California Community Colleges Chancellor's Office, Hispanic was used to classify all subethnicities of Latino groups under this umbrella. However, the researchers have chosen to employ the term Latino instead.

The factors for course modalities had four levels, which were categorized as *regular asynchronous, face-to-face, synchronous*, and *asynchronous with media*. The modality for regular asynchronous consisted of delayed interaction or Internet-based teaching. Face-to-face refers to classroom teaching that occurred in real time. Synchronous teaching also occurred in real time; however, the learning took place via Internet or was a two-way interactive modality using video and audio. Lastly, asynchronous with media refers to the modality that was not in real time but included media, such as video, cassette, newspaper, correspondence, one-way interactive video and two-way interactive audio, audio one-way, and delayed instruction. Course retention and academic success rates were calculated using fall 2013 data. Prior to statistical analyses, solely ethnic categories per college with sample sizes larger than 25 were retained.

Two factorial analyses of variance (factorial ANOVAs) were employed to analyze the dataset. Factorial ANOVAs examined mean score differences across two or more factors on a single dependent variable (Mertler & Vannatta, 2010). Factorial ANOVA is used when researchers want to consider the effect of more than one factor. However, prior to employing the analysis, tests of normal assumptions must be met. Tests of normal assumptions must be on par with that of analysis of variance (e.g., normality, homogeneity of variance), and such tests must also satisfy the homogeneity of slopes assumption. Effect sizes were interpreted using partial eta squared (partial n^2) and R^2 for the full factorial model. Partial eta effect sizes of .01, .06, and .14 were interpreted as small, medium, and large, respectively (as suggested by Green & Salkind, 2009). Bonferroni corrections for post hoc comparisons were employed to limit the likelihood of Type I errors. All tests were measured at .05.

Methodological limitations

This study, as are many, is not without limitations. As mentioned earlier, Jaggars and Bailey (2010) noted that studies that have explored online instruction have employed very limited sample sizes. While the present study has included a rather large sample size, it did not control for college type, college size, or geographical setting. This could potentially pose a problem because—depending upon the geographic area or predominant demographic of the college—schools are prone to having academic achievement rates that vary from one another. The differences that exist as a result of these points could potentially skew data findings. The next section presents the results from this study.

Findings

Retention

The main effect for race was significant, $F = 15.50$, $p = < .001$. The partial eta indicated that race accounted for 41.2% of the variance in the outcome. The main effect for modality was also significant, $F = 137.08$, $p = < .001$. The partial eta indicated that modality accounted for 31.4% of the variance. The effect sizes for race and modality were very large. The interaction effect for race and modality (RACE*MODALITY) on the outcome was also significant, $F = 3.9$, $p = < .001$. The partial eta indicated that the interaction accounted for 3.8% of the variance in the outcome, which is a small effect size. The total model, in consideration of the two main effects and interaction effect, accounted for 41% of the variance in the outcome as indicated by R^2.

Retention main effect

Pairwise comparisons for race indicated five significant differences across the factor. Black men had lower mean scores than Asian (by −.068 points, $p = < .001$), Latino (by −.035 points, $p = < .01$), and White men (by −.058 points, $p = < .001$). Asian men had higher mean scores than Latino men (.033 points, $p = < .01$), and Latino men had lower mean scores than White men (by −.022 points, $p = < .05$). Pairwise comparisons for modality indicated three significant differences across the factor for retention. Students who enrolled in face-to-face courses had higher mean scores than regular asynchronous (by .081 points), synchronous (by .061 points), and asynchronous with media modality (by .052 points). These findings were significant at $p = < .001$.

Retention interaction effects

In terms of the interaction between race and modality on success, there were 11 significant comparisons identified. White men enrolled in face-to-face courses had higher mean scores than regular asynchronous (by .064 points, $p = < .001$), synchronous (by .061 points, $p = < .001$), and asynchronous with media (by .055 points, $p = < .05$). Asian men also had higher scores in face-to-face courses than regular asynchronous (by .060 points, $p = < .001$), and synchronous instruction (by .057 points, $p = < .05$). Black students with modality "asynchronous with media" had higher mean scores than regular asynchronous (by .070 points, $p = < .05$). However, face-to-face courses had higher mean scores than both regular asynchronous (by .108 points) and synchronous (by .101 points) for this group. These were both significant at $p = < .001$. Lastly, Latino students enrolled in synchronous courses had higher mean scores than those men enrolled in regular asynchronous instruction (by .065 points, $p = < .001$). However, yet again face-to-face courses had higher scores than regular asynchronous (by .090 points, $p = < .001$) and asynchronous with media modality (by .068 points, $p = < .01$). This interaction is depicted in **Figure1**.

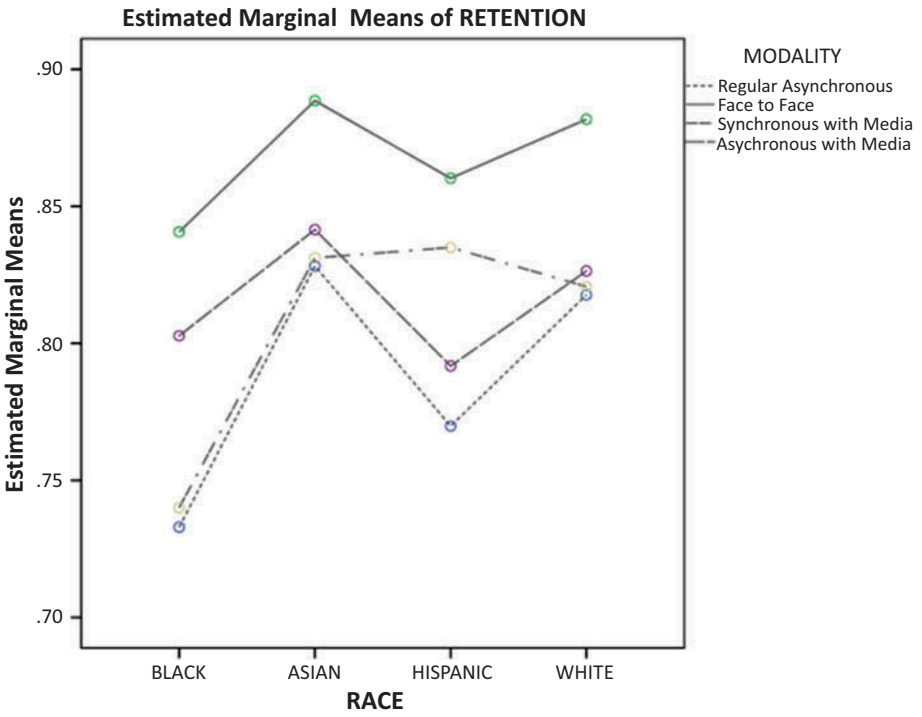

Figure 1. Course retention outcomes for community college men.

Success

The main effect for race was significant, $F = 87.4$, $p = < .001$. The partial eta indicated that race accounted for 22.6% of the variance in the outcome. With regard to modality, the main effect was significant, $F = 192.7$, $p = < .001$. The partial eta indicated that modality accounted for 39.1% of the variance in the outcome. The effect sizes for race and modality were large. The interaction effect for race and modality (RACE*MODALITY) on the outcome was also significant, $F = 7.5$, $p = < .001$. The partial eta indicated that the interaction accounted for 7% of the variance, which is a medium effect size. The total model, in consideration of the two main effects and interaction effect, accounted for 64% of the variance in the outcome as indicated by R^2.

Success main effect

Pairwise comparisons for race indicated six significant differences across the factor. Black men had lower mean scores than Asian (by –.199 points), Latino (by –.081 points), and White male students (by -.166 points). Latino men had lower mean scores than White men (by -.084 points). However, Asian men had higher mean scores than both Latino (by .118 points) and White students (by .034 points). All differences were significant, $p = < .001$. Pairwise comparisons for modality indicated three significant differences across the factor. Face-to-face instruction had higher mean scores than regular asynchronous (by .116 points, $p = < .001$), synchronous (by .129 points, $p = < .001$), and asynchronous with media courses (by .114 points, $p = < .001$).

Success interaction effects

In terms of the interaction between race and modality on success, there were 13 significant comparisons identified. Asian men enrolled in face-to-face courses had higher mean scores than regular asynchronous (by .077 points, $p = < .001$), synchronous (by .086 points, $p = < .01$), and asynchronous with media (by .105 points, $p = < .01$) instruction. Similarly, Latino and White men also were found to have higher scores than regular asynchronous, synchronous, and asynchronous with media modality. All differences were significant at $p = < .001$. Black men enrolled in asynchronous with media courses, were found to have higher scores than regular asynchronous (by .100 points, $p = < .01$), and synchronous instruction (by .120 points, $p = < .05$). Though face-to-face learning was found to have higher mean scores than regular asynchronous (by .180 points), and synchronous learning (by .200 points). These findings were significant at $p = < .001$. This interaction is depicted in Figure 2.

Discussion

This study set out to explore whether or not there were differences by racial/ethnic affiliation in students' academic success and course retention for community college men. Specifically, success and retention outcomes were examined for four-types of instruction (e.g., face-to-face, synchronous, regular asynchronous, asynchronous with media). Two factorial ANOVAs were employed for this study, which examined each of the outcomes noted above. Retention outcomes with regard to race indicated that both Asian and White men had higher retention scores than Black and Latino men, while Black men were less likely to have higher retention scores than White, Asian, and Latino men. With respect to modality type, face-to-face instruction was associated with higher scores than synchronous, regular asynchronous, and asynchronous with media modalities. The interaction between race and modality signified that for each of the men (i.e., Black, Asian, Latino, White), face-to-face modality had higher retention scores than all other types of modality. Similarly, when analyses of success outcomes were employed, the factorial ANOVA revealed parallel results to that of retention findings.

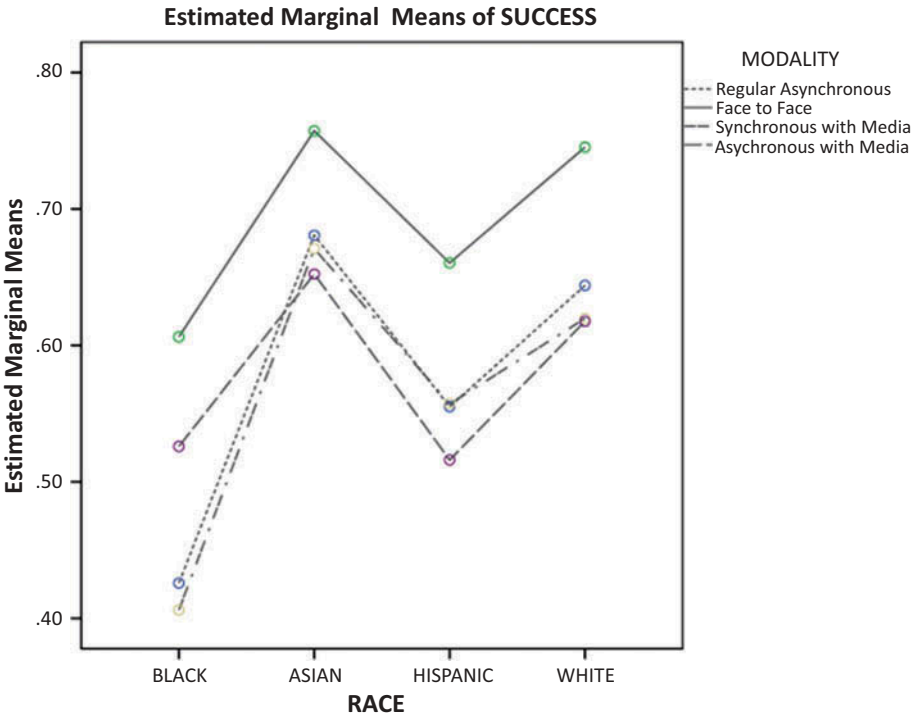

Figure 2. Course success outcomes for community college men.

Success outcomes across race were similar to retention outcomes with White and Asian men having higher success scores than both Black and Latino men. Black men had lower success scores than their Asian, Latino, and White male peers. In terms of modality type, face-to-face instruction repeatedly resulted in higher success rates than any other type of modality. As far as the interaction between race and modality on success, findings illustrated that Asian, Black, Latino, and White men were more likely to have higher success outcomes when engaged in face-to-face modalities. In fact, face-to-face modality resulted in significantly higher success outcomes than synchronous, regular asynchronous, and asynchronous with media modality for Asian, Latino, and White men. While face-to-face courses were noted as being the most beneficial to White men and men of color when it came to success, the most beneficial online course type noted was unclear. Although for Black men, asynchronous with media courses were the next beneficial mode of instruction when it came to success. Nonetheless, as indicated through the results of each factorial ANOVA, it is evident that course success and retention rates were higher for students participating in face-to-face instruction. Simply put, face-to-face modality resulted in higher scores than any other modality for White, Latino, Asian, and Black male students for both success and retention outcomes.

However, not all prior studies support the findings of this study. As noted previously, Means et al.'s (2009) meta-analysis of online learning found that students that took all or part of their courses online generally performed better than those who took face-to-face classes. In addition, they found that data on combined instruction modalities were associated with greater learning than face-to-face instruction. Nonetheless, the meta-analysis posed by Means et al. suggested that forms of online learning proved to have better performance outcomes than face-to-face instruction. Other scholars have also argued that online learning is an effective modality as compared to traditional teaching styles (Perry & Pilati, 2011).

Clearly, these findings differ from that elicited from this study, which found that face-to-face instruction had an intensified benefit for community college men. Possibly this has to do with the population of students examined. For instance, the meta-synthesis by Means et al. (2009) included findings from community college, university, and graduate men and women. Thus, the study may not have been attentive to nuances specific to community college men. These men, like other community college students, differ greatly from their 4-year counterparts typically being older, married, having dependents, and having more limited pre-K–12 preparation for college (Wood, 2013). Moreover, research on men of color in community college has demonstrated the need for personal relationships between faculty and students. In fact, findings on promising teaching practices for men of color from Wood et al. (2015) documented that personal relationships typified by trust, mutual respect, and authentic care are necessary preconditions for effective teaching. Thus, face-to-face modality presents a venue where such interactions are most likely to occur, and therefore, support the findings of this research noting favorable outcomes for men enrolled in face-to-face courses.

Accordingly, Larreamendy-Joerns and Leinhardt (2006) posit that classroom dialogue is paramount to the discussions that classroom teachers pose, which is uniquely embodied by the way classroom instructors choose to convey ideas about posed topics—something that is absent from online learning. This suggests that a critical element to the teaching experience is missing, and that learning modalities should implement other forms of learning in order to compensate for critical components of face-to-face teaching that would otherwise be missed via online learning modalities. Moreover, the differences that exist among students' learning must be taken into account when developing online courses. Larreamendy-Joerns and Leinhardt (2006) particularly addressed learning differences in light of supporting students who need additional learning opportunities to stay on course for academic success.

This study determined that face-to-face was the most effective modality for all men. However, for most groups, as mentioned, there were no clear patterns in which online modality was better than others with regard to success, except for Black men. For these men, asynchronous with multimedia was identified as the second most effective online modality pertaining to success. To some degree, this finding is explainable by findings from Larreamendy-Joerns and Leinhardt (2006). They argued that multimedia helps to restore the face-to-face interaction in order to compensate for the classroom interactions that distance education lacks.

Recommendations and conclusion

This research has demonstrated the manifold benefits of face-to-face instruction for course retention and academic success. The findings underscored both success and retention outcomes were among the highest when men enrolled in face-to face instruction. Thus, preference should be given to face-to-face learning opportunities for all men, particularly men of color. Moreover, given the benefit of face-to-face interactions, practitioners may consider whether hybrid teaching modalities enable students to benefit from the enhanced access posed by online learning, while also reaping the interaction opportunities afforded to those in face-to-face teaching models. However, given that hybrid models were not examined in this study, further research is needed to examine outcomes associated with this modality for men and men of color in community colleges.

While this research focused on men within specific ethnic groups, this research did not disaggregate by ethnic subgroup. For example, there may be variation in ethnic group academic success and course retention outcomes by age; income status; first-generation status; whether students have external commitments (e.g., dependents, employment); and other factors that may shape students' engagement in online learning. Specifically, researchers should investigate factors that inhibit students' opportunities (e.g., life pressures, technology access, student backgrounds) to engage in online courses. Thus, further research is needed to explore specific group characteristics to identify nuances that may enable some students to benefit from online learning modalities in ways that are not significantly different from that of the benefits reaped by their face-to-face peers. Moreover,

research is also needed to explore the manner in which online learning is delivered by modality type. It is possible that the platform itself results in very different teaching approaches, some of which may be beneficial for student success and others that may not. As such, more research is needed to better understand variation in the presentation of online learning materials and the structure of interactions within online classrooms.

In sum, online courses have been in existence since the mid 1990s. The rise in online education has undoubtedly reflected its popularity (Allen & Seaman, 2010). The growth in online learning has drawn attention to the value of different learning modalities, particularly with regard to their effectiveness in learning, retention, and success. Ultimately, this study has shown that face-to-face learning seems to be the best type of modality for community college men. This calls in to question whether online learning is truly the silver bullet for men of color. Findings from this research have substantially demonstrated that it is not. For that reason, careful consideration must be taken when promoting online courses to Asian, Black, Latino, and White men in community college.

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