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Academic Supports Preferred by Academically Struggling African American Students at a Predominantly White University

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Academic Supports Preferred by Academically Struggling African American Students

at a

Predominantly White University

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Abstract

Academic supports offered by Predominately White Institutions (PWIs) meet the needs of individuals who achieve standards such as high grade point averages and high standardized test scores, and who can negotiate traditional college institutions. Evidence indicates that retention and graduation rates for underrepresented minority students may be lower in comparison to White peers at the same institutions. Observations indicated that academic supports offered by a Midwestern PWI, may not provide the services preferred by African American students who struggle academically in two colleges, the College of Education and the College of Nursing.

A mixed-methods design was used to determine what academic supports were known and being used by academically struggling African American students at a PWI. Survey questions and interviews focused on gaining understandings of student preferences for academic supports in a population of academically struggling African American students.

These results may be used to design academic supports for struggling African American students and may be generalized to PWIs of similar demographics and socio-cultural settings. Application of the results to academic support design may improve retention and graduation rates for this student group. Students requested increased interaction with faculty, late night or 24-hour tutoring services, assistance with time management, more social media to assist with reminders about assignments and class projects, and assistance with technology and online classes. Some differences were noted between what was recorded in the literature and the results of this study in the areas of study groups, same ethnicity faculty, group membership and mentoring.

Key words: academic supports, retention, retention of African American students, Predominately White Institution, academically struggling, African American, student expectations of faculty, non-traditional student

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Introduction

Introduction to the Problem

Not all students arrive at college prepared for the rigor of coursework. Bettinger, Boatman and Long (2013) have estimated that only one third of college freshman who enter college in the United States are prepared for success, and fewer than 60% of these students graduate in six years (Bettinger, Boatman & Long, 2013). Both of these estimates are even lower for older, non-traditional students. A study by Reid and Moore (2008) identified gaps between high school and college education. “...Many low-income and ethnic minority students are two years behind [academically] by the end of 4th grade, three years behind in reading and math by the end of 8th grade, and four years behind if they reach 12th grade” (Reid & Moore, 2008, p. 259). Even with high GPAs in high school, students stated they required more experience with computer technology, adjustment to increased class sizes, more academic rigor, and adaptation to transitioning to the college course work of notetaking followed by exams, rather than homework assignments every night (Reid & Moore, 2008). From 2000 to 2014, African American undergraduate enrollment in degree granting institutions increased by 57%, from 1.5 million to 2.4 million. White undergraduate enrollment increased 7% in the same period, from 9 million to 9.6 million (Kena, G., Hussar, W., McFarland, J., de Brey, C., Musu-Gillette, L., Wang, X., ... & Barmer, A., 2016). While African American students are enrolling in college at higher rates than in previous years (U. S. Department of Education, 2009), they have not achieved the same level of academic success as White college students (American Council on Education, 2010).

Universities frequently offer academic support services to improve or further

the necessary skills for students to perform well academically. Academic supports are defined as programs or tools designed to improve academic performance and retention (Creighton, 2007). Students who utilize academic and remedial supports improve their attitudes towards persistence and develop the academic skills required to stay in college (Bettinger et al., 2013).

Data from a Midwestern university, City University, indicates students most at risk for poor performance and failure to complete degrees include underrepresented minority students, particularly African American students (City University Database Reports, 2015-2016) and not all students take advantage of academic support services offered by a university. The college persistence gap is even wider between minority students when they are enrolled in Predominantly White Institutions (PWIs) (Matthews, 2010).

Numerous academic support delivery methods and remediation strategies have been attempted at community and four-year colleges, including learning communities, summer bridge programs, counseling, tutoring, early alert systems, and remedial courses. These delivery methods and supports may be useful at PWIs, but may not meet the needs of underrepresented and non-traditional students (Creighton, 2007; Guiffrida, 2006; Matthews, 2010). When students do utilize the supports, measured improvements in retention and graduation vary across institutions, student backgrounds, socio-economic status (SES), obligations beyond school, gender and age, and ethnicities. Although results are mixed, higher SES students, women, older students and White students from suburban high schools appear to benefit the most from delivery models most often adopted by all types of institutions, such as remedial courses, lab-based tutoring, and

first-year experience courses (Baker & Bettinger, 2011; Bettinger & Long, 2009; Lotkowski, Robbins, & Noeth, 2004). Institutions must identify each subgroup served by their university and design academic and remedial supports for these specific populations (Bettinger et al., 2013; Crieghton, 2007; Lomotey, 1990; Lotkowski et al., 2004). Providing supports appropriate to the academic needs and sensitive to the external factors present in the lives of minority and non-traditional students can assist with development of academic confidence and persistence to goals (Akos & Kretchmer, 2017).

Practices used at City University for retaining students during their first year of college or first year of transfer from community college to university include: 1) faculty use of an early alert system to notify students of their progress or lack of progress during the first four to six weeks of the semester; 2) advisor meetings with students throughout the semester to discuss any problems; and 3) support resources such as peer tutoring, mentoring, counseling services, multicultural student services, support groups, study groups, and math and writing labs to encourage student success (City University Admission and Retention Report, 2016).

In 2016, the Writing Lab at City University offered tutoring for written assignments, term papers and other writing assistance by paid students and was available by appointment and for walk-in appointments as tutors was available. The Math Lab offered the same model for students experiencing difficulties with math, statistics and other math-related courses. Both labs were open from 10:00 AM until 7:00 PM Mondays through Thursday, and had limited hours Friday and Sunday, and were closed on Saturdays. In 2016, the Net Tutor service was a national online service contracted by the university to provide on-demand tutoring in specified subject categories with hours

Tuesday through Thursday 9:00 AM until 11:00 PM, with more limited hours on Friday and Sunday, and closed on Saturday. Net Tutor communicated with students via computer keyboard. Students were placed in an online queue when they contacted Net Tutor and assistance was provided in the order of calls received. The supports offered by Multicultural Student Services were designed to meet the needs of African American students at this PWI as defined in the literature (Bridges, Cambridge, Kuh, & Leegwater, 2005; Hollands, 2012; Kangas, 1993; Kobrak, 1992). Multicultural Student Services offered tutoring, support groups, and mentors in 2016, primarily for scholarship recipients, but was available to assist other students as appointment times allowed. Another support offered was university-sponsored study groups. These groups were formed periodically to meet preparation needs for College of Education (COE) and College of Nursing (CON) state licensure exams as well as specific course demands. Student tutors and mentors were paid for their services.

The researchers, a retention coordinator for the COE, and the other, a faculty member in the CON, observed that many academically struggling African American students were not utilizing academic support services. Withdrawal surveys from the COE at City University also indicated that students were not utilizing academic support services (Meadows, 2016).

Bowen and Bok in “Shape of the River” (1989) encouraged universities to investigate the impact of culture and personal conditions for students on learning and on the programs designed to support learning. Reasons identified for withdrawal from college included tuition costs, lack of financial assistance, lack of feedback on academic performance, inadequate academic supports to meet student needs, lack of advising and

inadequate support for students (Bowen & Bok, 1989). They stated while many students leave college because of poor academic performance, there are other factors that may influence withdrawal from colleges:

Most students who fail to graduate do not drop out because they were incapable of meeting academic requirements. They leave for many other reasons. Inability to do the academic work is often much less important than loss of motivation, dissatisfaction with campus life, changing career interests, family problems, financial difficulties, and poor healthThe ordinary kind of exit interviews are unable to tell the full story. (Bowen & Bok, 1989, p. 55)

Statement of the Problem

Predominantly White Institutions such as City University have made progress in recruiting and admitting minority students, but minority students are still underrepresented at PWIs and graduate at lower rates than White students (Lomotey, 1990). African American students were 9% of the incoming undergraduates at this Midwestern University in fall of 2000, and were 15% of the incoming undergraduates in fall of 2016, an increase of 6 points. Retention and graduation rates, however, illustrate the continuing gap in completion between African American students and White students. White students had a first year retention rate of 81%, compared to 71% for African American students in 2016. The 2016 six-year graduation rates at City University, or retention to completion of degree in six years, was 63% for White students, but only 40% for African American students. This represents a 23 point gap in graduation rates (City University Database Report, 2016).

Many PWIs such as City University have made efforts to adjust traditional academic support systems to the cultural, academic learning, and lifestyle differences of African American students. Many universities, especially PWIs, might improve completion rates by focusing on special circumstances affecting retention, such as dependence on community, financial stressors, and the frequently cited need to disconnect from family and friends in order to succeed in college (Creighton, 2007; Guiffrida, 2006, Tinto, 1993). Predominantly White Institutions continue to offer the academic, faculty/instructional and social supports utilized and preferred by White, middle class college students (Matthews, 2010). The PWI model best serves individuals who meet standards such as high grade point averages and high standardized test scores, and who can negotiate White-established traditional institutions. These students can self-advocate for assistance, can utilize established academic support systems, and can afford to pay for the cost of education (Benton, 2001).

African American students often find it difficult to separate from family structures and frequently maintain home obligations while in college. African American students are frequently first generation college students, and family values and external obligations can present complications to fulfilling the expectations of the institution. According to Dennis, Phinney, and Chuateco (2005) in *The Role of Motivation, Parental Support, and Peer Support in the Academic Success of Ethnic Minority First-Generation College Students*, “If these students are from ethnic minority backgrounds as well, they face additional challenges. For example, students from cultural backgrounds emphasizing family interdependence may be expected to fulfill obligations to the family that conflict with college responsibilities” (Dennis et al., 2005, p. 223). It was observed

by Matthews (2010) that African American students felt socially disconnected from these colleges that did not provide a connection with their culture (Matthews, 2010).

Annette Lareau (2002) identified differences in childrearing and family life between working class and middle class families that prepare children differently for coping with adult authority and institutions. Middle class children are encouraged through relaxed boundaries between children and adults to practice reasoning and negotiation skills, as well as independent action and verbal self-advocacy. Working class families establish more limits for interactions between children and adults and issue more directives, and children are seen as subordinate to adults. These interactions with adults are often limited to relatives. African American college students are frequently from working class families. All non-traditional students, regardless of race, may exhibit difficulties and role confusion dealing with teachers, financial offices, and institutionalized authorities where they are suddenly expected to use skills that are more often better developed in White, middle class children.

Universities wishing to increase the retention rates for African Americans and minorities must address these issues as a framework to develop academic supports and faculty training and provide an environment for success, including defining the cultural and academic needs of these students as they differ from the predominately White middle class students. City University is a commuter campus and has many non-traditional students of all ethnicities who travel significant commuting distances from the university, are married, work full-time jobs, and have families. Returning to campus for support services is an option for full-time or part-time commuter students, but one that is not likely to be chosen due to time constraints traveling to and from campus. City

University's student withdrawal surveys reveal a significant number of COE students who dropped all courses in May 2015 through September 2016 also worked more than 20 hours per week, impacting their ability to utilize on-campus academic resources. Students in this group also indicated that family, personal, and work issues were the primary reason for withdrawal, followed closely by financial concerns. Not one of these students reported visiting with a professor or an advisor before withdrawing and only 4% utilized any academic support (Meadows, 2015 and 2016).

The literature identified four successful models for increasing retention rates of minority and African American students at PWIs. The four models are: Building Engagement and Attainment of Minority Students (BEAMS) (Bridges, Cambridge, Kuh & Leegwater, 2005), African-American First Investment Return Model (AFIRM) (Kangas, 1993), Louis Stokes Learning Community (Hollands, 2012), and Students Taking Advantages of Resources (STAR) from the Division of Minority Affairs at the Western Michigan University (Kobrak, 1992). These models have in common strong social supports, networks and associations, faculty mentoring and active instruction, peer collaboration, institutional support for diversity and self-esteem, and academic supports providing tutoring and community integration. At City University, Multicultural Student Services provide culturally responsive academic supports; however, these services are available primarily to scholarship and transitional support participants, and not readily available to the wider student body due to financial and staffing limitations of the university. These supports are research-based, but have not been developed using data about student preferences. Historically Black Colleges and Universities (HBCUs) have offered many of the types of services offered by City University's Multicultural Student

Services. Strayhorn and Terrell (2010) reported how a supportive environment for African American students attending HBCUs promotes student success. African American cultural centers at PWIs can also serve as support for African American students (Strayhorn & Terrell, 2010).

Studies based on interviews with students have examined preferences for learning styles and instructional methodologies, but have not focused on preferences for academic supports. The literature does include frequent recommendations that institutions survey their individual student populations and develop academic support systems for their localized minority students' needs (Crieghton, 2007; Lomotey, 1990).

Purpose of the Study

Data regarding the knowledge, use, and perceptions of existing academic supports at City University by academically struggling African American students in the COE and CON were collected to determine what academic supports were preferred by this group of students. Results may indicate needed changes to academic supports and services to facilitate higher degree completion rates for undergraduate African American students in the COE and CON at this Midwestern PWI University.

Research Questions

1. To what extent are academically struggling African American undergraduate students aware of available academic supports offered at City University?
2. To what extent are academic supports utilized by academically struggling undergraduate African American students at City University?
3. What academic supports are preferred by academically struggling undergraduate African American students at City University?

Theoretical Framework

Lev Vygotsky's theory of the critical impact of social and cultural influences on cognitive learning served as a basis for the theoretical framework for studying preferred academic supports (Vygotsky, 1934, 1986). The literature is abundant in describing and supporting Vygotsky's work in observing the cultural and social aspects involved in the learning process (Creighton, 2007; Guiffrida, 2006, Tinto, 1993). Tinto (1975) applied Vygotsky's theories to higher education, suggesting that it is the interaction of the college and the student that determines retention to graduation. The Tinto model is the most widely accepted model concerning university student attrition, but was developed from studies about predominately White students just out of high school. Tinto (1975, 1987, 1993) proposed that pre-college attributes such as family background, skill, ability and high school create individual goals, which interact over time with college experiences. Student integration of social aspects of college life and quality of interactions with faculty will determine the decision to complete an academic program.

Persistence theories as presented by Bean and Metzner (1985) link Vygotsky's and Tinto's frameworks to the specific sociocultural issues faced by non-traditional college students, identifying persistence toward the goal of a degree and graduation in the face of non-traditional challenges, as a critical determinant for minority students to complete a university degree. According to Creighton (2007), lack of persistence to graduation is affected by reasons other than academic struggles, such as failure of the university to provide appropriate academic environment and support for its underrepresented student minorities (Creighton, 2007). Chickering and Gamson (1987) identified principles for effective support and linked Vygotsky's theories of social

interaction and learning success with programs that create academic improvement for minority undergraduates. These principles involve significant faculty interaction with students and teaching methods that promote cooperative learning among students (Chickering & Gamson, 1987).

Significance of the Study

The literature indicates that many programs and supports are initiated at community colleges and universities to assist students in their academic endeavors. There is no evidence in the literature indicating students themselves have been asked what they would prefer or utilize in the form of assistance. By asking students about their preferences, universities with a similar student population to City University may be encouraged to discover what assistance students would prefer and approaches to deliver assistance.

Limitations of the Study

Awareness, use and preferences for academic supports from African American undergraduates were obtained from only two colleges on this campus and may not be directly generalizable to other colleges or universities. The African American student groups were selected because 1) they represented groups at risk for failure to complete degrees, and 2) student data were accessible. The student population studied may not represent the definition of struggling students for other colleges at this university. Data were collected over a short time frame, which may not reflect long-term trends in minority persistence to completion of a degree and preparation for college.

Assumptions of the Study

Generalizability may be possible to other student populations and colleges at this university not examined in the research data, but these additional populations may have their own social, learning, and field-specific preferences and needs. No attempt was made to evaluate, address or propose changes in the diversity climate in the community or at this university, although these may have impacts on retention (Benton, 2001; Crieghton, 2007).

Definition of Terms:

Definitions of terms used within the dissertation to facilitate understanding follow.

Academically struggling- Academically struggling students were defined by the researchers as those undergraduate students from the COE and CON with a cumulative GPA below 2.75. This GPA was used because a GPA of 2.75 was required by the COE for admission to upper level required coursework and eventual graduation and teacher certification. GPAs of 2.75 and below were red flags for academic problems or possible program progression issues in the CON.

Academic support- Programs designed to improve academic performance and retention (Creighton, 2007).

*African American-*refers to people of African descent residing in the United States (Matthews, 2010).

Non-traditional students are defined as those students who are part-time students, commuters, over 24 years old, or have fewer social interactions with the institution due to

external factors. External factors include full or part-time work, family obligations such as marriage, children or other family (Bean & Metzner, 1985).

Persistence- ability to navigate the institution to continue toward the goal of a degree (Bean & Metzner, 1985).

Grit- a newer construct of persistence defined as passion or perseverance toward long-term goals (Duckworth & Gross, 2014).

Predominantly White Institutions (PWI)-Colleges and universities where White students are enrolled at 50% or more than other student populations (Matthews, 2010).

Historically Black Colleges and Universities-Colleges and universities whose principal mission is to educate all students, regardless of race, in an accredited institution (Strayhorn & Terrell, 2010).

White students- Caucasian, Non-Asian, Non-Hispanic (Matthews, 2010).

Writing Lab- The Writing Center is an appointment-based service that provides assistance with writing papers and presentations. Papers can be submitted online for feedback from a tutor or a consultant can be close by while papers are written at the Writing Lab (City University Learning Platform, 2017).

Math Lab- The Math Lab offers free individual assistance on a walk-in basis or by appointment to students needing help with mathematics courses from basic math through calculus (City University Learning Platform, 2017).

Net Tutor- Online academic support offered at City University accessed through the learning platform home page or from the tools section in a course. Subjects covered in the online tutoring are Accounting, Anatomy and Physiology, Biology, Business,

Chemistry, Economics, Finance, Genetics, Life Sciences, Math, Online Writing Center, Physics, Spanish, Statistics (City University Learning Platform, 2017).

Multicultural Student Services- Academic support offered at City University that promotes student learning and development, engagement, persistence and success to aid in closing the achievement gap across cultures. This support strives to create a strong inclusive community among students, faculty, and staff that personifies respect, accountability and acceptance, while supporting and empowering students to achieve degree completion. Strong partnerships and collaborations across the campus and the community are established (City University Learning Platform, 2017).

Campus Study Groups- Students connect with specially trained tutors to personalize a study plan and create academic success. Tutors meet with individuals or groups of students. (City University Learning Platform, 2017).

Literature Review

Academic Supports, Retention and Graduation Rates

Although access to higher education by minorities has improved somewhat in the past 40 years, attainment of degrees by minorities has remained largely unchanged (Bowen, Chingas, & McPherson, 2009). Reasons minorities have historically cited for withdrawal include tuition costs, lack of financial assistance, lack of feedback on academic performance, loss of motivation, inadequate academic supports to meet student needs, changing career interests, family problems, and lack of advising (Bowen & Bok, 1989). In “Crossing the Finish Line,” Bowen et al. (2009) examined data from members of the 1999 entering college cohort from all state universities in Maryland, North Carolina, Ohio, and Virginia and found a strong correlation between socio-economic status (SES) and graduation rates (SES is defined by family income and whether parents attended college). The study researchers exposed a difference of 19 percentage points in retention rates between high and low SES students. Higher SES students have access to better quality primary and secondary schools and are better prepared for college by at least one parent who attended college, as well as exhibit cognitive and non-cognitive differences, such as motivation and persistence (Bowen & Bok, 1989). Matthews (2010) reports that African-American and Hispanic students are more likely to drop out of college, and fewer minority students completed a degree program when compared to Caucasian peers (Matthews, 2010).

The six-year graduation rate (retention to completion of degree in six years) for White students at City University who began degree programs in 2010 was 63%, but only 40% for African American students (City University Database Report, 2016). Student

withdrawal surveys at City University reveal that 36% of COE students who dropped all courses in spring of 2015 through fall of 2016 also worked more than 20 hours per week, impacting their ability to utilize on-campus academic resources. Students in this group also indicated that financial considerations were the primary cause of withdrawal (28%) followed closely by family, personal, and work issues (23%). Of these students, only 1.6% reported utilizing Multicultural Student Services for academic supports, and 3% reported utilizing campus Student Retention Services. Not one student in this group reported visiting with a professor or an advisor before withdrawing (Meadows, 2016). According to Creighton (2007), underrepresented students most often withdraw for personal reasons, work conflicts, dissatisfaction with the academic environment, and discomfort with campus values and environment, including mismatch of cultural values.

Academic supports at universities are intended to improve retention and graduation rates. While enrollment of underrepresented minority groups has increased in the last three decades, most PWIs such as this university have not made significant efforts to adjust traditional academic support systems to the cultural, academic learning, and lifestyle differences of these students. PWIs have also not considered special circumstances such as students' financial stress, demands of work and family on non-traditional students, or the effects of separating students from a supportive home community and collaborative culture (Creighton, 2007; Guiffrida, 2006; Tinto, 1993).

City University offered academic assistance to students through tutoring located in on-campus writing and math labs, online tutoring, and mentoring and study groups sponsored by a program of multicultural services; however, this university, like most

PWIs, continues to offer primarily the academic, faculty/instructional and social supports utilized and preferred by White, middle class college students (Matthews, 2010).

Influences on Learning Preferences for African American Students

Differences in learning preferences may arise from differences in childrearing practices which encourage or discourage various motivators and interactions with professionals and other adults outside the home, and offer middle class White students advantages negotiating within institutions (Lareau, 2002; Ogbu, 1990). Many African Americans are first-generation college students and are often from low socio-economic status families who may also lack the experience and skills to navigate financial aid and the college as an institution (Guiffrida, 2006).

African American students are frequently first generation college students with no family member to assist them in navigating the institution and dealing with instructor expectations, time management or financial aid. According to Reid and Moore (2008) in *College Readiness and Academic Preparation for Postsecondary Education: Oral Histories of First-Generation Urban College Students*, “First-generation students often have different personality traits (i.e., differences in self-esteem and social acceptance) and more often live at home and work part-time, while attending college” (Reid & Moore, 2008, p. 242).

The average median income for African American students at City University has been below \$35,000, while that of students of White families has been above \$50,000 (City University Database Reports, 2015-2016). Not only are family expectations different for non-traditional students from working class families, but many students with lower incomes often need to drop out and work full time, returning at a later time to

complete college work (Schwartz & Washington, 1999; Landry, 2002).

African American students find the supportive communities they experienced growing up are not always present in college, especially if attending a PWI (Lareau, 2002). In order to retain a sense of the community and cultural values, minority students often appear to self-segregate, forming ad hoc support groups that rely on social values constructed from a family or group orientation. This reliance on the support and collaboration of the group is valued as a form of supportive community built on trust, regardless of the actual institutional or academic knowledge of the community (Kimbrough, Molock, & Walton, 1996; Thompson & Fretz, 1991) and may influence preferences for academic supports and instructional methods (Benton, 2001).

Assessing Needs of African American Students

Numerous factors may lead to lower graduation and degree completion rates for minority students at PWI's. Minority students may not be as well prepared for college academically, may lack persistence, and may have difficulties managing family and other responsibilities. Academic supports can be designed to provide assistance with academic gaps and motivation. Academic supports can also help students manage external factors while remaining sensitive to student needs and learning preferences (Bettinger, Boatman, & Long, 2013). Data collected by Matthews (2010) indicated that improving the retention rate for African American and Hispanic students may require more peer group interaction, institutional and learning goal commitments reinforced by faculty, and more academic and intellectual development than their White college peers. Academic support programs are often designed with the understanding that underrepresented groups will adopt the norms, values and beliefs of the dominant PWI culture on campus (Martin &

Williams-Dixon, 1991), ignoring the cultural and community values held by these underrepresented students. Active mentoring and collaborative teaching using more African-American faculty have been found to be preferred components of the experience for African-American students at PWIs and assists students in their adjustment to college life (Baker, 2013).

Expectations of African American Students

African American students also have expectations that the institution should adjust to meet individual needs, rather than the individual adjusting to meet the institutional environment (Matthews, 2010). Expected adjustments include culturally meaningful curriculum, and assistance navigating the institution, financial aid, grants, and scholarships. Failure to provide financial support, culturally appropriate communications and faculty interaction are reasons these students drop out of college. Landry noted that adjustments and additional services provided by institutions can return the financial investment by retaining students through graduation (Landry, 2002).

Supporting a study by Kobrak (1992) regarding the positive impact of African-American faculty on African-American students' academic successes, research by Baker (2013) also showed that faculty support is positively related to higher grade point averages. The same study (Baker, 2013) measured the influence of faculty of the same race on underrepresented students' academic performance. The presence of faculty of the same race was found to have a positive effect on grades and success in graduating from college, and might also impact the effectiveness of tutors, mentors, and other academic support providers.

The use of learning communities and collaborative learning in classrooms has been shown to assist African Americans in developing their own approaches to learning and problem solving (Tinto, 1999; Fullilove & Triesman, 1990; Hollands, 2012). Conciatore (1990) found most underrepresented populations at PWIs prefer to be allowed to work together to develop strategies for the academic environment. A preference for collaborative learning indicates that a collaborative approach to academic supports, such as tutoring, might be both effective and preferred. Pope (2002) found that when mentoring programs are offered, minority students seek the following: 1) representation of persons of color 2) emphasis on academic advising, and 3) involvement of staff and upper-level students in mentoring. Multicultural Student Services offered at City University have mentoring built on this model, but due to budget and staffing constraints, it is not widely available, and is most often utilized by scholarship students rather than those struggling academically.

African American students indicate that they appreciated when a professor expressed concern for their personal lives, made an effort to seek them out for counseling, and provided motivation and positive discussion opportunities (Nieto, 1999; Hollands, 2012). These tips for faculty need to be applied to tutoring, mentoring, and other academic support systems, providing an atmosphere of valued relationships and commitment to students' futures. Relationships with faculty as mentors and faculty involved in academic support with students have been identified as strong predictors of success for African American students, significantly more so than for White students (Guiffrida, 2005; Lundberg & Schreiner, 2004).

Successful Models to Improve Retention and Graduation

Historically Black Colleges and Universities (HBCUs) serve as models for structuring academic supports for African American students. Hutto and Fenwick (2002) revealed that increasing the quality of student services will also increase retention at HBCUs. First year students at HBCU universities rated satisfaction in navigating financial aid, enrollment processes, residential life and academic support services as being positive to their freshman experience. Seidman (2005) found that students at HBCUs who met with African American mentors and faculty on a regular basis had higher retention rates. The heavy commitment to remedial programs at HBCUs also helped students build relationships with faculty even before they began their freshman year and establish academic confidence and appropriate institutional relationships. Small groups established during remedial classes served as support groups and students reported that these groups sustained them through challenging periods (Palmer, Ryan, Maramba, 2010). Student groups thus play a role in developing persistence at HBCUs (Akos & Kretchmer, 2017).

Documented successful retention programs for underrepresented students at PWIs have in common with HBCUs strong social supports, networks and associations, faculty mentoring and active instruction, peer collaboration, institutional support for diversity, and academic supports providing tutoring and community integration (Kangas, 1993; Galima, 2013). Examining the preferences of 60 students at one PWI, Creighton (2007) identified factors needed to improve retention, finding that retention to graduate was positively impacted by the development of special support programs for African-American students. These programs include diversity training for all faculty and staff,

the hiring of additional African-American faculty and staff, increasing faculty-student interaction and a counseling program specifically for African American students (Benton, 2001).

Theoretical Framework for Culture and Social Interaction for Retention and Graduation

Lev Vygotsky (1934), in his foundational work, *Thought and Language*, discussed the effect of culture and social interaction on cognitive functions. Vygotsky proposed that social interaction and culture shapes cognitive development. This development is based on the Zone of Proximal development, a range of skills that can be developed in the child with the guidance of adults or peers. This theory was first applied only to the context of language learning in children but has been expanded to include broader implications. Vygotsky's professional peers at the time were skeptical of his theory, but as the understanding of multiculturalism has evolved, the role of culture and social interaction on learning has gained recognition (Vygotsky, 1986). Literature supporting Vygotsky's work in observing the cultural and social aspects involved in the learning process is now abundant (Creighton, 2007; Guiffrida, 2006; Tinto, 1993). Tinto (1975, 1987, 1993) applied the theory to the college experience, finding that effective integration into the college experience of social and informal academic systems is a major determinant of the student's decision to remain in school.

The Tinto (1975) model for higher education expanded on the Vygotsky sociological approach and suggested that it was the interaction between the college and the student that determined retention to graduation. The Tinto model of college/student

interactions is the most widely accepted model concerning student attrition, but was designed for predominately White students graduating from high school.

Tinto (1975, 1987, and 1993) proposed that pre-college attributes such as family background, skill and ability, and high school experiences created individual goals. These attributes interact over time with college experiences. How well the student is integrated into the college experience of social and informal academic systems will determine the student's decision to stay. A sense of belonging in the college community was identified by Tinto (1993) as critical to academic success. The importance of social supports and relationships in encouraging academic success varies between cultures and ethnicities (Baker, 2013) and available academic supports designed to encourage academic success at PWIs may not address cultural preferences for learning styles and social relationships for these groups.

Tinto (1993) further examined the importance of different influences on minority retention, finding that positive experiences motivate and strengthen the student's self-image and commitments, whereas negative experiences undermine intentions to continue in college. Persistence, or the ability to navigate the institution and complete a college degree, is dependent on the student's level of positive integration, which includes grades and intellectual development (Tinto, 1993; Bean, 1980). Persistence (grit) is a concern for underrepresented students on their path toward a college degree, especially since many underrepresented students are also non-traditional students (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Duckworth et al., 2007). Non-traditional students are defined as those students who are part-time students, a commuter over 24 years old, and have less social interaction with the institution due to external factors. External factors include full

or part-time work, family obligations (marriage, children, other family), and financial concerns (Bean & Metzner, 1985). All of these factors contribute to the need for development of persistence in attaining a college degree, and are common factors for students at City University (Meadows, 2016).

Theoretical Framework for Culture and Social Interaction for Academic Supports

Vygotsky's concern for integrating culture and social values in learning can be applied to designing appropriate academic supports to increase retention for African American students who struggle in college. The research of Chickering and Gamson (1987) offers recommendations to create academic improvements for underrepresented undergraduates. These include more faculty interaction with students, and more teaching methods to promote cooperative learning among the students. These data suggest teachers should hold high expectations, give feedback in real time, and display respect for students with diverse learning capabilities. More recently, according to Bridges, Cambridge, Kuh, and Leegwater (2005), these same supports were identified as contributing to skills necessary for academic success for underrepresented populations at PWIs, including confidence, motivation, high aspirations, and the ability to thrive in competitive environments. The research-based theory of Chickering and Gamson (1987) as expanded by Bridges, et al. (2005) supports investigation of culturally sensitive, student-preferred academic supports for individual cultural groups, highlighting again the foundational work of Vygotsky (1934, 1986) regarding the role of social and cultural interaction on learning. Developing academic and remedial supports that mentor and teach these skills through delivery methods preferred by minority students has not been a priority for PWIs. Determining these preferred methods might increase retention and

graduation rates for these groups.

Gaps in the literature

The application of research involving cultural preferences in teaching and learning is not often applied specifically to academic supports. The literature search did not find any studies where African American students have been personally asked what academic supports and delivery methods are preferred. There are not many documented retention solutions beyond active and involved African-American faculty, advisors, and mentors as well as collaborative learning programs for African-Americans. Some preferences described in the literature may be specific to universities and regional underperforming minority groups. The literature includes suggestions that institutions survey their individual student populations and develop academic support systems for their localized minority students' needs (Crieghton, 2007; Lomotey, 1990); however, it is questionable how many institutions actually do this. Effective retention efforts depend upon the institution's commitment to underrepresented students to develop programs that best meet the needs of the students. The importance of social supports and relationships in encouraging academic success varies between cultures and ethnicities (Baker, 2013), and available academic supports at PWIs may not address cultural preferences for learning styles and social relationships for these groups. Martin and Williams-Dixon (1991) reported specific academic supports have been developed without input about preferred supports from students.

Summary

African-American students have expectations that the institution will assist them in utilizing their learning preferences for academic success (Guiffrida, 2005), but

academic support programs are often designed with the understanding that all groups will adopt the norms, values and beliefs of the dominant PWI culture on campus. Academic supports provided by PWIs may not be specific to the needs of underperforming African American students, or may not be specific to the needs of the populations of individual institutions. The literature includes suggestions for institutions to survey their individual student populations in order to develop academic support systems to meet their localized minority student needs (Crieghton, 2007; Lomotey, 1990), but this is not often reported and published. It is also questionable whether African American students have been allowed to participate in making decisions about what academic supports are offered. Tinto (1993) found that effective retention efforts depend on the commitment of the institution to develop programs that best meet the needs of students. The importance of social supports and relationships in encouraging academic success varies between cultures and ethnicities (Baker, 2013), and available academic supports at PWIs may not address these or other cultural preferences for learning styles and social relationships for underrepresented groups. Considering these factors identified in the literature, it is suggested by the researchers to invite African American students to provide feedback regarding the types of academic supports they believe would be most beneficial. The results provided may assist higher education institutions in providing more meaningful academic supports to retain and graduate more African American students.

Methods

A mixed methods design was used to quantify student knowledge and use of supports currently offered and to gain an in-depth understanding of preferences for academic supports among underperforming African American students at a Midwestern predominantly White institution (PWI), referred to as City University in this study. Results of the survey and interviews provided information on awareness, use and suggestions for academic supports preferred by underperforming African American students in the College of Education (COE) and College of Nursing (CON).

Research Questions

1. To what extent are academically struggling African American undergraduate students aware of available academic supports offered at City University?
2. To what extent are academic supports utilized by academically struggling undergraduate African American students at City University?
3. What academic supports are preferred by academically struggling undergraduate African American students at City University?

Research Design

A mixed methods design was utilized for examining the academic supports used by and preferred by students who struggle in higher education at a PWI public state university in the Midwest. An online survey was designed to quantify the two groups' (COE and CON) awareness of, use of, and preferred academic supports. Interviews were conducted to deepen the understanding of the quantitative data. The survey participants were recruited from a purposive and convenience sample of academically struggling students from the COE and the CON at City University. This sample was obtained by

requesting GPA and contact data for all COE and CON students with GPAs below 2.75 from existing university sources in City University Data Source (2015-2016). Students were requested to self-select for ethnicity, which stratified the sample to African American students.

Academically struggling students were defined as those with cumulative GPAs below 2.75. A GPA of 2.75 was required by the COE for admission to upper level required coursework and eventual graduation and teacher certification. GPAs of 2.75 and below were red flags for academic problems or possible program progression issues in the CON.

The survey (Appendix A) was used to collect demographic data and to gain an understanding of student awareness and use of academic supports. The survey also included Likert-style questions to ascertain data about preferences, with skip logic to take the participants to different questions depending on “yes” and “no” responses. Four open-ended questions were included to determine if students had preferences for academic supports.

The interview consisted of five specific questions with additional suggested questions for encouraging students to elaborate on what academic supports were most helpful and to identify other supports that might be beneficial for their academic performance. Interviews were 20-30 minutes in length and were conducted in a private conference room at the COE. The answers to questions in the interviews provided a richer understanding of the student experience. Preferred supports and themes emerged from the interviews. The same interviewer was used for all interviews, providing consistency in the data collection process.

Instruments

The researchers wrote the survey questions, designed the interview protocol, and determined the participant sample. The online survey (Appendix A) began with a consent agreement and five demographic questions. These were followed by five questions asking participants to rate their knowledge and use of existing academic supports at City University, followed by two to three questions each about use and satisfaction with the academic supports. If a support was not used, questions were asked about awareness of the support and why the student did not use the service. In the next 13 questions, participants were asked to rate their perceptions of and preferences for different academic supports using Likert scales with five possible responses. Two of the thirteen questions included open-ended answers to allow for additional comments. Four additional open-ended questions were asked to allow suggestions for academic supports or other information and were coded as qualitative information.

The survey was field-tested for survey mechanics, clarity and readability by ten doctoral students in the COE at this university. Face validity was assessed for survey and interview questions by using an “Expert Review Form” (Appendix B) by three individuals with knowledge of the topic. These experts included both researchers and a third person knowledgeable about the topic, but not a part of the research project itself. Two additional experienced educational researchers reviewed the survey questions. This review resulted in minor changes made to some questions.

Using the Pike (2012) framework for establishing formative validity, the ability to infer useful and applicable information about designing academic supports for this population was selected as a benchmark for validity.

The interview protocol was developed by the researchers following guidelines established by Galletta (2013). The interviews were semi-structured to allow the students being interviewed to be more relaxed and expressive of their wishes for academic supports more conducive to their particular situations (Galletta, 2013). Cohen and Crabtree (2006) and Galletta (2013) describe this interviewing technique as developing a formal interview guide with specific questions to be asked in the interview, but allowing the interviewee to stray off the topic if it allows more description or detail. Semi-structured interviews were designed to provide participants the opportunity to describe perceptions in detail and explain preference, attitudes and determinants beyond those identified by the researchers (Appendix C). It also offered participants opportunities to elaborate on the role of culture, social styles, family responsibilities, finances, and the role of the university in providing academic supports.

An expert review for the interview questions was conducted by City University research faculty. No responses from the interview contradicted survey responses. Individuals responded similarly to the five primary interview questions, indicating question credibility. These measures provide trustworthiness and dependability.

Population and Sample

The study population was African American undergraduate students with GPAs below 2.75 in the COE and the CON at a Midwestern PWI, renamed City University. A convenience sample from the COE and CON was used because GPA information about students from these colleges was readily available to the researchers due to their positions in the colleges and because the GPAs placed the students at risk for non-completion of degrees. The sample was purposive because the researchers selected only

African American students for the study. This population was determined by the researchers to be at-risk for non-completion of degrees more than other populations and resistant to using available academic supports.

In fall 2016, African American students at City University represented 18% of the total student population compared to 62% White students. The distribution of African American students at the COE and CON combined was 16% compared to 70% White students in both colleges. The percentage of African American students is relatively the same in both colleges as in total City University populations (Table 1).

The survey sample group for the study was obtained by requesting GPA and contact data for all COE and CON students with GPAs below 2.75 from existing university sources in the City University Data Source (2015-2016). The total number of students receiving surveys was 246, representing all COE and CON students with GPAs of 2.75 or below.

Table 1

Distribution of Students at City U., COE and CON – Fall 2016

POPULATION	City U.	%	COE	%	CON	%
Undergraduates	8032		659		803	
Caucasian Students	5052	62%	486	73%	543	68%
African American Students	1413	18%	100	15%	136	17%
Other minority Students	957	12%	55	8%	92	12%
Unknown Ethnicity	610	8%	8	3%	32	4%

University policies prevented identification of individual students with their GPAs associated with ethnicity. Researchers were provided with the number of African American students in this sample (74), but no other identifying information was provided. African American students in the COE and CON with a GPA below 2.75 were invited to participate in the survey. Survey participants were then invited to self-identify for ethnicity, allowing for stratification to only African American students in both colleges with GPAs below 2.75.

Data Collection Procedures

Permission to use the data and to conduct the study was obtained from City University Institutional Review Board. Informed consent was obtained from each student by the students' response at the opening of the survey. Academic advisors were utilized to make the initial recruiting contact by phone and encourage response to the emailed survey. Entry into a drawing for a VISA gift card for all survey participants was an additional inducement. Enrollment began with survey distribution in October 2016. Survey participation was completed in April 2017.

Interviews were conducted between March 2017 and April 2017 with four interviews completed. Interviews were face-to-face between interviewer and participant, and took place in a private conference room in the COE. An African American nurse practitioner interviewed the students, supporting the literature that stated African American students may feel more comfortable talking with someone of their own ethnicity (Baker, 2013). This interviewer had a doctoral degree and was experienced in the interviewing process. All interviews were 20-30 minutes in length and were recorded with permission of the interviewee for transcription at a later date.

Data Analysis

Survey. Basic descriptive statistics, mean and standard deviation, were calculated for multiple choice and Likert scale questions. The margin of error was determined by using the Raosoft Sample Size Calculator (Raosoft, 2004).

As institutions reported more and more difficulty in obtaining high response rates from the NSSE and other surveys, Fosnacht, Sarraf, Howe, and Peck (2017) examined the importance of high response rates for college surveys. They conducted extensive simulations and analyzed available survey interpretations and resulting applications and concluded that if good engagement practices are used, response rates between 5% and 35% provide reliable estimates. According to Fosnacht et al. (2017) small populations require a higher percent of responses, while larger populations require more numbers of subjects. Extensive effort was expended to raise the response rate for this survey, including repeated reminders via e-mail and phone calls to students who had not completed the survey. Advisors, a retention coordinator and a graduate student assisted in making phone calls to ask for participation, and approximately 20 repeat distributions of the survey to non-respondents were sent via e-mail with the message “Help City U Help You!” A reminder of the VISA card incentive was also made over the seven months period.

Interview. Qualitative data were analyzed using the general inductive process, as described by Thomas (2006), exposing the most dominant themes from the data as they related to the research questions. The transcripts were read independently by both researchers and in their entirety to gain a sense of the data and evaluate it, decreasing the possibility of bias. The data were reviewed multiple times, and during the second and

third read-throughs, labels were assigned for emerging themes that were then organized into major themes. The same themes were identified by both researchers.

Limitations

The study was limited to examining the student demographics and attitudes from only one university and results may not be generalizable to any other university. The study sampled students from only two colleges at City University and student demographics and attitudes may differ from students of other colleges at the same university. The sample assumes that students with GPAs below 2.75 can be defined as struggling in the two sampled colleges due to certification and graduation requirements, but because other colleges have different graduation requirements, the definition of struggling may be different from college to college.

The small sample size prohibited tests for validity and reliability using coefficient measures. The small sample size resulted in a high margin of error, so it must be considered that the results did not represent the answers of the larger population within acceptable boundaries. This is true even though interview responses did not challenge survey responses, responses were very consistent among participants, and participants' demographics mirrored those of other City University surveyed at-risk and total populations.

Results

Introduction

Many Predominantly White Institutions (PWIs) have not made significant efforts to adjust traditional academic support systems to meet the cultural, academic learning, and lifestyle needs of underrepresented minority students. PWIs continue to offer the academic, faculty, instructional and social supports utilized and preferred by White, middle class college students (Creighton, 2007; Guiffrida, 2006; Hollands, 2012, Tinto, 1993).

An advisor in the College of Education (COE) and a faculty member in the College of Nursing (CON) noticed that academically struggling underrepresented minorities, particularly African American students, were not utilizing academic supports offered by the university. A greater percentage of African American students had GPAs less than 2.75 in the COE and CON. This may have impacted their persistence to retention and graduation. Analysis of the results of this study addresses the research questions posed in Chapter 1.

Research Questions

1. To what extent are academically struggling African American undergraduate students aware of academic supports offered at City University?
2. To what extent are academic supports utilized by academically struggling undergraduate African American students at City University?
3. What academic supports are preferred by academically struggling undergraduate African American students at City University?

Summary of the Study

A mixed methods design was utilized for examining the academic supports used by and preferred by African American students who struggle in the COE and CON at City University, a Midwestern PWI. An online survey was designed to quantify the awareness and use of currently offered academic supports at City University, and to identify preferences of academic supports of African American COE and CON students with GPAs below 2.75. The total number of students who received surveys was 246, representing all COE and CON students with GPAs of 2.75 or below. Survey respondents were then invited to self-identify by ethnicity, allowing for stratification to only African American students in both colleges with GPAs below 2.75.

By April 30, 2017, a total of 45 surveys were collected, 20 from African American participants. The response rate was 20/74 or 27% for the population of African American students with GPAs below 2.75.

Not all students responded to all questions in the survey, so the sample size varied somewhat for each question. All African American survey respondents were invited to participate in an interview designed to provide further insight into the survey results. African American students indicated in the survey a willingness to be interviewed. All 20 students responded they would like to be interviewed, but only six students set up appointments for an interview. Four interviews were conducted, and two students did not show up for their interview.

Validity and Reliability

As institutions reported more and more difficulty in obtaining high response rates from the NSSE and other surveys, Fosnacht, Sarraf, Howe, and Peck (2017) examined the importance of high response rates for college surveys. They conducted extensive simulations and analyzed available survey interpretations and resulting applications and concluded that if good engagement practices are used, response rates between 5% and 35% provide reliable estimates. According to Fosnacht et al. (2017) small populations require a higher percent of responses, while larger populations require more numbers of subject.

Reliability was evaluated by using split-half analysis (Martin & Bateson, 1993; Sue & Ritter, 2007). Survey responses were randomly divided into two groups and analyzed separately. Results of both groups were consistent within 10% for all responses, except for the question of use of peer study groups, which was question #24 on the survey.

In a different test for reliability comparing mean scores for the questions in each group, most results were within 1.5 points of each other on a one to five point Likert scale and did not contradict interview responses. This analysis provided reliability and credibility for the survey, despite the small sample size. Due to the small sample size, coefficient reliability measures and validity measures such as Cronbachs' were inappropriate (Charter, 2003; Merino-Soto, 2016) and were not used.

A construct validity framework proposed for the National Survey of Student Engagement (NSSE) was adopted as a test of formative validity for the survey instrument. The NSSE survey provides information about undergraduates at colleges of

all sizes and determines perceptions of students in their individual college environments and assesses possible relationships to retention at that college. Questions were raised about the validity of the NSSE (Pike, 2012) where criterion-related validity was not established, and replication could not be used for each individual college studied due to cost considerations. In response, Pike conducted extensive simulations and analyzed available survey interpretations and resulting applications. He concluded that if benchmarks for the intended uses of the survey were established and the measures used resulted in the application of the data to the benchmarks, this could establish validity. Kane (2006) had earlier proposed that validity could not be supported without first identifying how the results would be interpreted and applied to the question(s) of the study, creating an argument-based theory for establishing validity. Kane based this approach on Messick's (1989, 2005) construct-validity framework, which stated that validity should be evaluated based upon how data from the instrument are interpreted and used. He defined validity as "...An integrative and evaluative judgment of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of inferences and actions based on test scores or other modes of assessment" (Messick, 1989, p. 13). The benchmark identified for this study was the ability to infer preferred academic supports for struggling African American students in the COE and CON at City University from the collected data.

Methods in the interview protocol were reviewed using a checklist developed by Tong, Sainsbury & Craig (2007). Consolidated criteria for reporting qualitative research (COREQ) is a checklist of 32 questions which guide the researcher when developing a qualitative study. Some items included in the checklist were study design methods,

interviewer characteristics, the number of coders, quotations from participants, consistency between the data presented and the findings, and presentation of the themes. This checklist “can help researchers to report important aspects of the research team, study methods, context of the study, findings, analysis and interpretations” (Tong, Sainsbury & Craig, 2007, p. 349) and establishes rigor, comprehensiveness and credibility in interviews and qualitative studies. If the researchers can answer all the questions, the research quality of the interviews is high.

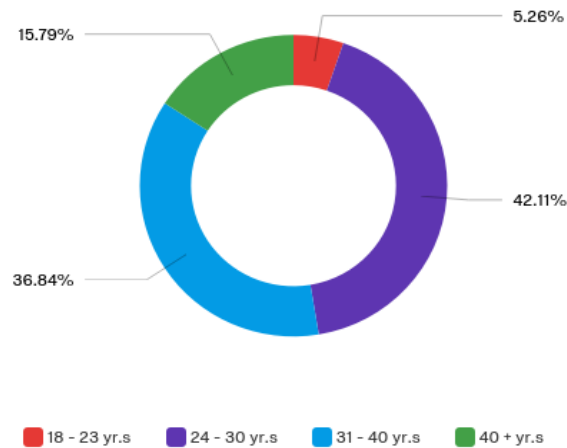
The margin of error was determined by using the Raosoft Sample Size Calculator (Raosoft, 2004). The results ranged from 16-22%, with a confidence level of 95%. The effect of the high margin of error was mitigated somewhat by the relatively high rate of response (27%).

Participant Demographic Data

Demographic data collected in the survey identified the students as non-traditional (Bean & Metzner, 1985; Bowen, Chingas, & McPherson, 2009; Matthews, 2010).

Demographics of the surveyed students mirrored those of the overall City University population (City University Student Profile Fall 2016; City University BCSSE Beginning College; Student Survey of Engagement, Fall 2016) and matched demographics collected about those who withdrew from the COE in 2016 (Meadows, 2016).

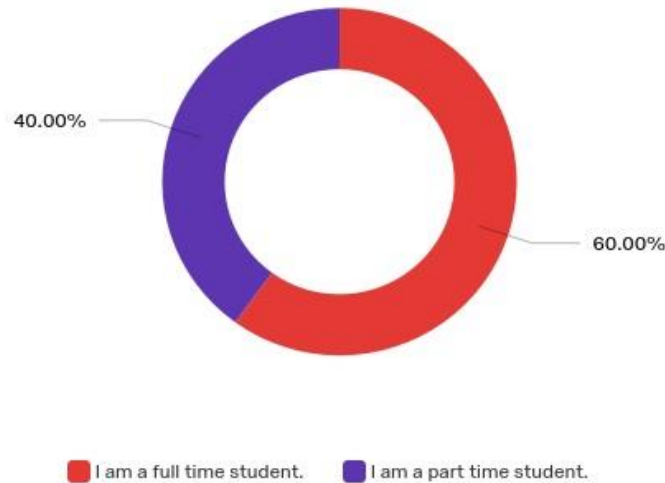
Figure 1
Survey Demographics for Age of Participants



The majority of the students, or 78.95%, were between 24-40 years old and 15.79% were above 40 years of age (Figure 1). The study participants were older than the average age of 25.8 for City University undergraduates (City University Student Profile Fall 2016) and fits the definition that has been adopted by the researchers for non-traditional students (Bean & Metzner, 1985; Bowen et al., 2009).

Non-traditional students have been defined as part-time (Bean & Metzner, 1985), but survey results for the sample of COE and CON African American students with GPAs below 2.75 identified twelve (60%) full time students and eight (40%) part time students (Figure 2). The minimum hours of credit required for financial aid packages might have raised the numbers of students who are full time at City University.

Figure 2
Survey Demographics for School Status

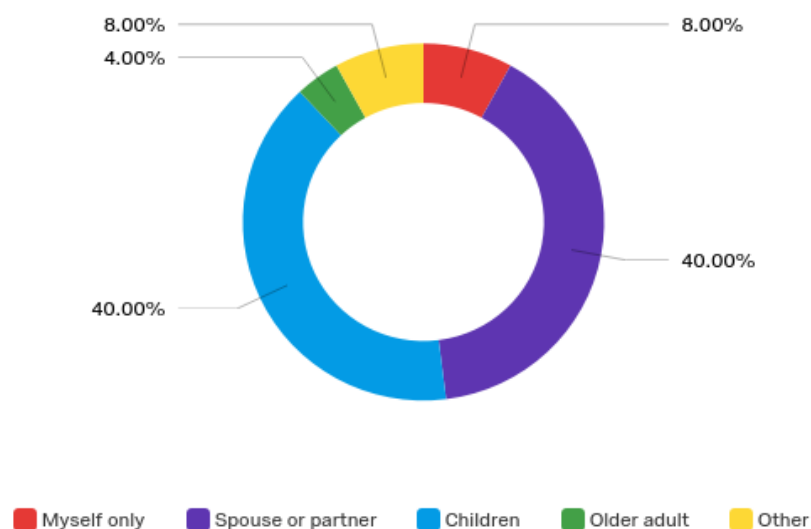


Future studies might identify the level of any correlation between full or part-time status and hours worked. The survey did not request information about hours worked. One interviewed nursing student identified the importance of full or part-time status to managing the non-traditional students' often frustrating class expectations and schedules, stating, "A class that is offered to the full time and evening students together poses conflicts when group projects are required." Faculty may need to consider the demands and schedules of full time students as they differ from part time students, even those with other similar external factors.

External factors affecting performance and preferences for academic supports include family obligations (Crieghton, 2007; Dennis, Phinney & Chuateco, 2005; Guiffrida, 2006; Lareau, 2002). Most students in the study were married or had a partner who was at least somewhat dependent upon them, or they had children. Another 12% were responsible for an adult or other dependent (Figure. 3). City University students

frequently cited family obligations as factors leading to withdrawal from the COE (Meadows, 2016). Childcare is often a problem for those who must use on-campus supports and on-campus childcare can have a significant impact on retention. Monroe Community College (2013) in New York examined retention data for students with children under the age of six. Students who used the campus’s childcare facility had a higher retention rate than those who did not. Parents using the facility graduated or transferred to a four-year college within three years at a rate of 41.2%, compared to those who did not have access to the child care center and had a transfer rate of only 15.2% in the same time frame (Monroe Community College, 2013). The impact of extended family obligations can be a complicating factor for African American students with strong community and family ties, especially for those who are first generation college students (Dennis, Phinney, & Chuatoco, 2005). The survey did not ask about first generation status, a factor of some importance (Reid & Moore, 2008).

Figure 3
Survey Demographics for Dependents of Participants



Another defining characteristic of the non-traditional student, commuting time and distance, has repercussions for time and access to academic supports. City University data for all students indicated 91% of students commuted rather than lived on campus (City University Student Profile Fall 2016; City University BCSSE Beginning College Student Survey of Engagement, Fall 2016). All study participants were commuters; none resided in on-campus housing. Eighty-three percent of the survey participants reported driving their own cars to school and 11% used public transportation to commute to school (Figure. 4). Fifty percent of the survey participants spent 30-40 minutes to travel to school, while 6% spent 45 minutes to one hour on their commute. Two students (11%) spent more than one hour to travel to school (Figure. 5).

Figure 4
Survey Demographics for Transportation to School

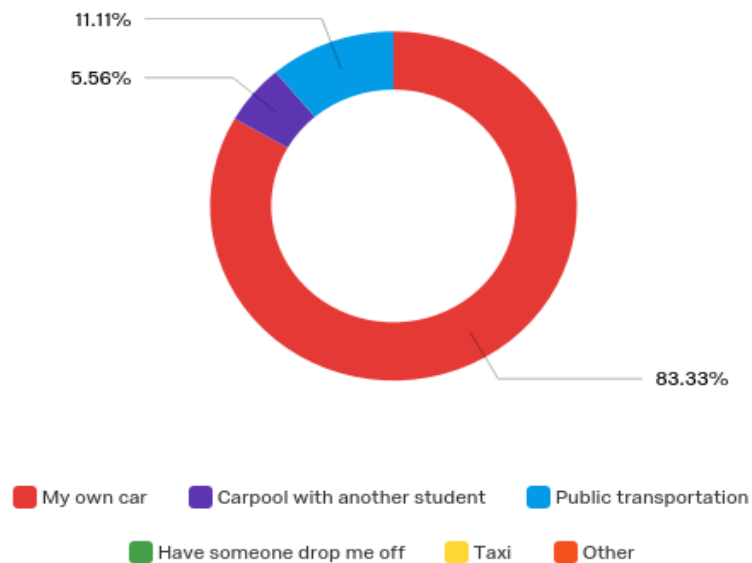
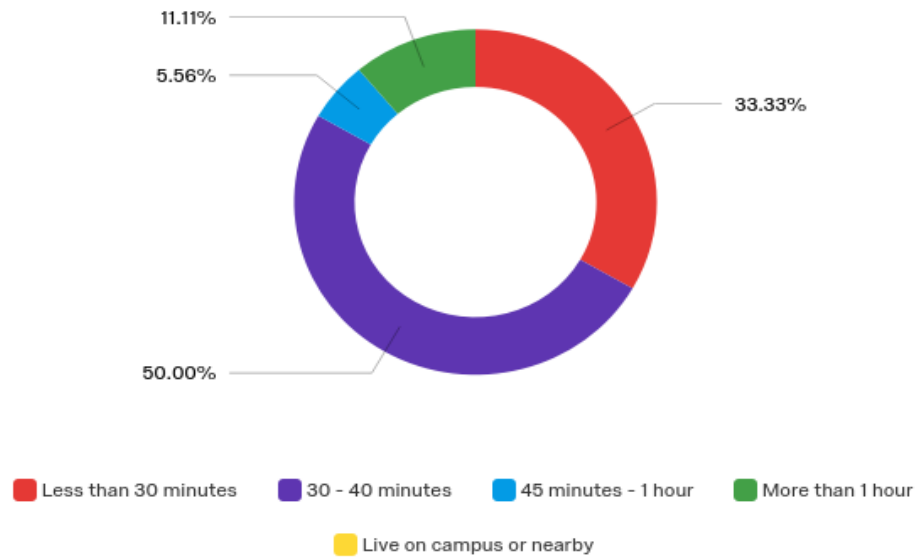
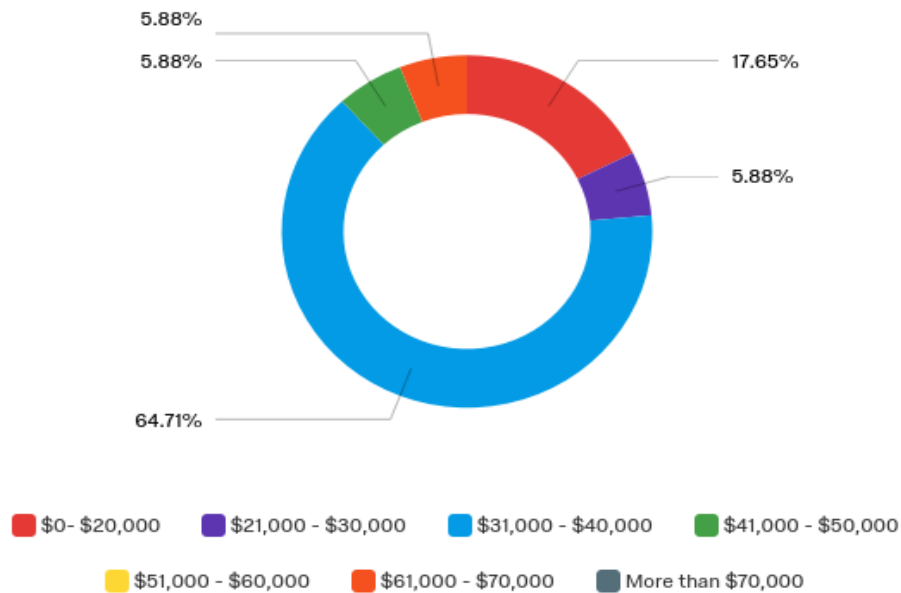


Figure 5
Survey Demographics for Commuting Time



City University student data systems reported that 60% of students had family incomes below \$50,000 (City University Student Profile Fall 2016; City University BCSSE Beginning College Student Survey of Engagement, Fall 2016). Sixty-one percent of participants in the study reported family incomes of \$31-40,000 (Figure. 6). Lower SES students report more pressure balancing school, work and family than do higher SES groups, affecting retention rates (Bowen, Chingas & McPherson, 2009; Creighton, 2007, Matthew, 2010). One student’s concise statement reflected the concerns of many, saying, “I need to work on my time management with my personal life.”

Figure 6
 Survey Demographics for Income of Survey Participants



Awareness, Use and Preference Data

The survey was used to collect demographic data about African American students in the COE and CON with GPAs below 2.75, and to gain an understanding of students' perceptions of academic supports. Results are presented for the Writing Lab, Math Lab, Net Tutor, Multicultural Student Services and study groups. This information will be followed by student preferences for faculty as academic supports, and mentoring and study groups. Figures 7-10 have combined information from multiple survey questions.

Research question #1- awareness of academic supports. Only 11% did not know about the Writing Lab (Figure 10). Thirteen percent did not know about the Math Lab. Thirty-seven percent of the study participants did not know about Net Tutor. Fifty-six percent indicated they did not know about Multicultural Student Services and 44 percent of the students did not know about campus study groups (Figure 10).

Research question #2- use of academic supports. Forty-four percent of the students used the Writing Lab and stated they thought it was helpful to use this support and were comfortable with the tutor. The 56% who did not use the Writing Lab said they had no time to use it, or indicated they were working too much and the hours of the Lab were not convenient. In the open-ended questions portion of the survey, one student mentioned it was difficult to obtain appointments and there were not enough tutors available in the Writing Lab. For students with complicated commitments and scheduling problems, one unsuccessful trip may have meant they did not try again to use the support. Students asked for more walk-in help and preferred not to make appointments. Half of the students used the Math Lab, while the other half did not use it. Eighty-seven percent of those who used it thought the Math Lab was helpful, but 12.5% disagreed. It is unknown if those who disagreed were discouraged by difficulty accessing the service or had other negative experiences. One student reported dissatisfaction with treatment from a tutor. Those who did not use the Math Lab reported that they did not need math assistance, they were working too much, it was too far to go, they did not know about it, they had family commitments, and the hours were not convenient (Figures 7,10, Appendix D1). A common complaint from those interviewed was that the labs were not open long enough to accommodate evening students' schedules: "By the time we get out of class, everything is closed," and "We need access to late night tutoring. Labs close early."

Only 12.5% study participants used Net Tutor for assistance. The students who used Net Tutor stated it was very helpful and they felt comfortable with the online format. The most commonly cited reason for not using Net Tutor was participants did

not know about it. One person did not feel she was treated respectfully when she needed help (Figures 7-10, Appendices D1-2). The researchers attempted to access Net Tutor on numerous occasions, finding it frequently unavailable during advertised hours due to technical issues, very difficult to locate on the learning platform, and the interface awkward and unwelcoming. Net Tutor did not allow the establishment of trust or relationship for the surveyed students, something that is valued by African American students according to the literature (Fullilove & Triesman, 1990; Hollands, 2012; Palmer, Ryan, & Maramba, 2010).

Those who used Multicultural Student Services found the services to be helpful and were comfortable using them. Reasons given for not using this support were students did not feel they needed these services, or did not have time (Figures 7-10, Appendices D1-2). Comments on the open-ended questions hinted that there was some confusion about who could receive assistance from Multicultural Student Services and some African American students did not feel they were eligible for these services.

Campus-organized study groups were used by 25% of the students, who found them helpful and were comfortable with the leaders. Students stated “working too much” and “no time” as reasons for not participating (Figures 7-10, Appendix D1-2). Both the COE and CON experienced disappointing results when study groups were offered in the past. Students frequently signed up for the groups but failed to attend in any numbers that would make the service worthwhile or feasible financially for the colleges. The comments from interviewees about study groups illustrated that this topic had some of the most statistically ambiguous results and greatest variances in responses. Students indicated a desire to participate, but previous negative experiences with making groups fit

their schedules may have affected their opinion of the usefulness of the groups.

Comments included, “I don’t have time for a study group,” and “Everyone is busy.”

Figure 7

Use of Academic Supports

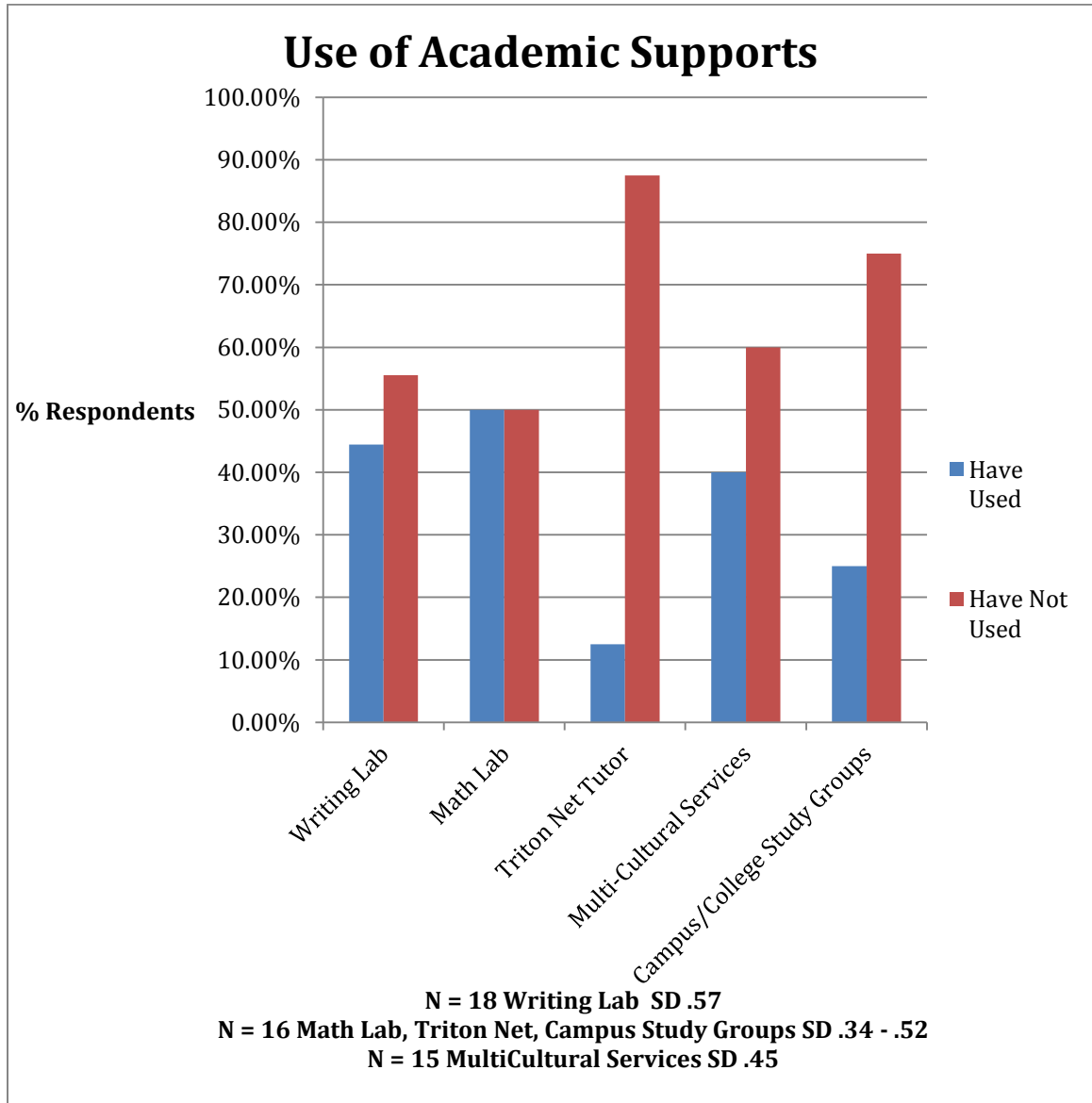


Figure 8
Use of Academic Support Was Helpful

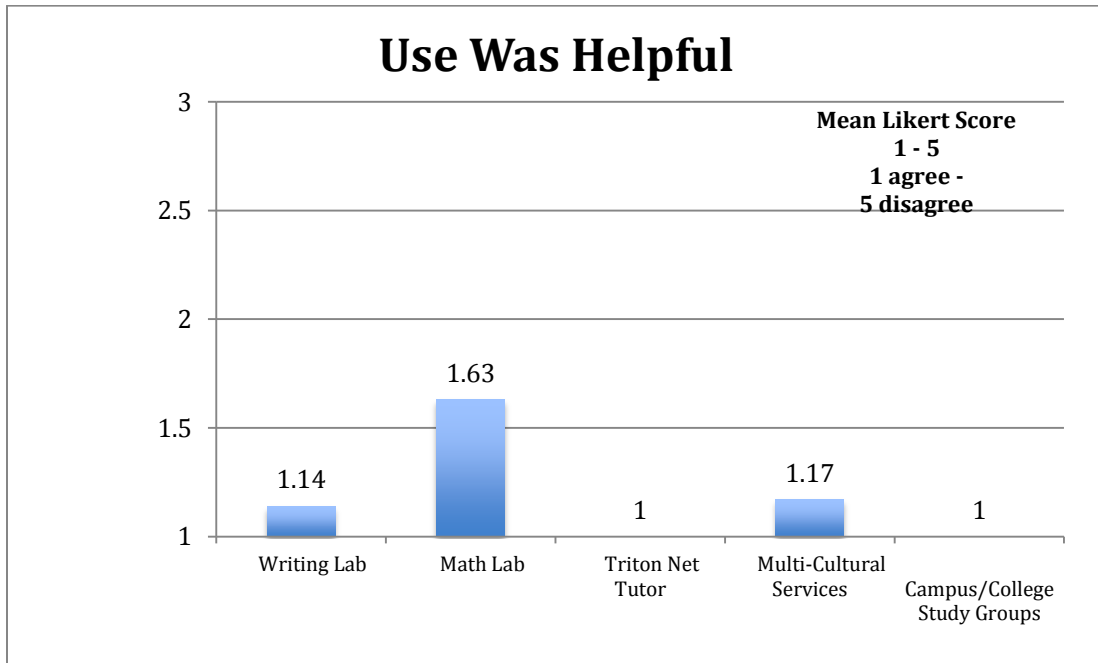


Figure 9
Comfortable with Tutor

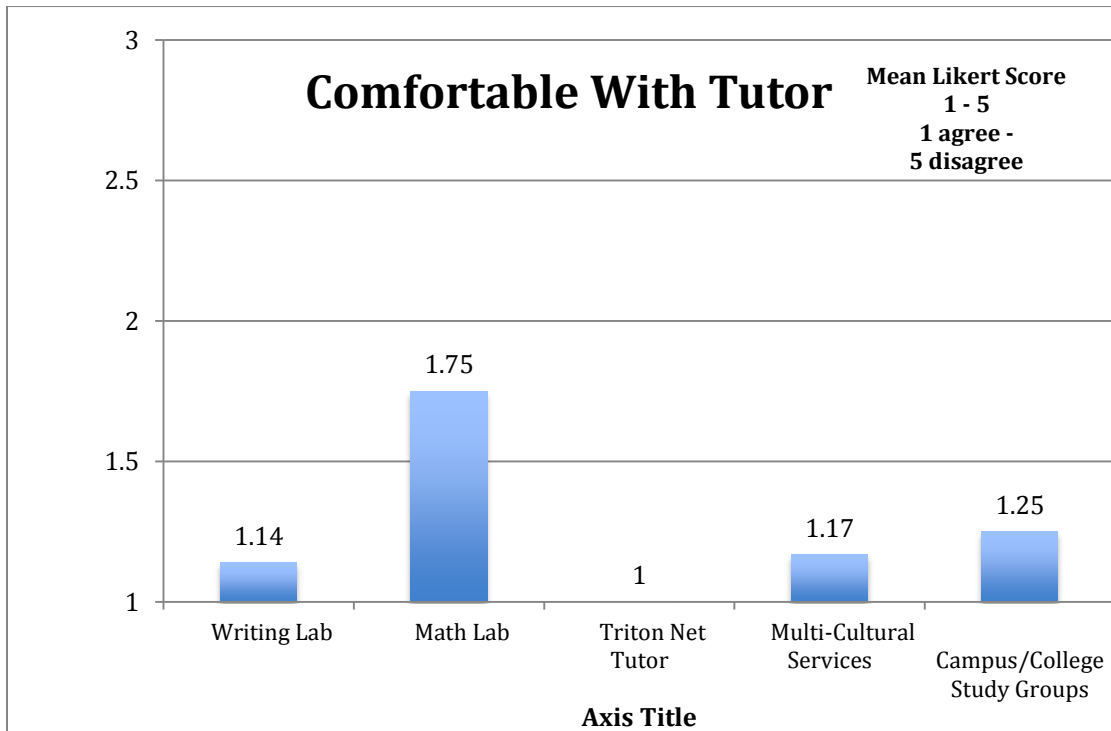
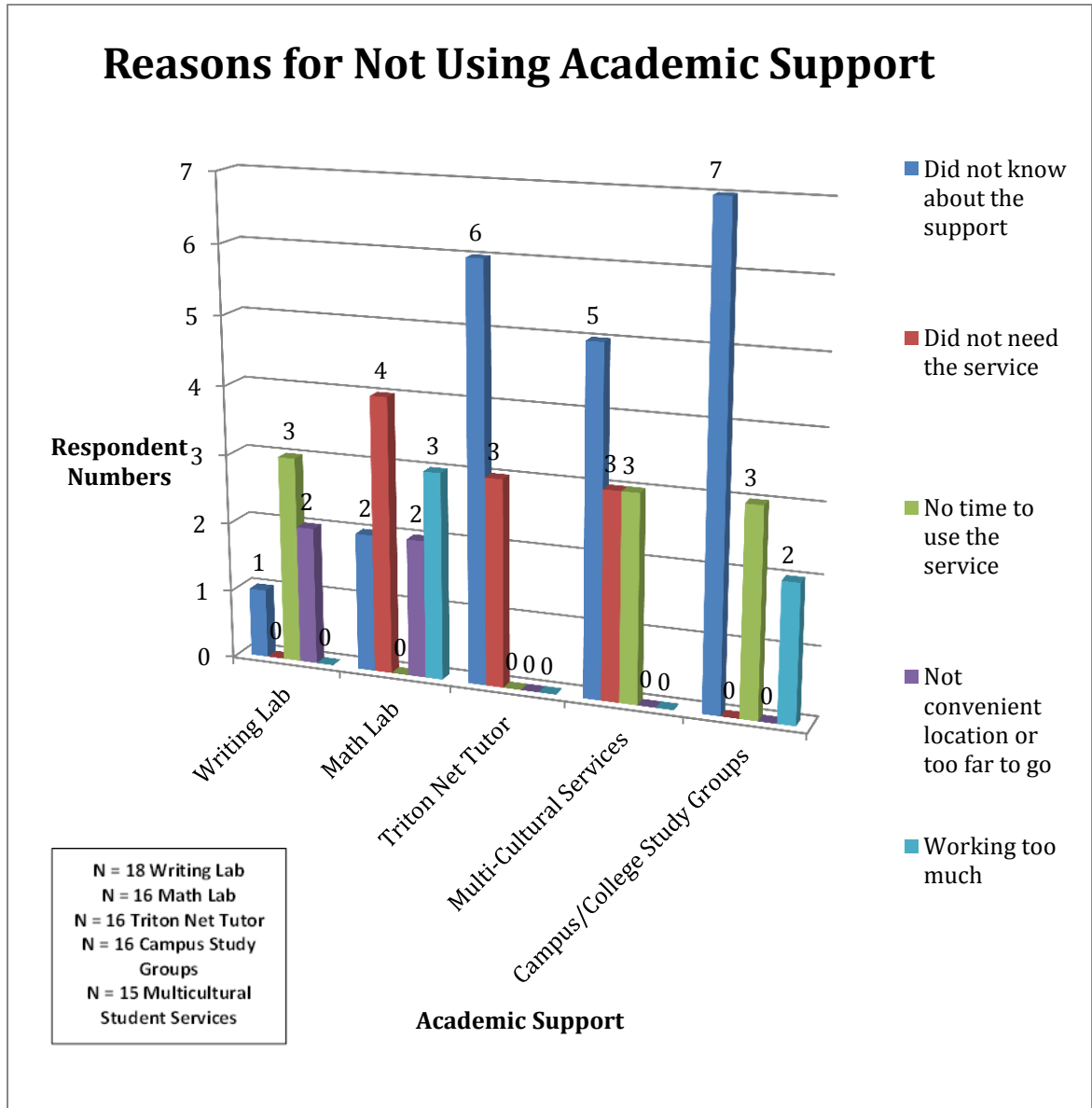


Figure 10

Reasons for Not Using Academic Supports



Research question #3- preferences for academic supports. Students indicated they wanted faculty support and mentoring, more accessibility of supports, time management skills, assistance with online courses and technology, use of social media for support, and study groups that would not conflict with their schedules. Comments from the open-ended options in the survey provided further insight and depth regarding

preferences academic supports. Students asked for help with time management and creative solutions within courses for dealing with schedule conflicts and group work. Other responses revealed that rearranging schedules would be more helpful in an evening-weekend program in nursing. Comments from the survey highlighted the need for faculty and other campus offices to continually and frequently point out the resources available and explain access to services. Surveyed and interviewed students desired better communication about what supports were available to them to assist in their academic success.

Students also requested help with online course technologies and asked that instructors use social media to provide guides and calendars. Students wanted time in class or tools provided in online courses for communication and organization, using smart phone technologies. They requested assistance in learning, accessing and managing available online tools. Students requested more in-depth experience using technology in high school and did not feel prepared for the technology requirements of college.

Interviews provided the most information about what was needed by this group. Themes that emerged from the interviews included a) professors need to be more available to and supportive of students, b) supports need to be available at all hours, c) students need help with work/school/time management schedule conflicts, d) students need more help with online courses and technology, e) students would like use of social media for support and communication, and f) diversity in study groups and mentoring was desired, not a single culture or ethnicity (Appendix G).

Preference for faculty as academic support. All survey participants were either extremely or somewhat comfortable talking to their professors about their grades and all but two were comfortable approaching their professors when they were not successful in class. The need to have professors show a personal interest in their academic progress in order to be successful ranged more broadly across the possible responses with the majority of participants indicating that this described them very well to moderately well. A majority of participants believed that professors should offer personal assistance or referrals if the student was struggling. One student spoke for the wishes of most of the interviewees, saying, “I would like my professor to sit down with me and help me understand the material.” Another student was disappointed in the lack of personal interest in students exhibited by faculty, stating, “I’ve had teachers who come to class and teach, then walk away.” Another simply reported, “I didn’t feel my professor had a personal interest in me.”

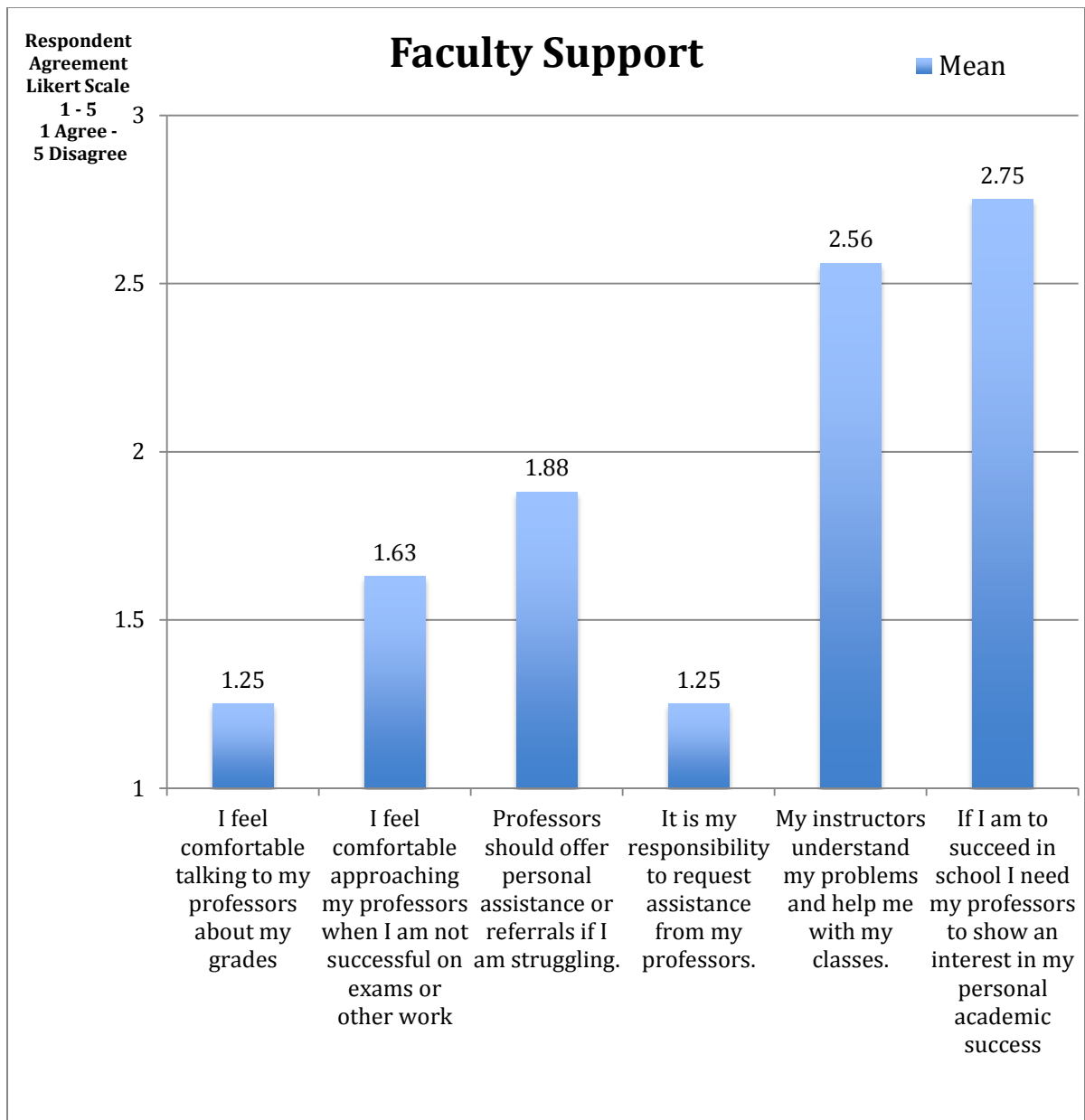
Fourteen students agreed that it was the responsibility of the student to ask for assistance, two students agreed somewhat, and no students disagreed with this statement (Figure 11, Appendix E). This result was somewhat different than discussed in the literature, which indicated that this population would find it difficult to approach faculty for help (Lareau, 2002). This discrepancy may have been influenced by the older age of the participants, and their comfort level with approaching teachers.

The expectation that faculty should reach out to the student was still present and participants requested more face-to-face contact and access to faculty for help in courses. As one student said in the interview, “Sometimes you need to come and talk to a professor who knows the information.”

Preferences for study groups and mentoring as academic supports. Almost one half of the participants preferred to study in groups made up of their own peers, but two stated that they might or might not, and three stated they definitely would not, indicating very little agreement about preferences for studying in peer groups. Peers were defined primarily as classmates in the same program. No participants described their preferred peer group as those from the same cultural or ethnic group (Figure 12, Appendix F). This result was unexpected. The literature pointed to African American students' preference for same-ethnicity groups and faculty mentors for group leaders (Baker, 2013; Kobrak, 1992; Pope, 2002). Participants said they valued diversity because, "I can learn from those who are different than me," and, "Cultural diversity is very important," and, "Diversity can help students adjust to cultural differences and eliminate biases."

Survey results identified no agreement about the usefulness of student-led study groups; the responses were spread across the rating scale. Interviews revealed that one student was in a study group and found it very helpful when her schedule allowed. Other interviewed students said they would like to have peer groups, but peer groups were not utilized because they felt there was no time. Negative student experiences with study groups and time management may have affected responses.

Figure 11
 Mean Scores for Preferences for Faculty Support



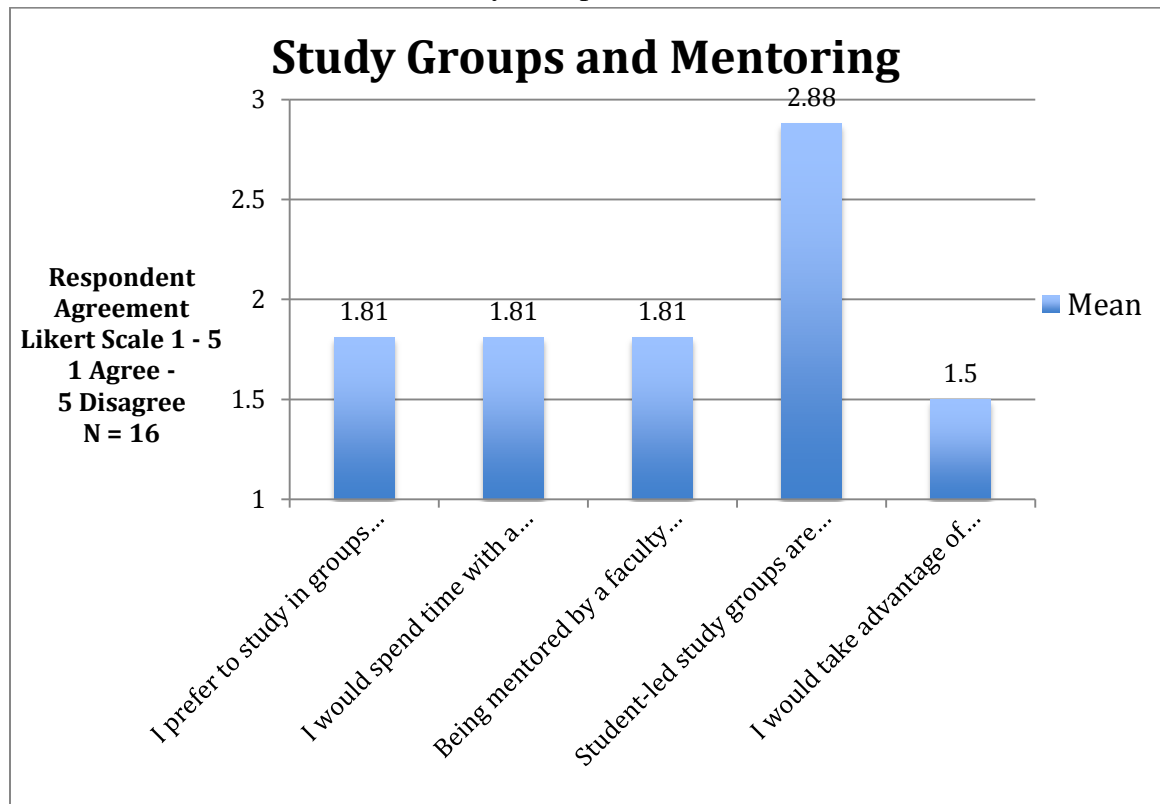
Results of the survey indicated there was more agreement about spending time with a faculty mentor; 87.5% agreed or somewhat agreed that they would spend time with a faculty mentor, and 81.25% reported that they strongly agreed or agreed that being mentored by a faculty member would help them succeed in school (Figure 12, Appendix

F). Interviewed students repeatedly mentioned their wish for more time to be spent with the faculty, as reflected in the literature (Holland, 2012; Nieto, 1990). One student reported her disappointment that her teacher did not know her name and teacher was not interested in spending time with students before and after class or in being available to lead study groups and meet with students.

Sixty percent of study participants indicated that it was not important that the faculty study group leader or mentor be from their ethnic or cultural group, which was another departure from the literature (Baker, 2013, Kobrack, 1992). Two students did report that a preference for a same-culture mentor described them extremely well. One student suggested making academic supports more responsive to cultural preferences by having the tutor or professor ask the student how and what they wanted to concentrate on when they came for help.

Over 80% of the surveyed students indicated that they would take advantage of faculty-led study reviews or groups (Figure 12, Appendix F). The interviewed students were in agreement with the desire to have more faculty involvement in study groups and individual assistance.

Figure 12
 Mean Scores for Preferences for Study Groups



Summary of Key Findings

This study examined the academic supports used by and preferred by African American students who struggle in the COE and CON at City University, a Midwestern PWI. Survey results indicated most students were aware of the Writing and Math Labs but less than half were aware of the Multicultural Student Services, Net Tutor online services and campus study groups. The academic support with the highest rate of use was the Math Lab, followed closely by the Writing Lab. Less than half of the participants used Multicultural Student Services, and even fewer students utilized Net Tutor and campus study groups. Responses most commonly cited indicated for failure to use academic supports were “No time” and “Working too much.”

Preferences for academic supports included a) more access to faculty, increasing faculty encouragement and support for students, and increasing one-to-one contact with faculty, b) late night access to online supports and additional locations c) walk in-availability at the Writing and Math Labs d) social media to help with time management and meeting deadlines, and assistance with technology, and e) peer study groups that would not conflict with work/other schedules. Chapter 5 will discuss and interpret the findings.

Discussion and Conclusions

Introduction

Chapter 5 provides a summary of key findings of the study, discussion of those results and important conclusions. The literature suggested that institutions survey their individual student populations and develop academic support systems for their localized minority students' needs (Creighton, 2007; Lomotey, 1990). Published studies have examined preferences for learning styles and instructional methodologies for African American students, but have not focused on student preferences for academic supports (Crieghton, 2007; Lomotey, 1990).

The researchers used a mixed method design to solicit data regarding the awareness, use, and perceptions of existing academic supports in the College of Education (COE) and College of Nursing (CON) at City University, a Midwestern Predominantly White Institution (PWI). The results identified preferences for academic services and supports preferred by academically struggling African American undergraduate students in the two colleges.

Minority students remain underrepresented at PWIs and graduate at lower rates than White students (Lomotey, 1990; Bowen, Chingas, & McPherson, 2009; City University Database Report, 2016). Many PWIs have not made significant efforts to adjust traditional academic support systems to the cultural, academic learning, and lifestyle differences of these students (Baker, 2013; Bridges, Cambridge, Kuh & Leegwater, 2005; Hollands, 2012; Matthews, 2010). Literature indicated that academically struggling African American students required particular supports for success (Baker, 2013; Bridges, Cambridge, Kuh & Leegwater, 2005; Hollands, 2012;

Matthews, 2010), but PWIs continue to offer the academic, faculty, instructional and social supports utilized and preferred by White, middle class college students (Benton, 2001).

Academic success is dependent upon more than the content and delivery of academic supports. Student factors such as academic preparedness, skills in dealing with institutions and authority, and external obligations and relationships add to the equation for success or failure (Crieghton, 2007; Dennis, Phinney & Chuateco, 2005; Guiffrida, 2006; Lareau, 2002). Universities desiring to increase the retention rates for African Americans and minorities need to understand these factors to develop appropriate academic skills. This includes defining the cultural and academic needs of these students as they may differ from the predominately White middle class students (Matthews, 2010). City University's non-traditional students travel significant commuting distances to the university and are often married, work full-time jobs, and have families (City University Database Report, 2016, City University Student Profile, 2016). Returning to campus for support services is an option, but one that is not often convenient for many full-time or part-time commuter students. Childcare is an expensive and complicating factor for many (Monroe Community College, 2013). City University's COE withdrawal surveys found that family, personal, and work issues were the primary reasons for withdrawal from college, followed closely by financial concerns (Meadows, 2015, 2016).

The demographic data collected from the survey illustrated the non-traditional status of the students; specifically, 79% were in the 24-40 year age group, 80% had a dependent partner and/or children, 100% were commuters, and 88% had incomes below \$40,000. Knowledge of how many hours these students worked might have provided

additional insight into assessing interaction with the institution, but this was not asked in the survey. The findings supported the use of Bean and Metzner's (1985) definition of the non-traditional students as part of this study's theoretical framework for culture and social interaction on retention and graduation. Bean and Metzner's study indicated external factors of the nontraditional student contributed to low academic performance.

Preferences of the participants of this study for academic supports included a) access to faculty, faculty encouragement and support, and one-to-one contact with faculty, b) late night access to online supports and additional locations for supports c) walk-in availability at the Writing and Math Labs d) social media to help with communication, time management and meeting deadlines, and e) peer study groups that would not conflict with work/other schedules.

Major findings

Awareness and use. Survey results indicated most students knew about the Writing and Math Labs but only about half were aware of the Multicultural Student Services, Triton Net and campus study groups. The Math Lab had the highest rate of use, followed closely by the Writing Lab (Figure 7, Appendix D1). Less than half of the participants used Multicultural Student Services, and even fewer students utilized Net Tutor and campus study groups (Appendix D1). The most frequently selected survey response for failure to use services was "No time." Interview results supported these data. These data support the findings of the withdrawal surveys from the COE that report only 1.6% of students utilized the Multicultural Student Services (Meadows, 2016). Comments made by students when asked why they did not use these services included

“I’m too busy,” “labs are not open after evening classes,” “times are not convenient,” “location of Writing and Math Labs is not convenient.”

Preferences for faculty support. There was a preference for professors to show a personal interest in surveyed students’ academic progress, and some agreement that this personal interest was needed for them to be successful (Figure 11). Seventy-five percent indicated that this described them very well to moderately well. A majority of participants believed that professors should offer personal assistance or referrals if the student was struggling. Interviewed students echoed the feeling that professors should take a personal and expressed interest in their success, and this was the most frequently cited preference concerning supporting their academic performance. Students wanted more face-to-face, one-on-one contact and access to faculty for assistance with courses. Creighton (2007) and Chickering and Gamson (1987) identified principles for effective academic support, linking Vygotsky’s theories of social interaction and learning success to programs that create academic improvement for minority undergraduate students. These principles involved significant faculty interaction with students, which was an indicated preference for City University students.

Interviewees expressed a desire for increased faculty encouragement and support, and wanted professors to care about them and their success (Figure 11), noting that the community colleges did a good job of this, but they did not find this to be true at City University. Nieto (1999) and Hollands (2012) showed that African American students appreciated when a professor expressed concern, made an effort to seek them out and provided motivation and positive discussion.

In contrast to referenced literature by Baker (2013) and Kobrak (1992), students in this study did not indicate preferences for African American faculty. Perhaps the questions asked in the survey and interviews did not offer participants the opportunity to express their preference for students or faculty mentors of the same ethnicity. Questions were asked about culture but not ethnicity to avoid inadvertently leading the students to address the topic. It is possible that the questions did not provide sufficient permission for participants to feel comfortable exploring the ethnicity preferences for faculty, or students may have answered in a way they perceived as more socially acceptable responses. It is also possible that SES factors and non-traditional student factors (such as an older average age) were stronger factors. Responses may indicate an attitudinal shift from the literature in this local population. Determination of the basis for this difference with other research would require further study.

Student interpretation of faculty expectations may be influenced by what Collier and Morgan (2008) refer to as the ability to fulfill the college student role. This ability is influenced by social background, particularly impacting first generation college students. For example, faculty frequently believe that they have stated time and priority requirements, standards for assignments, and accessibility and communication channels, but non-traditional and first generation students commonly report confusion over these expectations. Non-traditional and first generation students may generalize expectations from other courses and rely upon visual and verbal cues to understand instructors and the learning environment. They demonstrate resistance to reading syllabus and course expectations, often preferring to interpret course expectations from what they hear in class or understand from other students (Collier & Morgan, 2008). These preferences

could pose challenges for online courses and prove even more difficult for this population to navigate. Students transferring from community colleges and non-traditional students often do not understand that writing expectations may go beyond grammar and a concise argument, or what it means to apply critical thinking skills. Non-traditional students in the Collier and Morgan (2008) study reported feeling they had few resources when they had questions and preferred asking faculty for assistance, even though resources were at hand. Interviewed students in this study reported a need for assistance in understanding nearly every assignment and felt they had no one to ask about the specific assignment requirements or material covered in class in time to submit, revealing a dependence on the instructor for this clarification. They requested the use of easily accessible social media to provide contact with peers for clarification if no instructor was available.

Training for faculty may assist with an awareness of the importance of multiple methods for communicating expectations, checking for misunderstandings, modeling for interactions, suggestions for opening discussions, boundaries, and methodologies for providing support and personal contact in online platforms. Faculty may need to take time to review and demonstrate access to resources, rather than just posting available resources. Faculty should be encouraged to communicate convenient and creative options for availability and provide some office hours or Skype office hours in the evenings. City University has a platform for this type of service, but faculty may prefer not to use it, or does not know how to access it, indicating a need for training from faculty resources.

Preferences for study groups. Survey results indicated there was no agreement about the usefulness of study groups and the responses were spread across the rating

scale. Students may have indicated they were not interested in groups because they were not able to make them work in the past, not because they saw no value in the groups. Interviews revealed that one student participated in a study group when scheduling allowed and found it very helpful. Other interviewed students stated they would like to have peer study groups, but groups were not utilized because students felt there was no time. The non-traditional status of these students makes this a preference that may not be able to be developed due to conflicting schedules and lack of time. This suggests that faculty might find it useful to intentionally encourage students to self-form study groups as available from individual classes and allow time or add time to the end of class meetings for these students to establish as ad hoc groups. Multiple references in the literature indicate African American students find the support and collaboration of groups a form of community preferred as an academic support (Kimbrough, Molock, & Walton, 1996; Thompson & Fretz, 1991; Benton, 2001).

The literature suggests that faculty mentors leading study groups for this population should be African American (Baker, 2013), but students in this study did not indicate this was preferred. Tinto (1999), Fullilove & Triesman (1990) and Hollands (2012) stated that African American students preferred collaborative learning and learning communities of their own ethnicity, but interviewed students repeatedly indicated a preference for diversity in their learning and study groups, rather than exclusivity for their ethnic group. Most surveyed students reported that it was not important that the faculty study group leader or mentor be from their ethnic or cultural group. This is contradictory to the literature (Tinto, 1999; Fullilove & Triesman, 1990; Hollands, 2012; Pope, 2002) which indicated African American students preferred

mentors from the same culture. It is possible this may be a cultural shift, a local preference, or it may be the result of the failure to ask questions that would allow for this preference to be explored. Social desirability bias may have been responsible for the responses. Results may indicate that the non-traditional demographics of the participants exerted a greater influence on preferences for academic supports than other preferences reported for African American students in the literature (Bean & Metzger, 1985; Bridge et. al, 2005; Hollands, 2012; Kangas, 1993; Kobrack, 1992). The average age and life experiences of the non-traditional participants in this study may have influenced preferences. Older non-traditional students may be more confident in their role as a student and in their ability to navigate the institution than the younger, undergraduate African American students. Perhaps these non-traditional older students have a reduced need for same-ethnicity community support than do traditional African American undergraduate students. Further study would verify the accuracy or inaccuracy of these inferences.

The interviewed students also indicated a desire for more faculty involvement in study groups and individual assistance, regardless of the faculty member's ethnicity. A college-wide search and incentive program for faculty who would lead or rotate as leaders or mentors might improve these opportunities for students. The CON at City University currently has a faculty mentoring program for all nursing students and the COE had plans to involve faculty in mentoring and other supports at the time of this survey. This research study will be useful in designing and customizing these programs.

Preferred academic supports from interviews. The interview themes provided more depth to the responses for preferences reported in the survey. Suggestions from the

participants for preferred academic supports included a) access to faculty, faculty encouragement and support, and one-to-one contact with faculty, b) late night access to online supports and convenient locations for supports, c) walk-in availability at the Writing and Math Labs, d) social media to help with communication, time management and meeting deadlines, and e) peer study groups that would not conflict with work or other schedules.

Access to faculty. The preference for access to faculty, faculty encouragement and support, and one-to-one contact with faculty was the most frequently mentioned preference expressed by the interviewed students. Chickering & Gamson (1987) and Bridges et al, (2005) suggested faculty interaction with students contributes to development of skills necessary for academic success for underrepresented populations at PWIs. Students mentioned, “Teachers could come in early to class to answer questions.” Encouraging faculty to meet with students, exhibiting caring and concern for the students’ success and being available to answer questions or explain material might improve student performance. Class size sometimes prohibited faculty from knowing each student personally, but faculty could improve support of students by reaching out to students who seem to be struggling, or by responding with personal assistance and resources if the student requests help.

Access to supports. Interviewed students preferred late night access to all academic supports. Students wanted teachers, tutors, and labs to be available 24 hours or at least late at night. Classes were not over until after 8:00 PM for evening students, but students asked for opportunities after class to seek assistance. At the time of the survey, The Writing Lab closed at 7:00 PM Monday through Thursday, 2:00 PM Friday, was

open 1:00 PM-5:00 PM on Sunday and closed entirely on Saturday. The Math Lab closed at 7:00 PM Monday and Thursday, 8:30 PM Tuesday and Thursday, was open 1:00 pm -5:00 PM Sunday and was closed on Saturday. The Net Tutor online tutoring service was open from noon until midnight on Monday, 9:00 AM-11:00 PM Tuesday through Thursday, 9:00 AM-4:00 PM on Friday, 1:00 PM -5:00 PM on Sunday and closed Saturday. Net Tutor support was difficult to access and very few survey participants knew about it. The researchers attempted to access Net Tutor and found the resource difficult to locate, technical issues were common and the service was not reliably available. Students might use Net Tutor more if it was easier to access, if tutors were available all hours, and if the program was more personal and intuitive. Models exist at other universities that allow students to select their tutor from photographs and published biographies and local tutors are available 24 hours a day online (Stanford University, 2017). Private or grant funding sources for these extended hours might be required and paid graduate students could serve as online tutors. Saturday hours are not available at the Math Lab, Writing Lab or Net Tutor. Providing Saturday hours may be helpful for part-time and evening students. Attempts were being made at the time of this survey to obtain a grant to fund on-campus Saturday childcare at reduced costs or on a scholarship basis for students. This service would be more useful to students if academic supports were available on Saturdays.

Students also requested Writing Labs and Math Labs to be located at more convenient locations on campus and that the labs offer walk-in appointments. Providing more locations for the Writing and Math Labs could prove beneficial, as well as extending daily hours to 10:00 PM or midnight, and adding Saturday hours. This would

allow part-time and evening students the opportunity to go to the labs after evening classes and extend time available for full time or day students to use the services.

Limited campus finances may restrict the ability to offer multiple locations and hire staff to allow walk-ins and prevent waiting for services, but investigation of funding from community partners could provide additional financial assistance to extend hours and increase the number of support locations. When the researchers explored availability of Multicultural Student Services, and required an in-person application and there were waiting lists for all services.

Communication. Another preference of interviewees was assistance with reminders about homework using phone accessible social media provided in each class. Students suggested setting up a group Facebook page to post important documents or announcements. Faculty might use Skype or twitter to remind students about assignments. Students requested increased communication regarding available academic resources, but resources needed to be available on smart phones, not just computers. The busy life of the non-traditional student makes the use of smart phones more convenient and not all students had home internet access or home computers. A bulletin board feature was requested on the online learning platform that would allow students and faculty to post important information or reminders of activities on campus. Students wanted faculty to provide support in the use of social media in the classroom, perhaps setting aside time in classes or providing platforms online to establish communications within the class. Students wanted to be able to incorporate group study time and social media formation in classes, while they were all together, or have simple frameworks for communication and group formation for students available online. Suggestions made by

students were “[The faculty can] use text messages to keep students informed.” One interviewed student nurse shared, “We have a Facebook page called Class of 2017 School of Nursing, and we use it to remind each other of tests or homework.” Resources such as these are currently offered on City University’s learning platform, but students are unaware of them and faculty does not always utilize the platform in the courses.

Time management. Students requested assistance with time management skills, which are essential to the non-traditional and first generation college student. One student stated, “I need to work on my time management.” Student orientation programs provided information for time management assistance programs on campus but non-traditional students frequently skip orientation or lose track of information provided early in a program. Orientation for transfer students is offered online and students may progress to the end of the orientation program without full completion. Faculty might direct students to programs assisting with time management offered through Retention Services, and post tips and references to groups offering assistance on campus. Other campus services included individual and family counseling, childcare assistance and transportation, but students often could not or would not locate and access the information regarding these services on their own. Frequent reminders of how to access resources are needed by this population (Collier & Morgan, 2008).

Preferences for study groups. Students mentioned they wanted study groups that would not conflict with their schedules, but the lifestyle of the non-traditional student is not conducive to forming study groups when schedules are different and no one has extra time. Comments made by students in the interview were, “I don’t have time for a study group” and “Everyone is busy.” There are students who do form their own study

groups, but finding time in their non-traditional lifestyle is difficult. Faculty may want to allow in-class time for group formation and meeting scheduling. Platforms are available to students and faculty to create study groups within the class if faculty is aware of the platforms and knows how to implement the tools.

The COE and CON at City University have attempted to establish evening and weekend hours and study groups, but insufficient numbers of students responded in the past and services were unable to be sustained. It may be that the non-traditional student lifestyle and external factors limit these students' ability to access the supports they say they prefer. Orientation and first-year experience courses could include more extensive and thorough use of the learning platforms and academic supports, and must be repeated every semester. The study's non-traditional students appeared to require repetition to retain awareness about what is available (Collier & Morgan, 2008).

Other Findings Related to the Literature

Most students participating in this study indicated it was their responsibility to request help from faculty (Appendix D3), which was a surprise and a deviation from the literature (Matthews, 2010). Two students felt the professor should come to the student, but in general, students in the study indicated that while preferring supportive faculty, they also needed to be responsible for seeking help. It is unknown if students are better prepared to navigate the college environment in 2017, or if this is specific to City University. It may be a result that represents sampling error or poor instrument design. It is possible that the older, nontraditional student is more prepared for the expectations of PWIs and more prepared to take responsibility for his or her academic progress rather

than relying on faculty intervention than were the traditional undergraduate African American students in earlier studies.

The predominance of students surveyed and interviewed were between the ages of 24 and 40. Expectations of institutions by the non-traditional participants may be different for different age groups. The external factors that impede the performance of non-traditional students (Bean & Metzner, 1985) may be of more importance and of more concern than factors tied to ethnic differences. The traits that define the non-traditional students in our study may allow them to mitigate the effects of socio-economic status and ethnicity, which may have produced some of the different attitudes reported in earlier research.

Other Issues and Final Comments

A number of interviewed students had problems with online programs and felt the faculty was not very helpful to them when they experienced difficulty. Some students at City University may have had minimal experience with computer technology, although it is assumed that most students come to college with experience in computer technology in high school. Reid and Moore (2008) described what students said they lacked when entering college:

The use of technology as a part of learning was mentioned by some of the students. Integrating technology into the classroom and providing opportunities for research via the Internet, submission of assignments online, and communication between teacher and student were suggested as ways of helping students develop the skills they will need in postsecondary education (Reid & Moore, 2008, p. 258).

Students appeared to be comfortable with social media on phones, but not as comfortable with online technology and software systems. Providing more assistance to these students in an era of increasing online courses would benefit many students incorrectly assumed to be savvy with computers (Reid & Moore, 2008). Socio-economic status may impact comfort with technology (Miller and Lu, 2003). Some students at City University state they do not have computers or access to internet at home. Faculty who struggle to teach their students about online techniques should seek help from faculty resources provided by the university.

Limitations

The low response rate of the survey returns was a concern, with just 20 participants, or 27% of the African American student in the COE and CON with GPAs below 2.75. The low response rate may be due to the same external factors that limit the performance of non-traditional students in an academic program. Studies showed responses to email and online surveys have been falling nation-wide (Desilver & Keeter, 2015). Students were besieged by email surveys from university and from consumer services. A request to respond to a survey might have been a turn-off without adequate compensation. Adequate compensation varies from person-to-person. Although a chance to win a gift card in a drawing was offered, this may not have been enough to entice students to respond and complete the survey. The small sample size prohibited tests for validity and reliability using coefficient measures. A sample of 40 would have allowed Cronbach's test for internal validity to be conducted, creating confidence in the survey data about preferences. The small sample size also resulted in a high margin of error, so it must be considered that the results did not represent the answers of the larger

population. A larger sample size would have allowed correlations to be explored between the demographic data and the GPAs of the surveyed students. A sample size of 60 would have allowed correlation between demographic data and questions about awareness, use and preferences.

The study was limited to examining the student demographics and attitudes from only one university and results may not be generalizable to any other university. The study sampled students from only two colleges at City University and student demographics and attitudes may differ from students of other colleges at the same university. The sample assumed that students with GPAs below 2.75 were defined as struggling in the two sampled colleges due to certification and graduation requirements, but because other colleges may have different graduation requirements, the definition of struggling may be different from college to college. Data were collected over a short time frame, which may not reflect long-term trends in minority persistence to completion of a degree and preparation for college. Differences between what students reported and what the literature indicated may have been a result of sampling error, research design, social desirability bias or a real difference in culture. The effects of non-traditional student demographics may have overshadowed cultural preferences for African American students. The small sample size prevented performing correlational studies of demographics with preferences.

Conclusions

Student demographics in the survey aligned with the demographics of the COE and CON students who have withdrawn from the City University, the overall university demographics, and the demographics that describe non-traditional students. Student

participants reported preferences for academic supports that largely mirrored those identified in the literature as desired by non-traditional and African American students: a) face-to-face access to faculty and meaningful encouragement from faculty; b) extended access hours and convenient locations for tutoring and labs; and c) study and peer groups. Student participants in this study differed from the African American students in the literature. They did not prefer study groups, study group leaders or faculty of their own ethnicity, but stated they valued diversity, or that ethnicity did not matter. A larger sample size, sampling of additional populations and expansion of sampling to other colleges might answer the question of whether these differences are due to other factors. Factors may include sampling error, poor survey and interview design (questions that do not adequately offer the encouragement to discuss ethnicity), a difference in the local population of African American students from those in the literature, social desirability bias, or an actual change in preferences due to cultural changes.

New information included a desire by participants to set up social media sites for classes and student groups to assist with time management and reminders for classes. Students requested a forum of some type for asking questions late at night or 24 hours, and expressed a need for extra assistance with technology and online class requirements. Students were ambivalent about study groups, and Likert scale responses in this area were more varied, perhaps influenced by time management issues or negative experiences with groups.

These results may be used to design academic supports for struggling African American students and may be generalized to PWIs of similar demographics and socio-

cultural settings. Application of the results to academic support design may improve retention and graduation rates for this student group.

Recommendations for Further Research

Replication of this study in the COE, CON and all colleges across City University's campus would provide additional data that might be more generalizable. This would also reduce the margin of error and allow the opportunity to determine internal validation and establishment of reliability. Conducting the survey numerous times would provide further survey validation and refinements made to the interview would allow participants to answer questions more candidly. A larger sample would also provide correlational data with demographics and preferences. City University enrollment and retention specialists have expressed interest in adopting the survey used in this study to a broader population and other specific populations on campus, assisting with validation, and utilizing data to improve campus academic supports and faculty training.

Future demographic data collected should include hours worked by students and whether students are first generation college students. This information would allow further comparison to known City University student data and correlation of non-traditional factors, local performance and preferences, and investigation of student and faculty expectations with possible solutions. At the time of this study, City University was considering the adoption of a scan-card system to track campus resources. When a card is issued to a student, demographic information would be loaded onto the card. Students would scan their card to gain entrance to the Writing Lab, Math Lab, Multicultural Student Services or other supports. Actual usage numbers would be

generated with demographic information provided. These data can be used in planning adequate resources for student use.

Knowledge of student perceptions of their own college preparedness compared with data from instructors about gaps in student skill sets would allow universities to further refine any supports offered and define the differences in faculty and student expectations contributing to low performance. This information could inform the design of academic supports and the training of faculty. Retention offices for City University's COE and CON have proposed enforceable remediation requirements for those with GPA's below 2.75 with heavy faculty involvement, but both colleges require more data about where students are encountering the most difficulties.

Other researchers associated with student performance at City University have proposed partnering with the researchers to further investigate the effects of external factors on the academic performance and support needs of non-traditional students. These studies would involve heuristic interviews and other qualitative methods. Further studies might identify if differences in preferred supports and delivery models are more related to SES and non-traditional student status than to ethnicity or culture.

A non-profit company working to connect urban high school students with colleges offering scholarships to students in with 2.5 to 3.0 range GPAs and reasonable ACT scores has approached the researchers to expand their student survey to include more data pertinent to the colleges' selection of students and assist with validation. The survey currently involves over 15,000 students per year but may expand to nearly 100,000 students. The researchers would be allowed access to all existing data and to add any questions useful to their own research. These data could provide further

demographic information related to non-traditional and minority student needs and help develop academic supports for students entering college, improving retention and graduation rates.

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APPENDICES
APPENDIX A
SURVEY INSTRUMENT

https://umsl.az1.qualtrics.com/SE/?SID=SV_3eLw1m98AzPMI9T

Academic Supports

Q1 Informed Consent for Participants in Research
Activities Academic Supports Preferred by Struggling African American
Students at a Predominantly White University
Principal Investigators: Ellen Meadows & Joan Ruppert PI's Phone #: 314-516-5937

1. You are invited to participate in a research study conducted by doctoral students Ellen Meadows and Joan Ruppert in the College of Education at the University of Missouri - St. Louis (UMSL), under Faculty Advisor Dr. Gayle Wilkinson. This survey is designed to evaluate the knowledge of, use of, and preferences for different academic supports at UMSL. 2. Your participation will involve responding to an invitation by email to complete an online survey, distributed to email addresses. You may decline below to participate in the survey. Selected survey participants will be invited by email to participate in face-to-face interviews with an interviewer unrelated to UMSL and of your own ethnicity. If invited to participate in an interview after responding to the survey, you may decline the invitation. As an interview participant, you will answer questions that will allow you to elaborate on your answers to questions from the survey. Interviews will take place in the Conference Room of the College of Education Advising Office, 116 SCCB, UMSL. Email addresses will be used only to invite randomized participants to interviews. After interviews are conducted, all email and other identifying information will be removed from data. The study will not be completely anonymous, but emails will be used only to select interview candidates and then removed from all recorded data. The researchers will seek to protect participants confidentiality at all times. Approximately 500 subjects may be involved in the survey for this study. Participants must be 18 years of age or older. The survey will take approximately 10 minutes. If you decide to participate in an interview, the interview will take approximately 30 minutes. The survey will be distributed during the months of June 2016 through June 2018, with interviews also taking place during this time. 3. There may be some minor risks or discomforts associated with this research. This may include mild distress arising from answering questions relating to your academic experience at UMSL. If at any time you wish to leave questions blank or withdraw from the study, you may do so. If you feel that you may require psychological or counseling services as a result of participation in this study, we have provided the contact information below: UMSL Community Psychological Service 232 Stadler Hall University of Missouri - St. Louis One University Blvd. St. Louis, MO 63121 (314) 516-5824 4. There are no direct benefits for you for participating in this study. However, your answers may help us develop more effective academic supports for students and may be published and used as data. Generalized demographic data, collected and maintained with confidentiality, may be used to determine if particular populations have specific needs for academic supports at UMSL. Participants in the survey will have their names entered into a drawing for a \$50.00 gift certificate. Interview participants will be

entered into the drawing a second time. 5. Your participation is voluntary and you may choose not to participate in the research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or choose to withdraw from the study. 6. We will do everything to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that might result from this study. Information provided by participants will become part of aggregate data and responses will be confidential and protected using UMSL data storage protection guidelines. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. 7. If you have questions or concerns regarding this study, or if any problems arise, you may call the Investigators, Ellen Meadows at (314) 516-7697, or Joan Ruppert at (314) 516-7076. You may also ask questions or state concerns regarding your rights as a research participant to the Office of Research Administration, at (314) 516-5897. Please print a copy of this document for your records. By clicking "I agree to participate in this study" you indicate that you have read this consent form and agree to participate. If you do not agree to participate, simply choose "I decline to participate in this study" or close your web browser.

- I agree to participate in this study. (1)
- I decline to participate in this study. (2)

If I decline to participate in... Is Selected, Then Skip To End of Survey

Q2 My age is:

- 18 - 23 yr.s (1)
- 24 - 30 yr.s (2)
- 31 - 40 yr.s (3)
- 40 + yr.s (4)

Q3 My school status is (select one):

- I am a full time student. (1)
- I am a part time student. (2)

Q4 I identify my ethnicity as:

- White (1)
- Black or African American (2)
- American Indian or Alaska Native (3)
- Asian (4)
- Native Hawaiian or Pacific Islander (5)
- Latino/Hispanic (6)
- Multiple Race (7)
- Other (8)

Answer If I most often identify as: Black or African American Is Selected

Q41 Would you be willing to participate in a one-on-one interview with an interviewer unrelated to UMSL and of your own ethnicity to give us a better idea of your preferences and needs for academic supports?

- Yes (1)
- No (2)

Q5 My dependents who rely on me for regular time commitment/emotional support include the following people (select all that apply by holding down CONTROL and SHIFT):

- Myself only (1)
- Spouse or partner (2)
- Children (3)
- Older adult (4)
- Other (5)

Q6 My primary transportation to get to and from school is:

- My own car (1)
- Carpool with another student (2)
- Public transportation (3)
- Have someone drop me off (4)
- Taxi (5)
- Other (6)

Q49 Please identify your GPA range at this time. This information will be used only to establish the general correlation of our participants to the UMSL GPA averages.

- 0 - 2.0 (1)
- 2.1 - 2.3 (2)
- 2.4 - 2.5 (3)
- 2.6 - 2.7 (4)
- 2.8 - 3.0 (5)
- 3.0 - 3.5 (6)
- > 3.5 (7)

Q7 How much time do you spend commuting to and from UMSL each day (both ways) - any form of transportation? Base this on an average day.

- Less than 30 minutes (1)
- 30 - 40 minutes (2)
- 45 minutes - 1 hour (3)
- More than 1 hour (4)

Q50 What is your immediate family income?

- \$0- \$20,000 (1)
- \$21,000 - \$30,000 (2)
- \$31,000 - \$40,000 (3)
- \$41,000 - \$50,000 (4)
- \$51,000 - \$60,000 (5)
- \$61,000 - \$70,000 (6)
- More than \$70,000 (7)

Q8 Have you used the on-campus Writing Lab?

- yes (1)
- no (2)

Answer If Have you used the on-campus Writing Lab? yes Is Selected

Q9 If you answered "yes," please indicate your answers for the following:

	Agree (1)	Agree Somewhat (2)	Undecided (3)	Disagree Somewhat (4)	Disagree (5)
Visiting the Writing Lab was helpful. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was comfortable with the Writing Lab tutor (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer Invalid Logic Click Here to Edit Logic

Q10 If you answered "yes," please indicate your answer to the following: How many times have you visited the Writing Lab in the past year?

- 1 time (1)
- 2 - 3 times (2)
- 4 or more times (3)

Answer Invalid Logic Click Here to Edit Logic

Q11 If you answered "no," what was the reason you did not use the Writing Lab? Select all that apply (hold down CONTROL and SHIFT to select more than one)

- Did not know about it. (1)
- Did not need writing lab assistance. (2)
- No time. (3)
- Too far to go or location inconvenient. (4)
- Working too much. (5)
- Family committments (6)
- Financial concerns (7)
- Hours not convenient. (8)
- Did not like the way the tutors treated me when investigating (9)
- Tutors or services are not culturally sensitive. (10)
- None of these. (11)

Q12 Have you used the on-campus Math Lab?

- Yes (1)
- No (2)

Answer If Have you used the on-campus Math Lab? Yes Is Selected

Q13 If you answered "yes," please indicate your answers the following.

	Agree (1)	Agree Somewhat (2)	Undecided (3)	Disagree Somewhat (4)	Disagree (5)
Visiting the Math Lab was helpful. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was comfortable with the Math Lab tutors. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Have you used the on-campus Math Lab? Yes Is Selected

Q14 If you answered "yes," please indicate your answer to the following: How many times did you visit the Math Lab in the past year?

- 1 time (1)
- 2 - 3 times (2)
- 4 or more times (3)

Answer If Have you used the on-campus Math Lab? No Is Selected

Q15 If you answered "no," why did you not use the Math Lab? Select all that apply (hold down CONTROL and SHIFT to select more than one)

- Did not know about it. (1)
- Did not need math assistance. (2)
- Too far to go or inconvenient. (3)
- Working too much. (4)
- Family commitments. (5)
- Financial concerns. (6)
- Hours not convenient. (7)
- Did not like the way I was treated when investigating. (8)
- Tutors or service are not culturally sensitive. (9)
- No time. (10)
- None of these. (11)

Q16 Have you used the online Net Tutor for assistance?

- Yes (1)
- No (2)

Answer If Have you used the online Net Tutor for assistance? Yes Is Selected

Q17 If you answered "yes," please indicate your answers to the following:

	Agree (1)	Agree Somewhat (2)	Undecided (3)	Disagree Somewhat (4)	Disagree (5)
The online Net Tutor was helpful. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was comfortable with the online Net Tutor. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Have you used the online Net Tutor for assistance? Yes Is Selected

Q18 If you answered "yes," how many times did you use the online Net Tutor this year?

- 1 (1)
- 2 - 3 (2)
- 4 or more (3)

Answer If Have you used the online Net Tutor for assistance? No Is Selected

Q19 If you answered "no," why have you not used Net Tutor? Select all that apply (hold down CONTROL and SHIFT to select more than one).

- Did not need the online Net Tutor. (1)
- Did not know about it. (2)
- No time. (3)
- Too difficult to use. (4)
- Working too much. (5)
- Family commitments. (6)
- Financial concerns. (7)
- Hours not convenient. (8)
- Did not like the way I was treated when investigating. (9)
- Tutors or services were not culturally sensitive. (10)
- None of these. (11)

Q20 Have you used the mentors or support and study group services offered by campus MultiCultural Services?

- yes (1)
- no (2)

Answer If Have you used the mentors or support and study group services with campus MultiCultural Services? yes Is Selected

Q21 If you answered "yes," please indicate your answers to the following:

	Agree (1)	Agree Somewhat (2)	Undecided (3)	Disagree Somewhat (4)	Disagree (5)
Multicultural Services were helpful. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was comfortable with the MultiCultural Services mentors or group leaders and members. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If Have you used the mentors or support and study group services with campus MultiCultural Services? yes Is Selected

Q22 If you answered "yes," how long did you use the services?

- 1 semester or less (1)
- 1 year (2)
- More than 1 year. (3)

Answer If Have you used the mentors or support and study group services with campus MultiCultural Services? no Is Selected

Q23 If you answered "no," why have you not used MultiCultural Services? Select all that apply (hold down CONTROL and SHIFT to select more than one).

- Did not know about the services. (1)
- Did not need the services (2)
- No time (3)
- Too far to go or inconvenient (4)
- Working too much (5)
- Family committments (6)
- Financial concerns (7)
- Hours not convenient (8)
- Did not like the way I was treated when investigating (9)
- Services are not culturally sensitive (10)
- None of these. (11)

Q24 I have used campus-organized study groups.

- Yes (1)
- No (2)

Answer If I have used campus provided or organized study groups. Yes Is Selected

Q25 If you answered "yes," indicate your answers to the following:

	Agree (1)	Somewhat Agreed (2)	Undecided (3)	Disagree Somewhat (4)	Disagree (5)
The study group was helpful. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was comfortable with the study group leaders and participants. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If I have used campus provided or organized study groups. Yes Is Selected

Q26 If you answered "yes," how often have you used campus-organized study groups?

- once or less than a semester (1)
- 1-3 times (2)
- 4 or more times (3)

Answer If I have used campus provided or organized study groups. No Is Selected

Q27 If you answered "no," why have you not used campus-organized study groups? Select all that apply (hold down CONTROL and SHIFT to select more than one).

- Did not know they were available. (1)
- No time. (2)
- inconvenient locations. (3)
- working too much. (4)
- Family commitments. (5)
- Financial concerns. (6)
- hours not convenient. (7)
- Did not like the way I was treated when investigating. (8)
- Groups are not culturally sensitive or supportive. (9)
- None of these. (10)

Q28 Select your level of agreement with the statement.

	Extremely comfortable (1)	Somewhat comfortable (2)	Neither comfortable nor uncomfortable (3)	Somewhat uncomfortable (4)	Extremely uncomfortable (5)
I feel comfortable talking to my professors about my grades. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q29 Select your level of agreement with the statement.

	A great deal (1)	A lot (2)	A moderate amount (3)	A little (4)	None at all (5)
My instructors understand my problems and help me with my classes. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q30 Select your level of agreement with the statement.

	Extremely comfortable (1)	Somewhat comfortable (2)	Neither comfortable nor uncomfortable (3)	Somewhat uncomfortable (4)	Extremely uncomfortable (5)
I feel comfortable approaching my professors when I am not successful on exams or other work. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q31 Select your level of agreement with the statement.

	Describes me extremely well (1)	Describes me very well (2)	Describes me moderately well (3)	Describes me slightly well (4)	Does not describe me (5)
IF I am to succeed in school I need my professors to show an interest in my personal academic success. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 Select your level of agreement with the statement.

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)
It is the role of the professor to inquire about my academic needs. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q33 Select your level of agreement with the statement.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
It is my responsibility to request help from my professors. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q34 Select your level of agreement with the statement.

	Definitely yes (1)	Probably yes (2)	Might or might not (3)	Probably not (4)	Definitely not (5)
I prefer to study in groups made up of my own peers. Please tell us how you define your peer group. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q35 Select your level of agreement with the statement.

	Extremely useful (1)	Very useful (2)	Moderately useful (3)	Slightly useful (4)	Not at all useful (5)
Student-led study groups are useful to my academic performance. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q36 Select your level of agreement with the statement.

	Extremely useful (1)	Very useful (2)	Moderately useful (3)	Slightly useful (4)	Not at all useful (5)
The campus writing lab is useful to my study needs. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q48 Select your level of agreement with the statement.

	Extremely useful (1)	Very useful (2)	Moderately useful (3)	Slightly useful (4)	Not at all useful (5)
The campus math lab is useful to my study needs. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q37 Select your level of agreement with the statement.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
I would spend time with a faculty mentor. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q38 Select your level of agreement with the statement.

	Describes me extremely well (1)	Describes me very well (2)	Describes me moderately well (3)	Describes me slightly well (4)	Does not describe me (5)
I would be likely to spend time with a faculty mentor or group leader only if they were from my culture or ethnic group. Please tell us how you define your culture or ethnic group. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q39 Select your level of agreement with the statement.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
Being mentored by a faculty member would help me succeed at school. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q40 Select your level of agreement with the statement.

	Extremely likely (1)	Somewhat likely (2)	Neither likely nor unlikely (3)	Somewhat unlikely (4)	Extremely unlikely (5)
I would take advantage of faculty-led study reviews or groups. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q42 Describe any academic supports not discussed in this survey that might be beneficial to your academic success.

Q43 Are there academic supports UMSL might offer that would be more responsive to your cultural preferences? Please describe.

Q44 Are there changes you would make to the way existing academic supports are offered that would better serve your personal situation?

Q45 Are there changes you would make to the way existing academic supports are offered that would be more responsive to your cultural preferences? Please explain.

APPENDIX B
 SAMPLES FROM THE EXPERT REVIEW TOOL

Survey Review
 Meadows and Ruppert
 Academic Supports
 Reviewer _____

1	Consent Form	Focus/Goal 1 2 3 4 5	Clarity/Intent 1 2 3 4 5
2	My school status is (select one):	1 2 3 4 5	1 2 3 4 5
3	I identify my ethnicity as:	1 2 3 4 5	1 2 3 4 5
4	Would you be willing to participate in a one-on-one interview to give us a better idea of your preferences for academic supports? <i>(Shown only in response to one answer from #3)</i>	1 2 3 4 5	1 2 3 4 5

APPENDIX C
INTERVIEW GUIDE

1. What are the academic supports offered at these universities that are the most helpful to your academic success?

- A. Is there anything that helps you use these services?
 - B. Is there anything that prevents you from using these services?
 - C. Is there anything else that helps you more than these services?
-

2. Have you had experiences elsewhere in your past that were helpful in your education process?

- A. Can you tell me more about them?
 - B. How did they help you?
-

3. Are there other types of academic supports that would be more helpful to your learning?

- A. Can you tell me more?
 - B. What do you mean by that?
-

4. How can your professors be more supportive of your success in college?

- A. Can you give examples?
 - B. Tell me more
-

5. If you could design the perfect program to help you academically, what would it look like?

- A. Would that program have more people from your culture in it?
 - B. What would that program include?
-

APPENDIX D
ACADEMIC SUPPORT USE AND COMFORT WITH TUTOR

APPENDIX D1
Use of Academic Supports

Academic Support	Have Used	Have Not Used	N	SD
Writing Lab	44.44%	55.56%	18	.51
Math Lab	50%	50%	16	.52
Triton Net Tutor	12.50%	87.50%	16	.34
Multicultural Services	40%	60%	15	.51
Campus/College Study Groups	25%	75%	16	.45

APPENDIX D2
Helpfulness with Academic Support and Comfort with Tutor

Academic Support	Agree	Somewhat Agree	Undecided	Disagree Somewhat	Disagree	SD	N	MN
Use was helpful								
Writing Lab	85.71%	14.29%	0	0	0	0.35	7	1.14
Math Lab	75%	12.5%	0	0	12.5%	1.32	7	1.63
Triton Net Tutor	100%	0	0	0	0	0	2	1
Multicultural Services	83.33%	16.67%	0	0	0	0.37	6	1.17
Campus/College Study Groups	75%	25%	0	0	0	0.43	4	1
Comfortable with tutor								
Writing Lab	85.71%	14.29%	0	0	0	0.35	7	1.14
Math Lab	75%	0	12.5%	0	12.5%	1.39	7	1.75
Triton Net Tutor	100%	0	0	0	0	0	2	1
Multicultural Services	83.33%	16.67%	0	0	0	0.37	6	1.17
Campus/College Study Groups	75%	25%	0	0	0	0.43	4	1.25

APPENDIX E
FACULTY SUPPORT PREFERENCES

Faculty Support Statements	Extremely comfortable	Somewhat comfortable	Neither comfortable nor uncomfortable	Somewhat uncomfortable	Extremely uncomfortable	SD	MN	N
I feel comfortable talking to my professors about my grades	75% (12)	25% (4)	0	0	0	0.43	1.25	16
I feel comfortable approaching my professors when I am not successful on exams or other work	62.5% (10)	25% (4)	0	12.5% (2)	0	0.99	1.63	16
Professors should offer personal assistance or referrals if I am struggling.	37.50% (6)	50% (8)	6.25% (1)	0	6.25% (1)	0.99	1.88	16
It is my responsibility to request assistance from my professors.	81.25 (14)	12.50% (2)	0	0	0	0.56	1.25	16
My instructors understand my problems and help me with my classes.	2.5% (2)	37.5% (6)	31.25% (5)	18.75% (3)	0	0.93	2.56	16
If I am to succeed in school I need my professors to show an interest in my personal academic success	18.75% (3)	31.25% (5)	25% (4)	6.25% (1)	18.75% (3)	1.35	2.75	16

APPENDIX F
STUDY GROUP PREFERENCES

Mentoring and Study Groups Statements	Definitely Yes	Probably yes	Might/might not	Probably not	Definitely not	SD	MN	N
I prefer to study in groups made up of my peers.	30.77% (4)	23.08% (3)	15.38% (2)	7.69% (1)	23.08% (3)	0.73	1.81	16
	Strongly agree	Somewhat agree	Neither agree not disagree	Disagree somewhat	Strongly disagree	SD	MN	N
I would spend time with a faculty advisor.	37.5% (6)	50% (8)	6.2% (1)	6.2% (1)	0	0.81	1.81	16
Being mentored by a faculty member would help me succeed at school.	37.50% (6)	43.75% (7)	18.75% (3)	0	0	0.73	1.81	16
	Extremely useful	Very useful	Moderately useful	Slightly useful	Not at all useful	SD	MN	N
Student-led study groups are useful to my academic performance	18.75% (3)	25% (4)	18.75% (3)	25% (4)	12.5% (2)	1.32	2.88	16
	Extremely likely	Somewhat likely	Neither likely nor unlikely	Somewhat unlikely	Extremely unlikely	SD	MN	N
I would take advantage of faculty-led study groups and review sessions.	50% (8)	50% (8)	0	0	0	0.5	1.5	16

APPENDIX G
THEMES FROM INTERVIEWS

Themes	#Responses	Example Quote
Professors need to be more available to and supportive of students	22	<p>“Professors don’t have time to sit and go over the material.”</p> <p>“My schedule doesn’t work with my mentor’s schedule.”</p> <p>“I e-mail my mentor, and sometimes she responds; sometimes she doesn’t.”</p> <p>“I would like my professor to sit down with me and help me understand the material.”</p> <p>“Sometimes you need to come and talk to a professor who knows the information.”</p> <p>“Teachers could come in early to class to answer questions.”</p> <p>“Professor did not meet with me about dropping the class. She said an e-mail would suffice instead of signing a drop slip and would not meet with me in person.”</p> <p>“I’ve had teachers who come to class and teach, then walk away.”</p> <p>“I didn’t feel my professor had a personal interest in me.”</p>
Supports should be accessible at all hours	16	<p>“By the time we get out of class, everything is closed.”</p> <p>“We need access to late night tutoring. Labs close early.”</p> <p>“Late night tutoring would be more helpful.”</p> <p>“Speaking to a teacher in a late night time would be helpful.”</p> <p>“A skype site or other online assistance would be nice.”</p> <p>“ A 24 hour access line or Skype site would be helpful.”</p> <p>“Labs close too early.”</p>
Students should be assisted with work, school and time conflicts	16	<p>“A class that is offered to the full time and evening students together poses conflicts when group projects are required.”</p> <p>“I don’t have time for a study group.”</p> <p>“Everyone is busy.”</p> <p>“I need to work on my time management with my personal life.”</p>
More help with online courses Students want more help with online courses	10	<p>“I struggle really bad with online classes.”</p> <p>“There should be better help for those who struggle with online classes.”</p>

Themes	#Responses	Example Quote
		<p>“Need more online apps and programs to help us.”</p> <p>“Need more tutorials and modules to go with apps.”</p>
Students request use of social media for support and communication	8	<p>“We have a Facebook page called Class of 2017 School of Nursing, and we use it to remind each other of tests or homework.”</p> <p>“Use text messages to keep students informed.”</p>
Students want diversity in study groups and mentoring- not a single culture	8	<p>“I have two Russian classmates and we formed our own (study) group.”</p> <p>“I can learn from those who are different than me.”</p> <p>“I don’t think the culture would make a difference.”</p> <p>“Cultural diversity is very important.” “Diversity can help students adjust to cultural differences and eliminate biases.”</p> <p>“I want [groups] to be more diverse.”</p>