Supporting Diversity, Equity, and Inclusion for Culturally Diverse Online Learners

Shernette Dunn
The United States Air Force Academy Preparatory School
Shernette.dunnsavery@usafa.edu

Victoria Brown
Florida Atlantic University
vbrown22@fau.edu

Abstract

As the United States and the rest of the world are trying to become more supportive of initiatives designed to support diversity, equity, and inclusion in various walks of life, higher education is also seeking measures to support diversity in higher education. Supporting culturally diverse students is central to the success of higher education institutions as the fabric of education is also changing. Culture has and continues to impact teaching and learning practices in the United States, Australia, The United Kingdom, and several other developed countries around the world (Ramburuth & Tani, 2009). Similarly, Milheim (2017) supported the role of culture in education by stating that, "not only does culture have an impact on the overall classroom experience, but it has also shown to affect learning, motivation, and satisfaction in a course" (p. 1).

The elements of all cultures need to be studied and valued in the learning environment, because if they are not acknowledged or considered, there may be negative repercussions in the teaching and learning processes, such as higher attrition rates (Milheim, 2014). Further, Kang and Chang (2016) explained that "overlooking the critical role culture plays in online learning will lead to detrimental educational and psychological consequences" (p. 780). They also posited that if culture is not acknowledged in the online learning environment, students will experience feelings of isolation, frustration, alienation, feelings of being upset, anxiousness, and depression. These feelings may lead to higher attrition rates of online learners.

Introduction

Although online learning offers several benefits such as the flexibility in attending class from anywhere and at a time convenient to the participants; this medium of delivery is not suited for all learners (Aragon & Johnson, 2008; Jaggars, 2011; Maxwell et al., 2003; and Mello, 2016). Research indicated that attrition rates for online learners are higher than rates for students who participated in traditional face-to-face delivery of instruction. Research indicates that there is a 10%-20% higher attrition rate for online classes than traditional classroom environments (Aragon & Johnson). There are several research that supports the notion that online attrition rates are higher than that of traditional face-to-face classes. However, the exact percentage of attrition rates for online students varies. For example, (Bawa, 2016) noted in a summary of different research studies that online students' dropout rates ranged from 40% to 80%. Similarly, Seery et al. (2021), explained that retention rates differed by delivery mode with community colleges' retention rates for fully online classes were 30-35% compared to 50-60% retention rates for students enrolled in blended or in-person courses. This difference between online and face-to-face classes was also observed at universities with a major difference between online students' retention rates of 60-65% as compared with those taking face-to-face classes or are enrolled in blended learning classes at 75-80%.

As a result of these higher attrition rates in the online courses, colleges and universities sought measures to retain their online learners because the loss of students affected the finances of these institutions (Harris & Martin, 2012). To understand these retention data, institutions need to understand the student population taking online classes. These students tend to be of lower socioeconomic states with 47% having incomes below $39,000 (Learning House, 2017). At the undergraduate level, 37% of the students identify with a race other than white and at the graduate level 33% of the students are not white (Learning House). With more students of culturally diverse backgrounds taking online classes, the need to ensure that instructional material and student support is

available for these populations are becoming more important. However, the literature on the effects on how the culture affects online learners is sparse, hence the need for additional research for this topic overall.

Literature Review

Online learning was growing before the pandemic. The latest report publishing data on the growth of distance learning studies indicated that 6,359,121 higher education students were taking at least one online class with 47.2% of those students exclusively online (Seaman et al, 2018). In the spring of 2020, the world experienced an unexpected disruption with the rapid spread of the Covid-19 virus. To protect citizens, higher education institutions around the world closed campuses and began offering and/or increase their distance learning courses online. Although, campuses are reopening for the 2021/2022 academic year, converting to online instruction in the future will be viewed as a solution for other outbreaks such as a severe flu season or weather events.

Several factors contribute to the previously mentioned high attrition rates among online learners. Students of low economic status experience (a) higher cognitive load due to lack of familiarity with online learning systems and low teacher interaction, (b) higher family obligation, (c) lack of motivation based on course design and lack of real-world issues and context in course materials, (d) being uncomfortable with education technology, and (e) perception differences between students and instructors about quality of course design (Bawa, 2016). Certainly, such a high attrition rate is of concern to administrators, educators, and policymakers in higher education (Bawa, 2016). Educators who are aware of the skills students need to be successful in the online environment, are also concerned with the attrition rates. Some researchers indicate that a large majority of online learners might not be equipped for the distance learning environment but are still enrolled in these classes. However, there is no one concrete reason as to why different demographics of students display a certain level of readiness or lack thereof (Lambert et al., 2014).

Although the reasons for high attrition rates among online learners has been studied, these studies are inconclusive and focused on areas such as motivation and grit to persist towards degree completion. However, research about the level of resiliency among students varies based on several factors such as age, lived experience and cultural backgrounds. While resiliency theory is important to student success, it is important to examine resiliency also from a cultural perspectives and geographic locations. This is necessary because students' resiliency is often developed based on lived experiences and cultural backgrounds. To support this point, van Breda (2018), noted that socioeconomic factors and development status contributes to one's level of resiliency. He explains that people from the Global North may be more prone to adversity related to natural disasters while people from the Global South, may experience other types of adversities such as poverty, and war, combined with natural disasters. As a result, people from different geographic regions, countries and cultures have different levels of resiliency traits that they bring to the online classroom that may contribute to their overall success as college students. Conversely, resiliency and student success are closely interwoven. According to (Brewer et al, 2019), they noted that resiliency is "one of the most important factors to student success and well-being, satisfaction and successful transition into higher education" (p.1108). This study was conducted to explore how culture impacts success in online learning. Of interest are variables that are connected to culture such as racial and ethnic backgrounds, socioeconomic statuses, first or primary language spoken, prior educational experience, and a student's age as determinants of success in online courses.

For the purposes of this study, culture is defined as "acquired behaviors, perspectives, and values characteristic of a particular group or community" (Uzuner, 2009, p.2). This definition allows the researchers to examine culture as a complex construct that comprises the shared values, behavior patterns, mental models, and communication styles of cultural groups from an educational perspective (Kinasevyeh, 2010).

Just as culture is impactful in a traditional educational setting, e-learning courses contain cultural artifacts and are embedded with the cultural values, preferences, characteristics, and nuances of the culture within the design inherently creating challenges for learners from other cultures (Kinasevyeh, 2010). The cultural backgrounds of learners also significantly impact learning because ethnic, racial, linguistic, social, religious, or economic differences can cause cultural disconnection corrupting the motivation to learning (Altugan, 2014). When examining the effects culture and ethnic background have on student success, scholars have noted that these factors do play a role in persistence to matriculation and attrition in classes (Altugan, 2014; Tapanes et. al, 2009).

The current literature indicates that there are stark differences between the way online students from Eastern cultures perceive and learn in the Western classroom spaces. To illustrate, students from China, Singapore, Japan; and some other Asian countries embrace the collectivist culture where learning is a group effort and students share ideas and other aspect of the learning process which is part of their collectivist culture (Kang & Chang, 2016; Uzuner, 2009; Tapanes et al, 2009). This same collectivist culture and communal type learning is also

practiced in some other non-Asian countries to include students from some Caribbean, African, and South American countries (Strangfeld, 2019; Hunter-Johnson, 2016; & Hofstede, 1980). Students from these countries often bring their cultural practices with them into the online classroom where they openly share knowledge and resources which are an integral part of their cultural practices and essential to their survival. This sharing of resources may involve providing their classmates with the answers to questions or helping them to complete work that is meant to show individual effort and knowledge. However, this collectivist type cultural practice is not the norm in the United States or many other countries in the Western world. Because this practice is not readily embraced in the online educational system, it often proves to be problematic for international students and other immigrant groups studying in the USA, or using a US based curriculum (Tapanes, at et., 2009; Kang & Chang, 2016). Some of these cultural challenges are contributing factors to the high attrition rates among these groups of students in both on-line and face-to-face classes in higher education.

Students in the United States, Australia, New Zealand, Ireland, The United Kingdom, and Canada embrace an individualist view towards learning and do not always like to engage in group learning (Lemke-Westcott & Johnson, 2013). In individualist cultures, emphasis is placed on individual learning and personal success rather than achieving shared goals and objectives (Gunawardena, et al., 2003). However, although collectivism is a major part of some Eastern countries' cultural norms and practiced in most of the countries in that region, not all countries embrace this practice. For example, although India is on the Asian continent, they embrace an individualistic culture like developed countries in the Western World (Milheim, 2014). In the United States, most of the population embraces the individualistic view, however, some students who are classified as African-Americans or have African ancestry adopt a collectivistic learning strategy as a part of their ancestral culture (Carson, 2009). To improve learning outcomes, accommodating to these cultural differences allow educators to approach their instruction from a non-homogeneity point-of-view (Gunawardena et al., 2001).

As a result of these differences in cultural learning preferences and differences that exists, students from some Eastern cultures, the Caribbean, and some South and Central American countries who are attending universities in Westernized cultures face several cultural challenges in online learning. For example, students from those cultures are more likely to be cited for plagiarism due to not properly citing their work or documenting the aid received from classmates (Strangfeld, 2019). Similarly, communication in academia presents another challenge. Although students are expected to know and be proficient in the English language, students' communication is often rooted in their cultural experiences even if they can speak English well. This is demonstrated in the way students from cultures outside the US write and speak. In some cultures, articles are not present in their speaking. As a result, the lack of articles in their writing causes students to lose points for mechanical grammar errors (Chan, 2019).

Differences in both verbal and non-verbal language usage affects students in online learning environments based upon their cultural background. Students from some cultures will not effectively and honestly provide feedback to their peers' responses because their culture does not support questioning or communication that may be viewed as confrontational. Students from some Asian and Hispanic cultures might not provide sincere critiques because they use facial recognition patterns or non-verbal cues to complement their verbal communications. Without those cues embedded in their written communication, they provide minimal feedback that will not be viewed as confrontational (Tapanes et al., 2009).

Another example of cultural effects on learning in online environments is evident in the way students from low-power distance cultures communicate with their professors. Some students are overly communicative; while others do not communicate or interact with professors. For example, students who are from the Caribbean, the People's Republic of China, the Republic of China, Sri Lanka, and Thailand may see the professor as someone who is above their level, and as a result may be uncomfortable communicating with them (Hofstede, 1980; Uzuner, 2009). Lack of communication or poor communication poses a problem because they are not seeking clarification to complete assignments or on feedback received from professors to improve their work (Milheim, 2017; Tapanes et al., 2009). Students are expected to participate in online discussions, however, some from Asian cultural backgrounds are hesitant to interact in the online discussions (Tapanes et al., 2009). This hesitancy is due in part to some Asian students' cultural belief, are rooted in Confucius teachings, and other low-power cultures in which respect for authority leads them to be non-argumentative or non-confrontational in both educational and professional interactions (Kang & Chang, 2016; Kinasevych, 2010; Uzuner, 2009). Awareness of the hesitancy is an important remediation for this void in appropriate communication among certain groups of students.

Other factors that contribute to culturally diverse students not being successful in the online learning environment is the students' confidence level with the English language. Some students have the language skills to communicate but are not sure of the cultural expectations regarding communication in the Western class setting. This factor manifests in students not knowing how to express disagreement appropriately in English (Biesenbach-

Lucas, 2003). For example, some Middle-Eastern students are hesitant to participate in online discussions because they do not want to be perceived as been too eager, showing off, argumentative, or appearing to be too smart by their American peers (Uzuner, 2009).

Students enroll in online classes for several reasons including the need to be able to express themselves in such educational settings. Students raised in the United States, especially those from upper and middle class backgrounds believe online class provide a better forum to voice their personal opinions which creates a sense of belonging in their classes Uzuner, (2009). Therefore, the mindset of American students is more open which may contribute to efficacy and to feeling welcomed in any space unlike students from some other countries and cultures.

Conversely, students from some Hispanic cultures are not aware of the formality and power distance relationships that exist between professor and student relationship. As a result, students are not aware of the appropriate way to communicate with their instructors; hence they may behave as if they are equals. To illustrate, instead of addressing the professor using their formal title, some students address the professor by their first names (Jauregui, D. & Neiman, C. 2018).

This practice is also seen in the interactions with some American students and their professors. For example, "American students tend to communicate more with instructors because they perceive them to be equals, whereas Korean and Chinese students report low levels of comfort in approaching their instructors" (Uzuner, 2009, as cited in Wang, 2007, p.9). The power distance relationship is seen among students from the Caribbean as well. As an illustration, Haitian-American students are very respectful and refer to their academic leader as either teacher or professor depending on the context (Hauldin, 2020). As a result, students in the online learning environment from these cultural backgrounds may be more passive and not engage in self-directed practices, which is a key component for success in online learning (Gunawardena et al., 2003).

Another area in which culture affects student success in online classes has to do with a student's socio-economic background. This variable has gained much attention in higher education in the United States recently as colleges and universities examine retention measures used to retain their culturally and socio-economically diverse student population (Ramburuth & Tani, 2009). The students' socioeconomic status creates a sub-group because their identities are shaped by common, shared experiences (Wyatt-Nichol & Brown, 2011). These experiences are based upon levels of income, types of occupations and educational attainment level.

According to Rogers and Wang (2009) socioeconomic factors impact student success in higher education because some students from lower socioeconomic backgrounds do not have the materials and resources needed to be successful in their online classes. Additionally, online learners from lower socio-economic backgrounds experience challenges in online classes as they juggle multiple activities while trying to pursue their degrees. These students often sacrifice their education to support other family members such as siblings or older relatives. As a result, instead of finishing their degrees, they focus on working to provide for family members sometimes as the sole caregiver for their relatives (Altugan, 2014).

Low socioeconomic factors are also a national concern that affects graduation rates of students from these backgrounds. Among the students who enter colleges in the fall of any given year, only 39% of African-American students and 49% of Hispanic heritage will graduate within six years (Morales, 2014). The graduation rates for students from these lower socio-economic backgrounds are far lower than their peers. Educators, administrators and policy makers found this trend to be troubling. These low percentages for matriculation further indicate that these culturally diverse students from lower socio-economic backgrounds need to be better supported so as not to attrit out of their college classes.

When exploring culture in online learning from the viewpoint of a students' ethnic or racial backgrounds, many attributes are found to differentiate each sub-group of students. Students from various ethnic backgrounds interact with online learning based on their prior educational experience, their socio-economic background, and their level of interest. Some research highlighted that although students are familiar with various technology and devices, such as using Smartphone, and applications such as WhatsApp, not all are familiar with using instructional technology to be successful in the online learning environment. Possessing the required devices and being able to effectively use instructional technology is central to online research (Bawa, 2016; Kebritchi et al, 2019). In self-reporting data, the lack of proficiency with technology skills could be a detriment to online learners. This may be causing students to earn lower grades and failure in online classes. This skills deficit points to the usage and availability of resources in certain cultures, countries, and among some socioeconomic groups and not others. For example, in several parts of the world where Internet access is not readily available or is very expensive, students are proficient in using WhatsApp to communicate globally. Students in the international

community uses applications such as Whatsapp to communicate with peers and sometimes professors in online settings (Sabzalieva et al, (2021). However, American professors who are from middle-class backgrounds can purchase Internet services and may not always use these free or inexpensive modes of communication. Hence, the digital divide becomes a barrier to a student especially those in the international community when trying to communicate with professors using a modality that the professor does not use in their online discourse (Jaggars et al, 2021). The effects of application usage, technological skills, and socio-economic factors are central to the research of (Bawa, 2016; Kebritchi et al, 2019). They posited that not having the above skills could be a detriment to online learners, and may cause students to earn lower grades, fail their online classes, or cause an increase in the already high attrition rate for online learners.

When exploring the impact of ethnicity on student success, research indicates that African-American and Hispanic students are more likely to attrit out of higher education more readily (Willging & Johnson, 2004). This higher attrition rate among these two demographic groups of students can be attributed to several factors. Research indicates that mindset, socio-economic factors, first generation students, and not having effective mentors are all factors that contribute to the high attrition rates for these two ethnic groups of students (Morales, 2014). In another study, it was noted that in online interactions, some minority students' responses are often overlooked by both peers and instructors, and as a result, they may be discouraged and withdraw from classes (Sublette, 2020). These findings indicate that there is work that needs to be done to close the digital and cultural divide that exists between students from various racial, cultural, and ethnic groups (Black et al., 2019; Sublette, 2020). Furthermore, Hispanic students reported that the major challenge they have is communicating effectively with instructors and peers. Challenges are evident when they communicate using the writing process (Lincoln, 2021).

In addition to the Black and Hispanic students who are the focus of several studies on diversity in online classes, Asian students also experience challenges in online classes due to their ethnic backgrounds, culture, and first or native language spoken. Culturally, it is expected that Asian students should excel in STEM classes. However, some Asian students struggle in these classes and require support from instructors and peers to be successful in their online course. In addition to academic support that is needed by some students from Asian cultures, these students also need interpersonal and intercultural support to succeed in online spaces. Several of these students are international students and are not familiar with the cultural norms and expectations of the American online classes (Kang & Chang, 2016; Uzuner, 2009). As a result, when placed in groups, they need specific guidance, support, and instruction on what needs to be completed and what they are expected to do.

Although the Caucasian student population is often overlooked and often not categorized as a racial or ethnic group among those students needing support, fractions of this sub-group also struggle with online learning because of their prior educational backgrounds, age, gender, or socio-economic status. Research indicates that all ethnicities need to be supported because not only is ethnicity a contributing factor that impacts student success but also their socio-economic background. Students from all ethnicities experience poverty and socio-economic challenges that may affect their success in online classes (Rogers & Wang 2009).

Rational

This mixed methods study sought to uncover the needs of culturally diverse students in online learning environments. The purpose is to shed light on how culturally diverse students' needs factor into the attrition and retention data of American colleges and universities to understand what is contributing to high attrition rate among culturally diverse online undergraduate students. The study examined how the variables of prior educational experience, age, gender, ethnicity, country of birth, first or native language spoken, and socioeconomic factors contributed to success or challenges in online classes. The research also explored how institutional and instructor support combined with cultural knowledge of their student population contributed to the successes or challenges experienced in a diverse student body of online learners.

Participants

The participants for this study were undergraduate students at a regional southeastern university in the United States. A total of 291 students participated in the study. Of those participating in the study 26.7% were males and 72.2 % were females. The ethnic breakdown of the participants are as follows, 27.9% African Americans, 23.6% Latino/Hispanics, 33.6% Caucasian/ White, and 4.7% Asians or Pacific Islanders, 6.5% two or more races, and 2.9% other. Of this participant group, 60% are from the United States. The other 40% are from 17 other countries. See Figure 1 for the breakdown distribution of the 9 different first language spoken.

Figure 1
First Language Spoken by Participants
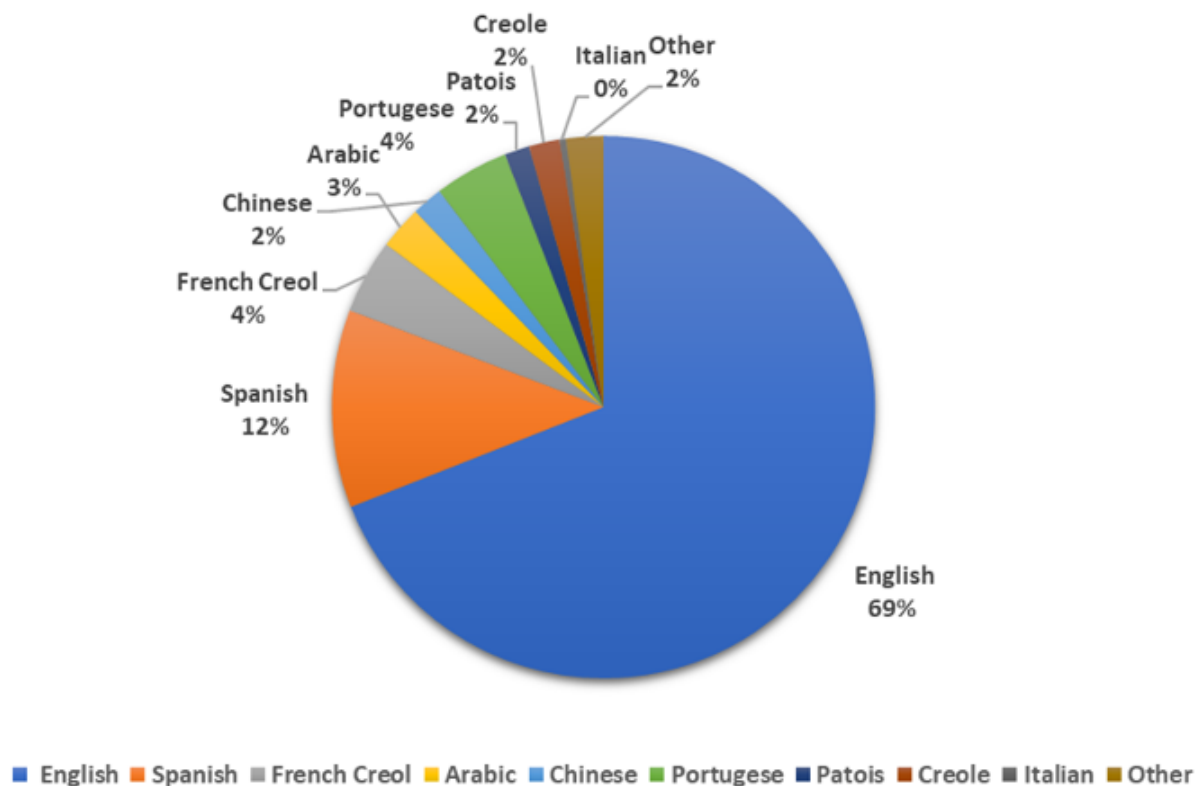
Instrument and Data Collection

Students were sent the survey link and asked to complete the survey using Qualtrics software to collect the quantitative data. There is no clear indication of the number of students who received the survey because the institution facilitated sending the link directly to 1000 undergraduate students, and the researcher also asked 495 undergraduate professors to disseminate the survey link as well. Questions on the survey were adapted from the Smarter Measures Learner Readiness Indicator (SMLRI) instrument. The survey consisted of 61 questions that focused on obtaining answers to each of the three quantitative research questions. The research questions that guided the study are as follows.

Questions:

Guiding Question:

What are the learner attributes and skills needed for culturally diverse undergraduate students to be successful in the online learning environment? And what institutional support is needed to be successful in online classes?

Research Questions:

1. How does a student's prior educational experience, age, gender, ethnicity, country of origin, and first language spoken, predict their success in an online class? (Quantitative)
2. To what degree is institutional support, as perceived by students, associated with success in an online course? (Quantitative)
3. What is the relationship between online readiness and the variables of prior educational experience, age, gender, ethnicity, country of origin, and first language spoken? (Quantitative)
4. What skills do students report they need to be successful in an online course, and why? (Qualitative)
5. How are institutional support perceived by the student associated with success in an online course? (Qualitative)

This data was analyzed using regression analysis to analyze each variable *(prior educational experience, age, gender, ethnicity, country of origin, and first language spoken)* listed for each of the three quantitative questions. Qualitative data was collected through two qualitative questions during both in-person interviews and video

conferencing applications. The purpose of the interviews was to further explore and clarify results from the quantitative results.

Findings

The findings from this study were mixed. The results of the quantitative and qualitative portion of the study provided slightly differing results. In response to research question 1, the model of the regression indicated that there were no significant relationships between most of the variables examined. However, when a final regression analysis was conducted to determine the relationship between the variable country of birth and success in online courses there was a significant relationship between the 2. The selected criterion variable of note was grades earned and the predictor variable was country of birth. Unlike all the other analyses, this was the only model that predicted a significant relationship between any of the dependent and predictor variables. The results are shown below in Table 1. The model summary indicated that .032 or 3.2% of the variance in the criterion variable was explained by the model, adjusted $R2=-.011$, $F(9, 205)=.745$, p=0667, with a standard error of the estimates =061239.

Research question 2 indicated that three of the variables were significantly correlated with preparation for online learning contributing to predicted success in online classes: country of birth (other), grades earned on prior schoolwork, and confidence based on prior educational experiences (See Table 1). The relationship between country of birth was relatively small, but positive with a p-value of .024 and a correlation of .13. The trend was that students who are born outside the United States are slightly more prepared for online learning.

Table 1
Correlations of Variables Predicting Perceived Success for Online Learning as a Result of Readiness

Variable	1	2	3	4	5	6	7	8	9
1. Prep. for online learning									
2. No. of online course taken	-.12								
3. Female	-.07	-.02							
4. Age	.12	.19	-.01						
5. County of Birth other	.13*	-.04	.06	.17					
6. Highest level of educ. comp.	.09	.23	-.04	.3	.08				
7. Prior educ. exp.	.42*	-.27	-.08	-.18	.00	-.06			
8. Grades on prior schoolwork	-.26*	.11	.06	.11	.06	.09	-.23		
9. Male	.10	-.01	-.96	.02	-.05	.02	.07	-.09	

Notes: *p<.05. 1 = preparation for online learning; 2 = number of prior online courses; 3 = female participants; 4 = age of participants; 5 = country of birth other = country in which participants were born, not USA; 6 = highest level of education completed; 7 = prior educational experience; 8 = grades earned on prior schoolwork; 9 = male participants.

The finding for research question 3 indicated support for differences between the variable confidence. Of the variables measured, prior educational experience and preparation for online learning were the most significant among all predictor variables with the level of significance at $p< .05$, with a correlation of .42. This data is referenced in Table 1. The correlation between readiness for online learning and grades earned on prior schoolwork was also significant at $p<.05$. However, this was negatively correlated with a correlation of -.26. The regression analysis revealed significant with an overall $p<.05$. Also, $R2=.274$, $F(8,190)=8.942$, an adjusted $R2$ of .243.

The qualitative finding (research questions 4 and 5) indicated that culturally diverse online students need three main skills to be successful in online learning environments. These skills are time management, self-directed skills, and computer and technical skills. Students also indicated that instructor and institutional support were vital to their success.

The participants provided a list of resources and support they need from both the instructor and institution to be successful in online classes. Of the nineteen students who participated in the qualitative study, 15 of 19 students indicated that it was important for online students to have computer and technical skills to succeed in online classes. Students who were not proficient explained the challenges for lack of skills presented for them. They indicated that they were working on measures to increase their skill set in this area. One student noted that to be successful in online classes, "… you need to know how to type, you need to know how to upload a file or an

assignment. Um, a lot of research that we do is online, so you have to be able to access the library through the internet".

Other students emphasized the need to have good time management skills and noted that it is central to their success. They noted that if online students do not develop a set schedule and rid themselves of procrastination, they will fail their classes because of not turning in assignments on time, or not having enough time to effectively study and prepare for exams.

Self-directed learning is a skill that all nineteen participants indicated is important to online success. They explained that as adult learners, instructors have expectations of them to be able to organize, learn, communicate, and produce quality work. However, responses varied greatly based on students' background, prior educational experiences, gender, and socioeconomic status.

In addition to the needs listed above, respondents indicated the need for instructors and the institution to be more attuned to their needs. Although the institution provides a plethora of resources, some students were not aware of the resources or were not able to access them due to several limitations including scheduling. Additionally, students want instructors to understand that they are all unique and different regardless of their ethnicity. Several students emphasized the need for instructors to become more culturally aware and the need for better communication of support and resources available for these students.

Discussion

The results of this study indicated that culturally diverse learners reported three main skills that are essential to their success in online learning environments. Although, all the variables examined were not significant predictors to the success of online learners, the results of this study provide insight into the needs of culturally diverse learners. The country of origin and prior educational experiences were significate indicators of success. A surprising result of students outside of the United States were slightly more prepared for online education could indicate that socioeconomic status and resiliency factors based on cultures could be intervening variables that should be examined closely in future studies.

Within the qualitative data, students identified the skills of time management, self-directed skills, and computer and technical skills as necessary for success. Students also indicated that institutional and instructor support are vital to their success in online classes. The results also highlighted the need for educators and distance learning administrators to become more aware of both the deep and surface culture attributes and skills that contributes to either persist or attrit out of institutions of higher education by students. These findings are helpful to educators, administrators, and policymakers when planning for or designing online courses for culturally diverse learners. Faculty development departments may also use these results in professional development opportunities to aid faculty and staff who serve a culturally diverse adult online student population. The dissemination of these findings may also aid in reducing the high attrition rate of culturally diverse learners in online environments by encouraging more readiness assessments for students who are enrolling in online courses. Determination of the students' level of readiness for online learning will guide student academic affairs administration in providing the support culturally diverse student populations need to thrive in online learning spaces.

Recommendations

The results of this study indicated that culturally diverse students' needs are not adequately met in some institutions of higher education. Furthermore, this unmet need is a contributing factor to the high attrition rates of culturally diverse learners. In this study the two main support students indicated they needed from the institution was e-tutoring and instructor supportin the form of direct communication and embedded support in the learning management system.

The results of this research were mixed in that some culturally diverse students indicated that the institution were effectively meeting their needs and promoting student success. This sentiment was especially prevalent among International students from English speaking countries and those who have lived in the United States for several years. International students and some traditional college aged students from middle class backgrounds between the age of 18-25 years old who lived on campus also felt most supported because they were aware of many of the services and resources that were available to aid in their success. These students felt a sense of belonging and reported that even if they are not aware of the resources, they knew who to ask. Additionally, these students were technologically savvy with the technical skills needed to be successful online learners.

However, another group of participants in the study indicated that their needs were not adequately met. The group consisted primarily of non-traditional online learners who had not taken the time to explore the resources and services the university offered all students due to various other life challenges that they were navigating as they incorporated school into their busy lives. This group of students were fully online learners who rarely visited the campus or had never been on campus. Several of these online learners lacked the technical and language skills needed to be successful in their course work. A majority of these students were language minority students and some newly arrived international students or migrants. As a result of their challenges, they felt as if they were not getting the same benefit as other students.

Although the university provides a plethora of resources and services to all students, many participants in the latter group indicated they were not aware of all the resources the university had to offer because they were not told about them. Several participants in both groups also reported that they do not read emails all the emails that a sent to them daily or weekly, and would prefer for the university to communicate with them using other forms of communication that were more personable and even in another language than English. As a result of the findings, there are several proposed recommendations to support culturally diverse students.

Institutions should provide more training for faculty and staff that focuses on meeting the unique needs of learners from various cultures. Several of the students indicated that they feel as if they are invisible and or mis-identified based on their race or ethnic origins. Students need support based on their various educational and cultural backgrounds, languages, and ability to use various forms of technology. The training would be helpful in addressing these feelings of invisibility.

Another recommendation is for institutions to be more purposeful in the way they advertise resources and services. Students from some minority cultures are often struggling with the conversion of English into their native language and navigating the communication challenges in expression of their needs, asking questions, and actively participating in discussions. As a result, they do not readily check all the email communication that is sent to them. Others may receive emails regarding resources but may not fully understand how to access these resources. With this knowledge in mind, institutions could start embedding more services in the learning management system and ask instructors to help with disseminating and clarifying information about the resources.

An emerging practice that could assist these culturally diverse learners in becoming more successful in their online course is to be provided student success coaches. This practice has been proven to aid culturally diverse students of all ages, language background, ethnicities, and other variables to persist with their degree or certification programs. According to Barup et al., (2020), students who have a community of support are more like to persist towards matriculation. They indicated that these support personnel often formed relationships with the students before their academic programs begins and helps these students to develop a sense of belonging with the institution. Those relationships continue during and beyond the courses to provide varied support which aid in the student overall success.

Some institution may use web pages as a less expensive substitution for student success coaches. At the institution in which this study took place, student success coaches are not a part of the student success initiative. As a result, the student support services are embedded into the learning management system in two ways. First, in the main menu of the learning management system is a help button which takes students to a page that has online resources that are available to them. Second, courses designed through the instructional design center also include a page of student resources in the introduction module. Finally, an online one-stop shop page is available for students who search the institution's web pages for online student support services.

Future Research

Although this study provided information needed to better understand the needs of culturally diverse learners, further research is needed to fully understand the perspectives and learner attributes of students from diverse student populations and cultures while examining the variables used in the study. Due to the limitations in the manner the survey was disseminated, most of the respondents were American born, or have lived in the US for a significant portion of their lives. As a result, they have adapted to the American system of teaching and learning and were not adversely affected with learning online in comparison with their foreign-born, linguistically, and culturally diverse peers. Future studies need to have a larger number of culturally diverse students to identify the student attributes that are impacting their success. Those studies should also take a deeper dive into examining the attributes closer to determine what within those attributes is contributing to the lack of willingness to reach out for support and knowledge of where to look for support. Finally, strategies for informing students of the

availability of the support should be evaluated to determine best practices for reaching students of diverse background.

References

Altugan, A. S. (2014). The relationship between cultural identity and learning. Procedia - Social and Behavioral Sciences, 186, 1159-1162. https://doi.org/10.1016/j.sbpro.2015.04.161

Aragon, S. R., & Johnson, E. S. (2008). Factors influencing completion and non-completion of community college online courses. The American Journal of Distance Education, 22, 146-158. https://doi.org/10.1080/08923640802239962

Bawa, P. (2016). Retention in online courses: Exploring issues and solutions – A literature review. SAGE Open. https://journals.sagepub.com/doi/pdf/10.1177/2158244015621777

Biesenbach-Lucas, S. (2003). Asynchronous discussion groups in teacher training classes: perceptions of native and non-native students. Journal of Asynchronous Learning Networks. 7(3). 24-46.

Black, D., Bissessar, C., & Boolaky, M. (2019). Online education as an opportunity equalizer: The changing canvas of online education. Interchange. https://doi.org/10.1007/s10780-019-09358-0

Brewer, M. L., van Kessel, G., Sanderson, B., Naumann, F., Lane, M., Reubenson, A., & Carter, A. (2019) Resilience in higher education students: a scoping review, Higher Education Research & Development, 38:6, 1105-1120, https://DOI:10.1080/ 07294360.2019.1626810

Carson, L.R. (2009). "I am because we are:" collectivism as a foundational characteristic of African American college student identity and academic achievement. Soc Psychol Educ 12, 327–344 (2009). https://doi.org/10.1007/s11218-009-9090-6

Chan, A. Y. (2019). Use and misuse of the ENGLISH "the": A case of Hong Kong Cantonese ESL learners. The Journal of Asia TEFL, 16(3), 859-875. https://doi:10.18823/asiatefl. 2019.16.3.6.859

Croft, N., Dalton, A., & Grant, M. (2010). Overcoming isolation in distance learning: Building a learning community through time and space. Journal for Education in the Built Environment, 5(1), 27-64. https://doi.org/10.11120/jebe.2010.05010027

Gunawardena, C. N., Wilson, P. L., & Nolla, A. C. (2003). Culture and online education. In M. G. Moore & W. G. Anderson (Eds.), Handbook of Distance Education (pp. 753-775). Lawrence Erlbaum. https://doi.org/10.1002/ace.307

Harris, H., & Martin, E. (2012). Student motivation for choosing online classes. International Journal for Scholarship of Teaching and Learning, 6(2), 1-8. https://doi.org/10.20429/rjsotl.2012.060211

Hauldin, A. R. R. (2020). Caribbean Counterparts?: The Experiences of Jamaican and Haitian Students in the Higher U.S. Education System. http://purl.flvc.org/fsu/fd/FSU_libsubv1_ scholarship_submission_1593629616_23b7cab1

Hofstede, G. (1980). Culture's consequences: International differences in work-related values. SAGE.

Hunter-Johnson, Y. (2016, November 6-8). Against all odds: Socio-cultural influence on nontraditional international learners pursuing higher education in the United States [Paper presentation]. American Association for Adult and Continuing Education (AAACE) Commission for International Adult Education (CIAE) 65th Annual Pre-Conference, Albuquerque, NM, United States.

Jaggars, S. S. (2011). Online learning: Does it help low-income and underprepared students? (CCRC Working Paper No. 26). Community College Research Center, Teachers College, Columbia University. https://files.eric.ed.gov/fulltext/ED515135.pdf

Jaggars, S. S., Motz, B. A., Rivera, M. D., Heckler, A., Quick, J.D., Hance, E. A., & Karwischa, C. (2021). The Digital Divide Among College Students: Lessons Learned From the COVID-19 Emergency Transition. Midwestern Higher Education Compact.

Jauregui, D., & Neiman, C. (2018, June 8). Student Teacher Relationships In Spain. Sincerely Spain. https://www.sincerelyspain.com/blog/2018/6/6/student-teacher-relationships-in-spain-part-i

Kang, H., & Chang, B. (2016). Examining culture's impact on learning behaviors of international students from Confucius culture studying in western online learning context. Journal of International Studies, 6(3), 779-797.

Kebritchi, M., Lipschuetz, A., & Santiague, L. (2017). Issues and challenges for teaching successful online courses in higher education: A literature review. Journal of Educational Technology, 46(1), 4-29. https://doi.org/10.1177/0047239516661713

Kinasevych, O. (2010). The effect of culture on online learning. ERIC. https://files.eric.ed.gov/fulltext/ED529665.pdf

Learning House. (2017). Online college student trend. https://cdn.degreesearch.org/images/images/1158-Online-College-Students-Infographic-Part1-Growth-and-Demographics-min.jpg

Lambert, C., Erickson, L., Alhramelah, A., Rhoton, D., Lindbeck, R., & Sammons, D. (2014). Technology and adult students in higher education: A literature review. Issues and Trends in Educational Technology, 2(1), 1-19. https://doi.org/10.2458/azu_itet_v2i1_lambert

Lemke-Westcott, T., & Johnson, B. (2013). When culture and learning styles matter: A Canadian university with Middle Eastern students. Journal of International Research, 12(1), 66-84.https://doi.org/10.1177/1475240913480105

Lincoln, N. (2021). Challenges and strategies for assisting Latino students with college access and completion. Independent Educational Consulting Association. https://www.iecaonline.com/quick-links/ieca-news-center/resource-library/college-focused-publications/challenges-and-strategies-for-assisting-latino-students-with-college-access-and-completion/

Maxwell, W., Hagedorn, L. S., Cypers, S., Moon, H. S., Brocato, P., Wahl, K., & Prather, G. (2003). Community and diversity in urban community colleges: Course taking among entering students. Community College Review, 30(4), 1-21. https://journals.sagepub.com/doi/10.1177/009155210303000402

Mello, L. V. (2016). Fostering postgraduate student engagement: Online resources supporting self-directed learning in a diverse cohort. Research in Learning Technology, 24(1), 29366-29366. https://doi.org/10.3402/rlt.v24.29366

Milheim, K. (2014). Facilitation across cultures in the online classroom. International Journal of Learning, Teaching and Education Research, 5(1), 1-11. https://doi.org/10.1002/ace.307

Milheim, K. (2017). A fundamental look at cultural diversity and the online classroom. eLearn, 2(1). https://doi.org/10.1145/3041614

Morales, E. E. (2014). Learning from success: How original research on academic resilience informs what college faculty can do to increase the retention of low socioeconomic students. International Journal of Higher Education. 3(3). 92-102. http://doi.org/10.5430/ijhe.v3n3p92

Ramburuth, P., & Tani, M. (2009). The impact of culture on learning: Exploring student perceptions. Multicultural Education & Technology Journal, 3(3), 182-195. https://doi.org/10.1108/17504970910984862

Rogers, P. C., & Wang, M. (2009). Cross-cultural issues in online learning. In P. L. Rogers, G. A. Berg, J. V. Boettecher, C. Howard, L. Justice, & K. Schenk (Eds.) Encyclopedia of distance learning (2nd ed.; pp. 527-536). IGI Global. the United States. Babson Survey Research Group. https://www.bayviewanalytics.com/reports/gradeincrease.pdf

Seaman, J. E., Allen, I. E., & Seaman, J. (2018). Grade increase: Tracking distance education in the Unites States. Babson Survey Research Group. https://files.eric.ed.gov/fulltext/ ED580852.pdf

Sabzalieva, E., Liu, L.B., & Mutize, T.,(2021). The impact of the digital divide on student mobility. University World News: The Global Window on Higher Education.*https://www.universityworldnews.com/post.php?story=2021050 4145617353*

Seery, K., Barreda, A. A., Hein, S. G., & Hiller, J. L. (2021). Retention strategies for online students: A systematic literature review. Journal of Global Education and Research, 5(1), 72-84. https://digitalcommons.usf.edu/jger/vol5/iss1/5/

Strangfeld, J. A. (2019). I just don't want to be judged: Cultural capital's impact on student plagiarism. SAGE Open. https://journals.sagepub.com/doi/pdf/ 10.1177/2158244018822382

Sublett, C. (2020). Distant Equity: The promise and pitfalls of online learning for students of color in higher education. American Council on Education. Retrieved from *https://www.equityinhighered.org/resources/ideas-and-insights/distant-equity-the-promise-and-pitfalls-of-online-learning-for-students-of-color-in-higher-education/*

Tapanes, M. A., Smith, G. G., & White, J. A. (2009). Cultural diversity in online learning: A study of the perceived effects of dissonance in levels of individualism/collectivism and tolerance of ambiguity. The Internet and Higher Education, 12, 26-34. https://doi.org/10.1016/j.iheduc.2008.12.001

Uzuner, S. (2009). Questions of culture in distance learning. A research review. International Review of Research in Open and Distance Learning, 10(3), 1-19.

van Breda, Adrian D., (2018). A critical review of resilience theory and its relevance for social work. Social Work, 54(1), 1-18. *https://dx.doi.org/10.15270/54-1-611*

Willging, P. A., & Johnson, S. D. (2004). Factors that influence students' decision to drop out of online courses. Journal of Asynchronous Leaning Networks, 8(4). 105-117. https://files.eric.ed.gov/fulltext/EJ862360.pdf

Wyatt-Nichol, H., Brown, S., & Haynes, W. (2011). Social Class and Socioeconomic Status: Relevance and Inclusion in MPA-MPP Programs. Journal of Public Affairs Education, 17(2), 187-208. Retrieved May 25, 2021, from http://www.jstor.org/stable/230361111