Assessing demographics and needs of online students before and during the COVID-19 pandemic: Lessons from academic libraries

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Abstract:

Students are integral to all universities, and online students have long been a growing and important population within higher education. Understanding the shifts of demographics and needs of online students through a global pandemic is crucial for university administrators, instructors, and librarians. For this analysis, a librarian at a mid-sized, public university performed a mixed-method study with interviews and surveys to virtual students about their academic needs before and during the COVID-19 pandemic. This study found that online students continue to want versatile and diverse library tools and resources to advance their academic success to face world challenges.

Keywords: online learning | online students | assessment | interviews | survey | student support | student success

Article:

Introduction

Students are integral to all universities, and online or virtual or distance students (students who are enrolled in programs or courses that are fully virtual) have long been a growing and important population within higher education. Online students' demographics vary by college and program, but an overall trend is that many online students are adult learners (over 23 years old) who need the flexibility of online courses for degree completion or continuing education (graduate programs, licensure, and certification) (Friedman, 2017). Based on these known demographics, universities and colleges typically build their online programs around these target populations: adult learners returning to school after an absence, transfer students, first generation students, students with disabilities, and veterans (Bouchrika, 2020). Assessing online students is crucial for retention and engagement issues in higher education because these students are juggling a variety of responsibilities while in school, and the lessons learned in these types of

studies and analyses can be beneficial to all students and personnel at a university. Online students need to be engaged early on in their academic careers and do not always have the same opportunities for connection that are available in face-to-face settings; this can leave online students feeling like they are invisible within the environment of a university or community college that have a face-to-face presence (Horvath et al., 2019).

The COVID-19 global pandemic forced many academic institutions to confront and implement online learning and put the needs of virtual students into the spotlight. The College Crisis Initiative at Davidson College data dashboard surveyed around 3000 colleges and universities in the United States during the pandemic to track their response to COVID-19. In Fall 2021, around 32 percent were fully or primarily online, around 30 percent were primarily or fully in-person, and around 30 percent were unknown or to be determined (College Crisis Initiative (C2i) at Davidson College, 2021). With the quick and oftentimes mandatory transition to more online courses, fully online students' needs and issues were thrust into the spotlight.

Mental health of students during a pandemic was also highlighted. In 2020, the Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report (MMWR) surveyed a variety of American adults–including students– on the effects of COVID-19 on their quality of life. This study found elevated anxiety, depression, and stress levels based on the pandemic, and the populations of young adults, racial and ethnical minorities, essential workers, and unpaid adult caregivers experienced worse mental health, including more trends toward idealizing suicide and substance abuse (Czeisler et al., 2020). Online students have the same mental health needs as face-to-face students (Barr, 2014), therefore addressing the mental health crisis and issues presented by COVID-19 is crucial for higher education institutions to continue to offer accessible and inclusive online programs.

The University of North Carolina at Greensboro is a mid-sized public university located in the Piedmont region of North Carolina. As of Fall 2021, 17.6 percent or almost 3400 students of UNCG's total student population of slightly over 19,000 are classified as fully online students. Of this population, 43.5 percent are graduate students and around 40 percent are black, indigenous, or people of color (BIPOC). Most of these students are part-time (67.3 percent), and most are concentrating in business, economics, and health and human services. From Fall 2018 to Fall 2021, there was an overall increase in the amount of students that were classified as fully online, with a decrease in the undergraduate population of online students in terms of percentage and an increase in the number of graduate students (UNCG Office of Institutional Research & Analytics, 2021). This is very much in line with the national statistics on fully distance students, showing that as of Fall 2019 (pre COVID-19 pandemic) 17.6 percent of higher education students were fully online students (National Center for Education Statistics, 2019).

Understanding the shifts of demographics and needs of online students through a global pandemic that has altered the landscape of higher education is crucial for university administrators, instructors, and librarians. By understanding these changing demographics and needs, universities are better positioned to include online students in programming, services, and resources. This mixed-method study aims to assess the overall needs of the online student population at UNCG before and during the COVID-19 pandemic and analyze how these lessons can apply to overall research needs and student success.

Literature review

Though there has been an increase in the marketing, design, and provision of virtual courses, programs, and services in higher education, the retention rate of this student population is low, with many ultimately dropping out and never returning to the university or college program (Simplicio, 2019; Smith, 2016). Looking at the overall wants and needs of online students is also crucial for student success, such as: instructors consistently engaging with students; providing equitable access to all university offices, including mental health services and information technology; developing a robust orientation program; and providing options for students to participate in learning environments asynchronously (Barr, 2014; Beaudoin, 2002; Glazier & Harris, 2021; Horvath et al., 2019; Travers, 2016). Evaluating online student successes and challenges during a global pandemic is also useful in understanding this group holistically (Glazier & Harris, 2021, Hamann et al., 2021).

To keep online students engaged and provide equitable services and resources, it is crucial to assess their library and research needs. There are assessments of virtual library research tutorials showing that effective online research tutorials lead to better student success (Appelt & Pendell, 2010; Blummer, 2007; Lindsay et al., 2006; Lo & Dale, 2009; Sachs et al., 2013; Saunders, 2018; Weeks & Davis, 2017) and librarians working and embedding within the learning management system (LMS), which displays the vitality of libraries integrating with the university LMS (Henrich & Attebury, 2012; Horvat et al., 2015; Mafuna & Wadesango, 2012; Marineo & Shi, 2019; Tumbleson et al., 2019). Assessing the usability of asynchronous online learning objects is crucial to university libraries, and sometimes comes in the form of usability studies on library websites, e-resources, and research guides (LibGuides) (Fry & Rich, 2011; Mitchell & West, 2017; Pant, 2015; Sonsteby & DeJonghe, 2013; Swanson et al., 2017). Learning lessons from library services and resources that serve virtual students is also valuable, such as evaluating chat and library electronic resources (Dempsey, 2019; Devine et al., 2011; Eastman et al., 2019; Ireland & Woods, 2008; Leong, 2007; Logan et al., 2019; Maloney & Kemp, 2015; Rogers & Nielsen, 2017; Valentine & Moss, 2017). Library assessment that helps online students is not always in the form of an analysis on this population; recent studies on critical assessment and creating inclusive instruction and virtual spaces also help librarians better serve all underrepresented patron groups (Catalano, 2014; Douglas, 2020; Heinbach et al., 2019; Roth & Turnbow, 2021; Tewell, 2020).

Qualitative studies that interview distance students shed light on a variety of important lessons for academic libraries: the importance of easy navigation of library resources, an uncomplicated library website, the importance of the learning management system (LMS) for interaction and resources, and getting consistent and clear communication from the library (Hill & Patterson, 2013; Lewis & Contrino, 2016; Paladino et al., 2017; Wharton, 2017). Surveys are also another technique for assessing the needs of online students, and can provide similar findings to interviewing this population in terms of the importance of patrons being able to easily and efficiently access library services and resources (Harlow & Hill, 2020; Ismail, 2016; Kvenild & Bowles-Terry, 2011; Maddox & Stanfield, 2019; Skarl & Bosque, 2019; Sterling et al., 2017). Overall, the literature shows the need to continue assessing the research demands of virtual students, particularly to see if the COVID-19 global pandemic has influenced or changed how

they interact and view the library and to build off the emerging research (Cole & Raish, 2020; Dempsey & Heil, 2021; Ezell, 2021; Nowicki, 2020; Oladipo & Okiki, 2020; Peuler & Coltrain, 2020; Wheeler & Kyprianou-Chavda, 2021; Ziegenfuss, 2020).

Purpose and methodology

The online learning librarian at the UNCG University Libraries began performing assessments of online students soon after she was hired in 2017. The first major assessment performed on these students was a 2018 survey sent out to any student or instructor taking or teaching an online course. This survey showed the importance of developing a better e-resources marketing plan, accessible virtual services, as well as the vitality of the university LMS to students' access to course information (Harlow & Hill, 2020). Based on this survey, UNCG Libraries shifted marketing techniques and embedded in the LMS Canvas in a variety of ways: creating a Librarian role in the People option of courses to interact with students, a learning tools interoperability (LTI) SpringShare LibGuides integration to increase the use of course and department research guides within Canvas, and creating a series of research modules online and in Canvas Commons. But though this improved access to library resources and services, the online learning librarian wanted to learn more about overall campus needs and supports to benefit online students; ideally, a broader study would lead to better offerings of research services and support to align with this populations overall academic needs.

In Fall 2019, the online learning librarian worked with a reference graduate student intern from the UNCG Library and Information Science (LIS) department on interviewing and then coding the transcripts of online undergraduate and graduate students. Seven online graduate students and three online undergraduate students were interviewed. Analyzing the interviews took place over the Summer 2020. In March 2020, UNCG's campus shut down all face-to-face classes and students took all courses online. In Fall 2020 and Spring 2021, the majority of UNCG courses were virtual, with some programs opting to have some courses face-to-face. In Fall 2021, UNCG opted to have as many classes face-to-face as possible, but online programs are continuing to serve distance students.

This is a mixed method approach to assessing online students. The analysis of the ten interviews was done by coding in Atlas TI, based on a systematic text condensation, which is a "descriptive and explorative method for thematic cross-case analysis of different types of qualitative data, such as interview studies, observational studies, and analysis of written texts" (Malterud, 2012, p. 795). The codes used were divided into two categories: "Challenges and Successes'' and "Services and Support." The "Challenges and Successes" codes included: frustration; academic success; personal satisfaction; work life balance; connection; communication; challenges and successes miscellaneous. The "Services and Support" group included: Canvas and learning areas; course content; tools used; library resources; UNCG resources; department; instructors; students; services and support miscellaneous.

Based on the small number of students interviewed (ten students) and the shifting nature of online learning at UNCG based on COVID-19, a survey was conducted in Spring 2021 to fully online students at UNCG. The survey was anonymous and consisted of questions about their experiences as online students, including demographic information about their grade level and

subject areas, knowledge of UNCG Libraries and research strategies, and if COVID-19 had impacted their research or interactions with the library. A small number of 146 online students filled out this survey. Though this is a small number, a significant amount of qualitative data was collected and analyzed, giving further insight into how or if online students' needs have shifted based on a global pandemic.

The open ended questions from the survey were also assessed using coding and systematic text condensation (Malterud, 2012) with a similar approach to the interview analysis. Since the open ended comments were geared toward attitudes of online learning through the COVID-19 pandemic, a new code group was created of COVID-19 challenges, COVID-19 successes, and COVID-19 libraries. The two open ended questions used were: How has COVID-19 impacted you as an online student? Has COVID-19 impacted your experiences with UNCG Libraries?

Results: Interviews

There were 58 students that signed up to be interviewed in 2019, but ten followed through on being recorded on their experiences as virtual students. A form was sent out to all the online students being interviewed to get a sense of demographics. Nine of the ten students interviewed are adult learners (over 23 years old and independent from a caregiver). Over 70 percent of the participants lived outside of Guilford County (where UNCG is in North Carolina) and most lived outside of North Carolina. In this form the students were also asked "Why are you an online student at UNCG? Why did you choose this degree?" Many mentioned the importance of flexibility, transfer credits, career goals, and hearing positive comments about their specific online program from colleagues in their field.

The protocol for the interviews, or questions to be asked, was set up to be flexible based on how the students responded to prompts. Some of the major questions asked in the interview protocol were: warm up (such as: what do you think makes you successful as an online student or student taking an online class?); connections to campus (such as: do you feel connected to your peers in your online class or classes?); academic, student resources, and services (such as: what student support campus resources and services do you use and how do you access them?); searching for information (such as: how do you find information resources for classes and assignments? For example, Google, Canvas, websites, instructor, or other); online learning (such as: besides logging into Canvas, what online resources and services do you use at UNCG?); Canvas (such as: think about your favorite online courses in Canvas and what made the course so impactful?); library resources (such as: do you ever use resources or services from UNCG University Libraries?); and communication and engagement (such as: do you participate in organizations or groups at UNCG?). For a full list of questions that guided the interviews, see Appendix 1 (Supplementary), UNCG Online Student Interview Questions and Protocols.

Coding interviews and focus groups allows librarians and university stakeholders to see the common needs of students or patrons. Though the interview set was small, the coding did show trends in the groups and the codes. Overall, the code applied the most was "academic success" from the "Challenges and Successes" group. "Course Content" was the most used code in the "Services and Support" group. "Communication," came third as a challenge in success in student

progress. "Connection," "UNCG Resources," and "Canvas and Learning Areas" were all highly coded. See Table 1 for a quantitative list of the code groups and codes.

Table 1. Groups, codes, and frequency on interviews performed in 2019 with ten UNCG online students.

Code Group	Code	Number of times coded
Challenges and Successes	Frustration	38
Challenges and Successes	Academic success	85
Challenges and Successes	Personal satisfaction	47
Challenges and Successes	Work life balance	38
Challenges and Successes	Connection	59
Challenges and Successes	Communication	66
Challenges and Successes	Challenges and successes miscellaneous	28
Services and Support	Canvas and learning areas	58
Services and Support	Course content	71
Services and Support	Tools used	44
Services and Support	Library resources	45
Services and Support	UNCG resources	57
Services and Support	Department	21
Services and Support	Instructors	48
Services and Support	Students	33
Services and Support	Services and support miscellaneous	15

The code of "Academic success" showcased graduate students, specific advisors, and program directors as being paramount to their achievements, particularly with how engaged they felt in the program and connecting it back to their careers and personal lives. One director was mentioned as being engaged on the administrative side and as a teacher, with one student saying that this director "really creates assignments relevant to what we will be doing in our professions." Another thing mentioned related to academic success was the flexibility of being an online student, particularly related to asynchronous programs. On the other side, a challenge of learning virtually is a perception that students need to be more engaged than their face-to-face peers. As one student mentioned, "I wanted something that was going to be online that would allow me to still have flexibility, where I can still be able to work and not just be a full-time student."

Another level of academic success, personal satisfaction, and success for graduate students was being a part of a cohort model, where you're in constant communication and connection with a group of students from the same program. When coding for "Connection" and "Communication," beyond the importance of faculty communicating effectively, students mentioned the need to be able to connect and communicate with their peers. Graduate students mentioned having Google Group chats with cohorts, emailing for advice, and the importance of connecting with different units and other students during their orientations. For example, one student mentioned "I love that it has a cohort so that you're with the same group of people that progress through the program" and another mentioned that a "strong strength of this program is that they do kind of, I don't know if force is the right word, but they highly encourage you to

become close with your group. And so, you have a good network and feedback with your cohort."

The students were asked about how they felt navigating their online courses and the UNCG LMS Canvas. All the students mentioned the importance of being able to easily access materials within their online Canvas courses. One student specifically mentioned the importance of having a question-and-answer discussion in courses so that they could feel heard. Some did find Canvas frustrating and disorganized, and many mentioned that all their courses looked different from one another and used different navigation techniques. Some online students have separate learning areas outside of Canvas, with the spaces opening in another tab, forcing them to leave the course environment. When this was mentioned, all the students interviewed found this confusing. One student mentioned "I don't like having to go to multiple places to submit assignments and I don't care to go to different tabs to be able to read content that should just be in Canvas."

Most students were indifferent about not being able to attend UNCG events due to living outside of Guilford County, but many mentioned the importance of being able to be included in student events, workshops, awards, and programs that were relevant to their research and academic careers. Graduate students particularly mentioned wanting all academic units on campus to offer a virtual or hybrid option of relevant things to help them in their careers or research, such as being able to present posters with The Graduate School, network with UNCG professors online, and learn about engaging presentation design with student success units. One mentioned "if the library can show us how to use Zotero [supported citation management software] online, then why can't other units on campus provide the same service?"

When interviewees mentioned the library support and services, it was overwhelmingly positive, but some students did not know all the options that were available to them online. Some graduate students were adjunct instructors, lecturers, or staff at different universities, but many mentioned that they use UNCG library resources over their local or work libraries. Many of them cited that their librarian reached out to them in orientations or in instruction sessions, which meant they knew the value of searching within library databases or the catalog from the start of their academic career. One student mentioned that "in our program and our courses, a lot of our instructors will link our articles that they want us to read straight to the library" which made them more familiar and comfortable with the library systems. Graduate students interviewed were more likely than undergraduates to know all the library services mentioned and to have met or reached out to their liaison librarian.

Results: Surveys

The survey provided useful quantitative information about online students' perceptions and needs during the COVID-19 pandemic, particularly related to the library. This survey did ask more about research needs and library resources and services than the interviews conducted in 2019, changing the questions from the original interviews. See Appendix 2 (Supplementary) for a copy of this survey.

One-hundred and forty-six students responded to this survey, which is a small percentage of fully online students at UNCG. In Spring 2021, 3014 students were classified as fully online. Though

this is a small number of online students, the comments and basic ideas can still be applied to this mixed methods study to see if anything about the research needs, and trends of online learning has changed. The demographics of the respondents to this survey were like the 2019 interviewees, with a majority being fully online, graduate students. About 84 percent of the respondents were from the School of Education (56 percent) and Health Sciences (27 percent), which contain some the largest populations of online students at UNCG.

Survey respondents were asked a series of questions about their satisfaction with UNCG and UNCG Libraries, with a majority saying they were extremely satisfied or moderately satisfied with both; 84 percent satisfied with UNCG and 76 percent for UNCG Libraries. The survey also asked about what library resources respondents used from UNCG Libraries. Searching in the library catalog or a library database was the most common service or resource used (81 percent) and 65 percent used an online research guide (LibGuide). The next two most used library resources were 39 percent of survey respondents talked to or received instruction from a librarian about research and used library resources in Canvas. The last quantitative question is how COVID-19 impacted their experience as online students at UNCG and with the libraries. A majority said that they were neither negatively or positively impacted by COVID-19 in terms of being an online student or using the library. See Figure 1 for a graph of the responses about COVID-19 impact as an online student.
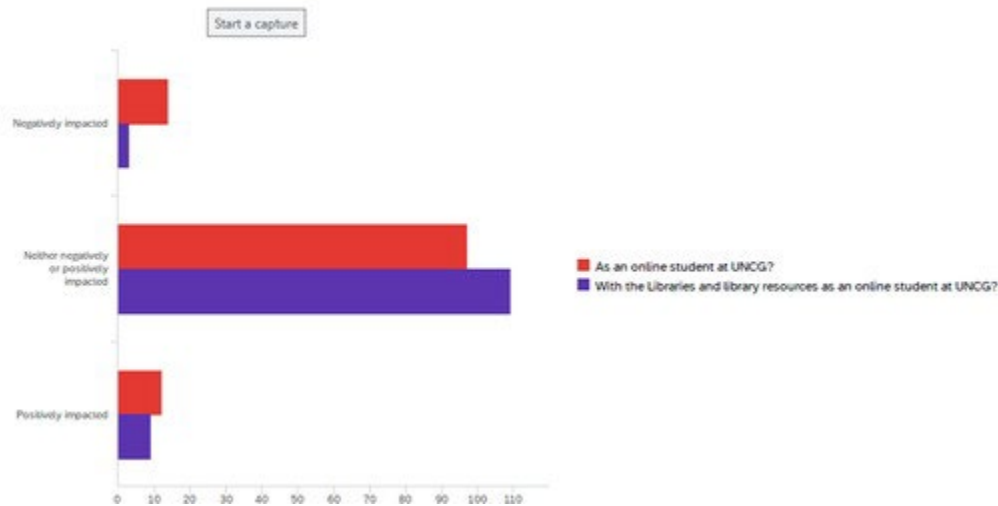

Figure 1. Question from UNCG Libraries survey to online students from Spring 2021 to assess impact of COVID-19 on services. The question is "how has COVID-19 impacted your experience? - as an online student at UNCG and with the library resources as an online student at UNCG." A majority said that they were neither negatively or positively impacted by COVID-19 in terms of being an online student or using the library.

To further assess the impact of COVID-19 on online student's research and study habits, as well as overall quality of life at UNCG, two open ended questions about COVID-19 were asked: How has COVID-19 impacted you as an online student? Has COVID-19 impacted your experiences with UNCG Libraries? Students answers to these questions were then qualitatively coded with two codes: "COVID-19 Challenges" and "COVID-19 Successes" to find specific comments and

examples of the benefits and negatives of being an online student during a global pandemic and how the library shifted or did not accommodate online students.

The code on the survey comments of "COVID-19 Challenges" was applied 64 times and "COVID-19 Successes" was coded 74 times. Many students commented that they were neither negatively or positively impacted by the pandemic, but many respondents commented about how being an online student allowed them to be flexible and prepared with much of the world around them going virtual. Some commented on how the pandemic forced their instructors to improve online teaching practices and obtain more understanding and empathy about their life stressors. Another positive comment was that during a pandemic, the skills learned as an online student could apply to work or careers since most survey respondents were adult learners. The flexibility of asynchronous learning and the engagement of synchronous classes (if they were during non-working hours) was mentioned as a benefit to being an online learner. Students mentioned liking the structure of online learning during an uncertain time and a decrease in stigma they felt as being a virtual student. Liaison librarians from the library Research, Outreach, and Instruction (ROI) department were mentioned as a great resource for online students in terms of the virtual workshops they provided and how accommodating the library has been throughout the pandemic.

Though more positive features of being a virtual learner were mentioned during this survey, some challenges were also coded. Most challenges or negatives mentioned were unrelated to UNCG resources and services. Issues relating to the overall mental health of individuals and family units were consistently referenced as problems that were distracting to studying and being a successful student. Respondents also wrote about missing physical spaces to study outside of their homes. Many responses also reported challenges related to childcare and caregiving responsibilities shifting and changing. There was also consistent messaging about "Zoom fatigue" from virtual jobs during the day, while also having to be online for school. Many students brought up that they were recently starting a distance program during the pandemic, but that they assume the isolation they feel from their classmates during group work and within courses increased based on the pandemic.

Discussion and future directions

This mixed method study of online learners reinforced the importance of equity, engagement, and marketing resources and services for distance students. This opens a discussion and future ideas about what can be done to improve upon providing the best service possible to this unique, growing, and important population. UNCG Libraries has consistently believed in supporting fully distance students through hiring an online learning librarian in January 2017 and providing a wide range of online learning objects, tutorials, and asynchronous learning environments about research. In the interviews and survey, students indicated that having a central and accessible place to find information for course work and research is crucial, therefore continuing to assess and analyze the main library website and online guides will continue to be key moving forward. The interviews and the survey showcase the importance of an easy-to-use learning management systems (LMS), and the library continues to find ways to offer a variety of research resources within the LMS Canvas and websites, as well as guides about accessing resources online.

Graduate students interviewed expressed satisfaction with the cohort model of their programs and how it made them feel more engaged in the learning, as well as wanting to be included in campus events that benefit their academic success. The library does somewhat duplicate a cohort format through virtual workshops from liaison librarians, which are unique to the academic departments that they help with information literacy instruction, research, and collections. Creating virtual groups to create connection and market services that can help this demographic could be successful based on these results, such as monthly Zoom meeting support groups of students who are caregivers, disabled, and BIPOC. These virtual groups could be a great way to emphasize and learn from the specific needs of these populations, as well as connect online and face-to-face students with similar backgrounds. These groups could also have a librarian, faculty, and staff member from the campus to promote services and resources to make their school life easier.

Another virtual community idea would be to create an online student advisory group, with representatives from undergraduate and graduate programs, as well as different academic disciplines and a librarian representative. This group could create reports and marketing campaigns about what will help online students achieve success. Another project idea for the library is to team up with units across the university to offer a variety of virtual series or workshops on co-curricular topics. In the fall of 2021, UNCG implemented a different general education curriculum; finding space within the many course design workshops and webinars on the competencies of this newly developed program could be a good starting point for the library to engage in co-curricular partnerships that would benefit all students. UNCG Libraries is integrating into these types of workshops and events in many ways: researching, lateral reading, and misinformation are some topics that are being discussed.

The online learning librarian formed a program in 2019 as the interviews were being analyzed called Webinars Worth Watching, where graduate students compete by presenting on their research virtually to win a cash prize. This program is in collaboration with The Graduate School, and online and face-to-face graduate students can compete. Moving forward, the University Libraries and The Graduate School can collaborate on more services and events together, such as mentoring programs between students in different departments, while also connecting them with their liaison librarian. Working one-on-one or in small groups has been successful within the libraries and finding more digital spaces and areas to expand this service is beneficial to academic student success.

As seen in the survey to online students about COVID-19, mental health and life balance is important to online students. Creating an inclusive online environment is crucial to help the mental health of all students, particularly this population. Based on this survey, UNCG Libraries continues to promote librarians creating accessible tutorials, virtual spaces, and programming and is continuing to strategize ways to better market resources and services. The survey results also show that online instructors should be versed on inclusive online pedagogy such as: universal design for learning (UDL), open educational resources (OER) and open pedagogy, trauma informed pedagogy, and other equitable and anti-racist design practices. There are currently online courses and workshops available at UNCG on these topics through the University Teaching and Learning Commons (UTLC), so the library should continue to integrate research services and supports that can assist faculty; helping to emphasize and market how the

library is here to make academic lives easier with research and empathetic teaching will help all students at UNCG. The interviews and surveys show that engaging with and having an active and caring instructor and well designed, flexible, and an accessible online learning environment leads to better student success and mental health, as well students feeling more connected to campus.

Throughout the survey and interviews, the library received mostly positive remarks about their attention to online learning throughout COVID-19; this shows that UNCG Libraries can collaborate across campus to help various departments and personnel across the university offer more services and support to online students. For example, many students participating in the interviews and survey mentioned that they appreciated the variety of online resources that UNCG Libraries offers such as: research guides, webinars on research topics, Canvas Commons modules with consistent looks, online tutorials, a variety of asynchronous materials, and librarians that are trained in Zoom to perform engaging information literacy sessions. There are various units across UNCG that work with online learning, and there are opportunities for the library to continue to integrate with other units to better help online students. Students desire easy-to-use, consistent, and accessible online learning areas and objects, and liaison librarians work with different units to make sure research and information literacy topics are included, as well as to share what has been successful for library design and virtual training sessions. Finding ways to increase these kinds of collaborations for student success will be vital moving forward. Using the example of the popularity of the library in providing many resources in Canvas, UNCG could work across campus to create more templates and Canvas Pages on a variety of resources and services in the repository Canvas Commons.

Conclusion

All students want equitable access to university resources and services, and online students are no exception. At UNCG, many online students are graduate students and undergraduate adult learners who want flexibility and respect as they obtain degrees or certificates to enhance their careers. Giving online students a voice through assessment is key to the success of any higher education institution looking to provide virtual programs and services. Assessing online students' needs before and during a pandemic through interviews and a survey shows that students want communication, easily accessible content and services, consistency in their course design, and networking and workshop opportunities with cohorts, instructors, and fellow students. This research shows the importance of academic libraries communicating and collaborating across campus to continue to provide and create new offerings about research and other academic services to online students to promote inclusive and accessible learning experiences. The next steps after this study are to communicate with librarians and all academic units about the research and overall needs of online students and to develop more centralized support and services that can benefit all students. All university and college units should listen to and learn from online students' needs to strive to create equitable communities for all students to enhance student retention and success.

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Default Question Block

Dear UNCG Distance and Fully Online Students,

We are seeking your honest feedback about your research and experiences within online learning, and how these areas have been affected by COVID-19. Your participation will greatly assist UNCG Libraries with planning for the future and providing support to distance and online students. At the end of the survey you will have the opportunity to enter a drawing for one of five $20 Barnes & Noble gift cards. The survey is completely voluntary and should take **less than 10 minutes**. Please complete the survey by March 1st, 2021.

Notification of privacy:
All responses are confidential. However, absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished. You may choose not to answer any question which makes you feel uncomfortable or you may stop at any time. There are no risks or benefits for participants. You may print or email this letter for your records. By completing this survey, you consent to be a participant in this research study.

Thank you so much for your time! If you have any concerns about your rights or how you are being treated you may contact the Office of Research Integrity at UNCG at ori@uncg.edu. Questions about this survey or your benefits or risks may be answered by Samantha Harlow (slharlow@uncg.edu).

Block 1

What is your status at UNCG?

◯ First year student (freshmen)

◯ Sophomore

○ Junior

○ Senior

○ Master's

○ PhD

○ [_____] Other

Are you currently a **fully** online student at UNCG? If you are a **fully online student**, this means you take ALL your classes online and not come to UNCG's campus for any classes.

○ Yes

○ No

What is your subject area?

○ Business, Management, Marketing (for example, Economics, Finance, Accounting)

○ Humanities (for example, English, History, Languages, Religious Studies)

○ Social Sciences (for example, Political Science, Sociology, Psychology, Anthropology)

○ Visual or Performing Arts (for example, Art, Music, Drama, Dance)

○ Health Sciences (for example, Nursing, Nutrition, Public Health, Kinesiology)

○ Science and Math (for example, Biology, Chemistry, Mathematics, Computer Science)

○ Education (for example, Library Science, Teacher Education, Special Education, Counseling)

○ Liberal Studies or Integrated Studies (for example, Bachelor's in Liberal Studies BLS, Master's in Applied Arts Sciences MAAS, or Bachelor's of Integrative Studies BIPS)

○ [_____] Other (please specify)

Is your online program synchronous (for example, meet virtually on Zoom for course lectures), asynchronous (no virtual meetings in the course), or hybrid (has some virtual meetings and some work I do on my own for the course)?

○ Synchronous

○ Asynchronous

○ Hybrid

○ [_____] Other

Block 2

How satisfied are you with:

	Extremely satisfied	Moderately satisfied	Slightly satisfied	Neither satisfied nor dissatisfied	Slightly dissatisfied	Moderately dissatisfied	Extremely dissatisfied
Your overall online learning experience at UNCG?	○	○	○	○	○	○	○
Your experience with UNCG Libraries?	○	○	○	○	○	○	○

What types of research assignments have you been assigned in your online courses at UNCG? Check all that apply.

☐ Research paper with citations

☐ Annotated bibliography

☐ Literature review

☐ Argumentative essay with citations

☐ Multimedia project which required research (e.g. video, podcast, infographic)

☐ Research poster

☐ [_____] Other

Have you ever used any of these services of UNCG Libraries? Check all that apply.

☐ Checked out materials face-to-face or online, such as eBooks, streaming films, books, DVDs

☐ Interlibrary loan or book delivery if you live outside of Guilford County

☐ Digital Media Commons or Digital ACT Studio

☐ Library virtual chat service, Ask Us!

☐ Used online research guides (LibGuides)

☐ Searched in the library catalog or library database

☐ Talked to or received instruction from a librarian about research

☐ Had an one-on-one meeting with a librarian

☐ Taken an UNCG Libraries research tutorial or module on plagiarism, citations, searching for resources, evaluating resources or more through the website or Canvas

☐ Used a library resource in Canvas, such as research modules, a Library Resources tab in the Canvas course, has a Librarian enrolled in your class

☐ [   ] Other

Block 3

How has COVID-19 impacted your experience:

	Negatively impacted	Neither negatively or positively impacted	Positively impacted
As an online student at UNCG?	○	○	○
With the Libraries and library resources as an online student at UNCG?	○	○	○

How has COVID-19 impacted you as an online student?

[   ]

Has COVID-19 impacted your experiences with UNCG Libraries?

[   ]

Is there anything else you would like us to know about your experiences as an online student at UNCG or with UNCG Libraries?

[   ]

Block 4

Please enter your email to be entered into a drawing to win 1 of 5 $20 Barnes & Noble gift cards.

Email: [   ]

Powered by Qualtrics