

INFORMATIONAL BRIEF **Academic Libraries:** Essential to Student Success in an Ever Changing World

Prepared by the Northeast Comprehensive Center Innovations in Learning Team

November 2013

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Academic Libraries: Essential to Student Success in an Ever Changing World

Executive Summary

In the summer of 2013, the New York State Education Department (NYSED) asked the Northeast Comprehensive Center (NCC) to demonstrate the positive impact of academic libraries on student achievement in the changing and evolving landscape of technology. This brief presents research-based evidence, programmatic examples and offerings, and impact studies to demonstrate the evolution of academic libraries in the midst of the evolving landscape of technology and the methods employed to ensure student achievement. Presented in this brief are the following areas:

- Student Learning Through Digital and Informational Literacy
- Student Engagement
- Student Retention Rates and Collaboration

Student Learning Through Digital and Informational Literacy

The vitality of remaining innovative and relevant in the midst of the changing landscape of technology has instigated academic libraries to develop the digital and information literacy skills of students. The shift from traditional services is a reflection of academic libraries' dedication to helping students reach their highest academic potential. The role of the library as an "information repository" has evolved to a "learning enterprise" and several university libraries have been able to demonstrate their ability to be 21st century centers of learning (Oakleaf, 2010). The academic libraries of these universities include: University at Buffalo, SUNY College of Environmental Science and Forestry, Iowa State University, National Louis University, University of Southern California, and University of Washington. Through surveys,

interviews, and collaborations with faculty members, academic libraries have been able to identify the needs of students by assessing their digital and informational literacy skills. With the results, libraries have provided services based on individual needs to enhance the skill sets of students, positively impacting their academic success rate.

Student Engagement

One of the most effective ways of ensuring student achievement is through engagement; recognizing the unique learning styles of each student and providing a variety of ways for students to learn content will improve student learning. Academic libraries seek to engage students by appealing to their learning modalities. Several methods employed include connecting students to technology relevant to their lives, creating applications of research databases for personal devices, and student published academic journals and newspapers. Through these methods, academic libraries not only seek to engage students in their learning, but to create an environment for students that motivate them to engage in their learning. Newly founded programs such as The University at Buffalo's "Ask a Librarian" program and their "Embedded Librarians" program are concrete examples of implemented programs practising these methods. Additionally, The University of Michigan, the University of Mexico, Oberlin College, and Southeastern Louisiana University are several universities whose academic libraries have sought to engage students through technology and expansion of services. Through surveys and interviews from students, these innovative measures have proved to be engaging, insightful, and to improve their academic performance.

Student Retention Rates and Collaboration

Academic libraries influence student retention through several strategies that have increased retention rates and spurred academic success. The strategies employed by academic libraries include curriculum integration, behavioral intervention, and collaboration with faculty and administration. Academic libraries not only want to be a resource for academic excellence, but they seek to support students socially by teaching them necessary skills to excel in their studies. Additionally, these institutions seek to address habits, behaviors, and skills of their students that may result in academic failure. Collaboration between academic libraries and teachers has also effectively improved retention rates. Through such collaboration, libraries are able to provide services that reflect the needs of the students, faculty, and departments. Research has demonstrated that when faculty members and academic libraries align their goals and objectives, the academic performance of students improves. Particularly, the University at Buffalo's Personal Librarian program as well as their E-texbook Pilot Program provide the personalization needed for university students. The University of Minnesota Twin Cities, SUNY College of Environmental Science and Forestry, California State University-Monterey Bay, Long Island University, Loyola University-New Orleans, and University of Michigan are six additional schools whose academic libraries have demonstrated the effectiveness of collaboration and have been dedicated to improving student retention rates.

As outlined in the informational brief, academic libraries play a significant role in the achievement of students. The instruction, guidance, and support these institutions

provide remove barriers to academic success. Academic libraries have remained advocates of student achievement by remaining innovative and developing methods through research and collaboration to better serve the needs of students. Although the growth and advancement of technology has simplified the accessibility of library resources, with the following effective services provided academic libraries are still valuable in the 21st century.

Academic Libraries: Essential to Student Success in an Ever Changing World

Evolving in a Changing Landscape and Demonstrating Relevance

Academic libraries are a valuable component within the framework of higher education. Although they no longer serve the same purpose as in past decades academic libraries have continued to grow in a changing landscape while still remaining valuable partners in meeting the needs of students. Academic libraries have been able to maintain their relevance through the continuation and evolution of services offered. In 2010, 11 million documents and almost 35 million information services were provided by academic libraries to individuals. Additionally, 60 to 90 hours per week, on average, of assistance was provided to students. Although academic libraries had to rapidly evolve in the changing landscape of technology, they have successfully supported electronic services and virtual references.

In 2010, 40 percent of academic libraries supplied digitized documents to students, over 50 percent provided technology to assist students with disabilities, over 70 percent offered virtual reference services, and 30 percent utilized instant messaging applications (U.S. Department of Education, 2011). Not only do academic libraries support students with the depth and breadth of the services that they provide, but the quality of such services are recognized by students as improving their learning experience.

A 2009 survey contracted by the American Library Association found that 95 percent of Americans agree that college and research libraries are an essential part of the learning community, while 97 percent believe that they connect users with a world

of knowledge. Additionally, data shows an increase in visits to academic libraries and services offered from 2002 to 2008. The findings demonstrate the value of academic libraries in the higher education framework, even during times of transition and budget cuts (Davis, 2009).

Academic libraries are assuming new responsibilities as traditional boundaries shift. New responsibilities include negotiating when licensing for software, aggregating information, partnering with faculty, and advocating for policy changes. Despite current monetary constraints that academic libraries face, they have not slowed innovation in services, programs, or operations. Academic libraries have repositioned themselves and adopted "entrepreneurial" skills in an effort to produce innovative ideas and new practices (Neal, 2011). These libraries have employed the radical collaboration model to not only remain innovative but to meet the needs of faculty and students.

"Radical collaboration," which encompasses bi and trilateral collaborations for sustainability and governance, is concentrated in four areas: mass production, such as acquisitions, cataloging, electronic resources management, and preservation; centers of excellence, which implement strategies for specialized expertise and services; new infrastructure, such as the development of technologies and functionalities for areas including digital consumption, processing, and archiving; and new initiatives, programs, and projects based on innovation (Neal, 2011). The following are examples of radical collaborations that can be seen throughout New York State:

 The Research Collections and Preservation Consortium, which is a high-density, environmentally controlled facility operated by Princeton College, Columbia University, and the New York Public Library, provides access to over 10 million items. The Consortium is managed through a shared governance structure that

- provides policy and budget control (Neal, 2011).
- The 2CUL Project, which is a partnership between Columbia University and
 Cornell University, plans on integrating operations, collections and resources,.
 This will reduce general costs and allocate resources to new priority areas.
 Additional plans of the program include an increase in revenue through joint funding proposals, establishment of an independent service and governance structure, and program expansion past the two highly acclaimed universities
 (Neal, 2011).
- The Manhattan Research Library Initiative, a collaboration between the New York Public Library, Columbia University, and New York University Forge Historic Collaboration, aims to expand collections, increase the access and use of specialized collections, and maximize collection dollars for covering research resources. The program leverages technology, proximity, and each academic library to offer the greatest coverage of services to students (and non-students based on referral) in the New York area (Columbia University Libraries, 2011).

Another important strategy that academic libraries are incorporating into their practices is the acquisition of technology and technological skills. Academic libraries are not simply looking to redefine the roles of librarians based on the utilization of technology, but instead are developing new and redesigned job profiles (Riley-Huff & Rholes, 2011). Although not all librarians have technology backgrounds, a survey of over 100 librarians concluded that continued on-the-job training and informal methods of learning is vital to increasing skills in important areas of the constantly evolving academic environment (Riley-Huff & Rholes, 2011). It is predicted that up to 60% of students will be learning in online classes by 2020. Academic libraries have had to

strategically plan not only for current students, but also for the future (Lockerby & Stillwell, 2012). These libraries have been reviewing their mission and vision statements, identifying strengths and weaknesses, and recommending strategies to meet the needs of students and online learners. The 2010 strategic plan from the National University Library, located in San Diego, California, incorporates goals focused on accessibility, ease of use, service, and assessment (Lockerby & Stillwell, 2012). Survey results from over 3,000 faculty members of Institutions of Higher Education emphasized the importance of librarians embracing electronic media and technology. The survey concluded that although traditional roles of libraries are shifting due to digital accessibility of information, the library still supports such roles through acquisitions, payment, and preservation of scholarly resources (Guthrie & Housewright, 2011).

Academic libraries are dedicated to helping students reach their highest potential academically by providing maximum support. Their efforts are reflected through student learning outcomes in the following areas: digital and informational literacy, student engagement in school and learning, and student retention rates and collaboration.

Student Learning Through Digital and Informational Literacy

Academic libraries have undergone a role transition from "information repositories" to "learning enterprises" (Oakleaf, 2010). Rather than only providing traditional services, libraries have shifted focus and are working to develop informational literacy skills in students, as well as seamlessly incorporate teaching and learning activities into their offerings. A study on academic libraries conducted by the National Center for Education Statistics reported that roughly one-third of all academic

libraries have included information literacy into their institution's mission, resulting in a 13 percent increase from 2004 to 2008. Additionally, nearly 50 percent of all academic libraries report developing a definition for either information literacy or an information literate student, which is an increase of over 18 percent from 2004 to 2008 (Davis, 2011).

Academic libraries' role in the development of informational literacy skills and the support of academic success was highlighted in "The Syllabus Study," conducted by North Carolina State University (NCSU). Librarians at NCSU requested course enrollment information from a random sample of 4,000 first year students at the university and collaborated with teachers by garnering their course syllabi for the courses first year students were enrolled in. Additionally, librarians obtained full course schedules and syllabi of 139 students from the sample of 4,000. Research tasks required of students were examined from the documents.

One of the tasks, "collect and gather", was organized into the following categories: articles, books, websites, reference books, data, and statistics. The results from this study revealed a gap in the use of 21st century skills that students did or did not possess due to a lack of instruction on research skills and methodologies in high school. By analyzing gaps in learning for students, librarians were able to provide supplemental training for students and collaborate with teachers to help support students with the necessary information literacy skills needed for their coursework (Oakleaf & Owen, 2010). University professors not only required students to conduct research in various mediums, but also had their students implement other high level research techniques such as search engine selection, search construction, resource evaluation, data organization and compilation, and other critical thinking skills. Through

their analysis and collaboration with professors, librarians were able to create an approach that would ensure all students were capable of adequately performing the required research tasks.

Collaborative partnerships between academic librarians and school faculty continue to be important for the integration of digital and informational literacy skills into coursework. The University at Buffalo has taken a further step to ensure the education of digital and informational literacy. The University at Buffalo *Library Skills* Workbook is a requirement for all students, including transfer students, during their first year of study at the university and is also a graduation requirement. The *Workbook* covers basic information and digital literacy skills and strategies essential to student success. Content is mapped to SUNY General Education Requirements and ACRL Information Literacy Competencies. The *Workbook* resides on the university's course management system, UBlearns, and is available to students 24/7 for independent completion. Approximately 7,000 students complete the *Workbook* each year. Librarians regularly review, revise and update content in response to student comments, analysis of test results and changes in student information-seeking behavior. Recent developments to the Workbook include tracking student completions, developing subject-specific versions and working with the university to include the Workbook on students' academic records.

Locally at the SUNY College of Environment and Forestry, librarians and library staff have made great strides in the last year incorporating their newest online tools. In 2012, they instituted LibGuides and LibAnswers to provide students with an online platform to learn about information literacy and research tools and avenues to effectively communicate with library staff.

In the fall of 2009 Librarians at the SUNY College of Environmental Science and Forestry began offering a one credit information literacy course as an all online course. Students are engaged not only via text blogs but also visual blogs and video creation and video instruction. In conjunction with the online information literacy course the library has created a series of online video tutorials that range from searching for journal articles to virtual tours of the library. These videos are done in-house so they offer a personal connection to users. Currently the series has 36 video tutorials_Further, through an IITG grant Librarians have introduced the use of iPods into the information literacy course to teach students digital literacy skills.

The following are examples of other national institutions that developed exemplary programs by incorporating information and digital literacy instruction to support student achievement:

- The University of Tennessee in Chattanooga, where librarians have worked directly with faculty of the English department, on the basic curriculum, to ensure that all content was aligned with information literacy standards. Other libraries are offering for-credit information literacy courses. Such coursework is demonstrated at lowa State University, where a library course on informational literacy, which is nearly 100 years old, has gone through constant adaptations and revisions to meet the needs of students. The course instructs students on research techniques, academic integrity, proper citation methods, problem solving skills, and other valuable topic areas (American Library Association, 2013).
- The National Louis University Library in Chicago, IL collaborated with school administration to make digital information literacy a focus for undergraduate

coursework. The goal was fulfilled by the placement of the library dean in the Provost's office. The library dean influenced decisions to redesign undergraduate programs with the input of all university librarians. Stemming from this collaboration, the university now requires courses pertaining to digital information literacy, library research for the social sciences, and the critical and ethical use of digital information (Morrison and Greenfield, 2012)

- The University of Southern California has taken many strides to incorporate information and digital literacy seamlessly into the undergraduate experience. The university's library system has taken a leadership role and formed partnerships with several school departments, such as the writing center, engineering writing program, freshman academy, summer institutes, and language institutes, with a goal to provide custom literacy programs. Additionally, the library has offered over 1,000 instructional sessions to over 20,000 students in 2010, assisting students with instruction on how to use research databases, collections, websites, and online guides (Shih, 2012).
- At the University of Washington, the Common Language Project (CLP) offers media literacy and production services to students, and encourages them to produce original content to be shared within the school community. After six years of success, the project has now developed its own publication called the Seattle Globalist, which has over a hundred student contributors reporting on international news on a daily basis (Department of Communication, 2013).

Student Engagement

To engage students in today's educational landscape, it is necessary for academic libraries to provide services that appeal to all learning modalities. It is particularly important for libraries to connect with the technology that students use in their everyday lives. According to a 2011 EDUCAUSE study of undergraduate students, 55% own smartphones, 62% own iPods, and 21% own a tablet. Over two-thirds of students in the study admitted to using their devices for academic purposes. Furthermore, almost 60% of students said they use smartphones to access information on the internet, while 24% of those students stated they would use their smartphones to access library resources. These data differ from a 2009 study by the same organization, where only 15% of students reported using mobile library resources if they were available (Association of College & Research Libraries Planning and Review Committee, 2012).

With the growing educational use of technology, academic libraries have looked to design services around the needs of students. Libraries have made efforts to provide access to research databases, such as EBSCOhost, JSTOR, and Thomson Reuters through applications on personal devices. Academic libraries have realized the importance of mobile technology, as demonstrated by loaning programs for internet-ready mobile devices, laptops, e-Book readers, and audio devices. Libraries have also looked to increase their collection of e-books as a mechanism for lending sustainability (Lippincott, 2010).

Another method employed to engage students has been the expansion of scholarly communication through publishing services, including published journals and newspapers that have given a voice to students. According to a 2011 survey of member

institutions of the Association of Research Libraries, almost half have been developing their own publishing services and three-quarters have published journals, all while providing students with digital repository services, authoring and copyright guidance, digitization, management, and tracking services. These libraries are encouraging students to get involved in their publishing services, create their own content, and share their work with larger audiences through these newly set up channels (Association of College & Research Libraries Planning and Review Committee, 2012).

Academic libraries also serve as a prime motivator for academic success. The scholarly environment of libraries encourages students to spend time independently or collaboratively learning, studying, and completing assignments. Based on survey responses from over 500 students across ten campuses nationwide, students noted that the library setting was conducive to completing tasks such as assignments, job applications, and recreational projects while also helping them stay focused. Students also stated that they could rely on the availability of technological equipment and expertise from librarians when they needed assistance. For many students, academic libraries serve as a valuable "refuge" where they can go and focus on schoolwork or plan next steps towards a career (Head & Eisenberg, 2011).

Examples of engagement through technology, expansion of services, and motivation can be seen through the following institutional libraries:

• The University at Buffalo Libraries' "Ask a Librarian" reference service moved beyond the traditional reference desk over 12 years ago, and utilizes a variety of technologies (instant messaging, text, email, chat) to answer inquiries from UB students, faculty, staff and alumni, and citizens from across the world. The service moved to 24/7 in 2012 in response to demands from UB's international

- programs and an analysis of overnight turnaways. Its use increases each year.

 Ask a Librarian is included on each of the Libraries' web pages, and is also linked to many course websites.
- The University at Buffalo has now implemented an "Embedded Librarians" service. With this new service, many liaison librarians spend the majority of their days providing reference, research and instruction services in non-library spaces. Librarians use virtual and in-person services to embed themselves into academic departments, departmental websites, course syllabi, patient clinics, online courses, student living spaces and student program offices. The service was created to extend the reach of librarians beyond the library to the places and spaces where constituents live and work.
- The University of Michigan's MLibrary, has made several critical strides to engage their student population. The library had noticed a decrease in the number of in-person reference desk assistance requests, but an increase in the number of virtual reference service transactions. To respond to this increase in online outreach, the MLibrary also implemented an "Ask the Librarian" service on every page of their website. The library extended this service to mobile applications, offered live chat help sessions 77 hours per week, and utilized the expertise of all institution staff members when exploring service provisions (Alexander, Blumenthal, & Downing, 2011).
- The University of New Mexico University Library has been able to engage the
 academic community through their Ambassador Program and Ask-A-Librarian
 service (Aguilar, Keating, Schadl, & Van Reenen, 2011). The Ambassador
 Program connects students in need of support with subject specialists who can

work closely with them in electronic and physical spaces. The program has also initiated a "reverse reference," where librarians go to students and seek out ways in which they can offer support. The Ask-A-Librarian service concentrates on communication channels, specifically how users contact the library. In order to increase accessibility, the library created a communication system with one phone number, one chat, and one email for the whole University Library. The results have led to increases of 2,500-4,000 questions per year for the help desk, yearly increases in referrals to subject specialists, and increases of virtual users by phone and chat, amounting to an overall increase of 56% since the beginning of the Ask-A-Librarian service implementation.

• The Oberlin College Library in Ohio implemented a model shaped by five interrelated factors: increased demand for teaching and instruction, changes in usage of reference services, increased demand for research appointments, changes in research behavior of undergraduates, and changes in the library's physical environment. Due to these factors, the library sought to leverage technology as a way to connect with their users. In 2006 they implemented an instant messaging reference service that accounted for 13% of all help desk transactions by the 2009-2010 academic year. Based on the success of this service, they developed a text messaging service. Another innovative activity utilized by the library is student training and mentoring, which entails an extensive training program for students who would like to work at research desks. Students are supervised by librarians and go through training sessions on topics such as reference interview techniques, research skills, cataloguing, information technology, and software. The library also promotes its reference

- services through targeted activities for specific groups, which include first year students, transfer students, or special needs populations (Mitchell, Comer, Starkey, & Francis, 2011).
- The Sims Library (SL) at Southeastern Louisiana University is the second-largest provider of distance education in the state of Louisiana and equips distance learners with services such as text messaging, chats, emails, and a laptop librarian project (Ralph & Stahr, 2010). The Sims Library delivers services to distance learners through Second Life (SL). SL is an internet-based open source three-dimensional virtual world platform, capable of having multiple users designed as avatars as well as collaboration and reporting features. Since 2004, Sims Library has been using SL to enhance educational content and delivery. The library used an internal development team to build out the interactive virtual library using SL. The SL space recreated physical academic library functions online, such as reference services, electronic books, and database access. Additionally, several valuable practices stemmed from experimenting with the virtual world platform. In 2009, there were over 260 libraries in SL, offering a valuable space for networking and collaboration for even the most geographically isolated libraries. Librarians have also been able to view first-hand how other libraries are using SL to improve services and share best practices with one another. The system provides an experience for users that are engaging, insightful, and responsive to their needs. There are quite a few key challenges including hardware costs, development costs, and a learning curve for users, but development and expansion is still in progress for libraries like Sims using SL.

Student Retention Rates and Collaboration

Academic libraries play a vital role in maintaining and increasing retention rates for school enrollment. Strategies for increasing retention rates include: curriculum integration; behavioral intervention; contact, accessibility, and responsiveness with faculty; and management of student issues and questions. Libraries also offer personalized assistance, socially, financially, and academically to make sure each student has a connection with the university, thus limiting the number of transfer students and dropouts (Oakleaf, 2010).

Socially, academic libraries can support students through an increased awareness of self-efficacy by teaching them the necessary skills to succeed in their studies, which, in turn, allow them to be more confident in their own abilities.

Establishing comfort in surroundings and confidence in abilities is especially important for first-year students that may fall into an avoidance approach; essentially students that do not learn the necessary foundational skills needed to build upon deeper into their coursework (Harris, 2010).

In addition to academic and social assistance, academic libraries are now starting to support students from a financial perspective. Financing the cost of a higher education is increasingly challenging for parents and students. Exorbitant textbook costs are regularly cited as problematic by both groups. The University at Buffalo Libraries began a pilot program in 2012 to work with the university to subsidize e-textbooks to students in selected courses and programs. The program is in its second year and experiments with different models, approaches and groups each semester. Results of the two-year pilot will be available in 2014.

Although there is no direct correlation between the two, research on the impact

of academic libraries on student retention and graduation rates shows greater progress with students who have utilized library services than those who have not. This research points to collaboration as the primary strategy for those libraries successfully impacting retention and graduation rates. Academic library collaboration within the faculty and administration helps to embed library services into other departments and blend their values with the goals and objectives of the institution of higher education.

Forming partnerships with high school programs has proved to be effective for influencing student retention rates. For example, in the Fall of 1999 the SUNY College of Environmental Science and Forestry (ESF) started a program called the ESF in the High School Program. This program creates partnerships with area high schools, teachers, librarians and students and gives high school students the opportunity to experience college level course work at SUNY ESF. The SUNY College of Environmental Science and Forestry librarians have been an integral part of this program since its' inception – giving students customized guidance for how to do research at SUNY ESF.

More recently in 2005, the librarians at the SUNY College of Environmental Science and Forestry assigned librarians to be liaison with each department on the SUNY ESF campus. This partnership has been a great opportunity for the librarians to embed themselves into departments and become an integral part of faculty teaching and research. Collaboration ranges from library guest lectures, to citation analysis to the creation of custom LibGuides for courses and databases. Other practices that have influenced student retention rates include, student employment positions, and student mentors for distance learners in an attempt to intrinsically incorporate students into the university community.

To illustrate the impact that academic libraries have on student retention, the

University of Minnesota Twin Cities undertook a study that analyzed over 5,500 first year undergraduate students. The findings of the analysis revealed that first year undergraduate students using library services were 1.54 times more likely to re-enroll in coursework the following semester than those who did not (Fishel, 2012). Another study, conducted by Elizabeth M. Mezick from Long Island University, explored the relationship between library expenditures and staffing compared to student persistence (which is viewed as the motivating factor towards retention). The study found that higher expenditures and increased staffing have a significant and positive impact on student retention and persistence in graduate programs (Fishel, 2012). Furthermore, a tool for extracting the impact of academic libraries on student achievement has been created by Derek Rodriguez as part of a doctoral research study called the Understanding Library Impacts (ULI) protocol.

The ULI protocol uses a student survey and a curriculum mapping process that aligns library use data with defined learning outcomes. Students are tasked with identifying how library services have helped them in their coursework through electronic resources, facilities or equipment, services, and traditional resources. Next, students report on helpful or problematic aspects of library use and services and then answer a series of open-ended questions pertaining to managing assignment tasks, finding and evaluating resources, and time management. The ULI uses both qualitative and quantitative methods to gauge the impact of libraries on student outcomes and can be used by any library that has existing assessment frameworks (Rodriguez, 2011).

The following are examples of specific academic libraries that have demonstrated success and taken strides towards increasing student retention and graduation rates at their institutions:

- The University at Buffalo is committed to decreasing students' time-to-degree and creating new ways to make the large research university smaller and more personal for students. The Libraries began the Personal Librarian program in 2012 as an element of the "Finish in 4" and "University Scholars" programs. Personal Librarians are a combination of subject librarians, who assist students in their majors, and undergraduate librarians, who assist students who have not yet decided on a major. Personal Librarians make individual contacts with students to provide information about the Libraries and offer research assistance. The program has increased student awareness of library resources, spaces and services. Ongoing assessment and evaluation results are incorporated into service changes.
- The California State University Monterey Bay undertook an initiative to collect data pertaining to non-research-related questions proposed by students and shared results that impacted student success with stakeholders across the campus. This study was performed by accessing all questions asked by students at library research and service desks and recognizing trends, skills, and supplemental needs of students. The results were used to modify the curriculum of the First Year Seminar (FYS), a course that is required for all first year students to complete (California State University Monterey Bay, 2011).
- The library at Loyola University New Orleans has a program in which they
 employ students to work alongside their librarians who act as mentors, helping
 students to understand library processes and operations, introducing useful
 resources and materials, and providing insight on their interactions with
 students and other faculty. The results of this program are strong, and show

higher retention rates for students who participate versus students who do not. Examining 32 student workers, it was shown that they graduated at a much higher rate of 61 percent as compared to normal school rates of 31 to 38 percent (Obrien, 2011).

• To address retention rates, the University of Michigan's MLibrary has a strong focus on aligning reference expertise with the campus research agenda. The MLibrary provides additional resources and services for growing curricular areas adding subject expertise, and considering the needs of unique user groups. Initially, the MLibrary began utilizing field and mobile librarians who are not assigned to a single location. Mobile librarians are able to directly connect with the user group, leading to enhanced communication between faculty and the institutions research agenda. Additionally, the MLibrary has enacted a community outreach program, where librarians extend their services into campus learning communities, often helping underserved student populations. In the first year of this program the library reached out to over 1,500 students to set up evaluation and revision protocols (Alexander, Blumenthal, & Downing, 2011).

Conclusion and Key Takeaways

Academic libraries across the United States have been an integral resource for students over the years, providing instruction, guidance, and support. In today's educational landscape, it is important for such library services to evolve in a way that meets the needs of 21st century learners. This evolution has occurred at many institutions of higher education through the focus and development of library services and programs pertaining to digital and informational literacy, student engagement,

and student retention rates and collaboration.

The following are takeaways as they relate to each of the areas:

I. Student Learning Through Digital and Informational Literacy With the growth in technology academic libraries recognized the importance of having digital and informational literacy skills. In order for students to perform well and fulfill their academic duties, which include scholarly research, students needed to possess those skills. Instead of creating services, workshops, and/or resources once the need was initially recognized, academic libraries conducted interviews and surveys to assess:

- If there were deficiencies
- What the deficiencies were
- Where were the areas of the deficiencies

The purpose of the assessment was to develop services, workshops, and/or resources that addressed the needs of students. Academic libraries recognized several deficiencies in digital and informational literacy skills amongst students and collaborated with teachers to not only address the appropriate needs of students but supply resources and services that aligned with their course objectives. The efforts to improve digital and informational literacy demonstrate the importance of academic libraries and how they can prevent barriers in learning.

II. Student Engagement

Academic libraries have always offered valuable resources that encourage academic success, but with the evolving educational landscape these

libraries must ensure that they are evolving as well to demonstrate their relevancy to students. Academic libraries have sought to do so through "meeting" students where they are; essentially providing resources that students utilize in their everyday lives. The implementation of loaning programs, a program that provides students with an array of technological devices which include laptops, e-Books readers, and audio devices, creates a familiar and new experience for students seeking to complete assignments and study for exams. Other innovative ways academic libraries have sought to engage students is through the creation of mobile apps for academic research databases, which include ISTOR and EBSCOhost. The mobile apps not only allow students access to exclusive research databases, but allows students to perform research and engage in the learning experience at any place or time. The exemplary examples of student engagement show that academic libraries are not only dedicated to academic excellence, but making students' learning experience relevant to their lives.

III. Student Retention Rates and Collaboration

Increasing student retention rates of first year students has been a troubling endeavor for a number of universities throughout the country, but through collaborations with academic libraries universities have seen increases in retention and graduation rates. Several programs have been a result of collaboration between universities and academic libraries.

These include mentorship between students and academic librarians and outreach programs. Both programs create meaningful relationships with

students and personally address the needs of students in ways that the university may be unable to. Research has documented that these programs have not only reduced transfer rates, but significantly increased graduation rates.

Academic libraries are valuable institutions that recognize their efficiency and goal must be fulfilled through a combination of traditional and modern services. Their dedication to ensure student achievement is reflected in the methods and innovations they have developed. As a result of their efforts, students are receiving resources that are in accordance with their needs.

Despite the advancement of technology and changing landscape of education, academic libraries have continued to prove their relevancy while still holding true to their commitment of ensuring student achievement.

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