Community College Libraries & Librarians and Student Success

Findings from Surveys of Librarians & Other Library Staff, Students, and Faculty, plus a Professional Development Survey of Library Leaders

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To set the context for this study, it is necessary to review the series of recent events that led up to it. The prime mover was the recent establishment of new performance measures for North Carolina community colleges. An ad hoc group of community college library directors, librarians, and institutional researchers soon began discussing the need for a study to assess the contributions of libraries and librarians to the status of community colleges on these measures. As a result of those discussions, a task force was charged with organizing and mobilizing appropriate partners to pursue funding for such a study. Once funded, a series of focus group and key informant interviews of community college library directors was held. From that input, two themes emerged—the value of practicing embedded librarianship and the value of teaching information literacy. These two themes became the focus of this three-part study.

The first phase of the study was a survey of community college librarians and other library staff. This report shares the responses of participating library workers to this survey and the findings of an analysis of the relationships between their responses and their self-assessments of their practice of embedded librarianship, their teaching of information literacy, and their contributions to student success as indicated by North Carolina community college performance measures.

The second phase of the study consisted of surveys of community college students and faculty. This report shares their responses to questions about their use of librarian services and library resources and the findings of an analysis of the relationships between those responses and their self-assessments—in the case of students, of their academic success, and, in the case of faculty, of their contributions to student success.

An assessment of the professional development needs of community college librarians and other library staff, informed by the findings of the three above-mentioned surveys, was the third phase of the study. The findings of this survey of community college library leaders should inform decision-making by professional development providers regarding the topics, format, and scheduling of their future offerings.
Performance Measures

In 2010, President Scott Ralls appointed a Performance Measures Committee and charged it with developing new measures of student success. In 2011, they completed their work by presenting eight proposed measures to the State Board of Community Colleges:

- Basic Skills Student Progress
- GED Diploma Passing Rate
- Developmental Student Success Rate in College-Level English Courses
- Developmental Student Success Rate in College-Level Math Courses
- First Year Progression
- Curriculum Student Completion
- Licensure and Certification Passing Rate
- College Transfer Performance

In November 2011, the State Board approved the new measures, and in June 2012, they were adopted by the General Assembly.

In May 2012, President Ralls appointed a Performance Funding Committee and charged it with setting baseline and excellence levels for each measure.

Since 2013, annual reports have tabulated the percentages of students meeting each performance measure. In addition, for each measure, each community college is classified based on its performance relative to its peers in one of the following categories:

- Met or exceeded the excellence level
- Above the college average, but below the excellence level
- Above the baseline level, but below the college average
- Below the baseline level

Because each community college’s funding is now tied in part to its performance measures status, these measures are receiving serious attention from the directors of the state’s community college libraries.

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Community College Libraries & Librarians and Student Success

CC LL & SS Partnership

By May 2013, several leading North Carolina academic librarians were discussing the need for a study of community college libraries and the new performance measures. They included:

- Rejeanor Scott, retired Director, Edgecombe Community College Library;
- Dr. Nora Bird, Assistant Professor, Department of Library and Information Studies, University of North Carolina at Greensboro;
- Dr. David A. Wright, Associate Dean of Learning Resources, Surry Community College; and
- Martin House, Assistant Director for Public Services, Central Piedmont Community College Library.

They initiated a conversation with Dr. Keith Curry Lance and his RSL Research Group colleagues, Bill Schwarz and Marcia J. Rodney. They knew of the RSL team as the researchers responsible for over a dozen of the two-dozen-plus statewide studies of school library impact. Together, this task force and the RSL team crafted a successful proposal to the State Library of North Carolina to fund this study.

The project director was Edgecombe’s Rejeanor Scott, and she was supported in directing the project by an advisory committee which included the individuals named above as well as:

- Deborah Parisher, Director, Edgecombe Community College Library;
- Dr. John Harer, Associate Professor and Head, Master of Library Science Degree Program, East Carolina University;
- Julia Mielish, Dean of Library Services, Wake Technical Community College;
- Colleen Turnage, Director of Library Services, North Carolina Community College Library System; and
- Denise Wells, Director of Institutional Effectiveness, Central Piedmont Community College.

Ad hoc members of the committee included:

- Dr. Deborah Lamm, President, and Dr. John Enamait, Vice President of Instruction, both at Edgecombe Community College;
- Bill Schneider, Associate Vice President, Research and Performance Management, and Dr. Kristen Corbell, Director of Program Evaluation, both in the North Carolina Community College System Office; and
- Jennifer Pratt, Chief, Library Development, and Raye Oldham, Federal Programs Consultant, both at the State Library of North Carolina.
Focus Group Interviews

At a July 31, 2014, meeting of North Carolina Community College library directors, 39 attendees participated in focus group interviews, responding collectively to the following questions:

1. Of the 8 performance measures, which ones do you believe your library and librarians contribute to most substantially in specific ways? What performance measure(s) do you feel are missing from the perspective of libraries?
2. For each of the measures identified in response to the previous question, what specific kinds of help do your library and librarians provide to faculty, staff, and/or students that contribute to strong performance on that measure?
3. Of the specific kinds of help identified for each measure, which ones do you perceive to be most effective in contributing to strong performance on that measure?
4. Of the kinds of help perceived to be most effective in addressing each performance measure, which kinds of help are provided most intentionally and in the most targeted way to appropriate faculty, staff, and/or students?
5. Based on your conversation, would you change any of your answers to the first questions? Why, or why not?

Seven additional directors responded to these questions individually via key informant interviews.

Based on the input from these focus group and key informant interviews, multiple themes, modalities of engagement and student cohorts of particular interest were identified:

- **Practicing embedded librarianship** was one overarching theme. Specific activities mentioned by interviewees included: producing course-specific LibGuides, collaboration with faculty, classroom instruction by librarians, liaison with faculty, and professional development for faculty and staff.
- **Teaching information literacy** was a second overarching theme. Specific activities mentioned by interviewees included: providing library orientations, producing information literacy-oriented LibGuides, providing library instruction and online tutorials, teaching databases and other e-resources, teaching research skills, and interacting with students on a one-to-one basis.
- Three themes about libraries were identified. The first was **developing special collections**, especially those needed by GED students and licensure/certification examinees. The second was **providing technology access and support** required by the full range of digital devices (handhelds, tablets, laptops, desktop computers). And the third was **providing individual and group study space and hours of operation** that enable the library to function as a learning commons.
Modalities of engagement referenced by participants included in-library interactions (group as well as one-to-one/faceto-face), classroom interactions, and online interactions (e.g., video tutorials, LibGuides and other websites, chat sessions).

Interviewees mentioned almost all of the student groups addressed by the performance measures: students in general (i.e., continuing curriculum students), first year students, basic skills students, students needing help with writing, GED examinees, licensure/certification examinees, and distance learners.

The advisory committee further refined these ideas over multiple meetings. On the basis of this early input, the Developmental Math measure was excluded from this study, leaving the seven remaining performance measures.

**Practicing Embedded Librarianship with Faculty**

Librarians moving out of their libraries to create innovate ways of informing their clients is the crux of embedded librarianship. This new model of library and information work makes the expertise of librarians more immediately available to those who need it by integrating librarians into instructional and administrative teams. The strong working relationships that result not only engage the embedded librarian more fully in the work of the team, but also improve the librarian's awareness of the team’s needs. The work librarians do in such arrangements is more closely tailored to the needs of the group and adds more value to the products of the group’s work than the usual work of a reference librarian.²

The following table compares and contrasts the essential differences between embedded and traditional librarianship.

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Differences Between Embedded & Traditional Librarians

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<th>Traditional librarians ...</th>
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<tr>
<td>• anticipate users’ needs</td>
<td>• respond to users’ needs</td>
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<tr>
<td>• are part of a team of collaborators</td>
<td>• deal with individual users</td>
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<tr>
<td>• offer customized services</td>
<td>• offer standardized services</td>
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<tr>
<td>• support ongoing projects</td>
<td>• complete single transactions</td>
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<tr>
<td>• participate in partnerships</td>
<td>• offer unilateral services</td>
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Embedded librarianship may be practiced in a variety of ways in academia:

- In traditional classroom settings, it may range from a few classroom visits after a library orientation to co-teaching an entire course.
- Institutional course management systems (ICMSs) may offer opportunities to monitor and participate in discussion boards, respond to student questions, and provide supplemental materials.
- Serving as a liaison to an academic department or program give a librarian an opportunity to establish a reputation as a finder, organizer, or even creator of information.4

More than half of embedded librarians across library types (public, school, academic, government, for-profit, not-for-profit) who responded to a Special Libraries Association survey reported the following seven activities:

- Collaborating on or contributing to users’ work,
- Meeting more than once with users about their needs or to present information to them,
- Training users on information resources and tools on their “turf” (i.e., away from the library),
- Meeting with administrators to discuss information needs and services,
- Attending events devoted to users’ interests (e.g., meeting, class, conference),
- Attending users’ own meetings to learn about their work and information needs, and
- Collaborating on or contributing to users’ electronic communications and collaborative workspaces (e.g. email, wikis, blogs).5

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3 Ibid. p. 15.
Teaching Information Literacy to Students

In 2012, the Board of Directors of the Association of College and Research Libraries (ACRL) passed a unanimous recommendation that the association’s information literacy standards be “significantly revised.” On 2 February 2015, Framework for Information Literacy for Higher Education was released. Owing to the timing of this project, the thinking of the research contractors and the project advisory committee was shaped by Draft 2 of the Framework document.

Of the six frames presented in that draft document, five were deemed appropriate by the contractors and advisory committee for North Carolina community college libraries. For purposes of this study—whose student, faculty, and even librarian subjects had not yet been exposed to this new ACRL document—the core ideas underlying the frames were expressed more simply as follows. (The name of each frame in Draft 2 follows in parentheses.)

- **Research is a process** in which the answer to one question leads to other questions. (ACRL’s Research as Inquiry)
- **Information is authoritative** when recognized by interested parties as accurate, comprehensive, and official. (ACRL’s Authority is Constructed and Contextual)
- **Searching for information** requires formulating questions and search parameters and choosing between alternative answers. (ACRL’s Searching as Exploration)
- **Information formats vary**, and these differences affect how it is created, shared, and used. (ACRL’s Format—later Information Creation—as a Process)
- **Influences on information value** include the identities of its creator and audience, its originality, and the time and money invested to produce it. (ACRL’s Information Has Value)

With some variations in wording based on the audience, this wording was used in the project’s surveys of librarians and other library staff, students, and faculty when referencing the idea of teaching information literacy.

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Other Outcomes

In addition to the state's performance measures for community colleges, this study also examined other desirable outcomes—ones for students, faculty, and institutions—with which libraries and librarians may be associated.

Based on an extensive review of the literature on academic libraries, such other outcomes include:

- Determining what libraries equip students, faculty, administrators, and staff to do;
- Recording and increasing library impact on student enrollment;
- Linking libraries to improvements in student retention and graduation rates;
- Assessing library contributions to student job success;
- Tracking library influences on improved student achievement;
- Reviewing course content (e.g., reading, reserves, assignments);
- Enhancing and documenting library advancement of student experiences, attitudes, and perceptions of quality;
- Improving and evaluating library support of faculty teaching; and
- Documenting library contributions to overall institutional reputation and prestige.9

In the first phase of this research, questions about these other outcomes were posed to librarians and other library staff only. They clearly believe they and their libraries contribute to a variety of positive outcomes for students, faculty, and their institutions—beliefs that were confirmed by the perceptions of students and faculty expressed in responses to subsequent surveys.

Survey of Librarians & Other Library Staff

During the course of this study, three groups in the North Carolina Community College System were surveyed: librarians and other library staff, students, and faculty.

The first group surveyed was librarians and other library staff. The first section of the survey asked for basic identifying information, including their community college and their position. The second and third sections were devoted to questions about the practice of embedded librarianship and the teaching of information literacy, respectively.

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The final section was devoted to questions designed to elicit their assessments of their library’s support of student educational goals corresponding to a variety of specific outcomes. Questions addressed:

- The seven North Carolina Community College Performance Measures included in the study;
- Selected additional outcomes for students; and
- Selected additional outcomes for community colleges—including institutional, student-related, and faculty-related ones.

At the conclusion of the survey, respondents were offered two further options:

- An opportunity to share a brief personal story about how their library or they or another librarian helped a student or faculty member to be more successful.
- An opportunity to enter their name and email address in a drawing for incentive prizes.

Responses to the optional success story opportunity provided the stories and quotes included in this report. Quotes from these stories appear in italics and are set off in text boxes throughout the document. Anecdotal evidence indicates that offering incentive prizes contributed to the survey’s high response rate.

**Surveys of Students & Faculty**

In January 2015, the researchers and the project advisory committee began drafting surveys of students and faculty at North Carolina community colleges. In April 2015, these surveys were pre-tested by 45 students and 17 faculty members. Both surveys were opened statewide at the end of September and closed at the end of December 2015.

The student survey was begun by 8,507 students, 7,122 (83.7%) of whom completed it, providing all of the data needed to be included in the analysis of the survey’s results.

The faculty survey was begun by 1,667 faculty members, 1,449 (86.9%) of whom completed it, providing all necessary data for analysis.

This report tabulates the responses to each survey and analyzes the relationships between the respondents’ interactions with their librarians, their use of library resources, and their ratings of the library contribution to students achieving their educational goals—goals which, not coincidentally, align with seven of the state’s performance measures for community colleges. Non-responses—don’t know and does not apply responses—were excluded from the description of a question’s responses and the analysis of relationships between answers to that question and others.
Throughout the report, findings of both surveys are illustrated by stories, examples, and quotes shared by survey respondents. These are presented in boxes and the individual’s words are italicized.

**Survey of Librarians & Other Library Staff: Responses**

This section will summarize the responses to the survey of librarians and other library staff (including the estimated response rate), report the frequencies of the various answers to each of the questions, and interpret any practical implications of those responses as they stand alone.

**Respondents & Response Rate**

The North Carolina Community College System’s Learning Technology Systems office provided the RSL Research Group with what was believed to be the latest, most comprehensive list of community college library positions, including the email addresses of the incumbents in those positions. On 11 February 2015, the survey of librarians and other library staff was administered to all 165 email addresses for that group. By the time the survey closed on 10 March 2015, 189 responses had been received; however, 21 of these turned out to be test cases, partial responses, or duplicate responses.
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After such dubious cases were removed, the number of usable responses to the survey was 168. As this number exceeded the original list by three positions—positions hitherto unknown or perhaps gained since the list was assembled—it appeared likely this survey received a near 100% response. Further light was shed on the survey’s response rate by examining the returns by institution. Responses were received from 57 of the 58 community colleges in the state. The one college from which no responses were received lists 14 library positions on its website. Adding those 14 positions to the three “excess” responses provides an estimated count of 17 positions that are missing from the system office’s original distribution list.

In addition to emailing the survey to every community college library staffer for whom an email address was available, the project director also distributed the link to the survey to all library directors, asking that they encourage all staff members, especially newer ones for whom personal email addresses would not have been available, to respond. This secondary administration of the survey likely explains the number of responses and the estimated number of positions missing from the statewide staff list.

Assuming these deductions are correct, the survey’s response rate was 92.3% (168 usable responses divided by an estimated true total of 182—168 plus 14—library positions across the system).

The only major subdivision of the respondents is by staff type. Interestingly, though 57 of 58 community colleges are represented in the responses, only 43 respondents identified themselves as library directors. Presumably, those without the actual title of director reported themselves as supervising librarians or—in the case of one-person libraries—non-supervising librarians. Otherwise, the responses by staff type represent the full spectrum of library staff in the state’s community colleges.

**Embedded Librarianship**

Questions posed to librarians, and those with whom they work, about the practice of embedded librarianship with faculty addressed a range of issues:

- How often they help instructors at their community college in various ways,
- How often they provide selected services to faculty and students,
- What conditions prevent them from practicing embedded librarianship,
- The extent to which they reach out to faculty who teach different types of students, and
- How they rate their outreach to faculty for different types of students.
I am new to the position of library director and have only been at this institution for four months. Prior to that, I was Head Reference Librarian at another community college for many years. There I was heavily involved in instructional services to faculty, staff, home schoolers, outreach to local public schools, early college and community patrons. I initiated the embedded librarian principles at my prior college with fair success. I received awards while there for my “dedication to the success of my students, staff and faculty.” My first month here, I suggested utilizing the embedded librarianship principles and … shall continue to work on the concept here.

Embedded Librarianship Principles

Library survey respondents identified how often they interact with teaching faculty in both more passive and more active ways. The more active types of interaction are those that characterize embedded librarianship.

When asked how often they respond reactively to instructor needs and how often they seek to identify instructor needs proactively, solid majorities reported addressing these needs in both modes at least monthly.
When asked how often they work with individual instructors versus with instructional teams, there was a much greater difference. Working with individual instructors at least monthly was far more likely than working in instructional teams with equal frequency. Still, a substantial majority reported working as part of instructional teams at least each semester.
By contrast, when librarians and those with whom they work were asked about how often they provide standardized, one-size-fits-all services versus services customized to the individual instructor, customized services were substantially more likely than standardized ones to be reported at least monthly and almost all respondents reported providing customized services to individuals at least each year.
When librarians and their coworkers were asked how often they completed isolated transactions versus participated in ongoing projects, the former, more traditional response was more frequent on an at-least-monthly basis.

While more respondents to the library survey reported practicing librarianship in a traditional mode, substantial percentages reported embracing the principles of embedded librarianship at least each semester or each year, if not at least each month. The lone exception to this trend concerned their claim that the services they provide week in and week out are more likely to be customized to individual instructors than standardized in a one-size-fits-all way.
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Frequency of EL Practices

After reporting the extent to which they practice the principles underlying embedded librarianship, survey respondents reported how often they perform selected activities that engage them with faculty and students.

At least each semester, majorities of respondents connect with their users via electronic communications, online course discussions, departmental or faculty meetings, and by responding to in-depth research requests. Only minorities of respondents, however, participate in these kinds of interaction with faculty and students on a weekly basis.

Last summer, a faculty member was completing her graduate degree in Art History, and needed resources with which to write her capstone project. I was able to obtain a number of quite hard-to-find materials for her through Interlibrary Loan and she told me that this really helped her complete her degree by the deadline and write a high quality paper.

Faculty and staff members are continually notified of new materials available. I contribute news about the library’s resources on a weekly basis to our student online newsletter.
Similar patterns were found for librarians and their co-workers providing their users with various types of resources, including course reserves, LibGuides and other websites, and supplementary resources offered to users as needed. While solid majorities offered these resources at least each semester, only substantial minorities offered them at least weekly.

Our librarians assisted a psychology instructor in identifying books to support a multicultural counseling project for an abnormal psychology class. The library purchased the chosen books and placed them on reserve.

I created a Teacher Toolkit LibGuide for DRE teachers. It has gotten over 100 views since it was published a couple of weeks ago.

I am on the Resource Advisory Committee for NC LIVE.
When respondents reported how and how often they collaborate with faculty, somewhat different patterns were found. On an at-least-each-semester basis, the larger majority teaches in the library and a smaller majority teaches in classrooms and labs. Fewer than half, even as rarely as once a semester, collaborate with faculty on instructional design.

Our full time librarians are constantly involved in providing lessons relevant to the curriculum as well as teaching research skills.

One of our librarians recently Skyped an Information Literacy session with an ACA 111 class located off campus. This was arranged by both the instructor and librarian and was the first time it had ever been done. It was an overall great success for the students, the instructor, and the librarian.

I have been involved with other faculty developing online information literacy modules. Three modules are now available and are required in English 111 and 112 classes. I am currently involved in developing three additional modules for implementation in the spring.
Providing training/professional development to faculty—whether in the library or in offices, classrooms, and labs—is an activity at least each semester for only a large minority of respondents. Only a very small minority engages in such activities on a weekly or more frequent basis.

"I have the responsibility of professional development for this college—which is an entirely new responsibility for me. ... In January, I helped organize and made presentations at Quality Trails, a professional development workshop."
Majorities of respondents stay engaged with faculty at least each semester by serving as liaisons to departmental or program faculty or by serving as members of project teams. As with other activities associated with embedded librarianship, only a substantial minority engages in such activities at least weekly.
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Obstacles to Practicing EL

When asked about the obstacles they face to practicing embedded librarianship, majorities of respondents blamed a lack of library staff time and lack of faculty interest, and a near majority blamed lack of faculty time. Comparatively small minorities blamed the failure to practice embedded librarianship on the challenges of coordinating library staff and faculty schedules or a lack of expertise on the part of either faculty or library staff.

![Obstacles to Practicing Embedded Librarianship](image)
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Extent of Practice of EL

To assess their practice of embedded librarianship, respondents were first asked to report the extent to which they felt they reached out to teachers of the various student cohorts focused upon by the North Carolina Community College Performance Measures.

Over half of responding librarians and library staff felt that they reached a majority of teachers of university transfer students, first year curriculum students, continuing curriculum students, Developmental English students, and distance learners. Cohorts they felt they had not reached so extensively included continuing education students, high school equivalency (GED) examinees, basic skills (adult education/literacy) students, and licensure/certification examinees.
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Rating of Practice of EL

To further assess their practice of embedded librarianship, respondents were asked to rate their services to faculty of students focused upon by the performance measures. Respondents were more likely to rate as excellent their services to first year curriculum students, university transfer students, continuing curriculum students, and Developmental English students. They were less likely to rate as excellent their services to distance learners, licensure/certification examinees, basic skills (adult education/literacy) students, high school equivalency (GED) examinees, and continuing education students.
Community College Libraries & Librarians and Student Success

Self-Assessment of Library Outreach to Teachers of Basic Skills, HS Equivalency & Developmental English Students

- Basic skills (adult ed / literacy):
  - Excellent: 21.8%
  - Good: 30.3%
  - Fair: 34.5%
  - Poor: 13.3%

- HS equivalency (GED):
  - Excellent: 20.7%
  - Good: 31.7%
  - Fair: 30.5%
  - Poor: 17.1%

- Developmental English:
  - Excellent: 40.0%
  - Good: 32.1%
  - Fair: 21.8%
  - Poor: 6.1%

Self-Assessment of Library Outreach to Teachers of 1st Year & Continuing Curriculum, License / Certification & College Transfer Students

- 1st year curriculum:
  - Excellent: 45.4%
  - Good: 11.7%
  - Fair: 41.1%
  - Poor: 1.8%

- Continuing curriculum:
  - Excellent: 37.4%
  - Good: 42.3%
  - Fair: 15.3%
  - Poor: 4.9%

- Licensure / certification:
  - Excellent: 25.6%
  - Good: 36.0%
  - Fair: 28.0%
  - Poor: 10.4%

- College transfer:
  - Excellent: 43.2%
  - Good: 12.3%
  - Fair: 42.6%
  - Poor: 1.9%
Community College Libraries & Librarians and Student Success

Responses to the survey of librarians and their co-workers indicate that, while there is a high level of awareness of what it means to practice embedded librarianship, there are some substantial barriers to doing so. Nonetheless, many feel that they are doing what they can to serve their users in more proactive, customized ways. They also feel that, to the extent that they are able to practice embedded librarianship, both faculty and students benefit from it. They further acknowledge that these services tend to benefit some performance measures student cohorts—specifically college transfer, first year curriculum, and continuing curriculum students—more than others.

Information Literacy

Questions posed to librarians and their co-workers about their teaching of information literacy to students addressed a range of issues:

- How they rate their teaching of the principles of information literacy,
- How often they provide selected information literacy services to students,
- The extent to which they reach out to teach information literacy to selected students, and
- How they rate their teaching of information literacy to selected students.

Information Literacy Principles

When respondents rated their teaching of information literacy principles, three points stood out:

- Majorities rated themselves as excellent at teaching students about what constitutes authoritative information and how the differences in information formats affect the ways in which information is created, shared, and used.
- A near majority give themselves equally high marks for teaching students that searching for information requires asking questions, determining search parameters, and choosing between alternative answers.
- Substantial minorities rate themselves as excellent at teaching about the iterative process of research in which the answer to one question leads to others and at teaching about how the value of information is influenced by its creator and audience, its originality, and the time and money invested to produce it.
Frequency of Information Literacy Services

When asked how often they contribute to teaching information literacy in a variety of ways, by far the largest majority reported teaching students these skills in one-to-one interaction. A slim majority teaches research skills, and a near majority teaches about databases and other electronic resources. A sizeable majority report providing library orientations or instruction at least monthly, and almost all respondents report doing so at least each semester. Producing library and information literacy related LibGuides for students and providing them with tutorials were services reported by slim majorities at least monthly and by sizeable majorities at least each semester.
We have an excellent library instruction librarian ... She does most library instruction teaching sessions as well as maintains the library’s webpage including LibGuides.

Technology requirements still frustrate many students in the community college environment. The library has proven to be the best place for these students to become familiar and comfortable with using technology.

We frequently encounter frustrated, overwhelmed students who feel their course load is too heavy. We have had the privilege of encouraging those students to stay the course by giving them individual assistance.

A number of former students who have transferred to our local university continue to use our library, stating that they appreciate the level of individual attention they receive from us, unlike at the much larger institution.
Extensive of Teaching Information Literacy

Most respondents perceive that they teach information literacy to a majority of distance learners, though relatively few feel that they reach all or most. Their reach to continuing education students is substantially more limited. Those who perceive that they teach information literacy to a minority of continuing education students—even few or none of them—were more prevalent among the respondents.

I have been working with our distance education director to make the library a more visible presence for students on Blackboard.

Our staff continually helps community users who are taking online classes from other colleges. This occurs almost daily with several community users.

Similarly, while the prevailing perception of respondents is that they teach information literacy to a majority of Developmental English students—many feeling that they reach all or most of them—this perception does not apply to basic skills or high school equivalency students, of whom most respondents believe they reach only a minority or even few or none.
Our main goal was to make sure the students don’t see the library as “scary” and to point out materials they might actually enjoy reading. Over half of the class checked out books. ...The next day one of the students told the instructor that she had read eight chapters that night and she had never read that much of a book before in her life. Obviously, a class of eight students is a small step, but we feel that if we can help a handful of students become better readers and learn how to find reliable information, that will help that handful of students be more successful in other classes and in life. Hopefully, we can extend this project to other Developmental Reading classes and apply some of the information literacy ideas we used in curriculum classes.

The student cohorts respondents perceive they reach most extensively are first year curriculum, college transfer, and continuing curriculum students. While respondents are fairly sharply divided about the extent of this teaching’s reach to licensure/certification students, that cohort fares better than students from the other cohorts discussed previously.
Since we started doing concerted outreach, our instructional statistics have probably doubled. This is probably also due to a complete overhaul of our teaching strategies, which now focus more on the research process and using library resources for a specific assignment.
Community College Libraries & Librarians and Student Success

Rating of Teaching of Information Literacy to Students

A substantial proportion of respondents perceive that they do an excellent to good job of teaching information literacy to distance learners. Conversely, however, a majority feels that they do a fair to poor job of teaching information literacy to continuing education students.

One distance education student had signed up for 4 online courses after being out of school for several years. While in the library she expressed her fear of learning to use the online resources and course software. We encouraged her to spend two weeks doing her assignments in the library. After two weeks of our assistance, she felt comfortable doing her assignments from home.

Recently an online student visited the library to do some research for a class paper. I assisted the student in finding book sources, journal articles and arranged for multiple ILL books. About three hours later, I found the same student buried in new information, busy taking notes. He looked up and stopped me to say: "You helped me find more resources in 15 minutes, than I or my online professors have found in a week of research."
A sizeable majority of respondents perceive that they do an excellent to good job of teaching information literacy to Developmental English students, while slim majorities feel similarly about basic skills and high school equivalency students.

One of the statements I hear from faculty in all areas – from English to Science to Business – is that many students have a very low reading level. The Developmental English instructor and I decided to order some “high interest, low reading level” books, that we would keep on reserve, and for which she would give class credit. She brought one of her classes to the library and I did an information literacy class for them. We stressed several points:

- How to find books in the catalog and then on the shelves
- That there are many different kinds of reading materials for people who enjoy reading different things. The instructor stressed that students may read fiction or non-fiction books, or periodicals – anything that interests them.
- That the library staff welcomes questions. Helping students is not a bother to us but rather something we enjoy.
- That some books are set aside on reserve for this instructor’s students to make it easier for them to find books they might enjoy. We also pointed out specific areas such as the periodicals section, the new book section and where to find fiction other than the reserve books.
Community College Libraries & Librarians and Student Success

- How to access databases. We explained what a database is and I showed a few examples of databases they might find useful in other classes. We made sure they understand how to access databases off campus.

Apart from Developmental English students, those to whom large majorities of respondents perceive they do an excellent to good job of teaching information literacy are first year curriculum, college transfer, and licensure/certification students. A slim majority gives equally high marks to information literacy teaching to licensure/certification students.

At the semester’s end, a student returned to thank us for helping her achieve her goals. She went on to graduate, moving on to a university.

One of our part-time circulation assistants graduated from our institution a year ago. She decided after a semester of down time that she would continue her education at a four-year institution. Now accepted and in a program, she looks to me and the other librarian for assistance with her research. However, since she has worked for us for a few years, many times, she has already found the resource and just wants to double check with us to be sure she is on the right path. ... It is a blessing to see how much she has grown in her writing capabilities and research abilities.
Community College Libraries & Librarians and Student Success

Rating of Library’s Support of Performance Measures

Ultimately, survey respondents were asked to assess the library's support of students' efforts to achieve specific educational goals corresponding to the North Carolina Community College Performance Measures.

- Respondents felt that students preparing to transfer from a community college to a four-year college or university received their strongest support. An overwhelming majority rated their support as excellent or good and a majority, excellent.
- Almost as large super-majorities rated as excellent or good their support of students completing first year courses and passing classes needed for their chosen programs of study, though just under half rated their support of these cohorts as excellent.
- In terms of such levels of support for other student cohorts, respondents collectively ranked them as follows: students learning basic skills needed to be employed and self-sufficient, students preparing for licensure/certification exams, students learning English/reading skills, and students preparing for GED tests.

I recently had a conversation with an employee at a local company who said “You changed my life. I was coming back to school after being in the Navy and was lost. You made me feel so welcome in the library and helped me …. The library staff always offered support and encouragement when I needed it the most.
There was an older student who was enrolled in the welding program who really just wanted to take welding in order to gain better employment. He is, however, required to take English and Humanities classes to round out his education. ... With the help of librarians and library staff at our college, he has been successful in having his assignments turned in on time and comes to the library before and after his classes to work on assignments.

Library Contribution to Other Student Outcomes

Library survey respondents further assessed their library’s contribution to other student outcomes, beyond the performance measures.

- Majorities believe the library contributes very much to student perceptions of the attractiveness and quality of a community college.
- A majority believes the library contributes very much or somewhat to a student’s acceptance into professional or graduate school.
- Slim majorities believe the library contributes to successful internships and job placements.

The excellent outreach of our librarian maintains good relations with students.
Library Contribution to Other Institutional Outcomes

According to library survey respondents, community college libraries further contribute to several institutional outcomes.

- Majorities believe the library contributes very much to a college's reputation or prestige, its institutional rankings, and its engagement with its community.
- The majority, however, believe the library contributes only a little to alumni donations.

We have an excellent [information literacy] librarian whose valuable contributions have improved the Library’s reputation.

Multiple licensure and certification programs at our college are among the top ranked in the nation. We in the library believe we have supported these programs with online and print resources, LibGuides, and classroom and one-on-one instruction.
Community College Libraries & Librarians and Student Success

Most survey respondents also assess strongly the contribution of their libraries to the extent to which students enroll at, remain at, and graduate from their institutions.

- A substantial majority believe the library contributes very much or somewhat to students enrolling at a college.
- Clear majorities believe their libraries contribute very much to retain and graduate students and substantial majorities believe libraries contribute very much or somewhat to these key student-related institutional outcomes.

I was told just last week by a mid-life student, returning to college after 20 years, that the help and support she received from our library staff had made all the difference for her. She described being overwhelmed by online research using databases, and said that the instruction she had received from our librarians kept her from giving up and dropping out of her program. It isn't the first time we have been told this, and it is always so gratifying.
Community College Libraries & Librarians and Student Success

A student in need of copious encouragement receives it from the library’s resources and employees. We help her navigate online resources. She consumes a lot of time and mental and emotional energy of librarians and staff. Although bright, she needs detailed and repeated instruction. We in the library go the extra mile with her because she is a serious student who desperately wants to succeed. We believe in her because she believes in herself and us. That’s what makes this place so remarkable. We will be there at graduation, whooping when her name is called.

Not surprisingly, among faculty-related outcomes, library survey respondents perceive their greatest impact in connection with instruction.

- A substantial majority of respondents believe faculty benefit from the integration of library services with courses.
- Clear majorities perceive collaborative teaching and support of faculty teaching as contributing very much to faculty success.
- A substantial majority perceive that professional development provided by librarians contributes very much or somewhat to faculty success.
- While few believe libraries contribute very much to faculty recruitment, a clear majority believe they contribute at least somewhat to it.
Community College Libraries & Librarians and Student Success

Analysis Flow Chart

Frequency of Embedded Librarianship Activities
- Attend faculty meetings
- Monitor / contribute to e-communications
- Create / manage LibGuides, websites
- Monitor / participate in online discussions
- Manage course reserves
- Provide supplemental resources
- Conduct in-depth research
- Collaborate on instructional design
- Collaborate on teaching
- Provide training / professional development in library
- Provide training / professional development elsewhere
- Serve as department / program liaison
- Serve as member of project team beyond library

Frequency of Practice of Embedded Librarianship Principles
- Seek to identify user needs proactively
- Be part of collaborative team
- Offer customized services
- Participate in ongoing projects

Rating of Practice of Embedded Librarianship with Faculty
By performance measures cohort

Rating of Practice of Embedded Librarianship
By performance measures cohort

Rating of Library’s Support of Performance Measures
- Learning basic skills needed to be employed / self-sufficient
- Preparing for the GED (high school equivalency) tests
- Learning English & reading skills needed to succeed in college
- Completing all first year courses successfully
- Passing classes needed to do well in a chosen program of study
- Preparing for licensure or certification exams
- Preparing to transfer to a 4 year college or university

Rating of Teaching of Information Literacy to Students
By performance measures cohort

Rating of Teaching of Information Literacy Principles
- Research is a process
- Authoritative info is accurate, comprehensive & official
- Info comes in a variety of formats
- Searching for info requires questions, parameters & choosing answers
- Value of info is influenced by creator & audience

Extent of Practice of Embedded Librarianship
- Frequency of Information Literacy Activities
- Rating of Teaching of Information Literacy
- Extent of Teaching of Information Literacy
- Analysis Flow Chart

Extent of Teaching of Information Literacy
By performance measures cohort

Analysis Flow Chart

Frequency of Information Literacy Activities
- Provide library orientations / instruction
- Produce library / information literacy-oriented LibGuides
- Provide tutorials
- Teach about databases / other e-resources
- Teach research skills
- Teach students in 1-1 interaction

Rating of Practice of Embedded Librarianship with Faculty
By performance measures cohort

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By performance measures cohort

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Extent of Teaching of Information Literacy
By performance measures cohort
Community College Libraries & Librarians and Student Success

Survey of Librarians & Other Library Staff: Analysis

The survey results from librarians and other library staff were analyzed to answer the following questions:

- Are the perceptions of librarians and other library staff of their support of the state performance measures (PMs) related to their perceptions of how well they practice embedded librarianship with faculty and teach information literacy to students?
- Are their perceptions of how well they practice embedded librarianship and teach information literacy related to their beliefs about the extent to which they subscribe to the principles underlying those two concepts?
- Are their perceptions of how well they practice embedded librarianship and teach information literacy related to how frequently they perform activities associated with those two concepts?

The answer to all of these questions is yes. The sequence of anticipated—and found—relationships is illustrated in the analysis flow chart on the preceding page.

Performance Measures

Respondents’ assessments of the library’s contribution to student success are strongly related to their self-assessments of their practice of embedded librarianship and their teaching of information literacy. These findings emphasize how critical both of these concepts are to libraries and librarians fulfilling their potential to help students succeed in a wide variety of ways.
Findings concerning the practice of embedded librarianship (EL)—or outreach to teachers—and all seven of the student goals reflected in the state performance measures (PMs) are consistently positive. Without exception, respondents who rate as excellent their outreach to teachers of students seeking PM outcomes are most likely to rate as excellent the library’s contribution to students achieving those goals. Generally, respondents who rate as poor their outreach to teachers are least likely to rate as excellent the library’s contribution to student success.

The following chart compares the percentages of respondents self-assessing library contributions to student success as excellent for four groups: those who self-assess their outreach to teachers as excellent, good, fair, and poor.

Consistently, those librarians who assess their outreach to teachers as excellent are dramatically more likely to self-assess the library contribution to student success as excellent.
Community College Libraries & Librarians and Student Success

Teaching of IL & PMs

The consistency of the foregoing findings related to embedded librarianship is shared by the findings related to teaching information literacy (IL). For each student outcome reflected in the performance measures (PMs), respondents who rate as excellent their teaching of information literacy are most likely to rate as excellent the library’s contribution to student success. Conversely, respondents who rate as only fair—notably, none rate as poor—their teaching of information literacy are least likely to rate as excellent the library’s contribution to student success.

The following chart compares the percentages of respondents self-assessing library contributions to student success as excellent for four groups: those who self-assess their teaching of IL as excellent, good, fair, and poor.

Consistently, those who assess their teaching of IL as excellent are dramatically more likely to self-assess the library contribution to student success as excellent. Notably, none of the respondents who assessed their teaching of IL as poor also assessed the library contribution to student success as excellent.
Embedded Librarianship

Two aspects of embedded librarianship (EL)—the practice of EL principles and the frequency of EL activities—make it more likely that librarians and their co-workers will assess as excellent their outreach services to faculty who work with student cohorts targeted by the state performance measures.

Practice of EL Principles & EL Assessments

Embedded librarianship is characterized by four principles:

- Proactively seeking to identify faculty needs,
- Working on collaborative teams with faculty,
- Offering customized services to individual teachers, and
- Working on ongoing projects

The following charts compare the percentages of respondents self-assessing their outreach to teachers as excellent for two groups: those who practice each EL principle at least monthly and those who practice it less than monthly.

Generally, those who practice EL principles at least monthly are more likely to assess their outreach to teachers as excellent.
Community College Libraries & Librarians and Student Success

Librarians Who Proactively Seek to Identify Faculty Needs At Least Monthly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Work on Collaborative Teams At Least Monthly Are More Likely to Rate as Excellent Outreach to Teachers
Community College Libraries & Librarians and Student Success

Librarians Who Offer Customized Services At Least Monthly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Work on Ongoing Projects At Least Monthly Are More Likely to Rate as Excellent Outreach to Teachers
Generally, the extent to which all four EL principles are taught is associated with the seven performance measures student cohorts. Notably, there are only two exceptions: identifying faculty needs proactively is not associated with EL self-assessments of outreach to teachers of basic skills and high school equivalency students.

### Teachers Benefitting from Practice of Embedded Librarianship Principles by Performance Measures Cohort

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<thead>
<tr>
<th>Embedded librarianship principles</th>
<th>Teachers of students by performance measures cohort</th>
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<tr>
<td></td>
<td>Basic skills (Adult ed / literacy) High school equivalency (GED) Developmental English First year curriculum Continuing curriculum Licensure / certification College transfer</td>
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<tr>
<td>Identify faculty needs proactively</td>
<td><img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /></td>
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<tr>
<td>Work on collaborative teams</td>
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<tr>
<td>Offer customized services</td>
<td><img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /> <img src="" alt=" " /></td>
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<tr>
<td>Work on ongoing projects</td>
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Community College Libraries & Librarians and Student Success

Frequency of EL Practices & EL Assessments

Embedded librarianship activities include:

- Attending faculty meetings
- Contributing to faculty e-communications,
- Creating and managing course websites,
- Monitoring and participating in online course discussions,
- Managing course reserves,
- Providing supplemental resources as needed,
- Conducting in-depth research for faculty,
- Collaborating with faculty on instructional design,
- Collaborating on instruction in classrooms,
- Collaborating on instruction in the library,
- Serving as a departmental / program liaison, and
- Working on project teams with faculty and staff.

The following charts compare the percentages of respondents self-assessing their outreach to teachers as excellent for two groups: those who perform each EL activity at least weekly and those who perform it less than weekly.

Generally, those who perform EL activities at least weekly are more likely to assess their outreach to teachers as excellent. Notably, teachers of some student cohorts are perceived by librarians to benefit more from some EL activities than others.
Community College Libraries & Librarians and Student Success

Librarians Who Attend Faculty Meetings At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Contribute to Faculty E-Communications At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers
Community College Libraries & Librarians and Student Success

Librarians Who Create & Manage Websites At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Monitor & Participate in Online Discussions At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers
Community College Libraries & Librarians and Student Success

Librarians Who Manage Course Reserves At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers of Basic Skills & Licensure /Certification Students

Librarians Who Provide Supplemental Resources At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers of Licensure / Certification Students
Community College Libraries & Librarians and Student Success

Librarians Who Conduct In-Depth Research for Faculty At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Collaborate with Faculty on Instructional Design At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers
Community College Libraries & Librarians and Student Success

Librarians Who Collaborate with Faculty in Classrooms At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Collaborate with Faculty in Library At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers

At least weekly
Less than weekly
Community College Libraries & Librarians and Student Success

Librarians Who Serve as Department / Program Liaisons At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers

Librarians Who Work on Project Teams At Least Weekly Are More Likely to Rate as Excellent Outreach to Teachers
Excellent outreach to faculty who teach each of the seven performance measures student cohorts is associated with the frequency of three embedded librarianship activities:

- Collaborating with faculty on instruction in classrooms,
- Collaborating with faculty on instruction in the library, and
- Working on project teams with faculty and other staff

Other activities whose frequency is associated with excellent outreach to faculty who teach students who are catching up (basic skills, high school equivalency, developmental English) are:

- Participating in online course discussions and
- Serving as a departmental / program liaison

Other activities whose frequency is associated with excellent outreach to faculty who teach other regular curriculum students (first year and continuing, licensure / certification, college transfer) are:

- Contributing to faculty e-communications and
- Conducting in-depth research for faculty
### Community College Libraries & Librarians and Student Success

#### Teachers Benefitting from Frequency of Embedded Librarianship Activities by Performance Measures Student Cohort

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<thead>
<tr>
<th>Embedded librarianship activities</th>
<th>Teachers of students by performance measures cohort</th>
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<tr>
<td></td>
<td>Basic skills (Adult ed / literacy)</td>
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<tr>
<td>Attending faculty meetings</td>
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<tr>
<td>Collaborating on instruction in library</td>
<td>■</td>
</tr>
<tr>
<td>Serving as department / program liaison</td>
<td>■</td>
</tr>
<tr>
<td>Working on project teams with faculty and other staff</td>
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</tbody>
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Information Literacy

Two aspects of teaching information literacy (IL)—the practice of IL principles and the frequency of IL teaching activities—make it more likely that librarians and their co-workers will assess as excellent their teaching of IL to students.

Practice of IL Principles & Excellent IL Assessments

Information literacy is characterized by five principles:

- Research is an iterative process (ACRL’s Research as Inquiry),
- Information is considered authoritative if accurate, comprehensive, and official (ACRL’s Authority is Constructed and Contextual);
- Searching for information requires asking questions, setting parameters, and choosing between alternatives. (ACRL’s Searching as Exploration);
- Information format differences affect how it is created, shared, and used. (ACRL’s Format—later Information Creation—as a Process); and
- Influences on information value include creator, audience, originality, and the time and money investment. (ACRL’s Information Has Value).

The following charts compare the percentages of respondents self-assessing their IL teaching as excellent for two groups: those who assess their practice of each principle as excellent and those who assess it as less than excellent.

Generally, those who assess as excellent their teaching of specific IL principles are more likely to assess as excellent their teaching of IL to specific student groups who are the focus of state performance measures.
Community College Libraries & Librarians and Student Success

Librarians Who Rate as Excellent Teaching of Research as Process Are Most Likely to Rate as Excellent Teaching of Info Literacy

Librarians Who Rate as Excellent Teaching About Authority of Info Are Most Likely to Rate as Excellent Teaching of Info Literacy
Community College Libraries & Librarians and Student Success

Librarians Who Rate as Excellent Teaching About Variety of Info Formats Are Most Likely to Rate as Excellent Teaching of Info Literacy

Librarians Who Rate as Excellent Teaching of Search Requirements Are Most Likely to Rate as Excellent Teaching of Info Literacy
Notably, librarians who believe they do an excellent job of teaching each of the five IL principles are more likely to self-assess as excellent their teaching of IL to students.

### Students Benefitting from Teaching of Information Literacy Principles by Performance Measures Cohort

<table>
<thead>
<tr>
<th>Information literacy principles</th>
<th>Teachers of students by performance measures cohort</th>
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<tbody>
<tr>
<td></td>
<td>Basic skills (Adult ed/ literacy)</td>
</tr>
<tr>
<td>Research as process</td>
<td>☑</td>
</tr>
<tr>
<td>Authority of information</td>
<td>☑</td>
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<tr>
<td>Variety of info formats</td>
<td>☑</td>
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<tr>
<td>Search requirements</td>
<td>☑</td>
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<tr>
<td>Value of information</td>
<td>☑</td>
</tr>
</tbody>
</table>
Frequency of IL Services & IL Assessments

Information literacy (IL) teaching activities include:

- Providing library orientations,
- Producing / managing library / IL-related LibGuides,
- Providing tutorials,
- Providing library instruction,
- Teaching about databases / other e-resources,
- Teaching research skills, and
- Teaching students in 1-1 interaction.

The following charts compare the percentages of respondents self-assessing as excellent their teaching of IL to students for two groups: those who perform each activity at least weekly and those who perform it less than weekly.

Generally, those who perform IL teaching activities at least weekly are more likely to assess their IL teaching as excellent. Notably, some student cohorts are perceived by librarians to benefit more from IL teaching than others.
Community College Libraries & Librarians and Student Success

Librarians Who Produce Library / Info Literacy-Related LibGuides At Least Weekly Are More Likely to Rate as Excellent Teaching of Info Literacy to First Year Students

Librarians Who Provide Tutorials At Least Weekly Are More Likely to Rate as Excellent Teaching of Info Literacy to Basic Skills & Developmental English Students
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Librarians Who Teach Students About E-Resources At Least Weekly Are More Likely to Rate as Excellent Teaching of Info Literacy

Librarians Who Teach Students Research Skills At Least Weekly Are More Likely to Rate as Excellent Teaching of Info Literacy
Excellence in teaching information literacy (IL) to Developmental English students and all four groups of academic curriculum students (First Year, Continuing, Licensure / Certification, and College Transfer) is associated with the frequency of two specific IL teaching activities:

- Teaching about databases and other electronic resources and
- Teaching research skills.

With the exception of Licensure / Certification students, IL teaching excellence is also associated with how often librarians teach students in one-to-one interaction.

First Year students benefit from librarian engagement in the widest range of IL teaching activities, including:

- Providing library orientations and instruction,
- Producing and managing library and IL-related LibGuides (i.e., websites),
- Teaching about databases and other electronic resources,
- Teaching research skills, and
- Teaching students in one-to-one interaction.
Excellence in IL teaching of College Transfer students is associated with the frequency of four IL teaching activities, including:

- Providing library orientations and instruction,
- Teaching about databases and other electronic resources,
- Teaching research skills, and
- Teaching students in one-to-one interaction.

Basic Skills and Developmental English students are the only student groups for which excellence in IL teaching is related to how often librarians provide tutorials.

### Students Benefitting from Frequency of Information Literacy Teaching Activities by Performance Measures Student Cohort

<table>
<thead>
<tr>
<th>Information literacy activities</th>
<th>Students by performance measures cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basic skills (Adult ed/ literacy)</td>
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<tr>
<td></td>
<td>High school equivalency (GED)</td>
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<tr>
<td></td>
<td>Developmental English</td>
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<tr>
<td></td>
<td>First year curriculum</td>
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<tr>
<td></td>
<td>Continuing curriculum</td>
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<td></td>
<td>Licensure / certification</td>
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<tr>
<td></td>
<td>College transfer</td>
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<tr>
<td>Providing library orientations / instruction</td>
<td>•</td>
</tr>
<tr>
<td>Producing /managing library / info literacy-related LibGuides</td>
<td>•</td>
</tr>
<tr>
<td>Providing tutorials</td>
<td>•</td>
</tr>
<tr>
<td>Teaching about databases / other e-resources</td>
<td>•</td>
</tr>
<tr>
<td>Teaching research skills</td>
<td>•</td>
</tr>
<tr>
<td>Teaching students in 1-1 interaction</td>
<td>•</td>
</tr>
</tbody>
</table>
Community College Libraries & Librarians and Student Success

We had a student who had worked in a factory in this area for 25 years. He went straight from high school graduation to work in the factory. The factory closed. He came to our college to train for a new career, nursing. He did not know basic computer skills and had not been in a learning environment for many years. The library was his first stop. He came every day for library staff help. He became computer literate and information literate. Our staff assisted him in many ways by providing him the resources and help he needed to transition to the 21st Century. He is now a nurse who comes by two or more times a year. He comes to speak to all the library staff and to thank us repeatedly. He always says we were the friendly place and help he needed to retrain for a new career.

We provide an online information literacy course, called Research 101 and it contributes to student academic success. Student feedback on the course has been very positive. Here are two quotes from students from the 2014-15 student evaluation that’s part of Research 101:

- "I had a research project in two of my classes and I used this resource in order to help prepare me to receive a better grade on my project. Thank You!
- "I have had to search for sources for a research topic in one of my classes and I was able to successfully do so thanks to Research 101."

Our librarian is very adamant about helping student attain their goals. She is head of the National Honor Society, and spends a great deal of time getting students as well as their parents involved.

A few years back, a student wrote an essay about the library, its services and a brief profile of the employees (we’re a small staff). She discussed how helpful it was to have the library to assist her with completing her research and coursework. The English teacher gave a copy of the student’s paper to the president, who read aloud excerpts from it during our college’s Convocation. We’ve had other students anecdotally tell us that the library environment we create—the "drop everything to help the student" customer service philosophy we maintain, and just being an ear to listen when they’re struggling—has played an integral part in them sticking with their studies, and succeeding. Those moments make our job feel worthwhile, and, while not quantitative, I think prove the library can have a positive impact on student success and retention.
The ultimate goal of this survey analysis is to examine the relationships between what community college libraries and librarians do to contribute to student success and seven of the eight North Carolina performance measures (PMs) for community colleges. It was expected that self-assessments of librarians’ contributions to the success of students who are the focus of these PMs would correlate with institutional data on the state PMs themselves.

In fact, such a correlation is found for only one performance measure: Developmental Student Success Rate in College Level English Courses—or the percentage of students who had taken Developmental English courses who subsequently succeeded (i.e., earned grade C or above) in for-credit English courses. Of library survey respondents, 61.1% of those who self-assess their contributions to students meeting this goal as excellent or good are at community colleges rated average or above on that PM. Conversely, 57.5% of respondents who self-assess their library contributions to such teaching as fair or poor are at colleges rated below average on the measure.

Somewhat surprisingly, such relationships between library survey responses and the PM data are not found for the other six measures addressed by this study:

- Basic skills progress,
- GED pass rate,
- Year one progress,
- Curriculum completion rate,
- Licensure pass rate, and
- College transfer performance.
Student Survey: Responses

This section will summarize the response to the student survey, report the frequencies of the various answers to each of the questions, and interpret any practical implications of those responses as they stand alone.

Survey Design & Administration

Working with the project advisory committee, the researchers began developing the student survey in late January 2015. After many refinements, it was pre-tested by 45 students in early April 2015.

The student survey was administered by 56 of the state’s 58 community colleges. Most colleges chose to send an announcement of the survey to all students via their own email distribution lists. One college provided a comprehensive list of student emails to the researchers who distributed the survey directly. The entire Fall semester was scheduled as the window for administering this survey in order to allow authorities at the individual colleges to schedule their own opening and closing dates, so as not to conflict with other activities of their institutions.

Statewide, the survey was opened on September 29, 2015, and closed on December 31, 2015.

Respondents & Completion Rate

The survey was begun by 8,507 students and completed by 7,122, for a completion rate of 83.7%. These completed responses from self-selected students represented 6.9% of the 103,273 curriculum and continuing education students enrolled during the Fall 2015 semester.

Respondent Demographics

Respondents to the student survey were asked to identify themselves by basic demographics including gender, age, race/ethnicity, as well as student characteristics including current student status, time at current college, and mode of class attendance.
Basic Demographics

Student survey respondents were:

- Overwhelmingly female (74%),
- Mostly ages 18-24 (53%), and
- Mostly non-Hispanic and white (65%).
Notably, the basic demographic distribution of student survey respondents differed from that for all Fall 2015 curriculum students. Female and non-Hispanic white students were over-represented, while older students (i.e., age 40 and over) were under-represented. Fortunately, given these self-selection biases among the respondents, there were only a few noteworthy cases in which these demographic variables correlated with specific responses to survey questions.)
**Student Characteristics**

Student survey respondents were:

- Either seeking a degree or certificate (54%) or planning to transfer to a four-year college or university (42%),
- Either in their second or later year (47%) or their first semester (31%), and
- Mostly attending classes on campus (60%).
How Often Librarians Help Students

Student respondents reported receiving many kinds of help from community college librarians.

Strong majorities of students reported receiving eight kinds of help at least each semester (combining at least weekly, at least monthly, and at least each semester). Ranked in terms of frequency (at least weekly and at least monthly), these kinds of help include:

- Using library computers and other equipment (laptop, tablet, e-reader, printer, photocopier);
- Completing class assignments;
- Citing sources appropriately;
- Learning research skills needed to find information on their own;
- Evaluating the quality of an information source;
- Choosing, defining, or focusing a research topic;
- Finding information online in NC LIVE and other databases (online journals, magazines, newspaper articles, e-books, audiobooks and video); and
- Finding information in books and other items housed in the library.
The experiences that I’ve had thus far with the library at my college have well exceeded my expectations. The staff has always been available to help me at any time I’ve needed direction on which course of action would be best for the particular project I would be working on at that time.

A librarian worked with one of my instructors to present to our class the various ways to reach out to databases to complete an assignment in the future. This made it easier for me to find specific information on the topic I chose.

I had trouble getting some online resources for a paper I had to write. I was a bit rusty on my research skills, the last time I attended school was 1984. I was very frustrated and took my laptop to the library with me. A very kind librarian took the time to sit with me and walk me through using NC LIVE, the ProQuest resources and various other avenues that helped me feel more comfortable with my search. ... he made me realize that I did have the skills to succeed, even after being out of school for over 30 years!

I was sitting in the library when I overheard an older gentleman behind me huffing and puffing. He was really frustrated at whatever online task he had to do for an assignment. He called the librarian over and she came quickly and tried to help him figure out how to use this specific website. She was extremely patient and calm with him even though he was basically yelling "Why do I even need to learn this?" She just blew me away with her patience and kind tone of voice. She diligently helped him with his online assignments. It was beautiful.

The librarians in our library are fabulous when I have questions. Last year I was doing a research paper on a subject for which finding information was extremely hard. They helped me immensely. One of them not only helped me extensively one day but contacted me the next day to tell me she had found more information for me. Yes, librarians are "supposed" to help; however, she went well above and beyond.
How Often Students Use Library Resources

Student respondents reported using a variety of resources available via their community college libraries.

Strong majorities of students reported using three resources most frequently (at least weekly and at least monthly combined):

- Wifi access,
- Computers and other equipment, and
- Individual study space.

Clear majorities of students reported using five resources at least each semester:

- Print,
- NC LIVE and other databases,
- Group study space,
- LibGuides and other library-created websites, and
- Video, audio, and other multimedia.

Substantial minorities of students reported using three resources at least annually:

- Computers and other equipment available for checkout from the library,
- Course reserves, and
- Interlibrary loan.
I am beyond happy with my library. Having a place where we have access to a range of resources and a welcoming spot to study has helped tremendously.

I was having a difficult time wrapping up my research paper and the librarians helped me greatly—not only teaching me how to navigate the NC Live systems and find relevant information available online by myself. They also assisted me in locating several monumental studies in print that ultimately strengthened my paper and gave it more validity and credibility. At one point very late on a Sunday night, I couldn’t find a resource that I had captured information from and I needed to cite the source. The online chat person helped me find it very quickly and I am forever grateful!

What is great about our library is that there is always room available whether a computer, a cubbie, or table. I loved how every time I came in, even though it can get really busy, there was always a computer available for use. For those times that I needed strict, quiet concentration the study rooms were there for my use.
The textbook reserve program has been extremely helpful to me throughout my community college experience. I have saved over $1,000 by not having to purchase textbooks for many of my courses because they were on reserve in the library. I would just set aside time after class to go to the library and complete assigned reading/studying/etc.

Through the first year of college, I had no access to the internet or Word documents at my home. This made it very difficult to enroll in online classes, to write papers for English class, and to do research for certain topics. Having access to (my CC) library early in the mornings, I was able to use my free time before, between, and after classes.

I come from a lower income family, so I don’t usually have all the necessary resources in my personal life to complete all of my classwork. The library at my school has provided so many resources that have helped me get all of my work done and I am very grateful for that. I could easily find everything I needed and if I couldn’t, I would always be pointed in the right direction. The environment is also really great for concentrating on all the work I needed to get done.
Library Contribution to Learning About Information Literacy

Students credited their community college librarians with contributing to their learning of key ideas about information literacy.

Strong majorities of student respondents rated highly (excellent and good combined) their library's contribution to their learning about how to:

- Find needed information;
- Use different types of information;
- Evaluate information (what to take seriously);
- Value information (based on its creator, content, and audience); and
- Pursue information in an iterative fashion (one question leading to another).

![Chart showing how students rate library contribution](chart.png)

Our librarians are amazing. Whenever I need help properly citing my sources, there is always someone I can ask. Thank you, for all your help. I will be graduating soon, and I wouldn't have received the education I have today if it weren't for my librarians.
Library Contribution to Educational Goals of Students

Students credited their community college libraries and librarians for contributing to their pursuit of their educational goals. These goals correspond to the performance measures for community colleges.

Large majorities of student respondents—more than four out of five—rated as excellent or good their library’s contribution to those goals as well as the following:

- Passing classes in their chosen program of study,
- Completing first year courses,
- Learning English or reading skills,
- Learning basic skills,
- Preparing to transfer to a four-year college or university,
- Preparing for high school equivalency (GED) tests, and
- Preparing for licensure or certification exams.
Library Contribution to Other Academic Experiences of Students

Students also credited their community college libraries and librarians for contributions to other academic experiences.

A majority of student respondents believe their library contributed very much to their overall success as students.

Strong majorities of responding students believe their library contributed very much or somewhat to such success as well as:

- Their choice of their current community college,
- A positive internship experience,
- A positive job placement experience, and
- Their perception of their community college's quality.

A majority of student respondents also believe their library contributed very much or somewhat to their acceptance at a four-year college or university.
I am currently in a work study program with my college library and I honestly have to say it is an amazing experience. I am currently transcribing old videos of interviews that have been held in this region and it is fantastic to hear what these people have to say. Without the library at my community college and its work study program I would not have this great opportunity, and for that I am very grateful.

Student Survey: Analysis

The student survey results were analyzed to answer the following questions:

- Does the frequency with which students report receiving various types of librarian help predict how they assess their library's contribution to their pursuit of personal educational goals aligned with the state performance measures?
- Does the frequency with which students report various types of library resources use predict how they assess their library's contribution to their pursuit of personal educational goals?

Librarian Help & Student Success

Students who reported receiving many types of help from their community college librarians at least weekly were dramatically more likely to rate as excellent the contribution of their libraries to their academic success. Of those who received help at least weekly, 65 to 75 percent rated the library contribution to their success as excellent, while, of those who received help less than weekly, only 40 to 50 percent rated the library contribution to their success so highly.

The eight types of librarian help associated with student success are:

- Finding information in books and other items housed in the library;
- Finding information online in NC LIVE and other databases (online journals, magazines, newspaper articles, e-books, audiobooks and video);
- Using library computers and other equipment (laptop, tablet, e-reader, printer, photocopier);
- Learning research skills needed to find information on their own;
- Choosing, defining, or focusing a research topic;
- Evaluating the quality of an information source;
- Citing sources appropriately; and
- Completing class assignments.
This pattern was consistent for all seven of the educational goals claimed by students:

- Learning basic skills,
- Learning English or reading skills,
- Preparing for high school equivalency (GED) tests,
- Completing first year courses successfully,
- Passing classes in their chosen program of study,
- Preparing for licensure or certification exams, and
- Preparing to transfer to a four-year college or university
Community College Libraries & Librarians and Student Success

Students Who Librarians Help Learn Research Skills At Least Weekly More Likely to Rate as Excellent Library Contribution to Student Success

Students Who Librarians Help Choose, Define, or Focus a Research Topic At Least Weekly More Likely to Rate as Excellent Library Contribution to Student Success
When I ... started at my Community College I was so pleased with the results I was getting. The staff was so helpful. The library staff was useful and helped me with any issues or problems. So with this help and assistance I have made Dean’s list my past 2 semesters here. I’m so excited that I chose this college to further my education which put me to a point where I can transfer with confidence in my field. (My library) staff and faculty rock, and have a huge part in my success and current educational standing.

English isn’t my first language, I had to learn it the hard way because I didn’t have much time. And the librarians were there for me every time I needed them. They treated me as a friend. They never gave up on me, and I am thankful for that; they helped me get on the right path in becoming a surgeon.
I have been using our library since I was part of the GED program. Information which is taught by the librarians ranges from how to cite scholarly articles to how to properly search for books in the library. The library means a lot to me, but there is something special about the library, and it is not the books, the many computers that are inside, or even the ability to print 10 pages for free (grateful), but it is the librarians—librarians who take the time to help a student succeed in his or her studies. Our librarians assist students with patience, knowledge, and respect. Personally, I feel they do it not just because it’s their job. It is more than that, it’s because they care, and honestly that is priceless and the most special aspect a library can have, which is interaction with people who want you to be successful in life.

My first semester, I was taking English. I already had in my mind that I was going to fail and college was definitely not for me. For my first paper, I was so worried about having the correct structure, grammar, and citations. The librarian helped me correctly set up my Works Cited page and helped me correctly put punctuation where needed. They also showed me how to get articles from the NC Live Database. I was able to find all the sources needed for that paper as well as every paper I have written since then. I received my first A for the semester with the assistance of our library staff.

This past spring (2015) we were told my father had stage four cancer. I was able to go (to my CC Library) and ask for help researching the type of cancer he had. The librarian was very welcoming, said “I am sorry about your father,” and proceeded to show me how to look up and find information on cholangiocarcinoma. Sadly my father passed before we returned from Spring Break. I was able to finish that semester with a 3.75 GPA, and I believe had it not been for her helping me locate the information on his cancer and what to expect I would not have been prepared for his passing and would not have finished the semester out. (She) really helped me prepare for those devastating weeks.

I went to the library one time to look up information for my biology project and I did not understand how to use the online databases. The librarian actually helped me figure out how to use all the online databases as well as how to look up books that are in the library or at the other campuses. The librarian actually helped me to find all the information needed to do my project. She even helped me on what to do my project on specifically and how to go about doing it in a paper and a PowerPoint. She was very helpful and without her I do not think I would have passed my project.
Initially when I decided to further my education I was skeptical about how I would do on placement testing. I was disinterested of taking a placement test because it had been 8 years since I last took a test. The library instructor had a pre-placement test so I could learn what to expect and what I needed to know. Scoring in a developmental region, I went home and studied for the next two days as instructed by the librarian. I took the placement test again and scored in a collegiate region, meaning I didn’t have to take developmental courses. If it weren’t for that librarian giving her all, helping me and preparing me for the placement, I would not be furthering my education. I thank this individual whenever I see her. I am only a year away from having my criminal justice technology degree.

Generally, when students relied at least weekly on help from their librarians, they were more likely to rate as excellent the contribution of librarians to their being able to achieve their educational goals. This general finding applied to all kinds of librarian help and all seven of the educational goals addressed in the student survey.
### Student Ratings of Library Contribution to Their Achieving Educational Goals as Excellent by Help Received from Librarians At Least Weekly

<table>
<thead>
<tr>
<th>Help Received from Librarians At Least Weekly</th>
<th>Ratings of Library Contribution to Achieving Student Educational Goals as Excellent</th>
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<tbody>
<tr>
<td></td>
<td>Learning basic skills</td>
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<tr>
<td>Finding info in books etc in the library</td>
<td>■</td>
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<tr>
<td>Finding info online (NC LIVE, other databases)</td>
<td>■</td>
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<tr>
<td>Using library computers, other equip’t</td>
<td>■</td>
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<tr>
<td>Learning research skills</td>
<td>■</td>
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<tr>
<td>Choosing, defining, or focusing a research topic</td>
<td>■</td>
</tr>
<tr>
<td>Evaluating info quality</td>
<td>■</td>
</tr>
<tr>
<td>Citing sources appropriately</td>
<td>■</td>
</tr>
<tr>
<td>Completing class assignments</td>
<td>■</td>
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</table>

### Student Use of Library Resources & Student Success

Students who reported using various types of resources available from their community college librarians at least weekly were dramatically more likely to rate as excellent the contribution of their libraries to their academic success. Of those who used selected library resources at least weekly, 60 to 80 percent rated the library contribution to their success as excellent, while, of those who used such resources less than weekly, only 40 to 50 percent rated the library contribution to their success so highly.
The 11 types of library resources whose use was associated with student success are:

- Print resources (books, reference works, periodicals);
- Other physical library resources (video, audio, multimedia);
- Equipment available for use in the library (computers, laptops, tables, e-readers, printers, photocopiers);
- NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks, and video);
- Interlibrary loan services;
- Computers, laptops, and tablets available to check out;
- Wifi access;
- LibGuides (class or subject area websites);
- Course reserves;
- Individual study space in the library; and
- Group study space in the library.

As for library help, the pattern associated with student use of library resources was consistent across the seven educational goals aligned with the state performance measures for community colleges.
The library was very important to me when I could not study quietly at home. I could go to the library and find a personal space for me to study. They also have free Wi-Fi on campus and in the library that’s fast and reliable, which was also a necessity to really experience the full benefits of learning through the use of LibGuides, NC Live database, and even YouTube for some of the more challenging curricula. So for me the library is an invaluable and positive tool for my educational experience.

I am a second year nursing student and I just recently learned that one of the librarians has worked to create a special allied health research base for us. I wish I had known this sooner, but since I’ve been shown how to use it, I have found it a life-saver resource. I’m not sure what that librarian’s name is, but I am very grateful for them.

For one of the assignments in an English class, I needed valid, relevant information on current events pertaining to my subject choice. A librarian informed me of NC Live and how to properly, efficiently use its databases for this project. I obtained valuable, beneficial information about NC Live and all the possibilities and help available at my college library. This knowledge has helped me on more than five assignments, just this year.
Community College Libraries & Librarians and Student Success

Students Who Use Computers (etc.) Available for Use in Library
At Least Weekly More Likely to Rate as Excellent Library Contribution to Student Success

Students Who Use NC LIVE and Other Library Databases At Least Weekly
More Likely to Rate as Excellent Library Contribution to Student Success
Community College Libraries & Librarians and Student Success

Students Who Use Interlibrary Loan Services At Least Weekly More Likely to Rate as Excellent Library Contribution to Student Success

- Learning basic skills: 82.7% Weekly +, 52.0% < Weekly
- Preparing for GED tests: 77.7% Weekly +, 45.7% < Weekly
- Learning English/reading skills: 79.6% Weekly +, 47.9% < Weekly
- Completing 1st year courses: 80.0% Weekly +, 53.2% < Weekly
- Passing classes in chosen program: 82.0% Weekly +, 51.1% < Weekly
- Preparing for licensure/certification exams: 78.9% Weekly +, 46.0% < Weekly
- Preparing to transfer to 4 year college: 80.5% Weekly +, 49.8% < Weekly

Students Who Use Computers (etc.) Available for Checkout At Least Weekly More Likely to Rate as Excellent Library Contribution to Student Success

- Learning basic skills: 73.5% Weekly +, 50.3% < Weekly
- Preparing for GED tests: 68.2% Weekly +, 44.3% < Weekly
- Learning English/reading skills: 69.6% Weekly +, 46.3% < Weekly
- Completing 1st year courses: 74.8% Weekly +, 51.5% < Weekly
- Passing classes in chosen program: 73.2% Weekly +, 49.6% < Weekly
- Preparing for licensure/certification exams: 66.4% Weekly +, 45.4% < Weekly
- Preparing to transfer to 4 year college: 71.2% Weekly +, 48.8% < Weekly
Community College Libraries & Librarians and Student Success

Students Who Use Library WiFi Access At Least Weekly
More Likely to Rate as Excellent Library Contribution to Student Success

Students Who Use LibGuides and Other Library Websites At Least Weekly
More Likely to Rate as Excellent Library Contribution to Student Success
Community College Libraries & Librarians and Student Success

Students Who Use Course Reserves At Least Weekly
More Likely to Rate as Excellent Library Contribution to Student Success

Students Who Use Individual Study Space at Library At Least Weekly
More Likely to Rate as Excellent Library Contribution to Student Success
Generally, when students utilized library resources at least weekly, they were more likely to rate as excellent the contribution of libraries to being able to achieve their educational goals. This finding applied to all kinds of library resources and all seven educational goals addressed in the survey.
### Student Ratings of Their Achieving Educational Goals as Excellent by Student Use of Library Resources At Least Weekly

<table>
<thead>
<tr>
<th>Library Resources Used by Students At Least Weekly</th>
<th>Learning basic skills</th>
<th>Learning English / reading skills</th>
<th>Preparing for GED tests</th>
<th>Completing 1st year courses successfully</th>
<th>Passing classes in chosen program</th>
<th>Preparing for licensure / certification exams</th>
<th>Preparing to transfer to 4-year college / university</th>
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<tbody>
<tr>
<td>Print resources</td>
<td>■</td>
<td>■</td>
<td>■</td>
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<td>■</td>
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<td>■</td>
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<tr>
<td>Audio / Video / Multimedia</td>
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<td>Equip’t for use in library</td>
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<td>■</td>
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<td>NC LIVE, other databases</td>
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<td>Interlibrary loan services</td>
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<td>■</td>
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<td>Computers etc for checkout</td>
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<td>Wifi access</td>
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<td>LibGuides</td>
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<td>Course reserves</td>
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<td>Individual study space</td>
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<td>Group study space</td>
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</table>
Teaching of Information Literacy Principles & Student Success

Nothing in the student survey results spoke as clearly about why students value their community college librarians as how they felt about how well they learned the principles of information literacy from those librarians and how, in turn, that correlated with the credit they gave to their libraries for their academic successes. Students who rated as excellent the teaching of key information literacy principles by their librarians were dramatically more likely to rate as excellent the contribution of their libraries to their academic success. Of those who rated the teaching of information literacy principles as excellent, 75 to 85 percent rated the library contribution to their success as excellent, while, of those who rated such teaching as less than excellent, only 20 to 30 percent rated the library contribution to their success so highly.

Students were asked to rate the teaching of principles of information literacy as presented in an early draft of new information literacy frameworks developed by the Association of College and Research Libraries (ACRL).

The information literacy principles whose teaching is associated with student success are:

- **Research is a process** in which the answer to one question leads to other questions. (ACRL’s Research as Inquiry).
- **Information is authoritative** when recognized by interested parties as accurate, comprehensive, and official. (ACRL’s Authority is Constructed and Contextual).
- **Searching for information** requires formulating questions and search parameters and choosing between alternative answers. (ACRL’s Searching as Exploration).
- **Information formats vary**, and these differences affect how it is created, shared, and used. (ACRL’s Format—later Information Creation—as a Process).
- **Influences on information value** include the identities of its creator and audience, its originality, and the time and money invested to produce it. (ACRL’s Information Has Value).

One time I was given an MLA format assignment and I didn’t do well on it. I didn’t understand why, so I went straight to the library because I knew that I would get help, and I did. A really nice librarian took time to guide me through all the essential steps that I needed to know about MLA format, and I graduated from a B plus to an A plus.
I had an essay due (that) required me to use reliable sources and cite those sources in MLA format. I came to the library ... confused and fairly new with the place. I sat down and I guess one of the librarians sitting at the information desk saw that I was frustrated. She came over and asked me if she could be of any assistance. I told her my problem and she showed me step by step on where to find reliable sources of information for my topic and how to cite my sources in the correct format. When I turned in the essay, I received an A, and the teacher noted my excellent sources and citations, but I told her the library should take the credit for what a wonderful job they did helping me on my essay.

I had to do a paper in the APA format. I had only been taught the MLA format so I was very worried that I wouldn’t be able to complete this paper properly or get a passing final exam grade. The librarian was so helpful by first coming to our class and giving us all a course on the APA format and how to use the computer system my college provides for us while doing our essay papers, then she was very gracious to take more time with me outside of the class in the library. I have used all she taught me to do my papers. Due to her guidance and the time she took with the class and then with me I got an A on my final exam paper.
Community College Libraries & Librarians and Student Success

Students Who Rate Teaching of Info Literacy (What Info to Take Seriously) as Excellent More Likely to Rate as Excellent Library Contribution to Student Success

<table>
<thead>
<tr>
<th>Activity</th>
<th>Excellent</th>
<th>&lt; Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning basic skills</td>
<td>83.5%</td>
<td>29.3%</td>
</tr>
<tr>
<td>Preparing for GED tests</td>
<td>80.0%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Learning English/reading skills</td>
<td>80.0%</td>
<td>23.6%</td>
</tr>
<tr>
<td>Completing 1st year courses</td>
<td>83.6%</td>
<td>30.8%</td>
</tr>
<tr>
<td>Passing classes in chosen program</td>
<td>82.1%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Preparing for licensure/certification exams</td>
<td>78.7%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Preparing to transfer to 4 year college</td>
<td>80.9%</td>
<td>26.6%</td>
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</tbody>
</table>

Students Who Rate as Excellent Teaching of Info Literacy (How to Use Info Well) More Likely to Rate as Excellent Library Contribution to Student Success

<table>
<thead>
<tr>
<th>Activity</th>
<th>Excellent</th>
<th>&lt; Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning basic skills</td>
<td>83.7%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Preparing for GED tests</td>
<td>78.6%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Learning English/reading skills</td>
<td>79.2%</td>
<td>29.9%</td>
</tr>
<tr>
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<td>82.6%</td>
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</tr>
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</tr>
<tr>
<td>Preparing for licensure/certification exams</td>
<td>78.0%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Preparing to transfer to 4 year college</td>
<td>80.5%</td>
<td>25.5%</td>
</tr>
</tbody>
</table>
Generally, when students rated as excellent the teaching of information literacy principles, they were also more likely to rate as excellent the contribution of libraries to their being able to achieve their educational goals. This general finding applied to all five information literacy principles and all seven of the educational goals addressed in the student survey.

### Student Ratings of Library Contribution to Their Achieving Educational Goals by Student Ratings of Library Teaching of Information Literacy Principles

| Excellent Ratings of Teaching of Information Literacy Principles | Student Ratings of Library Contribution to Their Achieving Educational Goals as Excellent |
|---|---|---|---|---|---|---|
| Research as process | Learning basic skills | Learning English / reading skills | Preparing for GED tests | Completing 1st year courses successfully | Passing classes in chosen program | Preparing for licensure / certification exams | Preparing to transfer to 4-year college / university |
| Authority of information | | | | | | |
| Variety of info formats | | | | | | |
| Search requirements | | | | | | |
| Value of information | | | | | | |

### Demographic Differences in Student Responses

Respondents to the student survey identified themselves in terms of basic demographics, including race/ethnicity, age group, and gender. There were noteworthy differences associated with all three demographics, though predominantly with race/ethnicity and age group.

### Race and Ethnicity

The race/ethnicity of respondents influenced how much they received different types of librarian help, how often they used different types of library resources, and—in some cases—how highly they rated the contribution of their libraries to their academic successes.
Community College Libraries & Librarians and Student Success

Librarian Help by Race and Ethnicity

Students who were Hispanic and/or non-white were consistently more likely to report receiving all eight types of librarian help at least monthly. These types of help included:

- Finding information in books and other items housed in the library;
- Finding information online in NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks; and video);
- Using library computers and other equipment (laptop, tablet, e-reader, printer, photocopier);
- Learning research skills needed to find information on their own;
- Choosing, defining, or focusing a research topic;
- Evaluating the quality of an information source;
- Citing sources appropriately; and
- Completing class assignments.

![Graph showing librarian help by race and ethnicity](image)
Library Resources by Race and Ethnicity

Students who were Hispanic and/or non-white were consistently more likely to report receiving all 11 types of library resources at least monthly. These types of help included:

- Print resources (books, reference works, periodicals);
- Other physical library resources (video, audio, multimedia);
- Equipment available for use in the library (computers, laptops, tables, e-readers, printers, photocopiers);
- NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks, and video);
- Interlibrary loan;
- Computers, laptops, and tablets available to check out;
- Wifi access via the library;
- LibGuides (class or subject area websites);
- Course reserves;
- Individual study space in the library; and
- Group study space in the library.
Community College Libraries & Librarians and Student Success

Library Contribution to Student Success by Race and Ethnicity

Students who were Hispanic and/or non-white and were learning basic skills, learning English/reading skills, or preparing to transfer to four-year college or university were more likely to rate as excellent the library contribution to their success. There were no other notable differences correlated with race/ethnicity in responses about other types of student success to which libraries contributed.
Age Group

The age group of respondents influenced how much they received different types of librarian help, how often they used different types of library resources, and—in some cases—how highly they rated the contribution of their libraries to their academic successes.

Librarian Help by Age Group

Students under age 25 were consistently more likely to report receiving all eight types of librarian help at least monthly. These types of help included:

- Finding information in books and other items housed in the library;
- Finding information online in NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks; and video);
- Using library computers and other equipment (laptop, tablet, e-reader, printer, photocopier);
- Learning research skills needed to find information on their own;
- Choosing, defining, or focusing a research topic;
- Evaluating the quality of an information source;
- Citing sources appropriately; and
- Completing class assignments.
Students under age 25 were consistently more likely to report receiving 10 types of library resources at least monthly. These types of help included:

- Print resources (books, reference works, periodicals);
- Other physical library resources (video, audio, multimedia);
- Equipment available for use in the library (computers, laptops, tables, e-readers, printers, photocopiers);
- NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks, and video);
- Computers, laptops, and tablets available to check out;
- Wifi access via the library;
- LibGuides (class or subject area websites);
- Course reserves;
- Individual study space in the library; and
- Group study space in the library.

Use of interlibrary loan services was not correlated with age group.
Library Contribution to Student Success by Age Group

While younger students were more likely to receive librarian help and to use library resources, older students (age 25 and over) preparing for GED tests and learning English/reading skills were more likely to rate as excellent the library contribution to their success. There were no other notable age-related differences in responses about other types of student success to which libraries contributed.

I am a non-traditional (61 year old) student, it will have taken me 8 years to accomplish my 2 year degree. I work full-time, have a special needs family and take 2 classes a semester. Of those 2 classes I have had semesters interrupted due to my personal health issues. I am 10 credit hours away from completing my degree. This degree was for ME, just to prove I was capable, which I have done quite well with a GPA of 3.458. I have to give a lot of credit to our librarians and our tutoring lab. Our staff are very knowledgeable, kind and always willing to go the extra mile to support and encourage (all) students. It doesn’t come just from upper management, either, although without their support the faculty and staff assigned to the library couldn’t do such a wonderful job.
Coming back to school as an older adult after retirement, I am very appreciative of and surprised at the time and effort the library workers take to ensure you understand how things work in their area of expertise. They have been very important in my life over the past two years. They have shown students concern and respect no matter the age to ensure you can find and do research on your own. I love those guys, my hat goes off to them, thanks for being there for me and others who decide to return to the education arena.

Early in my journey going back to school I saw a presentation on APA and MLA papers. In that presentation they spoke about "booking a librarian" to help you source a paper. As an older adult student, I was nervous about writing ANY paper. It had been a long time since I had done so. I jumped on the "booking a librarian" feature. A librarian has helped me narrow my topic, make the topic fit the subject, and find sources for several papers. She has helped me immeasurably and has been invaluable to me in getting back into the swing of school. I am amazed when I speak to other students that don’t know this option exists.

When I first started college in the spring of 2015 I had been out of school for 33 years. I was not sure how to acquire information for the many essays that were required for my English class. I started having anxiety attacks, and almost quit because I was confused not knowing where to turn, who to talk to, and how to find information needed to complete the required task. Finally I decided to go to the library and ask someone where and how to begin. The librarian sat down with me and spent an hour explaining to me how to find what I needed, and how to cite my work. Once I got back on course things have gone much better and I received an A in the English class. I couldn’t have done it without him, and may not be in college today if it weren’t for him and his knowledge of the library.
Gender

The only gender-related differences in responses to the student survey were associated with rating the library contribution to student success. Female students were more likely to rate as excellent the library contribution to their success. This finding was consistent across all seven types of student success examined in this study. Notably, there were no noteworthy gender-related differences associated with types of librarian help received or types of library resources used.
Faculty Survey: Responses

This section will summarize the response to the faculty survey, report the frequencies of the various answers to each of the questions, and interpret any practical implications of those responses as they stand alone.

Survey Design & Administration

Working with the project advisory committee, the researchers began developing the faculty survey in late January 2015. After many refinements, it was pre-tested by 17 faculty members in early April 2015.

The faculty survey was administered by 56 of the state's 58 community colleges. Most colleges chose to send an announcement of the survey to all students via their own email distribution lists. One college provided a comprehensive list of faculty emails to the researchers who distributed the survey directly. The entire Fall semester was scheduled as the window for administering this survey in order to allow authorities at the individual colleges to schedule their own opening and closing dates, so as not to conflict with other activities of their institutions.

Statewide, the survey was opened on September 30, 2015, and closed on December 31, 2015.

Respondents & Completion Rate

The survey was begun by 1,667 faculty members and completed by 1,449, for a completion rate of 86.9%. These completed responses from self-selected faculty members represented about 23% of the approximately 6,300 faculty teaching during the Fall 2015 semester.

Respondent Demographics

Respondents to the faculty survey identified themselves in terms of their type of faculty position, their highest degree or qualification, the type of program they teach in primarily, and how long they have taught at their particular community college.
Type of Faculty Position

Of faculty survey respondents, just over half were full-time faculty members. More than a quarter were part-time instructors, and just over one in five was an administrator (e.g., Chair, Faculty or Program Director or Assistant Director).
Community College Libraries & Librarians and Student Success

*Highest Degree or Qualification*

Respondents to the faculty survey possessed a variety of degrees or other qualifications to be teaching in North Carolina community colleges. Almost one out of five has or is pursuing a doctorate; three out of five have master’s degrees; and more than one out of five has some credential less than a master’s degree (i.e., bachelor’s degree, associate degree or other special qualification).
Primary Teaching Program Type

Respondents to the faculty survey taught in a variety of program types. Almost two-thirds taught General Education or College Transfer students. More than a third taught students pursuing Associate degrees. Almost one in 10 taught students taking College/Career Readiness courses. And one in 20 taught Continuing Education students.
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Time Teaching at College

Nine out of 10 faculty survey respondents were in their second or later year of teaching at their particular college. The remainder was almost equally split between those in their first and second semesters teaching at a particular college.
How Often Librarians Serve Faculty Members

Librarians who practice embedded librarianship are those who interact and collaborate more frequently—usually at their own initiative—with their teaching colleagues. Faculty respondents reported being served by their librarians in a variety of ways.

Majorities of faculty reported being served in three ways at least each semester. Ranked in terms of frequency (combining at least weekly, monthly, and each semester), these kinds of help include: identifying and facilitating access to information resources, and contributing to electronic communications with faculty and students. A majority also reported that their librarians instruct their students at least each year.

Our librarian has made herself available to help with research through online discussion forums in my online literature classes and has been proactive in developing her presence in these classes.

I've had embedded librarians in my online courses. Their support my students and me has been outstanding. ... In one of my online classes, my librarian actively engaged with the students to help them find credible sources for research.
Librarians provided other services to faculty at least annually. Combining responses for at least weekly, at least monthly, at least each semester, and at least each year:

- Half or more of faculty respondents reported their librarians providing training or professional development opportunities to faculty and serving as a liaison between the library and faculty via their departments or programs.
- Near majorities of responding faculty reported their librarians attending faculty meetings, teaching collaboratively with faculty, and serving as fellow project team members.
- Over a third of faculty reported librarians conducting in-depth research for them and collaborating with them on instructional design.

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Our library creates Pathfinders to use with our developmental reading and English classes. We study one nonfiction work each semester, and the librarian does some preliminary research on all research-worthy subjects related to the book, so we have books, videos, NC Live, and web sources that have been vetted by library staff.
When the librarian came into my developmental reading/writing classroom to inform my students about the sources they would need to write their first research essay, she not only showed them how to search for the sources, but she also showed them how to narrow their topics and taught the importance of a narrow topic in order to write a well-organized essay.

How Often Faculty Use Library Resources

Faculty respondents reported using a variety of resources available via community college libraries. By far the library resources faculty reported using most frequently was WiFi access. Almost three out of 10 use it at least weekly and more than half, at least each semester.

Strong majorities of faculty reported using their library websites and NC LIVE and other online databases at least each year (combining at least weekly, at least monthly, at least each semester, and at least each year)—with nearly one in five using them weekly. Strong majorities also reported at least yearly use of librarian help, print, video, audio, and multimedia resources. Just over half of responding faculty reported using WiFi access and computers and other equipment in the library at least yearly.

Most Frequently Used Library Resources by Faculty Respondents

- Library website: 25.1% use at least weekly, 21.5% at least monthly, 19.0% at least each semester, 17.5% at least each year.
- NC LIVE/other databases: 10.9% use at least weekly, 7.1% at least monthly, 14.7% at least each semester, 7.5% at least each year.
- Help from librarian: 24.6% use at least weekly, 30.9% at least monthly, 16.6% at least each semester, 9.9% at least each year.
- Print resources: 22.5% use at least weekly, 23.4% at least monthly, 15.4% at least each semester, 12.4% at least each year.
- Online databases: 15.5% use at least weekly, 24.2% at least monthly, 15.6% at least each semester, 12.4% at least each year.
- Video/audio/multimedia: 6.6% use at least weekly, 11.6% at least monthly, 10.9% at least each semester, 12.7% at least each year.
- WiFi access: 12.7% use at least weekly, 20.7% at least monthly, 19.0% at least each semester, 9.1% at least each year.
- Computers/other equipment: 9.2% use at least weekly, 17.5% at least monthly, 14.7% at least each semester, 7.5% at least each year.
Our research librarian helped us develop peer-reviewed articles for our General Psychology courses that were copyright free. She collected six series of articles and provided us the digital copies that we could then use in every course each semester. Her work enhanced the course and our course goals.

Minorities of faculty respondents reported using other library resources less frequently, though still to a noteworthy extent. In rank order, they were:

- Classroom, computer lab, or meeting space;
- LibGuides or other library-created websites;
- Interlibrary loan services;
- Course reserves;
- Individual study space; and
- Computers and other equipment available for checkout from the library.

![Other Library Resources Used by Faculty Respondents](image-url)
Library Contribution to Performance Measures

Respondents to the faculty survey were remarkably consistent in their assessment of their library’s contribution to preparing students to achieve educational goals aligned with seven of the state’s eight performance measures for community colleges. Four out of five respondents assessed the library’s contribution to their college’s status on those performance measures as either excellent or good. In rank order (by excellent assessment), those performance measures were:

- Preparing to transfer to four-year colleges or universities,
- Preparing for licensure or certification exams,
- Preparing for GED high school equivalency tests,
- Completing first year courses successfully,
- Passing classes in student’s chosen field of study,
- Learning basic skills, and
- Learning English/reading skills.

![How Faculty Respondents Rate Library Contribution to Performance Measures](image-url)
Selected Student Outcomes

When asked about a broader array of student outcomes, almost three out of five responding faculty felt that their libraries contributed very much to overall student success, while three out of four felt that libraries contributed very much or somewhat to their colleges achieving better graduation and student retention rates. Seven out of 10 felt that libraries contributed very much or somewhat to successful student recruitment efforts and higher student enrollment.
Substantial majorities of responding faculty—more than three out of four—felt that their libraries contributed very much or somewhat to three institutional outcomes for their colleges: its reputation and prestige, its engagement with its community, and its ranking among other community colleges. Just over half felt that libraries contributed very much or somewhat to sustaining or increasing alumni donations.
Selected Faculty Outcomes

Substantial majorities of responding faculty—at least three out of four—felt that their libraries contributed very much or somewhat to three faculty outcomes: better integration of library services and resources into courses, better support of teaching by faculty, and better teaching quality through librarian/faculty collaboration. Two-thirds felt libraries contributed at similar levels to library-provided professional development for faculty. Half of respondents felt their libraries contributed comparably to faculty recruitment efforts.
Faculty Survey: Analysis

The faculty survey results were analyzed to answer the following questions:

- Does the frequency with which faculty members report receiving various types of librarian services that exemplify the practice of embedded librarianship predict how they assess their library's contribution to students' pursuit of personal educational goals aligned with the state performance measures?

- Does the frequency with which faculty report various types of library resources use predict how they assess their library’s contribution to students’ pursuit of personal educational goals?

Librarian Services & Student Success

Faculty members who reported receiving many types of services from their community college librarians at least monthly were dramatically more likely to rate as excellent the contribution of their libraries to their students’ academic success. Of those who received help at least monthly, 50 to 75 percent rated the library contribution to the success of their students as excellent, while, of those who received help less than monthly, only 30 to 40 percent rated the library contribution to student success so highly.

Student success is associated with nine types of librarian services that indicate the practice of embedded librarianship with faculty:

- Attending faculty meetings,
- Accessing information resources,
- Contributing to electronic communications with faculty and students,
- Conducting in-depth research for faculty,
- Collaborating with faculty on instructional design,
- Collaborating with faculty on teaching students,
- Providing professional development opportunities to faculty,
- Serving as a faculty liaison to departments and programs, and
- Serving on project teams with faculty.
This pattern was consistent for all seven of the performance measures aligned with students’ educational goals:

- Learning basic skills,
- Learning English or reading skills,
- Preparing for high school equivalency (GED) tests,
- Completing first year courses successfully,
- Passing classes in their chosen program of study,
- Preparing for licensure or certification exams, and
- Preparing to transfer to a four-year college or university.

My librarian and I have partnered to create an embedded librarian discussion forum in the Moodle shell for my American Literature II course. The forum, called "Ask a Librarian," is an avenue by which students can ask questions about research and resources. The librarian is subscribed to the forum, so she receives and answers all questions. All students are also subscribed to the forum, they can all benefit from the Q & A exchange.
Our new librarian collaborated with the Distance Learning Department to embed all pertinent library information in the course information section of all Blackboard course shells. This is very helpful for the students. They can access all of the password-protected materials from within the course. There are links to tutorial videos showing them how to utilize the resources.

Each year a librarian delivers a presentation to the PN class about the resources available to support nursing research. This person provides step-by-step instructions on how to successfully access scholarly nursing journals in order to write a research paper. She demonstrates a supportive and caring attitude which encourages student success.

For many years, I arranged with the librarians a visit to my class for a lesson on how to research a topic for their papers.

Our librarian helps develop and teach online Moodle templates, ensuring that all Student Learning Outcomes are assessed, and consistent learning activities are available for all faculty who teach these courses. She has recently been recognized by our college president for her contribution to this process, as well as (for) her participation in other college initiatives.
Community College Libraries & Librarians and Student Success

![Faculty Whose Librarians Provide Professional Development At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success](image1)

![Faculty Whose Librarians Serve as Faculty Liaisons At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success](image2)
We have embedded librarians in our classes. They are in Moodle with our students and offer suggestions according to the syllabus they have access to. The students use them in seated classes but for our online students, it is a direct link to our library they may not feel they have without this connection. I find them to be an excellent resource.

Generally, when faculty members utilized the services of librarians at least monthly, they were more likely to rate as excellent the contribution of libraries to students being able to achieve personal educational goals. This general finding applied to all kinds of embedded librarian services and all seven of the student educational goals addressed in the faculty survey.
### Faculty Rating of Library Contribution to Students Achieving Educational Goals by Faculty Use of Embedded Librarian Services

<table>
<thead>
<tr>
<th>Services Faculty Received from Librarians At Least Monthly</th>
<th>Library Contribution to Students Achieving Educational Goals Rated Excellent</th>
</tr>
</thead>
</table>

### Faculty Use of Library Resources & Student Success

Faculty members who reported using various types of resources available from their community college librarians at least weekly were dramatically more likely to rate as excellent the contribution of their libraries to the academic success of their students. Of those who used selected library resources at least weekly, 45 to 70 percent rated the library contribution to student success as excellent, while, of those who used such resources less than weekly, only 25 to 40 percent rated the library contribution to student success so highly.
The 13 types of library resources whose use by faculty members was associated with student success are:

- Print resources (books, reference works, periodicals);
- Other physical library resources (video, audio, multimedia);
- Equipment available for use in the library (computers, laptops, tables, e-readers, printers, photocopiers);
- Library website;
- NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks, and video);
- Interlibrary loan services;
- Computers, laptops, and tablets available to check out;
- Wifi access;
- Help from a librarian;
- LibGuides (class or subject area websites);
- Course reserves;
- Individual study space in the library; and
- Classroom / meeting space in the library.

As for library help, the pattern associated with faculty use of library resources was consistent across the seven educational goals aligned with the state performance measures for community colleges.
My college library knew that my accreditation site visit was coming up this year and allotted money towards updating library resources. The site visitors were impressed to see recently published editions on the library shelves in our departmental resource area.

I use a lot of great AV services from the library that enhance my Geology class greatly. If I can't find an item, they spend focused time on assisting me find these items. Many geological concepts are more fully explained when good animations and charts are available— which I use from our library. My effectiveness in teaching is greatly enhanced by my wonderful colleagues in the library.
Our librarians did an excellent job escorting accreditation site visitors through the library and showing them how we can access program resources very easily throughout the library website for research purposes.
Community College Libraries & Librarians and Student Success

Faculty Who Use NC LIVE & Other Library Databases At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success

Faculty Who Use Interlibrary Loan Services At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success
Community College Libraries & Librarians and Student Success

Faculty Who Borrow Library Computers & Other E-Devices At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success

Faculty Who Use Library WiFi Access At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success
Community College Libraries & Librarians and Student Success

Faculty Who Receive Help from a Librarian At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success

Faculty Who Use LibGuides At Least Monthly More Likely to Rate as Excellent Library Contribution to Student Success
Our librarian, who is expert in online teaching, has developed excellent LibGuides for not only our basic freshman English courses but also for my online British literature courses.

I really appreciate the LibGuide one of the librarians created for my English class. It is such a helpful resource and makes me feel all the more connected to my students.

I have had great success with my semester research projects, when our librarian ... created a course specific website/research guide for my classes. It was a wonderful resource and allowed my students, that were likely less familiar with library research, to bypass the initial trepidation of massive amounts of materials and jump right into valuable content-specific sources. I got much better results after I asked for her help, than before.
Generally, when faculty utilized library resources at least monthly, they were more likely to rate as excellent the library contribution to students being able to achieve their educational goals. This general finding applied to all kinds of library resources and all seven of the educational goals addressed in the faculty survey.

### Faculty Rating of Library Contribution to Students Achieving Educational Goals by Faculty Use of Library Resources

<table>
<thead>
<tr>
<th>Library Resources Faculty Used At Least Monthly</th>
<th>Library Contribution to Students Achieving Educational Goals Rated Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library website</td>
<td>• • •</td>
</tr>
<tr>
<td>NC LIVE, other databases</td>
<td>• • •</td>
</tr>
<tr>
<td>Interlibrary loan services</td>
<td>• • •</td>
</tr>
<tr>
<td>Computers etc for checkout</td>
<td>• • •</td>
</tr>
<tr>
<td>Wifi access</td>
<td>• • •</td>
</tr>
<tr>
<td>Help from librarian</td>
<td>• • •</td>
</tr>
<tr>
<td>LibGuides</td>
<td>• • •</td>
</tr>
<tr>
<td>Course reserves</td>
<td>• • •</td>
</tr>
<tr>
<td>Individual study space</td>
<td>• • •</td>
</tr>
<tr>
<td>Classroom / meeting space</td>
<td>• • •</td>
</tr>
</tbody>
</table>
Respondents to the faculty survey identified themselves in terms of key characteristics, including type of position (administrator, full-time, part-time), highest degree or qualification (doctorate, master’s, bachelor’s, associate, other), and program type (College/Career Readiness, General Education/College Transfer, AAS, Continuing Education). There were some noteworthy differences associated with these three demographics.

**Type of Position**

The type of position reported by responding faculty was correlated with certain types of collaboration with librarians and use of certain types of library technology and space, both at least monthly.

- Part-time faculty members were more likely to report collaborating with librarians on instruction.
- Chairs of departments and directors of programs were more likely to report librarians serving on project teams with faculty.
- Part-time faculty members were also more likely to report on-site use of library computers and other equipment as well as using both individual study space and classroom/meeting space.

![Part-Time Faculty More Likely to Report Librarians Collaborating on Instruction At Least Monthly, Chairs / Directors More Likely to Report Librarians Serving on Project Teams At Least Monthly](image-url)
Highest Degree or Qualification

The highest degree or qualification of faculty members was also associated with use of selected librarian services and library resources at least monthly.

- Faculty members with bachelor’s and associate degrees were more likely to report having a librarian attending their faculty meetings.
- Faculty members engaged in post-graduate study and with associate degrees were more likely to report teaching collaboratively with a librarian.
- Faculty members with higher degrees (doctorate, master’s, bachelor’s) were more likely to report using print resources, their library’s website, and NC LIVE and other databases.
Community College Libraries & Librarians and Student Success

Bachelor / Associate Degreed Faculty More Likely to Report Librarian Attending Faculty Meetings At Least Monthly, Post Grad & Associate Degreed Faculty More Likely to Report Teaching with Librarian At Least Monthly

Faculty with Higher Degrees More Likely to Report Use of Selected Library Resources At Least Monthly
Program Type
At least monthly use of selected librarian services and library resources was associated with the type of program in which faculty members taught.

- College/Career Readiness faculty members were most likely to report having their librarians attend faculty meetings, provide access to information, and contribute to electronic communications with faculty and students.
- General Education/College Transfer and College/Career Readiness faculty were more likely to report using a variety of library resources: print resources, audio and video resources, their library’s website, NC LIVE and other databases, and LibGuides and other library-created websites.
- Faculty who teach primarily in AAS programs were least likely to use many library resources: library computers and other equipment available for in-library use, WiFi access at the library, help from a librarian, individual study space, and classroom/meeting space in the library.
Substantial proportions of student and faculty survey respondents indicated taking advantage of the variety of help and services available to them from their community college librarians and the panoply of resources offered by their college libraries. In turn, with remarkable consistency, this reported reliance on libraries and librarians was associated with excellent ratings of the library contribution to student success—notably, both directly by students themselves and indirectly by the faculty who teach them. The many types of student success rated by survey respondents were designed to align with North Carolina’s performance measures for community colleges. So, the obvious next question is to what extent do the ratings of libraries and librarians by survey respondents align with the actual status of the state’s community colleges on those performance measures?

Both student and faculty ratings of library contributions to student success correlated with their colleges’ actual status on selected performance measures, though for each group the student goals and corresponding performance measures differed.
Student Ratings & Performance Measures

Where students credited their libraries and librarians with helping them master basic skills and complete classes, students were more likely to actually achieve those important outcomes.

- If students rated as excellent the library contribution to their learning basic skills, they were twice as likely to be at colleges performing above average at ensuring adults with low literacy skills progressed academically toward basic skill attainment necessary for employment and self-sufficiency.
- If students rated as excellent the library contribution to their completing classes, they were half again as likely to be at colleges performing above average at ensuring students complete their studies and persist in earning post-secondary credentials.
Faculty Ratings & Performance Measures
Where faculty credited their libraries and librarians with helping students pass licensure and certification exams and transfer successfully to four-year colleges and universities, students were more likely to actually achieve those important outcomes.

- If faculty rated as excellent the library contribution to students passing licensure and certification exams, they were substantially more likely to be at colleges performing above average at ensuring students earned the credentials needed to practice their chosen professions.
- If students rated as excellent the library contribution to their preparation to transfer to four-year colleges and universities, they were substantially more likely to be successful in their first years at those institutions.
Library Contribution to Student Success and Performance Measures

How do the survey responses of students and faculty—especially their ratings of the library contribution to student success—correlate with the actual status of their community colleges on the state’s performance measures?

Ideally, it would have been desirable to find that, if the library contribution to students achieving a certain goal is more highly rated by both students and faculty, their college would be excelling on the corresponding state performance measure. In fact, such a relationship between respondent ratings of their libraries and their college’s performance measures status was found for only some performance measures.

Student ratings of the contribution of their libraries and librarians aligned with their learning basic skills and passing courses in their chosen programs of study. Faculty ratings of library contribution to student success aligned with students preparing for and passing licensure or certification exams and transferring successfully to four-year colleges and universities. Perhaps it is coincidental; but, it may be noteworthy that the alignments for students concern performance measures associated with students doing well while in community college, while the alignments for faculty concern measures associated with students succeeding beyond community college.

### Alignment of Student and Faculty Ratings of Library Contribution to Student Success and Community College Status on State Performance Measures

<table>
<thead>
<tr>
<th>Status on Performance Measure</th>
<th>Rating of Library Contribution to Student Educational Goal as Excellent</th>
<th>Students</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills Student Progress</td>
<td>Learning basic skills</td>
<td></td>
<td>■</td>
</tr>
<tr>
<td>GED Diploma Passing Rate</td>
<td>Preparing for GED tests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Student Success Rate in College-Level English Courses</td>
<td>Learning English or reading skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year Progression</td>
<td>Completing first year courses successfully</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum Student Completion</td>
<td>Passing classes in chosen program of study</td>
<td></td>
<td>■</td>
</tr>
<tr>
<td>Licensure &amp; Certification Passing Rate</td>
<td>Preparing for licensure or certification exams</td>
<td></td>
<td>■</td>
</tr>
<tr>
<td>College Transfer Performance</td>
<td>Preparing to transfer to a four-year college or university</td>
<td></td>
<td>■</td>
</tr>
</tbody>
</table>
A fourth and final survey concluded the three-year Community College Libraries & Librarians and Student Success (CC LL & SS) study—one of community college library directors. They were asked to assess the professional development needs of their librarians and other library staff as well as to advise professional development providers about how, when, and by what means to best address those needs. This input from library directors is intended to inform decisions about the topics, modalities, and scheduling of professional development offerings by providers, such as, but not limited to:

- NC LIVE;
- North Carolina Community College System, Library Services;
- North Carolina Community College Library Association;
- North Carolina Library Association, Community and Junior College Libraries Section; and
- State Library of North Carolina, Library Development.

Respondents

The 64 usable responses to the professional development needs assessment include responses from 52 of the state's 58 community colleges—a very high response rate of 89.7 percent. The dozen additional cases represent the inclusion of associate and assistant library directors, where such positions exist, as well as responses from other key personnel asked to respond by their directors, either because of the individual's position at that library or the role they play in the larger library community related to professional development.

More than 9 out of 10 respondents identified themselves as being in charge of their community college's library. One of the lessons of the first survey of the CC LL & SS study, which was sent to all library staff, was that all community college library leaders do not have the title, or think of themselves as, a library director. Accordingly, it was not surprising that some respondents to this survey identified themselves in other terms, such as those included in this chart.
Community College Libraries & Librarians and Student Success

![Bar Chart: Respondent's Position Title or Closest Position Title]

- Library Director or Director of Libraries: 71.9%
- Librarian: 14.1%
- Head Librarian: 4.7%
- Library Manager: 1.6%
Community College Libraries & Librarians and Student Success

Practicing Embedded Librarianship with Faculty

Between half and two-thirds of responding community college library leaders identified six areas in which their staff could learn to better practice embedded librarianship. They are:

- Providing faculty with professional development opportunities,
- Collaborating with faculty on instructional design,
- Helping faculty find information they need,
- Serving as a liaison between the library and faculty,
- Collaborating with faculty in delivery instruction, and
- Participating in faculty meetings.

Between a quarter and half of respondents identified four additional areas in which their staff could learn to better practice embedded librarianship. They are:

- Collaborating with faculty on designing assessments,
- Serving as a member of a project team,
- Contributing to electronic communications with faculty and students, and
- Conducting in-depth research for faculty members.

![Areas in Which Library Staff Can Learn to Better Practice Embedded Librarianship with Faculty](chart.png)
Community College Libraries & Librarians and Student Success

Teaching Information Literacy to Students

More than half of respondents identified two information literacy skills their library staff could learn to better teach to students. They are:

- Finding needed information in NC LIVE and other databases and
- Evaluating the quality of an information source.

Almost half identified four other information literacy skills—all more precise than the two above—that their staff could learn to teach better. They are:

- Choosing, defining, or focusing a research topic,
- Finding needed information on their own,
- Citing sources properly, and
- Using online instruction platforms.

Between a quarter and a third of respondents also identified three other more specific information skills that staff could learn to teach better. They are:

- Using library equipment,
- Getting help from library staff to complete a class assignment, and
- Finding needed information housed in the library.
Other Professional Development Topics

The practice of embedded librarianship and the teaching of information literacy were focuses of the CC LL & SS study directed by early focus group input from library directors themselves. In addition to specific questions about those two key concepts, respondents were asked to identify other topics which they believe should be addressed with community college librarians and other staff. Not surprisingly, there were several topics that were mentioned repeatedly. They are listed here, in rank order, by number of mentions.

Ten or more respondents mentioned each of the following:

- Inter-related topics associated with library technology (e.g., library services platforms, databases, e-books and subscriptions, interlibrary loan);
- Customer service, particularly how to deal with problem patrons; and
- Instructional design, both in-classroom and online, with particular attention to making instruction more student-centered and to incorporating information literacy into all courses.

Between 5 and 8 respondents mentioned each of the following:

- Serving one or more underserved populations, including older students and students living in poverty, with disabilities, and for whom English is not their first language;
- The “basics” of library service for non-librarian staff (e.g., library-specific communication and organizational skills, patron privacy, copyright and plagiarism, how to conduct a reference interview);
- How to create course or topic websites using the LibGuides template; and
- How to market library resources and librarian services, particularly in the context of outreach.

Other training topics receiving more isolated mentions included: archiving, cataloging, collection development, copyright, fundraising, Microsoft Office software, programming, the state performance measures for community colleges, and working with faculty.
Aspects of Teaching and Learning

In addition to questions about specific professional development topics—embedded librarianship, information literacy, and others—respondents were asked questions about pedagogical issues facing providers of professional development to community college librarians and other library staff.

- Almost 9 out of 10 respondents considered it very important or important for librarians to learn more about how to design assessments of what they teach.
- Three out of 4 respondents considered it equally important for librarians to learn more about different styles of learning and teaching.
- Seven out of 10 felt it was very important or important for library personnel to learn more about creating experiential learning experiences in their libraries.
Performance Measures Exemplars

To identify potential model library efforts to address the state’s community college performance measures, respondents were asked which types of learning associated with those measures their staff is already addressing in exemplary ways.

- By far, the largest numbers of respondents felt their staff already support well two types of learning: completing first year courses successfully (14 respondents) and preparing students to transfer to four-year colleges or universities (12).
- About half as many respondents (5 to 6) believe their staff address well three additional types of learning: passing classes needed to do well in a chosen program of study, learning basic skills needed to be employed or self-sufficient, and preparing for licensure or certification exams.
- The smallest numbers of respondents (2 to 3) believe their staff address well the two remaining types of learning associated with the state performance measures: learning English and reading skills needed to succeed in college and preparing for GED (high school equivalency) tests.
Room for Improvement on Learning Associated with Performance Measures

Responding community college library leaders were also asked to identify types of learning associated with state performance measures that their staff should learn to address better to help students succeed. Intriguingly, the rank order of the types of learning in response to this question is almost identical to their rank order in response to the previous question about types of learning they already address well. The implication of these parallel sets of answers is that this rank order reflects library leaders’ perceptions about the general relevance of each type of learning to their libraries and their missions.

![Chart: Types of Learning Associated with the NC Performance Measures that Library Staff Should Address to Better Help Students]

- Completing first year courses successfully: 51.6%
- Preparing to transfer to a four-year college or university: 45.3%
- Learning basic skills needed to be employed, self-sufficient: 43.8%
- Passing classes needed for a chosen program of study: 39.1%
- Preparing for licensure or certification exams: 34.4%
- Preparing for high school GED tests: 29.7%
- Learning English & reading skills needed for college: 23.4%
Most Suitable Learning Environments

Most librarians seem to have conflicting feelings about the relative value of online and face-to-face professional development. This tug-of-war is reflected in the views of community college library leaders about the most suitable learning environments for their staff.

- Three out of 4 responding leaders prioritized archived webinars, and more than 2 out of 3 support live webinars.
- Approximately half support online courses via learning management software, but also face-to-face events on specific topics, scholarships to help staff attend conferences, and local library site visits by experts.
- Between one third and half support face-to-face events that are part of larger events and a directory of experts who they can consult remotely.
- Less than one quarter support face-to-face events adjacent to larger events.

The views of library leaders about these different types of learning environments seem to reflect both an understanding of constraining realities (limited ability to take time away from work, limited ability to travel, costs of conference attendance) and the general preference of their staff for high-touch over high-tech approaches. Asynchronous online approaches received most support. There was, however, also strong support for learning environments that would bring staff face-to-face with each other, especially when constraining realities (i.e., time and cost) could be overcome.
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Most Effective Instructional Modes

When community college library leaders were asked about instructional modes in which most of their staff learn better, two received far and away the most support:

- Hands-on learning and
- Single presenter sharing in lecture/Q&A format.

While in some ways these two priorities seem contradictory, they may suggest an underlying perception that, when library personnel take time away from their work for professional development opportunities, they want to learn something that is both substantial (re: single presenter) and actionable (re: hands-on learning). This speculation—or an alternative explanation for these preferences—should be explored further with library directors.

This speculation seems consistent with the fact that only about a third of responding leaders supported two other instructional modes:

- Multi-member panel each of whom shares followed by Q&A and
- Facilitated discussion groups that rely on group knowledge.

The panel approach would allow for more presenters, but less depth of content from each presenter, and the discussion group approach might not offer any expert knowledge from outside the training group. Again, this interpretation of the rankings of these instructional modes by respondents should be explored further with library directors. They may have another explanation for the rankings.

Only 1 in 5 responding leaders supported instructional modes relying on table talks and breakout groups and only 1 in 17 supported poster sessions.
Scheduling Professional Development: Days of Week & Times of Year

Library leaders were also asked for their input about the best days of the week and times of the year to schedule professional development opportunities.

- Thursday was the most favored day of the week (about 3 out of 4) followed by Friday (about 2 out of 3) and Tuesday and Wednesday (3 out of 5). Only a third of respondents considered Monday a desirable day for professional development activities.

- The most favored times of year were ones most removed from the Fall and Spring semesters: Summer session (almost 9 out of 10), Summer break (7 out of 10), break after Spring semester (2 out of 3), and Spring break (3 out of 5). Only about half favored the break after Summer session or the Spring semester. The least favored times of year were the break after Fall semester and during the Fall semester.

Unsurprisingly, the leaders’ views about scheduling confirmed general expectations that professional development is best scheduled later in the week and, in an academic context especially, at times other than “prime time”—the Fall and Spring semesters.
Professional Development Survey: Recommendations

Based on the results of this survey, providers of professional development to community college librarians and library staff should consider the following recommendations for action:

**Embedded Librarianship**

To improve the practice of embedded librarianship by community college librarians, providers should offer professional development that will enable librarians to do a better job of:

- Providing faculty with professional development opportunities,
- Collaborating with faculty on instructional design,
- Helping faculty find information they need,
- Serving as a liaison between the library and faculty,
- Collaborating with faculty in delivery instruction, and
- Participating in faculty meetings.

**Information Literacy**

To improve the teaching of information literacy by librarians, providers should offer professional development that will equip librarians to better teach students about:

- Finding needed information in NC LIVE and other databases and
- Evaluating the quality of an information source.

A second tier of information literacy topics that library leaders wish to have addressed includes:

- Choosing, defining, or focusing a research topic,
- Finding needed information on their own,
- Citing sources properly, and
- Using online instruction platforms.

**Other Topics**

While responding library leaders identified a long list of additional topics they wish to see addressed, three are most deserving of immediate attention. They include:

- Inter-related topics associated with library technology (e.g., library services platforms, databases, e-books and subscriptions, interlibrary loan);
- Customer service, particularly how to deal with problem patrons; and
- Instructional design, both in-classroom and online, with particular attention to making instruction more student-centered and to incorporating information literacy into all courses.
Aspects of Teaching & Learning

Professional development opportunities offered to community college librarians should address the following aspects of teaching and learning:

- Teaching librarians how to design assessments of what they teach,
- Accommodating different styles of learning and teaching; and
- Incorporating experiential learning opportunities.

Performance Measures: Areas for Improvement

Overwhelmingly, most responding library leaders believe their libraries and librarians address effectively two of the state’s performance measures for community colleges: completing first year courses successfully and preparing students to transfer to four-year colleges or universities. These same measures are the ones about which their librarians and other library staff also need to improve. While some leaders see strong connections between libraries and other performance measures, these two are the ones on which they seem most focused and which they most wish to see addressed by professional development offerings.

Most Suitable Learning Environments

Library leaders, like most librarians, seem somewhat conflicted about the relative value of online and face-to-face professional development. It is clear, however, that they want providers to focus on asynchronous online options (e.g., archived webinars); while welcoming more face-to-face opportunities, if obstacles to participation (e.g., scheduling, cost) can be addressed.

Most Effective Instructional Modes

Based on the input of library leaders, it is recommended that providers offer professional development opportunities that involve both hands-on learning and a single presenter who shares in a combined lecture/Q&A format. The overall responses of leaders about this issue suggest that they regard these instructional modes as better investments of time and—when relevant—money.

Scheduling

Because of the time—and potentially the travel and cost—involved in professional development, it is recommended that providers schedule events during the Summer session, avoiding as much as possible the Fall and Spring semesters—with the notable exception of Spring break.

These recommendations apply primarily to professional development providers operating at statewide or at least regional levels.
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Conclusion

This study's overall findings provide a solid foundation for developing a fuller understanding of the contributions of North Carolina community college librarians and libraries to student success. To benefit fully from any study, however, it is important to consider its strengths and limitations and their implications. Ultimately, the findings also provide a basis for specific recommendations for action to more firmly establish and increase the widely-perceived impact of librarians and libraries.

Summary of Overall Findings

The student and faculty surveys were preceded by a survey of librarians and other library staff. Taken together, the responses to these three surveys reflect a clear consensus among librarians, faculty, and students about libraries and librarians at North Carolina community colleges and their impact. These three groups agree substantially about the perceived value of librarian services and of library resources, both physical and virtual, as well as library contributions to student success.

Librarian-Faculty Consensus

Librarians and faculty agreed that the contributions of libraries and librarians to the success of students at their community colleges are associated consistently with the extent to which librarians practice "embedded librarianship" with faculty. Both groups were more likely to perceive that their students are successful if they reported more frequently that librarians are engaged with faculty (attend faculty meetings, provide access to information resources, contribute to electronic communications with faculty and students, conduct in-depth research for faculty), collaborate with them (help to design instruction, share teaching), and back up faculty in a variety of ways (provide professional development opportunities, serve as faculty liaisons to departments and programs and on project teams).

Responses about the frequency of embedded librarianship practices aligned clearly with how highly both groups rated the library contribution to student success in terms of seven of the Performance Measures for North Carolina Community Colleges. The seven student goals that correspond to those measures are:

- Learning basic skills,
- Learning English or reading skills,
- Preparing for high school equivalency (GED) tests,
- Completing first year courses successfully,
- Passing classes in their chosen program of study,
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- Preparing for licensure or certification exams, and
- Preparing to transfer to a four-year college or university.

**Librarian-Student Consensus**

Librarians and students agree about the impact of information literacy instruction and support. Library-related contributions to student success associated consistently with the extent to which librarians teach information literacy principles to students and provide them with the help they need to be information literate.

Both librarians and students were more likely to give librarians high marks for impacting student success if they also gave librarians high marks for teaching five principles of information literacy:

- How to pursue information in an iterative fashion (one question leading to another);
- How to find needed information;
- How to use different types of information;
- How to evaluate information (what to take seriously); and
- How to value information (based on its creator, content, and audience).

As with the consensus between librarians and faculty, the alignment between librarian and student perceptions about information literacy principles and various types of student success is remarkably consistent.

**Student-Faculty Consensus**

Both students and faculty were asked about how often they use a variety of library resources. Both groups were more likely to give libraries and librarians high marks for contributing to student success if they reported using these resources more frequently. Those library resources include:

- Print resources (books, reference works, periodicals);
- Other physical library resources (video, audio, multimedia);
- Equipment available for use in the library (computers, laptops, tables, e-readers, printers, photocopiers);
- NC LIVE and other databases (online journal, magazine, and newspaper articles; e-books; audiobooks, and video);
- Interlibrary loan services;
- Computers, laptops, and tablets available to check out;
- Wifi access;
- LibGuides (class or subject area websites);
- Course reserves;
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- Individual study space in the library; and
- Classroom, computer lab, meeting, and group study space in the library.

Survey Responses & Performance Measures Data
In all of this project’s surveys, questions about the library contribution to students achieving their goals were aligned with seven of the Performance Measures for North Carolina Community Colleges. It was therefore expected that colleges whose libraries were deemed to be doing a better job addressing a given student goal would also tend to look better on the corresponding state performance measure. In fact, the observed correlations between survey responses and Performance Measures data were decidedly mixed.

In the report on the survey of librarians and other library staff, it was revealed that the lone performance measure for which such a relationship with survey responses was found was learning English and reading skills (the student goal corresponding to the Developmental English Success Rate).

Earlier in this report, the related findings from the student and faculty surveys were shared. For students, the expected correlation between library contribution and Performance Measures was found for learning basic skills (Basic Skills Student Progress) and passing classes in a chosen program of study (Curriculum Student Completion Rate). For faculty, such a correlation was found for preparing for licensure and certification exams (Licensure and Certification Passing Rate) and preparing to transfer to a four-year college or university (College Transfer Performance).

Study Strengths & Limitations
The purpose of this study was to illuminate the connections between what librarians do and what librarians offer and their contributions to student success. The study’s findings point to its strengths as well as its limitations.

For the most part, this was a study of the perceptions of community college librarians, faculty, and students about the connections between librarians, libraries, and student success. Looking at the overall findings from surveys of those three groups, the study clearly demonstrated that they all are more likely to credit libraries with excellence in contributing to student success when librarians are perceived to be more engaged with students and faculty in proactive ways and when both of the
latter groups report that they take fuller advantage of librarian services and library resources. Notably, though not surprisingly, librarians are the most modest about their contributions, and students, the most generous.

The study’s limitations relate largely to the insufficiency of the available data about libraries, librarians, and student success. While the North Carolina Community College System has established a set of quantitative performance measures that are useful in defining student success, they are problematic measures insofar as they target specific student cohorts who it is sometimes difficult for librarians and faculty to identify and target with their own efforts, and equally difficult for researchers to isolate for analytical purposes. For purposes of this study, there was no choice but to rely heavily on perception data that the three subject groups could report with relative ease. There were no more objective data, particularly about what and how much libraries and librarians do for specific student cohorts focused upon by the state performance measures.

Recommendations

Based on the findings of this study, community college library leaders should consider these three recommendations for action: pursuing the development of new library performance data, establishing new priorities for professional development for librarians and other library staff, and initiating new conversations about the value of librarians and libraries.

New Library Performance Data

The first and strongest recommendation of this study is for North Carolina’s community college library leaders to undertake a substantial effort to develop their own performance measures and to collect data about them regularly. The types of output data traditionally collected by academic libraries—gate count, circulation, reference questions, interlibrary loan, use of electronic resources—are too general to be useful in this type of study. In order to establish rigorously causal relationships between libraries, librarians, and student success, more objective and far more specific data will be needed. The needed data will likely require a combination of detailed output and outcome measurement. Creating a consensus about what data to collect regarding each performance measure will require:

- Prioritizing the performance measures (as there are too many to tackle at once),
- Deciding what libraries offer and what librarians do that “pushes the needle” on each performance measure, and
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- Identifying the major relevant outcomes students and faculty are intended to achieve as a result of library efforts.

Once such measures are formulated, they will need to be tested and revised as needed. Then, it will be a matter of collecting such data on a sufficiently regular schedule to make possible future research on the impact of libraries and librarians on student success.

Unquestionably, this is no small undertaking. Indeed, it is a more ambitious effort than this initial study. It is, however, necessary, if one wishes to establish more rigorously that libraries and librarians contribute in such directly measurable ways to student success.

It is unlikely that any replication of the present type of study could achieve sufficiently large and random samples to strengthen the evidence reported herein. Making a stronger case that libraries and librarians do things that matter will require a type of evidence that does not exist presently.

**New Professional Development Priorities**

A second recommendation is that leaders and stakeholders of North Carolina community college libraries determine how to prioritize the professional development needs of librarians and other library staff based on the findings of this study. The final phase of the Community College Libraries & Librarians and Student Success (CC LL & SS) project was a survey of library directors to learn their perceptions of the most pressing professional development needs of their staff and how best to address them. Major findings of this study included the following:

- Librarians need to learn more about the state’s performance measures for community colleges—particularly those impacting most students—as well as both practicing embedded librarianship and teaching information literacy.

- They also need to learn more about how to design assessments of what they teach, how to accommodate different teaching and learning styles, and how to design experiential learning.

- Library leaders believe most community college librarians and other library staff would learn best from professional development opportunities that rely on hands-on learning, single presenters who allow for question-and-answer periods, and live webinars that are archived for later viewing. They further believe that the best time of year for scheduling learning opportunities for library staff is in the summer and that Thursdays and Fridays are the best days of week for most staff.
New Conversations and Librarians & Libraries

The third and final recommendation is that this study report should be used to initiate and advance the conversation among community college administrators, faculty, librarians, and students about the evolving roles of libraries and librarians. Early on, based on focus group input from library directors, this study focused on two key sets of concepts related to the proper role of community college librarians: the practice of embedded librarianship with faculty and the teaching of information literacy to students. The evidence generated by this study from the perceptions of librarians, faculty, and students is that these two sets of concepts are indeed very important. Perceptions about both the practice of embedded librarianship and information literacy teaching were correlated consistently with perceptions about the contributions of librarians and libraries. While community college librarians may vary dramatically in the extent to which they actually understand and practice these ideas, where there was evidence of them being practiced more fully, perceptions of librarian and library excellence were consistently more prevalent. If the frameworks of these ideas are not understood and are not being practiced as fully as they could be to contribute to student success, new conversations about implementing these ideas more fully on some campuses might be worthwhile. At the very least, such conversations might dovetail with the second recommendation regarding determining professional development priorities. Perhaps, though, these conversations could increase understanding of the value of libraries and librarians across all stakeholder constituencies.
Bibliography


