

# Measuring the Success of a 21st Century Center For Learning

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Anne Arundel Community College (AACC) in Arnold, Maryland began planning for a new library in 2006 to replace its nearly forty-year old building. The comprehensive, two-year suburban college grew dramatically since the library opened in September 1967 as one of the first buildings on the newly constructed campus. Named for library advocate and first President of the college, Dr. Andrew G. Truxal, the original library served the student population well. But by 2006, it was time for a larger and more modern, energy-efficient library for the college. The planning process took approximately five years, followed by a year of construction. By December 2013, when the architects approached the library director about conducting a post-occupancy assessment, the new library had been open for fifteen months, sufficient time to learn more about how the building was being used and if it met the goals of the building program. The college agreed and beginning planning with the architects for interviews, observations, and online surveys to gather as much information as possible.

## **AACC Builds a Library**

As a first step AACC completed a building program in 2007, which recommended a complete renovation of the existing library coupled with an expansion that would almost double the square footage of the building. The program allowed the college to apply for state and county funds to design and construct a new library. (Community college construction projects in Maryland typically are funded in equal parts by the

state and the county/counties served by the college.) State and county agencies supported the project and by fall 2009, AACC contracted with an architectural firm to design the building. The college formed a planning committee co-chaired by the Director of Facilities Planning and Construction and the Director of the Library. As is typical of a building committee at AACC, it included representatives from every area of the college that would play a role in planning and construction. Several faculty members and college staff representing areas with vested interests in the building were included, as were representatives from those units that would eventually occupy the new building. Architects, supported by Student Services personnel, conducted focus groups with students to gather input from this important group of stakeholders. The final goals for the building were based on the building program developed earlier and finalized during initial conversations among committee members. Goals included:

- Focus on renovating and expanding the existing Truxal Library because of its central location as one of four buildings along the perimeter of AACC's "quad," rather than constructing a new building elsewhere on campus.
- Create a modern, student-focused library.
- Support best practices in the delivery of library and related academic support services.
- Create a facility that would be the right size to support the student body.

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- Create a building that would be efficient in its operations, aiming for a LEED Silver designation.
- Provide a pleasant and energizing environment for students, staff, faculty, and visitors.

The building design was completed in fall 2010 and a contract with builder in place in February 2011. AACC required the builder to meet a mandate from the college President that the library could not close for moving while classes were in session, so the construction schedule was carefully planned around the academic calendar. Exterior site preparation began in March 2011. Library services moved to a 22,000-square-foot modular building beginning July 31, 2011, during the waning days of summer school, and opened for service August 22, 2011, the first day of fall semester classes. Planners aimed for completion in July 2012, so that the library could move from its temporary home in time to re-open August 27, day one of the fall semester. The contractor and college met the schedule.

Library staff hosted tours for faculty and staff the week prior to the official opening and visitors praised the new facility. When the first students arrived at the library a week later, they were as complimentary of the building as the college employees and quickly became comfortable with the new facility. The library director was heard commenting that when she saw students moving the furniture less than two days after the opening, she knew that they had claimed the building as their own. A student journalism class that roamed the building during the first week of classes tweeted their news reports about the new library and urged other students to use it.

### Planning the Assessment

About fifteen months after the building opened, the architects approached the library director and ask if there was interest in conducting a post-occupancy building assessment to determine if project goals were met. With a culture of assessment firmly in place at AACC, the college did not hesitate to agree. The architects used a seven-step process to design and conduct the assessment:

1. Identify the need for the assessment project, set goals, and determine how results would be used.
2. Determine the strategies to use for the assessment.
3. Create a written plan outlining who will conduct the assessment, topics to be addressed, and where it would take place, to present to college administration for an internal review process.
4. Prepare survey instruments, questionnaires, and an outline for observations; set a schedule for conducting the assessment.
5. Execute the survey, conduct interviews, and observe the library.
6. Analyze results and report to the college.
7. Take action by reporting on the assessment through conference presentations, publications, and other means, and implementing changes as a result of the feedback gathered through the survey.

The assessment would include a review of data detailing use of the library building and resources; group interviews with faculty, other college employees, and students; observations by the architects of patrons using the building; and online surveys completed by students and college employees.

AACC's academic administrators agreed that the assessment would benefit the college and sent the proposal to the Office of Planning, Research and Institutional Assessment (PRIA) for review. The proposal package included drafts of survey and interview questions, Suggestions from the PRIA Executive Director were incorporated in the study design and the project was approved. The PRIA director took responsibility for launching the online surveys. The library director recruited faculty to participate in interviews; they responded so enthusiastically to the invitation that architects held three sessions for faculty instead of the single one originally planned. The library director worked with library staff and student services personnel to recruit students for their interviews. College administrators and employees from information tech-

nology, public safety, and facilities maintenance also participated in interviews, as did library employees. Two architects conducted the interviews and observations over a two-day visit to the library and the online survey was posted approximately two weeks later.

### Data and Observations

A review of library use data confirmed observations that the library was more heavily used than in the past. The gate count for FY2011, the last full year the library occupied the old building, was approximately 300,000. (The count is an estimate, as one of the three entrances to the building did not have a counter on it.) In FY2013, a year that included eight weeks that in temporary locations, the total gate count for all locations was 523,822. Reference inquiries increased from 22,337 in FY2011 to 26,939 in FY2013. Circulation of library materials declined from 35,139 in FY2011 to 27,315, likely as a result of new electronic books and streaming videos added to the collection during the year the library was in its temporary location.

As part of observing patron activity, architects used library floor plans to note where individuals were seated at 10:00 a.m., 1:00 p.m., 5:00 p.m., and 9:00 p.m. on one day of their visit. The 1:00 p.m. hour showed the heaviest usage, followed by 10:00 a.m., 5:00 p.m., and 9:00 p.m. (See table 1.) Architects observed a tendency for one student to sit at a table designed for four, indicating a desire for personal space with invisible boundaries. Other observations led the architects to conclude that group study spaces were fully utilized and there was a high demand for window seats. The architects observed that the library was used as a neutral location for faculty members to meet

with students. Student success was supported by the increased study space in the new library and the addition of non-traditional library materials, such as biology and chemistry models, graphing calculators, and mobile white boards that students could borrow for use in the building. Information gained through both interviews and observations led the architects to conclude that some of the building features that worked best were group study rooms, library staff presence on all three floors, and acoustic separation with the loudest activity on the first floor and the third floor designated as “quiet study” and also included a “silent study” room.

### Interviews: Students, Faculty, Staff

Group study rooms were a topic of much discussion in the interviews with faculty, students, and library staff. Twenty group study rooms, each designed to seat from three to 14 individuals, are clustered on the second and third floors. All but the two smallest rooms have computers and large wall-mounted monitors. Wall-mounted white boards are installed in all of the rooms. Full glazing allows staff and public safety officers to observe activity inside study rooms. Students are permitted to bring food and beverages into the rooms, though this can create housekeeping problems. The rooms are “first come, first served,” a policy that some patrons and library staff members would like to see changed, but works for others.

Furniture was also a topic of discussion with many of the groups. Most felt that the furniture was comfortable and flexible enough to meet patron needs. The library staff accepts minor rearrangement of furniture, such as moving chairs between study rooms.

**TABLE 1**  
Number of Patrons Seated at 4 Times of Day, Monday, February 24, 2014

Time of Day	Patrons Seated on First Floor	Patrons Seated on Second Floor	Patrons Seated on Third Floor	Total Patrons Seated in Building
10:00 a.m.	82	61	27	170
1:00 p.m.	108	94	55	257
5:00 p.m.	44	42	22	108
9:00 p.m.	23	21	21	65

The architects concluded that the furniture is one of the successes of the building. One improvement that could be made is sturdier tablet arms on easy chairs that have them.

Library staff workspaces were generally viewed favorably. Staff believed that the design of workspaces was compatible with their work processes. Furniture is comfortable and space in work areas generous. Staff felt secure in work areas and in most cases, felt that they had the privacy that they needed to complete tasks. Circulation staff noted concerns with the circulation desk. They felt that the countertop was too deep and the book drop was incorrectly placed. Nearly all staff reported that the modular desks used in all workspaces contained seams or joints in inconvenient places that interfered with writing and side chairs were too heavy to move easily. Circulation staff reported that lights in their “back office” workspace were too bright. Some staff felt that workspaces designed with windows to monitor public service areas did not offer sufficient privacy.

Facilities maintenance staff spoke favorably about most building features. Remarkable utility costs savings resulted from a building automation system and occupancy sensors that automatically turn lights in offices and stacks off when an area is empty of people for a certain amount of time. Exterior materials, interior finishes, and furniture generally perform beyond expectations. For example, carpet tiles withstand the high traffic volume and black work surfaces on tables and workstations deter vandalism. Facilities staff noted that the 30-foot high bay above the computer lab and the green roof’s narrow pathway and curtainwall adjacency are maintenance challenges. They also reported that the entry vestibule and exterior door operation create a wind tunnel effect that allows cold air to enter the building.

Appropriate lighting in the building was an important focus during planning. Students participating in focus groups prior to planning the building spoke of the need for natural lighting. Most study areas are located adjacent to windows to take advantage of daylight and these are among the most popular areas

in the library. Most staff offices also have windows, though smaller than in study areas, allowing employees to benefit from natural daylight. In areas of the building with large expanses of windows, gray glass with embedded ceramic frit controls glare. While planners paid an equal amount of attention to artificial lighting as to daylight, an unexpected problem is glare from pendant fluorescent lighting fixtures, especially in the evening. Adjusting the settings in the lighting control system might provide a resolution to this situation.

Information Services, the information technology department at AACC, is generally satisfied with technology in the building. The IS staff felt that wireless and wired bandwidth in the library was sufficient; however, many patrons and library staff disagreed.

Twenty-five security cameras are located in the building and monitored by the college public safety department. Staff from that unit believe that the presence of library staff at service desks near the two building entrances deter theft. They feel that lighting levels are good and contribute to a safe environment. They are concerned about black partitions in restrooms, because they have low reflectance, which creates reduced lighting conditions.

With a goal of a LEED silver rating for the new library, planners paid close attention to sustainability features of the building. Interviews and observations revealed interest and satisfaction with this aspect of the building. The green roof was mentioned frequently. One faculty member noted that it is “impressive and inspiring ... [and] reflects the mission of the college.” The building serves as a teaching tool for environmental education classes offered by several departments, including Biology, Architecture, and a “Kids in College” course for middle school children. Areas for improvement mentioned in interviews are better education for students regarding recycling, easier to use recycling containers, changes to the green roof to allow patrons to occupy it, and advanced lighting controls to accommodate different levels of daylight in various areas of the building.

As part of the assessment, the architects listed areas of the building that saw exceptionally high use and others that were underutilized. Among their observations of areas that are “trending up” are:

- Group study rooms are extremely popular and there is a need for more.
- Some activities undertaken in group study rooms would lend themselves to “maker space” and consideration should be given to converting underutilized space to this function.
- The Writing Center is extremely popular and in need of additional space.
- With the addition of science models and other non-traditional library materials, additional storage in the circulation desk area is warranted.

Areas that were identified as being underutilized or “trending downward” included:

- A small area of vending machines located near the popular Fireside Study, does not appear to be heavily used.
- The archives collection is not being set up in the space designated for it.
- Patrons have almost abandoned use of bound periodicals, except when an article is not available in one of the library’s electronic databases.

Library staff has begun addressing these areas. The Writing Center in partnership with the library recently launched a popular virtual service modeled on its traditional, face-to-face work with students. Shelving was relocated from the bound periodicals section to the circulation workroom to accommodate the growing collection of science models. Work on the archives ceased several months prior to the architects’ visit, while the college conducted a search to fill a vacancy created when the library’s cataloger resigned. A new cataloger started the month before the visit and began working on archival materials three months later. Conversations regarding “maker space” with college administration are occurring.

### **Online Surveys: Students, Faculty, Staff**

In order to solicit feedback from even more members of the college community, the architects prepared two online surveys, one for students and the other for college employees. After review and slight modifications by college staff, the surveys were launched on April 10, 2014, and remained open until May 4, 2014. Library staff members were surprised to learn that 228 students completed surveys, as this group is known for its resistance to surveys. Surveys completed by college employees numbered 165.

Of the 228 students who responded to the survey, 170 (74%) were female, 56 (25%) were male and 2 (1%) did not respond. The age of respondents ranged from “Under 18” to “55+.” The wide range of ages using the library is not surprising; as a community college, AACC offers dual-enrollment to county public high school students, serves adult students who deferred higher education beyond the traditional age, and provides life-long learning opportunities to adults of all ages. Slightly more than half (53%) of respondents were between 18 and 25 years of age. Fifty-five percent were full-time students and 45% attended college part-time. Forty-three percent visited the library two to five times per week, 25% visited the library at least once a week, and 25% at least once a month. More than half (51%) of the students responding reported spending one to three hours in the building on a visit.

The survey questioned students about their overall level of satisfaction with building design, as well as with specific areas and features of the building. They were also asked to rate aspects of the library building on quality and respond to a series of yes/no questions about availability of services. Students rated satisfaction and quality questions on a five-point scale ranging from “very satisfactory” to “very unsatisfactory.” Following these were questions that gathered open responses and comments about various aspects of the library building. Students were also asked to indicate satisfaction with library resources (such as electronic books), library services, hours of operation, and other matters not related to the building or its equipment and furnishings. Because this last group of questions

is not directly related to the building, they are not addressed in this paper.

For most of the questions in the “satisfaction” series, 82% to 87% of students gave ratings of “very satisfactory” or “satisfactory.” These included questions about meeting student needs; enhancing productivity; personal safety; interior finishes; and furniture in various types of study spaces and computer labs. Outliers at the high end were overall building quality (92%) and general building layout (90%). At the low end, the outliers signage and wayfinding (76%), and library instruction labs (75%). (See table 2.) Because students in the focus groups held prior to planning the building frequently mentioned the insufficient numbers of electrical outlets in the old building, the architects included a question about them. Eighty-

three percent of the students responding said that they had sufficient and convenient access to electrical outlets in the new building.

Questions relating to quality addressed such topics as computers, wireless service, various types of study areas, and environmental factors. Questions addressing study spaces had significantly more students selecting “no response,” presumably because some students did not use certain study areas. “No response” as the answer ranged from 10.5% of all responses to the question about quality of group study rooms to 15% of all responses to the question about the Fireplace Study. “No response” answers were included in the analysis of the survey, but readers should be aware that they skewed overall results.

Most of the quality questions were in the 72-78% for responses of “very satisfactory” and “satisfactory,” including wireless service (72%), group study rooms (74%), general study space (75%), desktop computers (76%), and silent study room (78%). The outlier in the quality category was the Fireplace Study, with 69% of respondents ranking it as “very satisfactory” or “satisfactory.” For questions relating to quality of environmental factors, 80% to 86% of respondents rated the quality as “very satisfactory” or satisfactory, including environmental friendliness, 80%; view of the outdoors, 81%; artificial light, 81%; air temperature, 83%; natural daylight, 85%; and ventilation and air quality, 86%. The outlier in this category was noise, at 70%. (See table 3.) When non-response answers were removed from the results, the percentage of “very satisfactory” and “satisfactory” responses for study areas increased as follows: general study space, 84%; Fireplace Study, 81%; group study rooms, 84%, and silent study room, 85%.

The open response section of the survey for students asked for comments regarding amenities or services that students would like to add to the building (examples were given); to suggest improvements to technology, library hours (not addressed here because hours are not specific to the building project), and food service; note other area on campus where students study; and to comment on anything relat-

**TABLE 2**  
**Percentage of Students Responding "Very Satisfactory" or "Satisfactory" to Questions Regarding Satisfaction with the Building**

	<b>Very Satisfactory (%)</b>	<b>Satisfactory (%)</b>	<b>Total (%)</b>
Enhancing Productivity	58	24	82
General Building Layout	65	25	90
Group Study Room Furniture	60	23	83
Interior Finishes	62	24	84
Library Instruction Labs	49	26	75
Meeting Student Needs	63	24	87
Overall Building Quality	71	32	92
Personal Safety	69	18	87
Quiet Study Furniture	57	25	82
Signage and Wayfinding	50	26	76
Silent Study Room Furniture	59	23	82
Study Space Furniture	54	28	82

**TABLE 3**  
**Percentage of Students Responding "Very Satisfied" or "Satisfied" to Questions Regarding the Quality of the Library Building**

	Very Satisfactory (%)	Satisfactory (%)	Total 1 (%)	Total 2 (%)
Air Temperature	53	30	83	
Artificial Light	59	22	81	
Desktop Computers	51	25	76	
Environmental Friendliness	56	24	80	
Fireplace Study	48	21	69	81
General Study Space	50	25	75	84
Group Study Rooms	53	21	74	84
Library Instruction Labs	47	22	69	
Natural Daylight	57	28	85	
Noise in Building	41	29	70	
Silent Study Room	53	21	74	85
Ventilation/air Quality	59	27	86	
View of Outdoors	59	22	81	
Wireless (WiFi)	43	29	72	
Total 1 includes all answers, including "no response."				
Total 2 represents ratings with "no responses answers removed for questions relating to the different types of study spaces. These questions had large numbers of "no response" answers.				

ing to the new library. A representative selection of responses to each question is included as Appendix A. Many responses to the question about additional amenities and services related to the examples listed. Others recommended more vending machines, group study rooms, and rest rooms; more building entrances; and improved accessibility. Recommendations for improvements to technology included improved wireless, computers, printers, and network services; more electrical outlets; and cell phone chargers. Students study in a variety of other areas on campus, including classrooms, computer labs, hallways, outdoors, and the Student Union, with no single location rising to the top. Suggestions for improvements to food service included more vending machines, healthier food, a café, a microwave, and banning food and beverages in the library. Responses to a request for comments on different areas of the library focused on some of the previously mentioned topics, as well as adding specific types of furniture, implementing a reservation system for study rooms, placing restrictions on what

can be done in study rooms (i.e., no viewing YouTube or other videos, not permitting children to accompany their parents, limiting the number of students in a group), and improved housekeeping services.

The survey for faculty and staff asked questions similar to those on the student survey and used the same response scale. They were asked to rate their level of satisfaction with various features of the building and also rate them on quality. As with students, employees were asked to rate aspects of the library not related to the building; those are not discussed in this paper. Open questions were similar to those posed to students. The number of staff and faculty members responding to the survey was 165. Seventy-seven percent were female; 22% were male. Eighty-one percent worked at AACC for more than five years. Thirty-eight percent used the library at least once a month; 9% used it between one and five times per week. Nearly two-thirds spend one to two hours when visiting the library. There was a higher rate of "no response" answers on the faculty survey, ranging from a low of

**TABLE 4**  
**Percentage of Faculty and Staff Members Responding "Very Satisfactory" or "Satisfactory" to Questions Regarding Satisfaction with the Building**

	Very Satisfactory (%)	Satisfactory (%)	Total 1 (%)	Total 2 (%)
Enhancing Productivity	33	20	55	61
General Building Layout	52	24	76	81
Interior Finishes	46	28	74	82
Overall Building Quality	59	19	78	84
Personal Safety	59	19	78	85
Signage and Wayfinding	37	27	64	70
Total 1 percentages reflect all responses, including "no response."				
Total 2 percentages reflect percentages with "no response" answers removed.				

5 for satisfaction with desktop computers to a high of 42 for satisfaction with the silent study room. The “no response” answers skewed faculty results to a greater degree than in the survey of students.

Most of the questions about satisfaction with the building were in the 71% to 78% range for responses of “very satisfactory” and “satisfactory.” Satisfaction with overall building quality and personal safety were rated at 78%, general building layout at 76%, and interior finishes and signage and wayfinding at 64%. The lone outlier is satisfaction with enhancing productivity at 55%. When “no response” answers are removed, most questions had scores in the 81% to 85%, with two outliers, signage and wayfinding at 70%, and enhancing productivity at 61%. (See table 4.)

Questions relating to the quality of areas and features of the building generally scored between 56% and 63%. Instructional labs were at 56%; Fireplace Study at 58%; wireless and the silent study room, 60%; wireless service at 60%, group study rooms, 62%; and general study spaces, 63%. After removing “no response” answers, most ratings ranged between 76% and 81%. Ratings for quality of environmental factors covered a wider range than any of the other groups of questions in either the student or faculty survey and also had more “no response” answers than any other category. When all responses were included, the satisfaction ratings ranged from 62% to 76%. Once “no response” answers were removed, ratings ranged from 72% to 87%. (See table 5.)

Faculty and staff members were asked open questions similar to those asked in the student survey. A selection of responses for these questions is included as Appendix B.

### Conclusions from the Assessment

Because the main goal of the assessment was to determine if the goals of the building project were met, the architects and library staff compared information gathered during the assessment to the goals. All project goals were met, as follows:

- Focus on renovating and expanding the existing Truxal Library—College leadership, including the Board of Trustees concurred with planners that the existing building’s central location on the quad was an important factor to consider. Other available land for new library building was along the edges of the campus, so the renovation and expansion option was selected.
- Create a modern, student-focused library—The new library is modern in its design and services aim to meet student needs. Student opinions about the building and its services document that the library is focusing on student needs.
- Support best practices in the delivery of library and related academic support services—The building contains the technology needed for a 21<sup>st</sup> century library that follows

**TABLE 5**  
**Percentage of Faculty and Staff Members Responding "Very Satisfied" or "Satisfied" to Questions Regarding the Quality of the Library Building.**

	Very Satisfactory (%)	Satisfactory (%)	Total 1 (%)	Total 2 (%)
Air Temperature	37	26	63	74
Artificial Light	42	24	66	76
Environmental Friendliness	55	16	71	83
Fireplace Study	38	20	58	76
General Study Space	41	22	63	81
Group Study Rooms	46	16	62	79
Library Instruction Labs	33	23	56	76
Natural Daylight	57	19	76	87
Noise in Building	36	26	62	72
Silent Study Room	39	21	60	73
Ventilation/air Quality	39	28	67	78
View of Outdoors	49	23	72	85
Wireless (WiFi)	38	22	60	73

Total 1 includes all answers, including "no response."

Total 2 represents ratings with "no responses" answers removed. All questions had many "no response" answers.

current and best practices in serving students.

- Create a facility that would be the right size to support the student body—While there are sometimes waits for group study rooms, the library has sufficient space to meet the needs of students and faculty who use the building and to support its physical collections.
- Create a building that would be efficient in its operations, aiming for a LEED Silver designation—Data from the college's facilities department document a reduction in utility costs. Many "green" features were included, allowing the library to earn a LEED Gold designation, one level above the goal of LEED Silver.
- Provide a pleasant and energizing environ-

ment for students, staff, faculty, and visitors—Comments by students, faculty members and staff document that this goal was met. AACC's now-retired President, who was involved through the planning and construction process, refers to the new Truxal Library as "the jewel of the campus."

### **Benefits of a Post-Occupancy Assessment**

What can a post-occupancy assessment reveal? How can it help the library? For AACC, there were several benefits:

- The college community came together to support the assessment project, its members eager to convey their enthusiasm for the new library. When planning interviews, one session with faculty was on the schedule.

AACC's faculty members were so eager to participate that two more sessions were added. The response rate for the online survey was good and answers to the open questions on the survey were plentiful and useful.

- The survey allowed the library to learn about how patrons were using the library and what was important to them. It made it possible to implement small changes quickly and begin discussions about more complex changes and innovations for the future.
- Many observations made by library employees during the first 18 months that the library was open were confirmed by the results of the assessment. This includes the need for "maker space" and better navigational aids.
- The larger library community can learn from AACC's experiences in planning, creating, and conducting a post-occupancy assessment.

At the time that this article is being written, it has been a year since the architects' visit to conduct observations and interviews and about 7 months since the results of the online surveys were made available to the library. The results of the post-occupancy assessment, as well as staff observations, generated improvements to the library. As noted above, in direct response to the architect's observations and interviews, the library partnered with the Writing Center to launch a similar virtual service, relocated shelving to the circulation workspace to provide a home for science models, began working on organizing archival materials, and engaged in discussions about "maker spaces" with college administration. Library staff continued to observe activity in the building and reviewed the results of the surveys, resulting in these actions:

- Based on conversations with patrons, library staff learned that the vending contractor was not resupplying snack and beverage machines near the Fireplace Study as frequently as was needed. Conversations with the vend-

ing contractor resulted in a more regular and frequent schedule of servicing the machines.

- Custodial services have improved in the past 8 months.
- Signs listing use policies, posted at the doors to all group study rooms, were revised. Clearer language is used to note that while a single patron may still use a group study room, groups have priority.
- As they move through the building, library staff members are more observant of noise levels in group study rooms and speak to patrons when the sound in a room is audible to someone walking past it.
- The college public relations office assisted library staff in the creation of small signs that refer students to the third floor for quiet study. These were placed on tables on the first and second floors, where conversations are permitted.
- Signs indicating call numbers for materials housed on each floor have been placed near the elevators.
- Chemistry models and additional biology models have been added to the collection maintained for use within the library building.
- Cell phone chargers for the most common phone types were purchased and patrons may borrow them from the circulation desk for use within the building.
- Coming soon, as a result of staff observing patrons using the Silent Study Room for group meetings, will be clearly worded signs at the doors to remind patrons that it is not a group study room.

The post-occupancy assessment was of great value to Truxal Library. Staff will continue to study the responses and make observations. Truxal Library, the "jewel of the campus," will remain that, both for its appearance and in the way that it supports students.

# Appendix A.

## Examples of Responses from Open Questions Asked in the Student Online Survey

Note: Number in parentheses after a response indicates the number of times it was mentioned.

Question 1—Please list any amenities or services that you would like to add into this building? (for example, additional bathrooms, lockers, children's play area, prayer room, etc.)

- More handicapped accessible bathrooms. (3)
- More restrooms. (6)
- Café / more vending machines / healthy food in vending machines. (11)
- Another entrance of the first floor. (2)
- Additional group study rooms. (10)
- Lockers / locker room. (5)
- Pay phones.
- Resting / prayer room. (7)
- More computers. (3)
- Plants.
- Couches.
- More study rooms. You want to pray, than (sic) go to church.
- It is hard to get a study room during the day. More would be nice, but I think more space would be available if people were kicked out for not doing work.
- Children's play area. (3)
- Game room. (2)
- Electronic handicapped doors are hard to use.
- DO NOT DO A CHILD'S PLAY ROOM. I would never be able to study with that going on. (2)
- I would like to see a reference desk on the 3<sup>rd</sup> floor so that we can use supplies like staplers and other things that way we don't have to walk down to the desk on the 2<sup>nd</sup> floor.
- More quiet study spaces with desks... We should consider having a more secluded area just for those who actually do want to study.
- The building blocks my cell phone can this be fixed?
- More printers and perhaps a technology area.
- Add microwave where any students can use it if they brought foods from home.
- These all seem like bizarre ideas.
- Wider wifi range.
- More A&P models—muscles, brain, heart, etc.

Question 2: What improvements would you like to see in terms of technology services?

- Additional outlets. (3)
- Would be cool if there was a TV or game room for students who like to relax that way.
- Outlets available on group computer tables on the first floor.

- Maybe more computers on the first floor. More computers on third floor. (2)
- Computers take too long to log on. (13)
- It would be nice if the area around the computers including computer peripherals were cleaner. (2)
- Have ability to check out a laptop if needed.
- Be able to plug your phone at the computer to an outlet. (2)
- Better wifi. (7)
- Have printers print double sided.
- Printing enables for wifi devices.
- Macs in group study rooms.
- Printers not reliable and it takes too long to get them fixed. (4)
- Ability to use ID card to pay for printing.
- More group study rooms.
- More large screen monitors.
- More printers
- iPads for everyone

Question 3: What other areas on campus do you use for studying?

- Study areas, hallways, lobbies, or classrooms in other buildings. (55)
- Student Union. (3)
- Where it is convenient.
- Any areas in the other buildings where there is a nice seat and an outlet to charge my phone or laptop.
- Just the library.
- 95% the library.
- Anywhere inside or outside.
- Cafeteria. (10)
- Now I'm a fixture at the library, which I cherish!
- Outside, if it is a nice day. (9)
- I study a lot in the library and at home, not really anywhere else on campus.
- Nothing really but the library.
- ... generally I use the library. The library has to be one of my favorite buildings. Worth the wait.

Question 4: What improvements would you like to see in terms of food service?

- Café or coffee shop. (8)
- Stock the vending machines. (4)
- I could see myself being bothered by the smell of food while I am trying to study.
- Vending machines on every floor. (2)
- More options in vending machines. (7)
- Microwave and toaster in the fireplace area. (3)
- Healthy foods. (15)
- Would not like to see the library used as an extension of the cafeteria.
- The cafeteria is close enough to cover needs.
- Let me have one place where I don't think about food.
- Don't eat in the library.

- A small café would have been pretty cool, but I care more about being in a library than in a café.
- Be more sanitary.
- In the library? Remove it all! There is a perfectly good cafeteria right next door.
- Since I don't want rodents or roaches in the library, could you please keep the food out of this one building?

Question 5: Please leave comments about study rooms.

- Need more study rooms. (6)
- The problem with the study rooms is not with their construct, but with the rules of their use that are violated by students.
- Study rooms are not always used for studying and it doesn't seem to be a high priority if no one tells on the students that are watching videos. (5)
- We don't have any reserve service.
- I am a tutor. Too often I have seen rooms utilized by students for sleeping, watching TV program,, and playing games. They are an extension of the cafeteria. The computer and white boards are great for explaining difficult concepts. Too often I have had to use common areas while others are doing anything but studying.
- The walls are not thick and you can hear everything that is going on in the other room when they are loud.
- I love the addition of the group study rooms.
- Can fill up quickly.
- Quiet 3<sup>rd</sup> floor study room is amazing!
- Option to reserve a room for 1 hour.
- Single, one person rooms for quiet study.
- Need to monitor rooms better.
- There should be a rule about how many people can use a room and what they can do. My friends and I go to a room and sometimes there is one person taking up one of the bigger rooms.
- Good for me.
- They should enforce quietness through the whole building, but I guess the 3<sup>rd</sup> floor is enough for that.
- Please consider giving students with disabilities access to group study rooms without the requirement of needing a group. I am a student with a disability relating to sound sensitivity and such access would make my life a lot easier.

Question 6: Please leave any other comments about the library.

- I believe there is too much lighting and wastage of electrical power.
- I wish we could have some longer couches to take a break.
- I feel safe in the library.
- I love the library!
- Have employees address inappropriate behaviors—yelling, sitting on furniture, not using study rooms for studying.
- The new library is beautiful and serves my needs as a student well.
- A door on the Ring Road side of the building.
- In study rooms, place trash cans outside the door.

- There is an issue with noise in the library. I think there should be somebody who walks through the library to let these people know that this isn't ok. Probably should be a security person.
- They should provide wipes in each room for people to wipe down everything when they leave. Thankfully you can get them from the desk.
- Very comfortable furniture and atmosphere for studying.
- More squishy armchairs, please.
- The furniture is old and dated.
- If there was an elevator or staircase closer to the exit.
- More group study rooms.
- I am a nursing student and find that I am able to take care of my needs very easily in the library.
- I would recommend getting more desks that have those privacy walls on each side.
- Too cold.
- The chairs are very sharp looking, but impossible to sit in comfortably unless you have very long legs.
- The cubicles are not large enough to have a laptop and book open and have room to move your arms.
- I think there should be a restriction on people using the group study rooms to watch movies / social networking.
- A few more outlets.
- My favorite place has to be the room with the fireplace. It is a great place to relax.
- Layout is kinda random, but the place is nice.
- Retractable window blinds.
- I would like to see more art on the walls.
- The design and layout is 100# better than what the old library was.
- There should be signs at the front door telling you where everything is rather than on the sides of a wall.
- Beautiful building. I love the natural lighting. (2)
- The place has become my sanctuary. It's designed so fancy and nice.
- Would love to see some cutting edge art work.
- More art work wouldn't hurt. (7)
- Not a fan of the color combinations.
- The interior could be a little more friendly. It's a little bland.
- My sister says the carpet is annoying. (4)
- It would be nice if there were signs saying which sections of books were on which floor.
- Kuddos for whomever designed the building. They did a great job.
- The cozy relaxing feel of the library is great.
- Love it!
- It would have been perfect if there had been a patio.
- I love how they decided to add artworks at the library because it makes it interesting to look at when you have free time. People find paintings interesting.

Question 7: Please feel free to leave any comments about instructional technology or the environment in the library.

- Bottom floor is abnormally cold in the winter.
- Quiet areas are sometimes not so quiet.

- The library staff should be offered training to learn more about computers and the systems running on them so they can help students who are not as computer literate.
- Many professors have brought their whole class to various library technology instructions—research, database use, composing papers. The librarians who run these lectures are always well-informed and I have always learned something new.
- The environment in the library is perfect for studying and socializing.
- It is hard to access the rest room as a handicapped person. The doors going into the restroom are heavy and hard to push open.
- Love the plants.
- Hourly trash collection and more frequent window washing.
- I love the atmosphere in the library especially on the third floor. You can see planted flowers on the top of the roof. There's plants around the library to make it interesting and there's decorations. I love the feeling I get whenever I'm at the Truxal Library because it's nice and friendly vibe.
- The environment is perfect. I can choose the best place or section I need to concentrate in my study.

## Appendix B.

# Examples of Responses from Open Questions Asked in the Faculty and Staff Online Survey

Note: Number in parentheses after a response indicates the number of times it was mentioned.

Question 1: Please list any amenities or services that you would like to see added to the building.

- I would like to see more accommodations for the “differently abled.” The bathrooms aren't very good for wheelchairs. (2)
- None. The group study rooms and fireplace room were a wonderful addition.
- Prayer / medication room. (5)
- Sound barriers for the stairwell.
- Honestly, I don't know of any amenities that could be added. The AACC staff and contractors that worked hard to make the new Truxal library happen did a spectacular job on the new building.
- Children's play area. (5)
- Café / coffee shop. (6)
- More study rooms.
- Chargers for android and Apple devices for use in the library.
- Copiers that use credit cards.
- Fax machine that students can use for a charge.
- Multi-use room for the community.
- Reservations for group study rooms.
- Lockers. (4)

- More bathrooms.
- Area on green roof where you can eat or study. (1)
- More privacy.
- More bathrooms. (4)
- Prayer room would be inappropriate.
- Conference room.
- Unisex restrooms. (2)
- I would like to see better access to different levels of the building. The walking pattern is a bit zigzag and does not have the best direct path to access different floors or exits.
- Please, no children's play area unless it is enclosed and noise proof.
- Outdoor seating on the quad.

Question 2: What improvements would you like to see in terms of technology?

- Computers are slow. (3)
- Improve wifi. (2)
- Additional printers / better printers. (3)
- Color printers. (2)
- Ability for students' personal devices to print.
- Scanners.
- If the wifi is the campus-wide wifi, it is completely unsatisfactory.
- All is well at the present time. (2)
- Cell phones don't work in the building. (2)
- Computers at circulation desk should provide a monitor to the customer so that they can review transactions.
- Move computers from second floor near the circulation desk to provide a better study area.
- I think technology services are superior.
- More Apple equipment—iPads, for example.

Question 3: What improvements would you like to see in terms of food service?

- Café (4)
- Food service? In a library? Maybe coffee would be nice, but the cafeteria is a mere steps away from Truxal. (2)
- Not sure there should be food services in a library.
- No food.
- Fill vending machines more often. (2)
- Healthier food. (6)
- I didn't think it was available or that you could eat in the library, so both are nice. (2)
- Tables for eating in an area that has no books.
- Perhaps open the green roof for eating in nice weather.
- Coffee, tea, desserts would be nice.
- Limit food in the library. Cafeteria is next door.
- Public sink for washing and a water bottle filling station.
- NO FOOD IN THE LIBRARY.

- Remove all food from the library.
- Place to purchase food when the dining hall is closed.
- Why is there food service in the library?

Question 4: Please feel free to leave additional comments about the library.

- More flexible furniture in classrooms.
- Quality of exterior doors on first floor is inferior. Should be sliding doors.
- There are many spaces on campus for food and social activity. Keep the library as a space devoted to quiet study. Quiet conversation is fine, but students need to be able to concentrate.
- Entrance doors are too heavy and entrance is too narrow. Handicapped button doesn't keep the doors open long enough. I am surprised that the library is in compliance with ADA.
- More flexible furniture in classrooms.
- Quality of exterior doors on first floor is inferior. Should be sliding doors.
- The lighting is a little too much.
- The nice fireplace is never on.
- I have heard complaints that the handicapped accessibility features are insufficient or do not properly work for those in wheelchairs.
- It is a beautiful building and a wonderful addition to our campus. (2)
- I am an administrator so my need to directly access or use the library is very limited. However, when I have had the opportunity to visit the library for meetings, it has impressed me as a wonderful campus asset—well designed and well laid out. My chairs report both faculty and student satisfaction and enjoyment with the new facility.
- There is too much space assigned to traditional library services and not enough for math and writing tutoring. There is space for an honors program, but there are no honors classes or programs.
- Needs an auditorium for functions.
- All the chairs are comfortable. There may not be enough single-study tables, so sometimes a single person will be at a table for 4, and then groups of 4 could have trouble finding a spot.
- It's about time the library was expanded and modernized.
- There used to be a place for staff to meet in the library. Meeting spaces on campus are very limited and it would be nice to have a space available again in the library.
- The new library is impressive, with a good layout.
- I wish my office were over there. To me, Truxal is colorful, warm, and inviting.
- The rug tiles are awful—they make a person dizzy. (5)
- Love the carpet. So energetic.
- I love the artwork in the fireplace study room.
- I wish there were better direction to the 3<sup>rd</sup> floor. The circulation desk sign is difficult for students to see. Signs should be more prominent. (6)
- The library is gorgeous, but the AACC windows along the ground floor are goofy.
- The AACC on library windows is an outstanding design element.
- More artwork is needed.
- Retro color scheme is not as attractive as the college's iconic aqua and white.
- Rotating student artwork would provide continual change and a restful place.
- A little 70s in style.
- The first floor is too open and carried sound throughout.

Question 5: Please feel free to leave comments about group study rooms.

- I like that group study rooms were planned and implemented in the renovation. It gives groups a chance to work without disturbing the quiet environment of the library patrons outside the room.
- More study rooms. (2)
- Would like to reserve study rooms. (4)
- They are great. No need to change.
- The fireplace was a nice idea, but a waste because it cannot be used.
- Rooms should be policed to prevent students from eating and watching videos.
- Keeping the building clean is important.
- Signs need to be posted that study rooms are for more than one person.
- The addition of quiet areas was much needed.
- Study rooms are great, but often occupied by only one person.
- More meeting rooms that are private.

Question 6: Please feel free to leave comments about instructional technology or the environment.

- Faster computers.
- It is a lot better than the old Truxal.
- It is gratifying to see the students coming in larger numbers and for longer stays in the library. In some respects, it has become a social place for gathering. The conduct of the students is usually very commendable.
- There's an atmosphere of scholarly pursuits there—a good environment for studying or just relaxing and reading a book.
- No stone has been left unturned. Our students are increasingly tech savvy so the abundant availability of computers and places to use their own computers will appeal to them.
- More Apple and mobile devices needed, as that is what is used to work and communicate.
- Better wifi.