Essentially all of California’s community college students are commuter students. Just eleven of the system’s 114 institutions have small residence halls, and therefore nearly all of the system’s two million students commute to class. Yet “commuter student” is not a label commonly associated with the students at our colleges, perhaps because it applies to everyone and thus is not especially descriptive. Even students do not identify themselves as “commuters,” yet it is a label that fits (Badger 2014). Thinking about our students as commuter students might be an important way to understand them and inform the services and resources the library provides. In particular, we were interested in our students’ study habits because of the important role they play in student success and library interactions.

There is little research about California community college students as a general population, apart from a 2006 Public Policy Institute of California report (Sengupta and Jepsen 2006). Existing research about the length of time college students study and how it relates to their academic performance does not look at particular study habits or focus on California community college students (Nonis and Hudson 2010). To learn more, we conducted a study to ask our students about their study habits, living situation, transportation options, work and family obligations, and methods of conducting research.
By gathering data directly from students and relying heavily on open-ended responses, the authors sought to better understand the needs of the students we serve.

INSTITUTIONAL CONTEXT

Coastline Community College and Modesto Junior College are both community colleges in California offering two-year degree programs and certificates. Coastline, in suburban Orange County, is unique in the California Community College system because a majority of its student population takes classes online. It has been suggested that “distance students are essentially commuter students who use a different vehicle to arrive on campuses” (Kretovics 2015, 73). For this reason, the library at Coastline has always been a 100 percent online or “Virtual Library.” With the exception of a handful of dormitories for agricultural interns at Modesto, all of the students at both Coastline and Modesto are commuter students.

Coastline Community College and Modesto Junior College are located in different parts of the state and serve demographically distinct populations. Coastline is in coastal Orange County, which has a higher median income than the rest of the state. The population of the area has a slightly higher educational attainment level than the statewide average (U.S. Census Bureau 2016a). In contrast, Modesto is in California’s Central Valley, which is one of the poorest parts of the state. Educational attainment levels there are also lower than the statewide average (U.S. Census Bureau 2016b).

TABLE 6.1
Institution statistics

<table>
<thead>
<tr>
<th>FALL 2016</th>
<th>COASTLINE</th>
<th>MODESTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>9,718</td>
<td>17,707</td>
</tr>
<tr>
<td>Completion Rate</td>
<td>48.80%</td>
<td>43.00%</td>
</tr>
<tr>
<td>Distance Education</td>
<td>77.00%</td>
<td>17.00%</td>
</tr>
<tr>
<td>Students Age 24 or Younger</td>
<td>30.46%</td>
<td>65.82%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>COASTLINE</th>
<th>MODESTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>8.05%</td>
<td>3.36%</td>
</tr>
<tr>
<td>Asian</td>
<td>24.19%</td>
<td>5.05%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>25.95%</td>
<td>49.76%</td>
</tr>
<tr>
<td>White Non-Hispanic</td>
<td>29.39%</td>
<td>36.59%</td>
</tr>
</tbody>
</table>

According to the California Community College Chancellor’s Datamart for Fall 2016, Modesto’s enrollment was 17,707, nearly double the size of Coastline’s 9,718, with students pursuing associate degrees, preparing for transfer to four-year institutions, or earning certificates. Student demographics at the two institutions are also different (table 6.1).

Modesto Junior College has two Library & Learning Centers, one on each of its two campuses, that provide traditional library services alongside tutoring support. Five full-time librarians, numerous support staff, and peer tutors serve thousands of students each week. Coastline has no physical library and serves predominantly distance-learning students. The “online library” is run by a single librarian with no support staff from any office at the college’s administrative center or remotely. The library holds no print books or periodicals, and offers e-books and electronic journals, as well as text reference and online instruction and tutorials.

While Coastline and Modesto have significant differences in terms of their student demographics, physical library design, and focus on distance education and communities served, students at both colleges report remarkably similar experiences. As our survey results show, commuter students at California community colleges may be more alike than their outward differences might suggest.

Methods

In order to assess student study habits, we developed a survey instrument (Greene and Horan 2017) that included nineteen questions in four thematic sections: school, life, study habits, and research tools and technology. The survey was not intended to yield statistically significant data, but rather to provide some preliminary, comparable data about the study habits of the two student populations. The survey instrument used included both multiple choice and free response questions, none of which were required. This led to a different number of participants answering each question and, therefore, the quoted percentages throughout this chapter refer only to the number of responses to a given question.

To learn more broadly about student study habits, leading questions dealing with the library were intentionally avoided. Instead, open-ended and “select all that apply” options provided multiple ways to collect data about academic status and progress, living and work situation, research tools used for assignments, and specific study habits, such as where students study and why. Working with institutional research departments on each campus, the survey was administered to students at both colleges during a three-week period in February and March 2017. The survey instrument included a total of nineteen questions, with minor customizations for each college to address variations in terminology (e.g., the names of buildings and available resources).
At Coastline, the survey questions were added to the annual spring student survey and sent to all students who had taken a class during the previous three semesters. At Modesto, the Library & Learning Center administered the survey through the college’s SurveyMonkey account and sent it to all students currently enrolled. In both cases, responses were collected anonymously and participants had the option to be entered into a raffle to win a $25 gift card. The Coastline survey had 1,030 responses while the Modesto survey had 558.

Data analysis was conducted in three ways once the survey was completed. The Coastline research office performed a data analysis for Coastline (Zentner, Covit, and Homestead 2017) and Modesto (Zentner and Greene 2017), producing a summary of the data. In addition, the authors’ use of SurveyMonkey’s text-analysis functionality helped show and support the categories found from the research office analysis. The authors also manually reviewed the data and reports in order to link smaller themes to bigger themes. The nature of the study did not require Institutional Review Board approval.

Survey Results

Modesto collected survey results a couple of weeks ahead of Coastline, and the authors were struck by the findings. Students were open and honest about their study habits, and some of their comments were eye-opening. When Coastline received the survey results, a side-by-side comparison of the data showed that the two student populations had similar study habits. In presenting the results, we have merged those from the school and life sections, since student responses showed how interwoven the two were. The remaining results are discussed for each of the two remaining survey sections: Study Habits and Research Tools and Technology.

School and Life

Survey respondents at both colleges were generally experienced college students and high achievers. A plurality of students at both colleges had completed seven or more semesters and sixty-one or more units, and were currently taking two or three classes. More than half of respondents at both colleges had 3.01 or higher grade point averages (GPAs), with most reporting GPAs higher than 3.51. One difference is that respondents at Coastline were far more likely to be taking a single course (35 percent) than at Modesto (12 percent), as illustrated by this student who conscientiously took fewer classes in order to manage her life and stress levels:

I work part-time and go to school part-time so that I could spend time with family. To work full-time and go to school part-time on top of spending time with family and taking care of personal responsibilities is
only possible if I want to be under severe stress. I don’t want to suffer from stress and lack of sleep, which is why I choose to work part-time and go to school part-time. —Coastline student

A strong majority of commuter students at both colleges lived at home with family and had a job. The percentage of working students was substantially higher than the nationwide average for full-time students, but lower than the average for part-time students (Perna 2010). The days of the week and the number of hours that students spent working were similar at both colleges during the week, but diverged on the weekends (figure 6.1). On Saturday and Sunday, Modesto’s students reported working similar amounts to the rest of the week, while most Coastline students reported working one to four hours. This is perhaps a reflection of the higher percentage of Coastline students with a traditional Monday through Friday job.

The effort students put into coordinating work and school can be seen in the following quotes from the survey:

I try to put my school on one or two whole days and then work the rest of the week. I usually put work first because I need money. —Coastline student

![Figure 6.1](From Academic Libraries for Commuter Students: Research-Based Strategies, Mariana Regalado and Maura A. Smale, eds. (Chicago: American Library Association, 2018))
I have a part-time job as a substitute assistant teacher, and I only take the jobs that work with my schedule. —*Modesto student*

To the question, “If you multitask while studying, what kinds of activities do you do?” students responded with expected answers such as “listening to music” and “surf the Internet or social media,” as well as some who adamantly stated they did not or could not multitask and study successfully. Open-ended responses provided snapshots into the very busy lives of commuter students at the community college. Since most students studied at home, many multi-tasked between home-related responsibilities and studying.

—I might change a diaper or grab a snack but I don’t tend to do anything else during my study periods. —*Modesto student*

—I do laundry, wash dishes, cook, and straighten things up. I play videos tutorials on subjects I am learning while washing dishes, cooking, etc. Sometimes when I am cooking I study in the kitchen while I wait for things. I study while I wait for the laundry or wait in the car for my daughter or in the doctor’s office lobby. Anywhere I am going to have to wait for something, I take something to study. —*Coastline student*

In response to the open-ended question, “How do you balance life, school and/or work commitments?” students at both colleges responded in similar ways. Time-management concepts such as scheduling time to study and using calendars were the most frequently reported approach for success (Coastline 33 percent, Modesto 38 percent). This aligns with earlier research that also found time management to be critical for students managing their hectic schedules (Stelnicki, Nordstokke, and Saklofske 2015). In addition, studies have shown that students who work are more likely to use time-management behaviors (Macan et al. 1990). Given that a majority of respondents on both campuses had jobs, high reliance on time-management techniques makes sense. Reviewing the responses individually revealed that technology tools such as calendar apps and reminders were heavily used to help manage time.

—*Coastline student*

—I must stick to my routine and not get sidetracked. I go to work, come back home, do chores, put my children to sleep, then I start my homework. I pull all-nighters sometimes and I put my schoolwork before even family time. My work is first to have food on the table, then education to provide a future, then my children/family. Without the first two I cannot be there for my family. I must be self-disciplined, focused, prioritize, and time manage. —*Modesto student*
Another group of responses identified through text analysis pertain to how challenging students found it to maintain a healthy balance between life, school, and work. A portion of respondents used words such as “difficult,” “hard,” or “barely” in their responses, suggesting that some students struggle with doing this successfully. Research has shown that commuter students not only deal with the typical stress of a student, but also have added stress from being a commuter student (Newbold 2015). Some of the coping methods mentioned in the research, such as task-focused adaptive measures as well as negative methods (e.g., avoidance), aligned with what students reported in our study habits survey. The challenges of maintaining a healthy balance was evident in many of the student responses, especially for parents of children, as can be seen in the following quotes:

It is not going well, my job wants me to stop going to school or be fired. I also have an infant son, that I am the main caregiver [for]. —Modesto student

It’s hard. I’m a single Mom with a teenager. I work nights and homework is difficulty for me to do during the day so I study at night, but then I’m up late and tired in the morning. I’m trying to figure it out day to day. —Coastline student

Motivation to persist, focus, family support, and social sacrifices were also common themes in the responses, as illustrated in these quotes from the students about life, school, and work balance:

I don’t . . . I wish I could. I do really try, but sometimes it’s really too much. If I try to catch up with my social life, I end up being behind on homework, even if it’s just for one day (like today is my friend’s birthday). If I spend time doing homework, I don’t go out often. I probably go out once a week. —Coastline student

I try to work efficiently. I put away my phone and try to focus on what I need to get done. This enables me to take short, refreshing breaks. Long-term, this is how I’m able to balance everything. —Modesto student

Keeping in mind that a strong majority of survey respondents at both colleges were high achievers, another similarity is that Coastline and Modesto students who use time-management techniques reported being more successful in college, a correlation long established in the literature (Macan et al. 1990). Our findings reaffirm that any focus on time-management skills by instructors and support services will benefit students.
Study Habits

The similarities between Coastline and Modesto commuter students was also apparent in the study habits section of the survey when students discussed hours, preferred locations for study, and frustrations. For example, the number of hours students studied each day were within ten percentage points of one another for every single benchmark (figure 6.2).

While research has shown that quality, not quantity of time spent studying is the key factor, the details of when and for how long students study is important for student and academic support services to know in order to align their hours as much as possible (Plant et al. 2005). Studying one to two hours per day was the most common response at both colleges every day of the week, and students studied more on Monday through Friday than on weekends. Notably, as the week progressed, more students at both colleges reported studying longer hours, but at the same time the number of students saying they did not study at all also increased. In fact, the highest number of “zero hours” spent studying was on Saturday at both colleges (Coastline 23 percent, Modesto 19 percent).

The survey asked where students studied and to select all that applied from a list of options that included traditional college spaces as well as spaces
outside of a college setting. While roughly three-quarters of Coastline’s students are distance learners, the number of Modesto students who studied at home was actually slightly higher (Coastline 92 percent, Modesto 94 percent). Unsurprisingly, Modesto students reported studying at home and on campus—including in the library—at higher rates than Coastline students. The overall results suggest that Modesto students did not study more; they simply studied in more places. Notably, some students report they studied at home despite regular distractions while others said the opposite, namely that studying at home helped them avoid distractions. These contradictory responses speak to both the diverse living situations that commuter students experience as well as their wide-ranging study environment preferences, as can be seen in the following quotes:

My favorite place to study would have to be a peaceful location where I could focus. This usually happens to be my room. —Coastline student

[My least favorite place to study is my] house due to the fact that there are endless distractions that pop up at all times. —Modesto student

In addition to studying at home, other locations that students from both colleges used to study included coffee shops, in a car, at a public library, outside, and at work. While some work environments are undoubtedly more conducive to studying than others, given that a large majority of the students we surveyed worked, finding employment that allowed for at least some time studying may well be an important factor in that student’s likelihood of academic success.

I look for a job that allows a flexible work schedule. I let my boss know well ahead of time that I’m a student. Everything else is just discipline. —Coastline student

I’m able to do homework at work and I build my work schedule around school classes. —Modesto student

Locations where Coastline and Modesto showed more substantial study differences were related to traditional spaces on a college campus, with Modesto students more likely than Coastline students to indicate they studied in a college classroom before class and at the college’s Library & Learning Centers. This could potentially be the result of Coastline having primarily online students and mini-campuses that are not actively used for studying.

These results have profound implications for supporting students’ study habits. Nearly all of the common study locations were off campus, meaning that services will necessarily need to be effective at a distance. Institutions and libraries focused on distance education have been working on this problem for years, but even so, the scale of the situation may be underappreciated given that even face-to-face commuter students spend the vast majority of their study time off campus and at a distance from college resources.
When asked, “What is your favorite place to study and why?” many respondents said the library was their top choice because of the presence of other people focused on the same thing. One finding was that students at Coastline indicated the “library” was a favorite place to study, even though Coastline doesn’t have a physical library. Further review of the data showed that Coastline students used the public library, libraries at neighboring colleges, and Coastline’s student success centers, which they mistook for a Coastline library. Previous Coastline student surveys have shown that students identify the student success centers as the “library” at Coastline, potentially because these spaces are study spaces with computers, a textbook reserve library, and tutoring.

“My favorite place to study is] in the school library because everyone around me is also studying. Plus I don’t get very good reception in there so I am not constantly checking my phone. —Modesto student

My favorite place to study would have to be at a coffee shop or the library. I choose these places because a coffee shop is typically quiet, and has snacks and drinks in case I’m there for most of the day and get hungry. The library is nice to study at too because not only is it quiet, but they have resources like books and computers if I need to use them. —Coastline student

Another common favorite location to study included “in a car” (Coastline 17 percent, Modesto 28 percent), which is a challenging space to study in even the best of circumstances. At the same time, some student comments revealed location-appropriate activities, such as listening to relevant audiobooks while driving. Some responses indicated students were multitasking while driving, while other responses suggested that students were parked and using the car as a study space, though the survey did not specify if studying was done while driving or sitting in a parked car.

In the car. It’s usually when I am driving. I listen to the audio software reading my textbook. I’m trying to be productive but it’s often distracting because I’m multi-tasking while driving. —Modesto student

[My favorite place to study is] my car/room. It’s my personal space so I feel comfortable. —Coastline student

In summary, when asked about their favorite places to study, students were looking for a place that was quiet, comfortable, had Wi-Fi, and was free of distractions so they could concentrate. They also liked to be close to resources such as librarians, textbooks, computers, and study spaces. Many students mentioned food, yet many libraries, including Modesto’s, continue to prohibit food in their facilities. In contrast, when asked about their least favorite place to study, students commonly talked about places with too much noise, too many distractions, and crowded spaces. That students crave quiet when
studying is well established in the literature, and contemporary library design practices intentionally take this into account (Howard 2012). Overall, students at Coastline and Modesto identified the same top three favorite places to study when the data was evaluated (table 6.2).

My least favorite place to study is in a noisy environment because it prevents me from focusing on the task at hand. —Coastline student

Responses to the survey question about when students typically studied suggest that traditional library open/support hours may not be aligned with student study habits, as other studies have found (Foster and Gibbons 2007). When asked what time of day they typically studied, students at both colleges said the period from 8:00 P.M. to midnight was the most common study period (Coastline 55 percent, Modesto 65 percent). This is notable because many libraries, including Modesto’s, are closed at this time. In addition, a substantial portion of students at both colleges reported studying from midnight to 4:00 A.M. Tutorials and research guides are available during these times, but there is no human assistance at either college. In fact, at the time, Modesto’s proxy authentication was generally unavailable starting at midnight for several hours every day for maintenance.

I try my best to do my online work once I’m done with home and family obligations. Which usually puts me at doing course work at 10 at night. And every once in a while I get it done earlier in the day. —Coastline student

I have 2 children with my boyfriend. He works nights on an opposite schedule from my school schedule. I study when my children go to sleep so I stay up later. It’s hard but sometimes you just have to suck it up and do what you have to do to get where you want to be in life. —Modesto student

The second most common study time was 4:00 P.M. to 8:00 P.M. (Coastline 44 percent, Modesto 51 percent), when face-to-face research requests decline as the evening approaches in the physical library at Modesto. Given some of the responses to the open-ended questions, this is likely because students are already home. Returning to campus would mean finding child care, leaving family, transportation time, and finding parking, all just to study in the library for one more hour. Coastline’s library is virtual and potentially better suited
to meet some of the needs of students studying when a traditional library is closed. Of note is that the Coastline librarian uses a Google Voice phone number for the library that rings the library office phone and also goes to the librarian’s personal cell phone. This number can also be texted. Because of this, the Coastline librarian can answer library reference questions when a typical library would be closed. While not in high use, the librarian has been able to answer student questions during nontraditional times. The librarian has a little flexibility with scheduling and uses these reference opportunities as part of assigned virtual office hours.

**Research Tools and Technology**

In the final section of the survey, students were asked about the last research assignment they completed. The most common amount of time students at both colleges reported spending on their most recent assignment was between two and five hours (Coastline 61 percent, Modesto 53 percent). Follow-up questions asked about the types of tools and assistance that respondents used when conducting research. Continuing a trend, the answers were broadly similar at both colleges.

Students at both colleges said the most common technology they use to study were laptops (Coastline 80 percent, Modesto 84 percent) and smartphones (Coastline 53 percent, Modesto 74 percent). Desktop computers were the third most commonly selected technology at both colleges. When asked to “select all that apply” and shown a list of research tools, Google and Internet search ranked the highest followed by textbooks and Canvas, the learning management system (LMS) at both colleges. Notably, smartphone usage was one of the top four tools used to conduct research at both colleges (Coastline 22 percent, Modesto 41 percent).

The number of respondents saying they consulted a college librarian was lower at Coastline than Modesto, while a similar number of students at both colleges used a public librarian. This is perhaps not surprising given the different library configurations. Coastline is an entirely virtual library with a solo librarian, while Modesto has a physical library location on both of its two campuses and five full-time librarians. Research databases were less frequently cited by Coastline students than by Modesto students, and the generic “Library databases” option was chosen by 14 percent of Coastline students. These numbers did not match the substantial usage data for the Coastline library databases, but further evaluation showed that database vendor names are not associated with the databases on the library web page, and this might be something to consider in future surveys and library web design modifications. Meanwhile, Modesto students reported that they more frequently used EBSCO and Gale databases, while another 30 percent selected the generic “Library databases” option.
The final survey question asked who students turn to for help when conducting research. A plurality of students at both colleges didn’t ask for help at all. Most students that did seek help at both colleges asked their instructor, classmate, family member, or friend for help. Librarians and tutors were used less frequently.

DISCUSSION AND LESSONS LEARNED

The authors were surprised at how alike the students at each institution were, based on their survey responses, especially in the School & Life section of the survey. This led to a revelation: in addition to being commuters, the students at Coastline and Modesto reported remarkably similar academic experiences, general living situations, work commitments, and approaches to finding a healthy work/school/life balance. There are some exceptions in the data, such as the number of hours spent working on weekends, but by and large the results are consistent despite the distinct student populations, local geography, and differing focus on distance education at Coastline and Modesto.

Of interest in the survey data was that the most common study spaces were off campus. This is directly related to students being commuters versus living on campus. Students identified looking for study spaces that are quiet, comfortable, have Wi-Fi, and are free of distractions so they could concentrate. They also liked to be close to food and resources. Some students report liking light background noise, such as at a coffee shop.

The authors took the responses from the most favorite and least favorite places to study questions and discussed what an ideal library space might look like. The results suggest that students want different types of spaces, but can small libraries be more than one space? With many community college libraries in California undergoing renovations or being added to new buildings with local bond measure funding, library space is an ongoing topic of discussion. Based on student comments, the authors came up with a space designed to best serve commuter students, although it might also appeal more broadly to other academic situations. An ideal library space would include three distinct but connected areas: (1) a quiet zone with no computers, group work, or phones allowed; (2) a calm study space, with light background music, like a coffee shop; and (3) a noisier space with peer tutoring. Librarians and other support staff would be at a hub that is easily accessible to all three areas. These spaces would have numerous noise-proof study rooms and would include a cafe attached to all three areas.

Building or even redesigning a library space is impractical for most libraries, but there are other, more practical ways to address commuter students’ needs for study space. Specifically, the authors discussed identifying and marketing quiet places to study on campus and, for Coastline especially, in the...
community, and providing that information on the library website. Another concept the authors revisited was food in the library. Based on the number of students who indicated their favorite place to study was close to food, it seems appropriate that libraries should review food policies if they are trying to create inviting study spaces.

While the library ranked in the top four favorite places to study at both colleges, the majority of studying was reported to be done off campus and during hours the library was not open, specifically at home in the late evening. The mismatch between library hours and student study habits is challenging to resolve. The authors believe that the solution is not longer library hours, an approach sometimes taken, especially at residential institutions (Albanese 2005). Previous experience and reference statistics have shown that face-to-face library assistance is not frequently sought later in the evening. Instead, these findings create an opportunity for colleges with traditional libraries to think of how they also have a virtual library of their own. All students become distance students when they leave campus. Current students expect to interact with a college and its services online (Kretovics 2015); it is each library’s responsibility to continuously improve this interaction. Library websites are a portal for hundreds of resources and could potentially be redesigned to better serve students when the physical library is closed. A few ways to accomplish this include reviewing website navigation and naming structures to make sure they are clear to students; improving the quality for resources by curating based on quality, not quantity; and ensuring that instructions for users are clear and concise, especially for off-campus authentication. A marketing campaign to highlight the “Library After-Hours” could showcase library resources that are available 24/7.

At Coastline and Modesto, the library website and other resources are always being modified to better serve distance students. Another way to have library resources available to distance students is to embed them in the LMS (Daniels and Usina 2016). Having library resources inside the LMS is one way to provide access to the library for students regardless of their physical location. The library at Coastline is in the process of embedding library resources in the Canvas LMS, and it assumes that the majority of the student population will be accessing library resources after normal business hours. For this reason, lots of how-to videos are being created as well as step-by-step tutorials. The faculty at Coastline have always known there was only a virtual library, and this has helped market the library’s resources to students via the website.

In the Research Tools and Technology section, commuter students reported using textbooks and smartphones for research assignments much more than the authors anticipated, which opened up a conversation about what those responses mean for the library. It underscores the importance of having textbooks available for students to use, since students ranked them as one of the most-used tools in this survey. Yet libraries typically put textbooks
in reserve collections with limited circulation parameters, such as two-hour loan periods and library use only restrictions. This may be a policy worth reconsidering, given that our commuter students most commonly report studying in the evening after many libraries close. Making more textbooks available overnight would better align textbook availability with student study habits.

The high smartphone usage reported for research was notable to the authors despite the surge in their popularity over the past decade. When asked what percentage of research was conducted on a smartphone during the last research project they completed, usage was widespread. Roughly three-quarters of students used their smartphone at least some amount. However, roughly half of students reported using their smartphone for a relatively small percentage (less than 25 percent) of their research, while much lower numbers used it for more than half of their research. Still, these results highlight the importance of smartphones in students’ research practices and led to an outcome for both Coastline and Modesto to find more effective ways to help students conduct research on their smartphones. Smartphone-specific tutorials and specific library instruction focused on mobile environments might better prepare students to work with library resources as they are likely to do in practice. At the same time, librarians need to continue working with database vendors to advocate for more mobile-friendly products.

The study habits survey provided the authors with substantial data and spearheaded discussion and next steps at both colleges. It also provided some lessons learned for the authors, most notably related to survey design and implementation. The authors created the survey, tested it, and solicited feedback from multiple sources prior to releasing it. Still, when the results came in, the authors realized they had made some mistakes. For instance, there were a few items that were hard to compare because the answer options had been set up in slightly different ways at the two colleges. One example is related to the number of hours that students work and study. Coastline had set up the answers as a range, while Modesto allowed students to select single numbers. Another problem was the way Modesto’s question on students’ living situation was configured within SurveyMonkey. Respondents were able to select more than one answer option (e.g., alone and simultaneously with two roommates), leading to some conflicting submissions. In contrast, Coastline’s survey used skip logic to separate responses into separate pages, which captured the data more accurately. Lastly, while the open-ended questions elicited the most compelling data, they proved time-consuming and challenging to analyze and compare the data between the two colleges. In the future, if questions are being compared across colleges, there should be a discussion about reducing the number of open-ended questions if coding is a priority for data analysis. The open-ended questions did provide valuable data, so it would be best if they could be kept and a cleaner data analysis model was used to compare data.
CONCLUSIONS

The results of the survey of student study habits stimulated an engaging conversation between the authors that then spread out to each college campus. While initially the idea was to see where the library intersects with student study habits, the results prompted the authors to reimagine how the library could best support students when they study regardless of where they are physically located. Eliminating barriers to access is a foundational goal for both libraries and community colleges. Yet the results prompted a discussion that went beyond improving access. The authors discussed the idea of making the library easy for students to use and access, including the physical space as well as the online resources.

After looking at the technology that our commuter students reported using to study, it became apparent that the authors' libraries need to better support students who are conducting research with a smartphone. At the same time, given that a majority of students reported using Google for their research, does it make sense to link library databases to Google Scholar and train students how to use that since they are already familiar with the Google interface? It would be interesting to see if community colleges with discovery services have more students reporting using the library for research as opposed to using Google. Additionally, in future surveys, would it make sense to ask students what kind of research they are doing on their smartphones? It is possible the authors are making assumptions about what students consider “research.”

The authors agree that in the future they would like to survey students about their study habits at least once a year. Coastline has committed to surveying students each fall in order to inform study space design at the college and services to students at a distance. In addition, since the study ended, author Greene accepted a new position at Columbia College (the sister college to Modesto) and hopes to find support to survey students there about their study habits. Both authors are curious to see if the students at Columbia, also a community college in California, will have similar results to students at Coastline and Modesto. If two seemingly dissimilar colleges such as Coastline and Modesto report similar results, it warrants asking if other California community colleges would also yield similar results. The authors have reached out to the statewide Council of Chief Librarians about bringing the survey to all 114 California community colleges in the coming year. The authors found the survey results to be very informative, and think fellow librarians would, too.

REFERENCES


