

# Learning Management System Study Executive Summary (2018-2020)

A study conducted by Information Technology's Technology & Learning team.

Executive summary written by John C. Buckingham and Jordan Lott. Edited by Alan Regan.

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## Introduction

With Sakai's license renewal approaching in July 2020, Information Technology's (IT) Technology & Learning (TechLearn) group began a two-year study in the Fall term of 2018 to identify the needs of the faculty community and to determine if Sakai was meeting those needs as the official learning management system (LMS) of the University. Although investigative focus groups were cut short by the beginning of the COVID-19 crisis in the early months of 2020, the overall feedback and data collected throughout the study indicated that Sakai was meeting the needs of faculty members and students.

This report contains a summary of events and survey results that conclude with the decision to continue with Sakai as the official LMS at Pepperdine University.

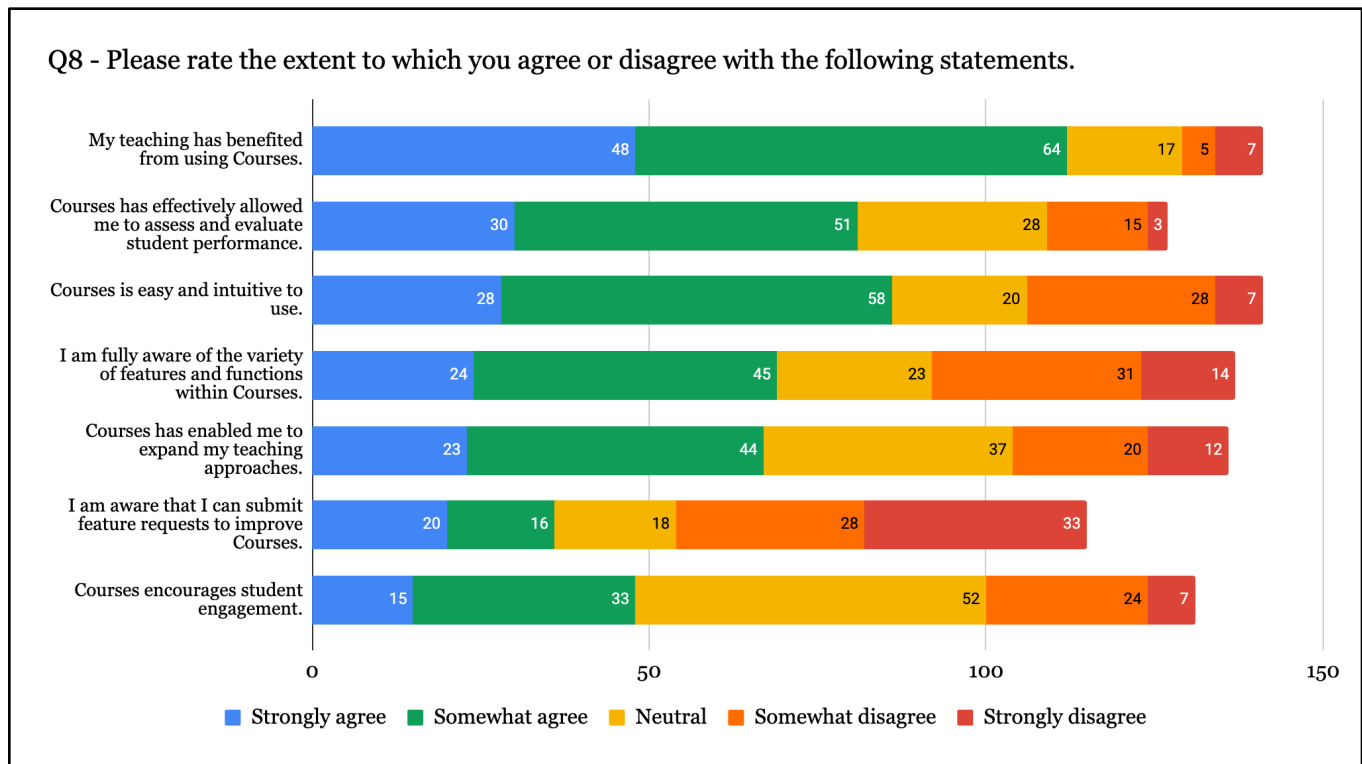
## Satisfaction Survey

In Spring 2019, the Technology & Learning team launched a Sakai LMS satisfaction survey to faculty (approximately 1,030) and students (approximately 8,800) across all five schools, Seaver College, Graduate School of Education and Psychology (GSEP), School of Public Policy (SPP), Caruso School of Law (CSOL), and Pepperdine Graziadio Business School (PGBS), to obtain a measurable data set on community sentiment around the Sakai LMS. The survey was intended for those who had used Sakai during the Fall 2018 and Spring 2019 terms. To prevent multiple survey submissions from the same user (i.e. "ballot stuffing"), unique, one-time survey links were generated for each user. Surveys were administered to both groups with unique questions for faculty and students.

## Faculty Responses

Surveys were sent to all faculty at the University. Of the approximately 1,030 faculty surveys that were delivered, one hundred and sixty-four faculty responses were captured. When considering the responses below, it's important to qualify that while not every respondent answered all of the questions, many respondents answered most of the questions. A brief analysis of some of the questions can be found below.

Figure 1: Faculty Survey Responses to Question 8 (Q8)



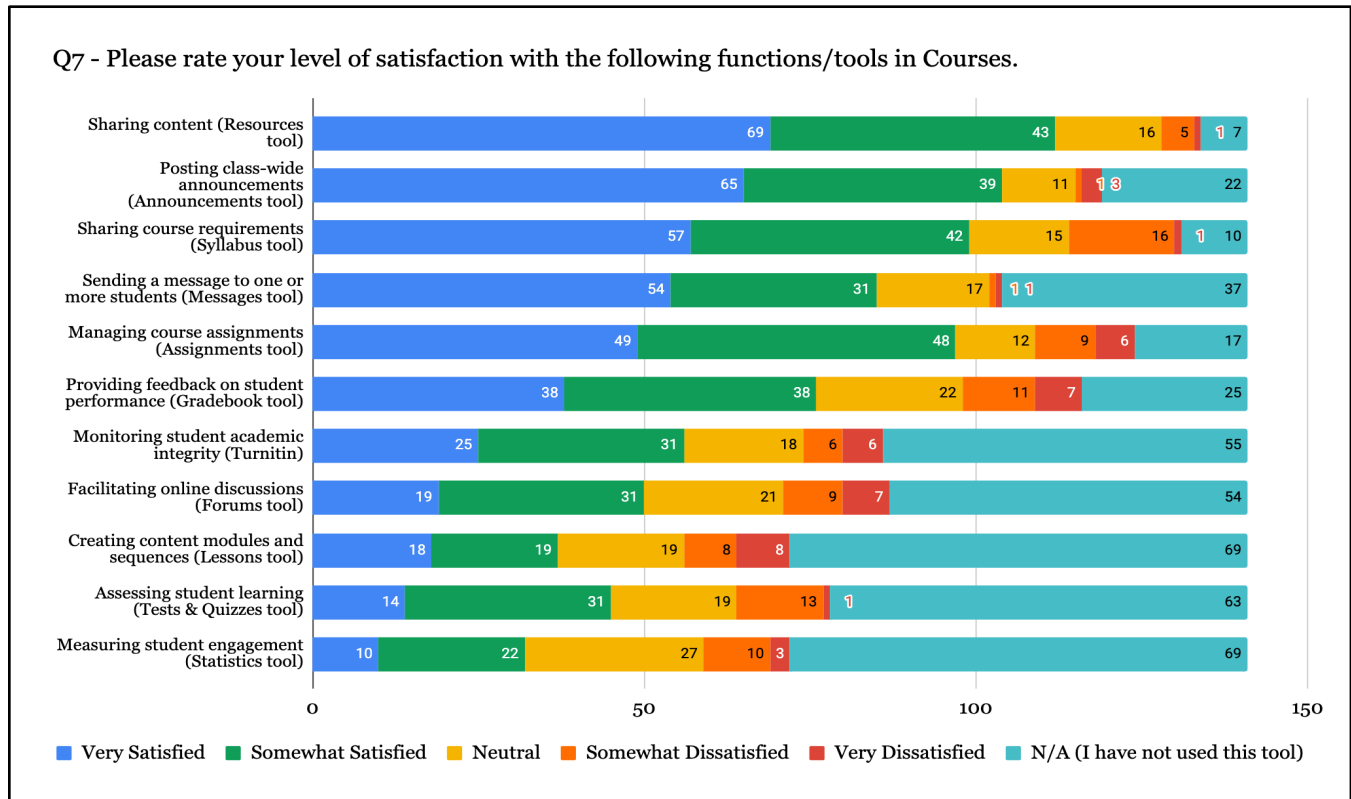
[Data Source for Figure 1](#)

When asked to rate the statement “My teaching has benefited from using Courses,” nearly 80% of those who responded to this question either strongly or somewhat agreed. Conversely, only 9% of respondents either strongly or somewhat disagreed.

At the same time, when asked to rate the statement “Courses has effectively allowed me to assess and evaluate student performance,” over 60% of respondents to this question either strongly or somewhat agreed. Whereas, just slightly over 14% of respondents either strongly or somewhat disagreed with this statement.

It is apparent in Figure 1 above that the statement for which the most disagreement was elicited was the question related to feature requests.

Figure 2: Faculty Survey Responses to Question 7 (Q7)



[Data Source for Figure 2](#)

Based on Figure 2, it is also possible to glean the levels of satisfaction on a tool-by-tool basis. While every tool appeared to elicit a small amount of dissatisfaction, it is clear that satisfaction levels are relatively high. It's also important to note here that many responses indicated a lack of familiarity or use of a given tool.

When asked to rate the level of satisfaction with the Assignments tool, nearly 69% of respondents to this question either strongly or somewhat agreed. Conversely, about 10.6% of respondents to this question either strongly or somewhat disagreed.

Like the Assignments tool, the tools that appeared to elicit the greatest amount of satisfaction were Resources, Announcements, and Messages.

While all tools appeared to evoke positive responses in general, it seems that the Lessons, Gradebook, and Syllabus tools have some room for growth and improvement.

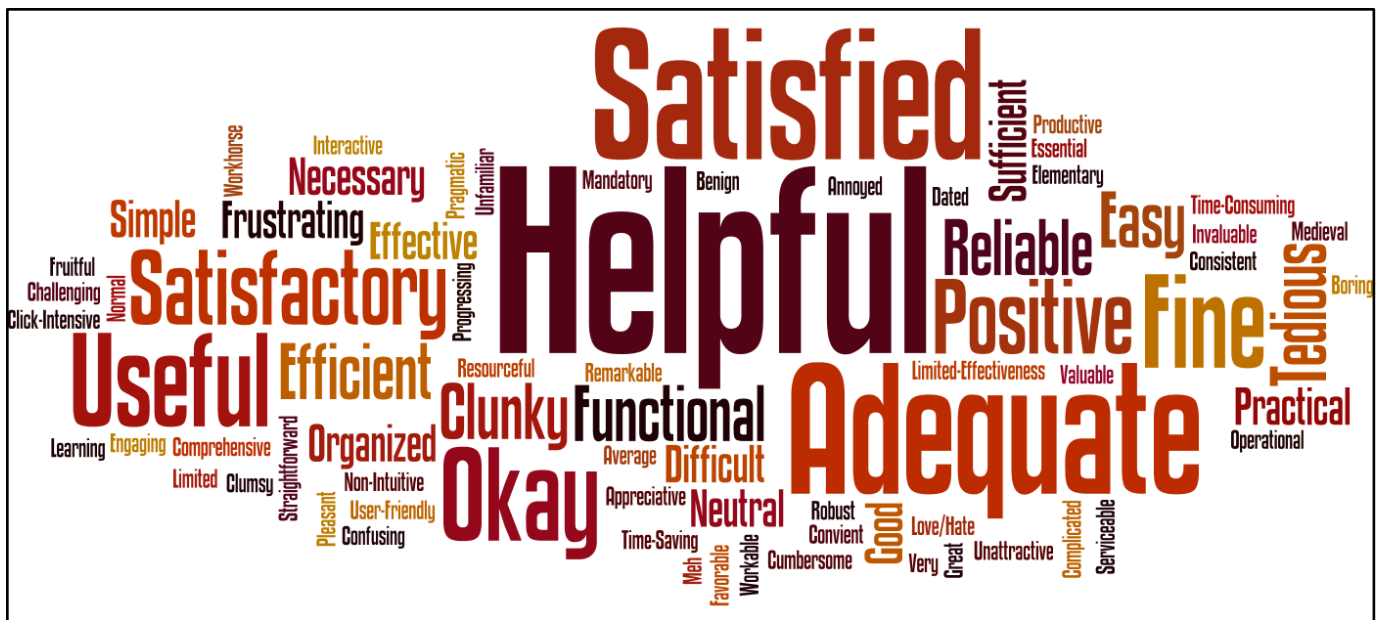
## Additional Analysis

An additional, qualitative question was posed that asked faculty respondents to use one adjective to describe their experience with Courses. The question was designed to capture some meaningful, qualitative feedback in the respondent's very own words. Once the data was collected, the adjectives were normalized given some orthographic variances, and then were placed into a word cloud.

Word clouds offer useful heuristics in data analysis. The idea is simple: as the frequency of a word increases, the font size of the word also increases relative to the other data. In this way, the highest frequency words can be easily distinguished from the lowest.

Based upon Figure 3 below, some of the most conspicuous words include “Helpful,” “Satisfied,” “Adequate,” “Okay,” and “Useful.” While some lower frequency (and thus, smaller) words appeared to provide meaningful feedback, the result seemed to mirror a general level of adequacy.

Figure 3: Instructor Word Cloud of Adjectives Used to Describe Courses



[Data Source for Figure 3](#)

As a follow-up to this question, faculty members were then asked to describe what they liked the most and the least about Courses and to explain why. While the responses varied considerably, each response was scrutinized and then classed among thematic index

points. In the figure below, the top three types of responses are listed in order. See Table 1 and Table 2 below.

*Table 1: Top Three Themes from Instructor Responses to “What do you like the MOST...?”*

What do you like the MOST about Courses and why?	Explanation/Definition
1. Access to Content	When instructors can share learning content, recordings, and other resources with students with ease.
2. Intuitive	When the Courses LMS is easy to use and navigate with simple operations.
3. Access to Progress	When instructors can post grades, progress, and feedback for students.

*Table 2: Top Three Themes from Instructor Responses to “What do you like the LEAST...?”*

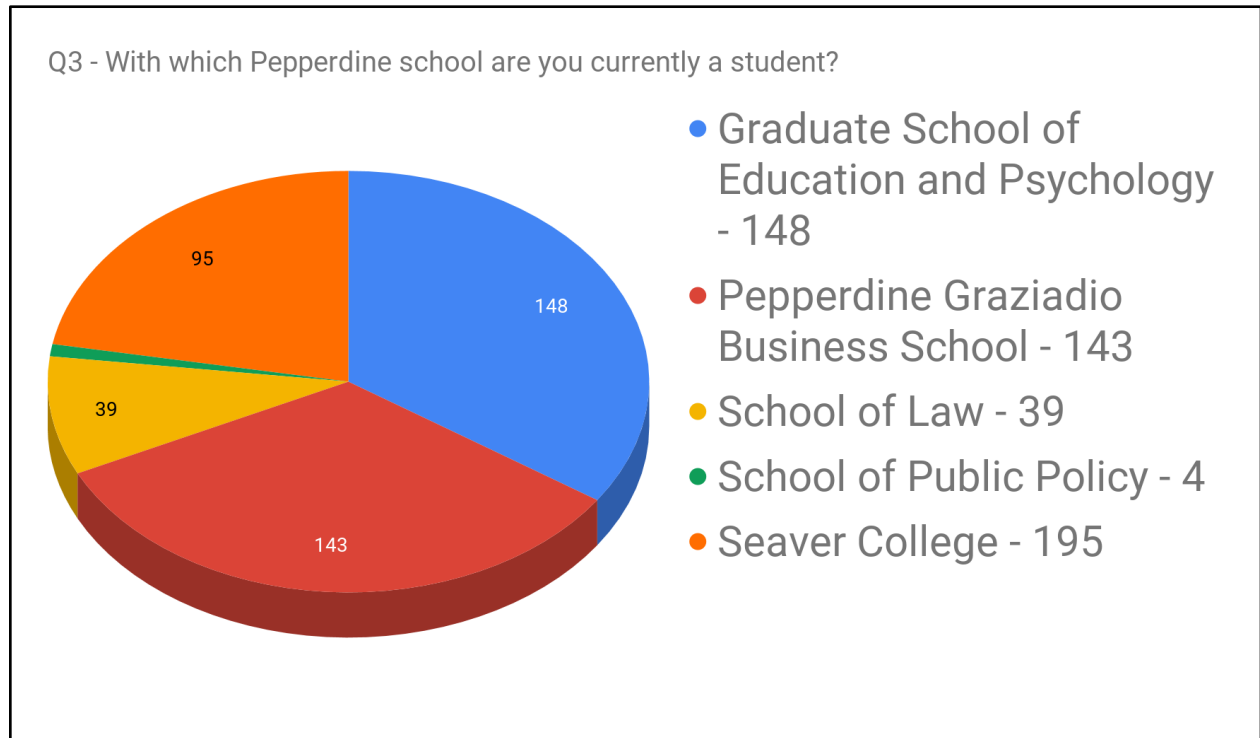
What do you like the LEAST about Courses and why?	Explanation/Definition
1. Not intuitive	When Courses was hard to use, complicated, not user friendly, or overwhelming.
2. Clunky	When Courses was too lengthy, cumbersome, and/or involved too many steps.
3. Missing Features	When Courses was missing tool plugins, integrations with other University tools, layout options, and other features.

## Student Responses

As discussed, surveys were sent to all students at the university. Of the approximately 8,800 student surveys that were delivered, four hundred and ninety-three student responses were collected. Approximately 15% of those who responded either did not submit or indicated that they did not use Courses at all.

It is once again important to qualify that not every submitted survey contained responses to all of the questions. Only fully-submitted responses and a few partial responses where meaningful data could be discerned were incorporated into the survey results.

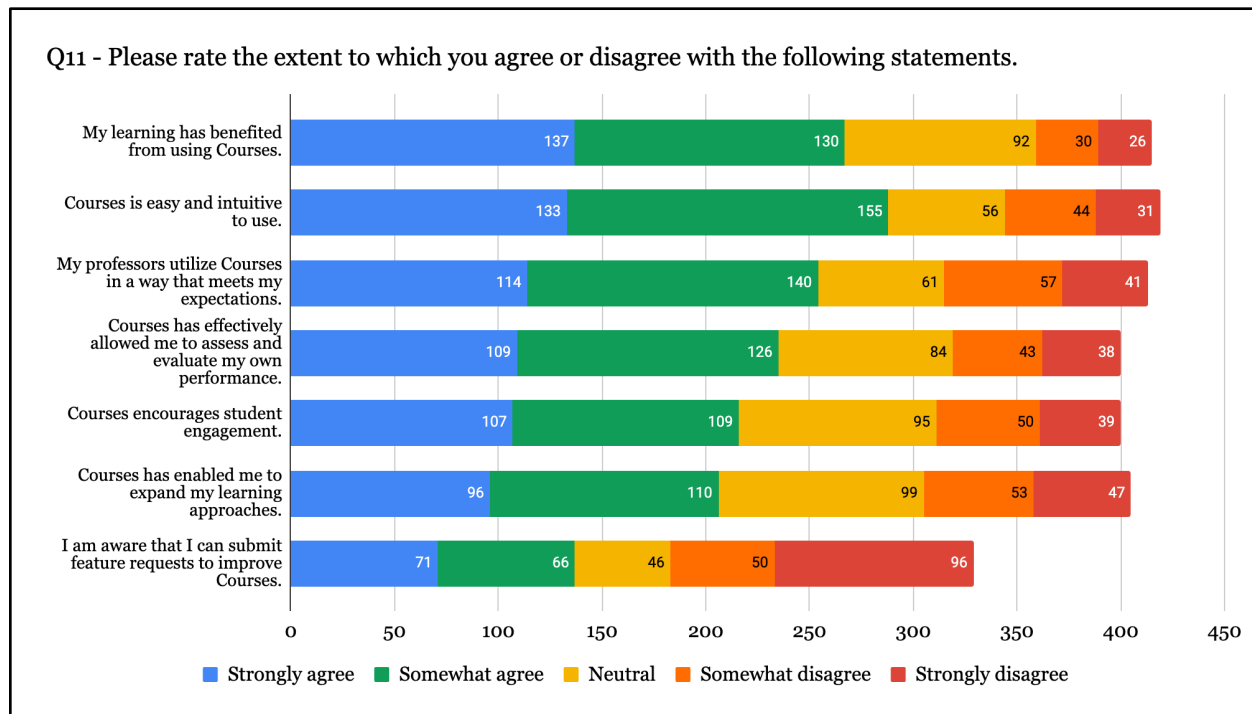
Figure 4: Student Survey Responses to Question 3 (Q3)



[Data Source for Figure 4](#)

We received an encouraging number of student responses, which appeared to be commensurate with the representation of student populations within each school. See Figure 4 above.

Figure 5: Student Survey Responses to Question 11 (Q11)



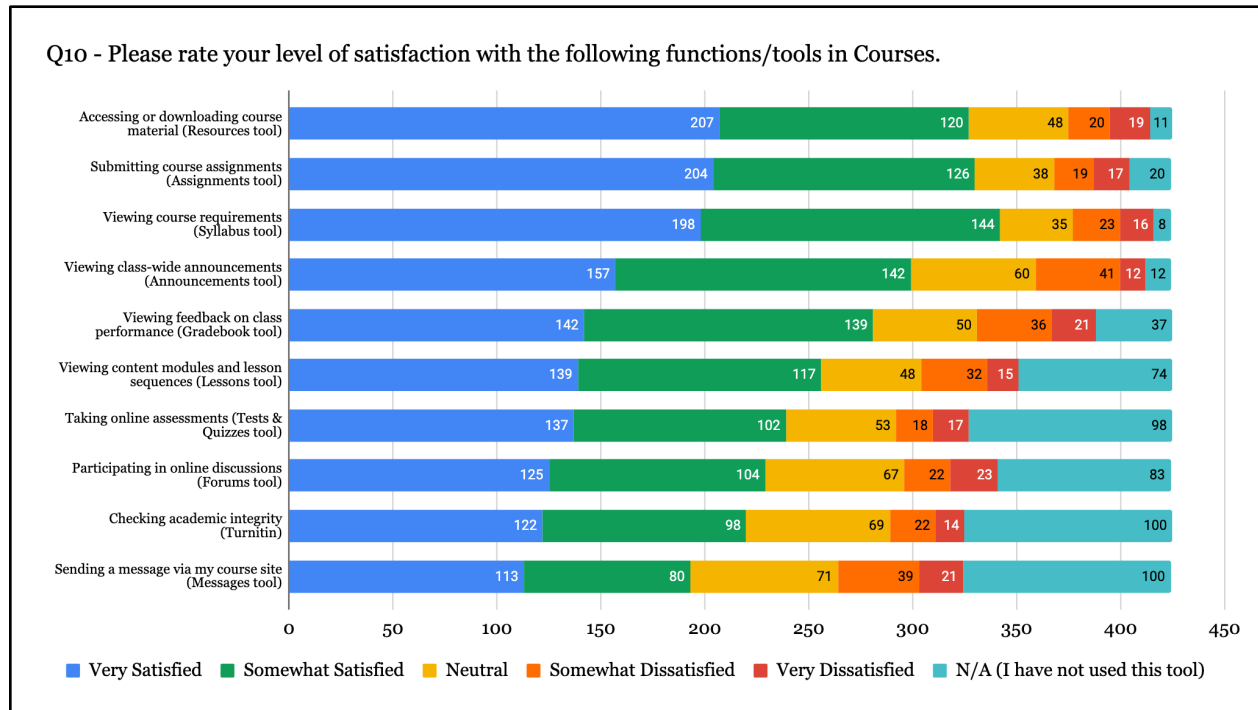
[Data Source for Figure 5](#)

When asked to rate the statement “My learning has benefited from using Courses,” nearly 64% of respondents to this question either strongly or somewhat agreed. Conversely, only 13.5% of respondents of this question either strongly or somewhat disagreed. See Figure 5 above.

When asked to rate the statement “Courses is easy and intuitive to use,” over 68% of respondents to this question either strongly or somewhat agreed, whereas just about 18% either strongly or somewhat disagreed.



Figure 6: Student Survey Responses to Question 10 (Q10)



[Data Source for Figure 6](#)

Based on Figure 6 above, students were similarly asked to rate their levels of satisfaction on a tool-by-tool basis. Just as with the faculty survey, satisfaction levels appear to be relatively high, though, once again, many responses indicated a lack of familiarity or use of a given tool.

When asked to rate the level of satisfaction with the Assignments tool, almost 78% of student respondents to this question either strongly or somewhat agreed. Conversely, about 8.5% of respondents to this question either strongly or somewhat disagreed.

Like the Assignments tool, the tools that appeared to elicit the highest amount of satisfaction were Resources, Announcements, and Messages.

While all tools appeared to evoke positive responses in general, it seems that the Lessons, Gradebook, and Syllabus tools have some room for growth and improvement.

Figure 7: Student Word Cloud of Adjectives Used to Describe Courses



### Data Source for Figure 7

## Additional Analysis

Just like the faculty survey, the student survey prompted students to use one adjective to describe their experience with Courses. These responses were also collected and placed within a word cloud. See Figure 7 above.

Several items stand out from the student word cloud. The words of highest frequency appear to be “Useful,” “Good,” “Easy,” “Helpful,” and “Okay.” Smaller words, including “Underutilized,” “Difficult,” and “Confusing,” prompt further questioning and analysis, for which the focus groups were intended.

Just as in the faculty survey, students were asked to describe what they liked the most and the least about Courses and to explain why. Once again, the responses varied considerably and so categories were organized to synthesize the general themes. In the figure below, the top three types of responses are listed in order. See Table 3 and Table 4 on the next page.

Table 3: Top Three Themes from Student Responses to “What do you like the MOST...?”

What do you like the MOST about Courses and why?	Explanation/Definition
1. Intuitive	When the Courses LMS is easy to use and navigate with simple operations.
2. Access to Content	When students can access shared learning content, recordings, and other resources with ease.
3. One-Stop Shop	When the Courses LMS provides resources all in one place.

Table 4: Top Three Themes from Student Responses to “What do you like the LEAST...?”

What do you like the LEAST about Courses and why?	Explanation/Definition
1. Lack of Instructor Utilization	When instructors did not use or regularly update the available tools in Courses.
2. Faculty-to-faculty Variation	When instructors were not consistent in using multiple learning platforms, or using tools in very different ways.
3. Not intuitive	When Courses was hard to use, complicated, not user friendly, or overwhelming.

## Focus Groups

To follow up on the results of the surveys and to further engage our community within the scope of the LMS study, the Technology & Learning team hosted focus groups for students and faculty. Sixty to ninety-minute focus group sessions were planned in 2019 and 2020. Even though not all planned focus groups were completed due to the COVID-19 outbreak, the feedback was consistent with the survey data.

## Student Feedback

In late 2019, a random sample of students was invited to participate in focus group discussions on Courses (Sakai). The Technology & Learning team offered eight focus group sessions, with three of those offerings concluding without discussion due to a lack of student attendance. While there was representation from all four graduate schools, no Seaver College students attended the multiple sessions facilitated on the Malibu or Calabasas campuses. A total of 13 individuals were involved in the student focus group discussions.

Student focus group feedback also consisted of some common themes. First, student participants mentioned that Courses (Sakai) was intuitive and valuable to the extent that faculty consistently and uniformly used the platform. While this feedback can be difficult to implement per se, it does nonetheless reflect a desire for a consistent and standard use of core tools by which students can locate information (i.e. grades, syllabi, learning content, etc.). In addition, focus group attendees communicated that additional student training opportunities would help them meet course expectations. Lastly, student participants also communicated a desire for the incorporation of other learning tools, such as Google Drive, to foster a more collaborative and integrative learning experience.

## Faculty Feedback

In early 2020, a random sample of faculty members was invited via email to participate in a focus group discussion about Courses (Sakai). While one focus group discussion was conducted in Malibu, the remaining five focus groups planned for the West LA campus, Calabasas campus, and online were canceled due to the COVID-19 crisis beginning in mid-March. In the Malibu focus group, five faculty members attended, representing Seaver College, the Graduate School of Education and Psychology (GSEP), and the School of Public Policy.

The feedback we received during this session consisted of specific themes regarding the needs for an LMS, including user-friendliness, feature requests, and instructor use. In some cases, it was expressed that Courses (Sakai) is clunky, though across the scope of the discussion it was also expressed that Courses contains many useful tools and features, even beyond what is typically used in the course of the “standard” class.

It was also vocalized that the use of Courses (Sakai) varied between different faculty members and caused frustration for students, which ironically, was also expressed by the students themselves as recorded in the student focus groups below. It created an environment in which students were unsure what to expect in terms of expectations from class to class.

Faculty expressed how they would feel about adopting a new LMS, saying that, though there is room for improvement on the current LMS, there would need to be significant improvements provided by an alternative LMS to justify moving to a different platform.

## Conclusion

This multi-year LMS study highlighted areas of success and improvement. Overall, there is a general consensus that Sakai is meeting the needs of both faculty and students. At the same time, both populations vocalized that there is room for continued growth and improvement with the platform or by integrating additional tools or services.

The impact of the COVID-19 crisis was also not immaterial to the decision to stay with Sakai. The prospect of moving to a new LMS would require not just a significant shift in administrative resources, but also require faculty and students to learn a new platform while coping with the new reality of remote instruction. Given the extraordinary global circumstances and the potential repercussions of a change in the current environment, the decision to stay with Sakai was clear.

Based on the results of this report, Pepperdine University will continue to use Sakai as its official LMS for another five years. In an effort to continually consider the changing needs of the Pepperdine community and the efficacy of the official LMS, the next LMS study will commence in 3-4 years.

The Technology & Learning team continues to provide group and one-on-one training on Courses/Sakai for University faculty as well as a comprehensive [Courses Faculty Guide](#) on our [TechLearn website](#). The [Courses Student Guide](#) is hosted on the [Pepperdine IT website](#) while being updated and maintained by Technology & Learning. To aid in the continued usage of Courses, Technology & Learning aims to expand the use of the WalkMe Digital Adoption platform (Pepperdine Help button in Courses) to provide onboarding and training options to Faculty and Students at any time by clicking the “Pepperdine Help” button and following the guided walkthroughs that appear live on the screen. More information about the many live faculty training opportunities can be found on the Technology & Learning website at <https://community.pepperdine.edu/techlearn/>.

Technology & Learning also regularly engages with TechLearn Faculty Steering Committee on updates and changes to Course. All faculty and academic support staff can also submit feature requests to Courses that are shared with the Sakai community for consideration in future versions of Sakai.

## Glossary

- Courses:** The brand name given to Pepperdine University's implementation of the Sakai learning management system.
- COVID-19:** The label associated with the coronavirus that emerged in late 2019. A global pandemic ensued impacting education, government, health systems, and commerce from late 2019 through 2020 and beyond.
- LMS:** A learning management system that is service or software with centralized tools for teaching and learning.
- Sakai:** A robust, open-source learning management system developed by and for higher educational institutions. First released in 2004, the platform has been adopted at hundreds of academic institutions across the globe and continues to evolve.

## Appendix A

Figure 1: Data Source

Question	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
My teaching has benefited from using Courses.	48	64	17	5	7
Courses has effectively allowed me to assess and evaluate student performance.	30	51	28	15	3
Courses is easy and intuitive to use.	28	58	20	28	7
I am fully aware of the variety of features and functions within Courses.	24	45	23	31	14
Courses has enabled me to expand my teaching approaches.	23	44	37	20	12
I am aware that I can submit feature requests to improve Courses.	20	16	18	28	33
Courses encourages student engagement.	15	33	52	24	7

**Figure 2: Data Source**

Question	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	N/A (I have not used this tool)
Sharing content (Resources tool)	69	43	16	5	1	7
Posting class-wide announcements (Announcements tool)	65	39	11	1	3	22
Sharing course requirements (Syllabus tool)	57	42	15	16	1	10
Sending a message to one or more students (Messages tool)	54	31	17	1	1	37
Managing course assignments (Assignments tool)	49	48	12	9	6	17
Providing feedback on student performance (Gradebook tool)	38	38	22	11	7	25
Monitoring student academic integrity (Turnitin)	25	31	18	6	6	55
Facilitating online discussions (Forums tool)	19	31	21	9	7	54
Creating content modules and sequences (Lessons tool)	18	19	19	8	8	69
Assessing student learning (Tests & Quizzes tool)	14	31	19	13	1	63
Measuring student engagement (Statistics tool)	10	22	27	10	3	69



**Figure 3: Data Source**

Term	Count
Helpful	10
Adequate	7
Satisfied	6
Fine	5
Okay	5
Useful	5
Positive	4
Satisfactory	4
Clunky	3
Easy	3
Efficient	3
Functional	3
Reliable	3
Tedious	3
Difficult	2
Effective	2
Frustrating	2
Good	2
Necessary	2
Neutral	2
Organized	2
Practical	2
Simple	2
Sufficient	2
Annoyed	1
Appreciative	1

Term	Count
Average	1
Benign	1
Boring	1
Challenging	1
Click-Intensive	1
Clumsy	1
Complicated	1
Comprehensive	1
Confusing	1
Consistent	1
Convenient	1
Cumbersome	1
Dated	1
Elementary	1
Engaging	1
Essential	1
Favorable	1
Fruitful	1
Great	1
Interactive	1
Invaluable	1
Learning	1
Limited	1
Limited-Effectiveness	1
Love/Hate	1

Term	Count
Mandatory	1
Medieval	1
Meh	1
Non-Intuitive	1
Normal	1
Operational	1
Pleasant	1
Pragmatic	1
Productive	1
Progressing	1
Remarkable	1
Resourceful	1
Robust	1
Serviceable	1
Straightforward	1
Time-Consuming	1
Time-Saving	1
Unattractive	1
Unfamiliar	1
User-Friendly	1
Valuable	1
Very Satisfied	1
Workable	1
Workhorse	1

**Figure 4: Data Source**

Q3 - With which Pepperdine school are you currently a student?	Count
Graduate School of Education and Psychology	148
Pepperdine Graziadio Business School	143
Seaver College	95
School of Law	39
School of Public Policy	4

**Figure 5: Data Source**

Question	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
<b>My learning has benefited from using Courses.</b>	137	130	92	30	26
<b>Courses is easy and intuitive to use.</b>	133	155	56	44	31
<b>My professors utilize Courses in a way that meets my expectations.</b>	114	140	61	57	41
<b>Courses has effectively allowed me to assess and evaluate my own performance.</b>	109	126	84	43	38
<b>Courses encourages student engagement.</b>	107	109	95	50	39
<b>Courses has enabled me to expand my learning approaches.</b>	96	110	99	53	47
<b>I am aware that I can submit feature requests to improve Courses.</b>	71	66	46	50	96

**Figure 6: Data Source**

Question	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied	N/A (I have not used this tool)
Accessing or downloading course material (Resources tool)	207	120	48	20	19	11
Submitting course assignments (Assignments tool)	204	126	38	19	17	20
Viewing course requirements (Syllabus tool)	198	144	35	23	16	8
Viewing class-wide announcements (Announcements tool)	157	142	60	41	12	12
Viewing feedback on class performance (Gradebook tool)	142	139	50	36	21	37
Viewing content modules and lesson sequences (Lessons tool)	139	117	48	32	15	74
Taking online assessments (Tests & Quizzes tool)	137	102	53	18	17	98
Participating in online discussions (Forums tool)	125	104	67	22	23	83
Checking academic integrity (Turnitin)	122	98	69	22	14	100
Sending a message via my course site (Messages tool)	113	80	71	39	21	100

**Figure 7: Data Source**

Term	Count	Term	Count	Term	Count
Good	22	Awesome	2	Excited	1
Useful	22	Basic	2	Exploratory	1
Easy	17	Buggy	2	Fabulous	1
Helpful	17	Challenging	2	Fair	1
Okay	13	Clunky	2	Fantastic	1
Fine	10	Content	2	Growth	1
Great	10	Disappointed	2	Hard	1
Average	9	Dynamic	2	Horrible	1
Convenient	8	Friendly	2	Indifference	1
Confusing	7	Inconsistent	2	Indifferent	1
Efficient	7	Innovative	2	Ineffective	1
Adequate	6	Insightful	2	Infrequent	1
Effective	6	Learning	2	Involved	1
Satisfied	6	Nice	2	Lame	1
Decent	5	Outdated	2	Learning-Curve	1
Informative	5	Pleasant	2	Less-Than-Ideal	1
Meh	5	Reliable	2	Lousy	1
Satisfactory	5	Solid	2	Manageable	1
Simple	5	User-Friendly	2	Mediocre	1
Beneficial	4	Active	1	Mid-Level	1
Difficult	4	Agreeable	1	Minimal	1
Frustrated	4	Amazing	1	Mixed	1
Frustrating	4	Appropriate	1	Necessity	1
Functional	4	Busy	1	New	1
Neutral	4	Clear	1	None	1
Organized	4	Clumsy	1	Non-Exemplary	1
Underutilized	4	Consuming	1	Normal	1
Accessible	3	Convenience	1	Not-User-Friendly	1
Boring	3	Crashes	1	Obsolete	1
Interesting	3	Crude	1	Old	1
Intuitive	3	Cumbersome	1	Organization	1
Limited	3	Delighted	1	Plain	1
Necessary	3	Digital	1	Poor	1
Positive	3	Disappointing	1	Practical	1
Simplistic	3	Engaged	1	Productive	1
Sufficient	3	Engaging	1	Reasonable	1
Wonderful	3	Enhancing	1	Resourceful	1
Acceptable	2	Evaluative	1	Rising	1
Alright	2	Eventful	1	Rudimentary	1
Ambivalent	2	Excellent	1		

Term	Count
Schedulable	1
Seamless	1
Slow	1
Smoggy	1
So-So	1
Sparse	1
Straight-Forward	1
Stress-Free	1
Substandard	1
Syllabus	1

Term	Count
Systematized	1
Tedious	1
Unappealing	1
Unaware	1
Underwhelming	1
Unfinished	1
Unimpressed	1
Unintuitive	1
Unity	1
Unopinionated	1

Term	Count
Unsatisfied	1
Updated	1
Useable	1
Useless	1
Utilitarian	1
Zero	1