MUS Learning Management Initiative

Spring 2022 Faculty Survey and Needs Analysis

EXECUTIVE SUMMARY

This report summarizes the findings of a faculty survey conducted in April 2022 by the Montana University System as it explores moving to a single digital learning management environment for its institutions.

The faculty survey is one component of a needs analysis process led by a multi-stakeholder steering committee, which also included gathering standardized data from campuses on Learning Management System (LMS) use and a request for information from LMS vendors.

724 faculty responded to the survey (a 21% response rate), which was designed to gather perceptions on the general satisfaction with different LMSs and their key tools and open responses to identify desired functionality of a new or improved LMS.

Common themes included:

- Improve key functionality, particularly the email, discussion, and video functionality of D2L and the gradebook and quiz functionality, course homepage organization and ability to integrate with 3rd party tools of Moodle.

- Prioritize improving the general user-friendliness and intuitiveness of any future LMS product, particularly for students.

- Concern regarding the process of migrating courses into a new system and the adequacy of training resources.

These findings will help guide the steering committee as it drafts a request for vendor proposals and will also inform any implementation of a new LMS.

Table of Contents

BACKGROUND

Currently, campuses of the Montana University System and Montana's community colleges license three different Learning Management System (LMS) products. In many cases, these tools have been in place for more than a decade, during which time pedagogies have evolved, use of learning management tools by faculty has grown, and the range of solutions available has expanded significantly.

In order to provide the full suite of modern LMS tools to each MUS student and faculty member and to encourage collaboration between MUS institutions, the Montana Board of Regents tasked Montana University System campuses with exploring a move to a single learning management system. A unified LMS should:

- Provide faculty and students a better tool for teaching and learning
- Lower licensing and support costs for institutions in the long term, and
- Create a more seamless environment for multi-campus academic collaborations and for the growing number of Montana students who participate in dual enrollment or transfer between our institutions.

A multi-stakeholder steering committee was formed in January 2022 to lead a rigorous needs analysis and request for information process. Feedback from this work will inform development of a Request for Proposals that will in turn drive further campus-level opportunities for review and input in Winter 2022 before selection of a final vendor.

This report focuses on only one component of the needs analysis: a survey of faculty LMS users completed in April 2022.

PURPOSE

The steering committee sought to collect faculty feedback about the LMS tools they were using. The survey instrument included both closed and open response questions to gather information regarding:

- The variety of LMSs used by MUS faculty
- General satisfaction with different LMSs and their key tools
- Open response questions to identify desired functionality of a new or improved LMS
- Open response questions to identify suggestions and concerns regarding a possible LMS transition

RECRUITMENT AND RESPONSE

Individual campuses led the distribution of surveys to their instructional faculty. Each campus was asked to distribute through all available channels but at minimum to send an initial email invitation and one reminder.

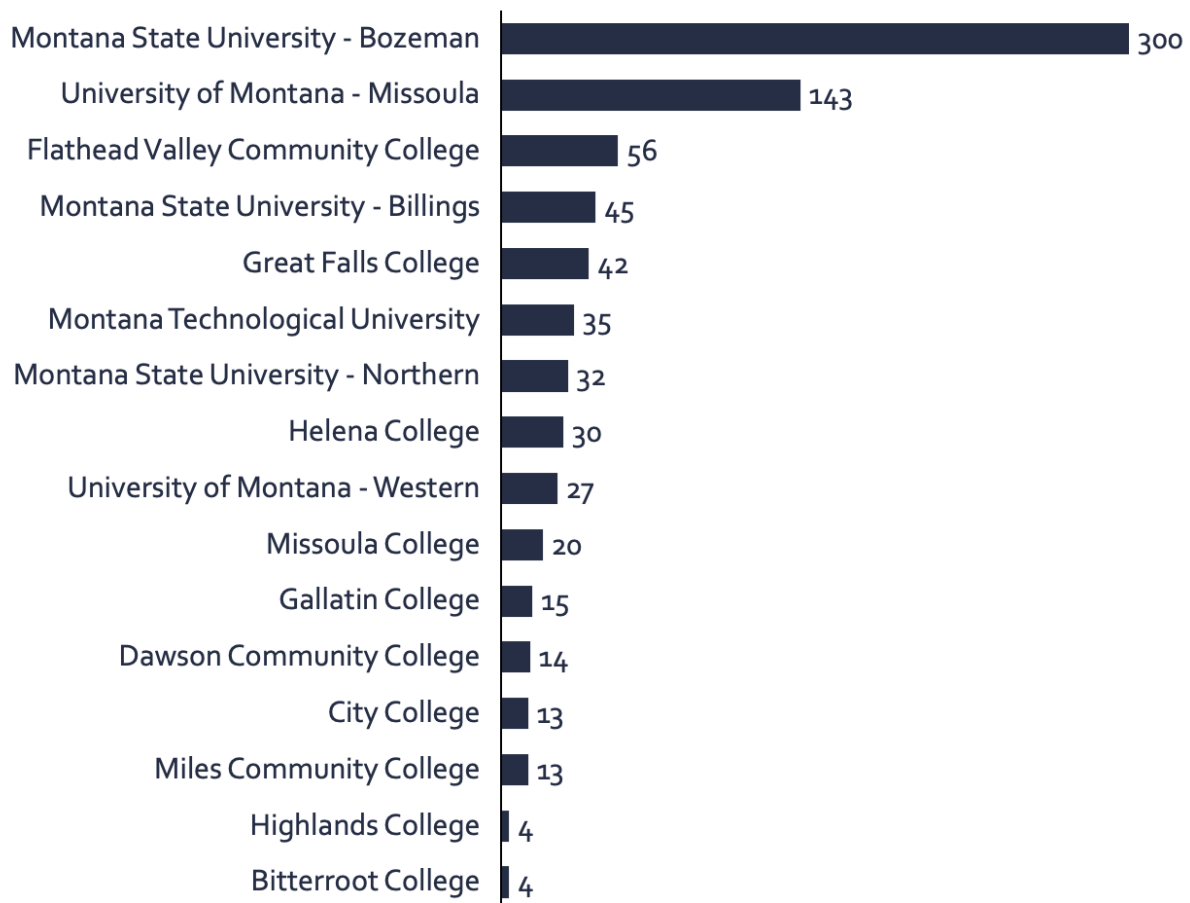Figure 1 displays the response distribution by campus. In total 774 faculty submitted a response.

Campus	Responses
Montana State University - Bozeman	300
University of Montana - Missoula	143
Flathead Valley Community College	56
Montana State University - Billings	45
Great Falls College	42
Montana Technological University	35
Montana State University - Northern	32
Helena College	30
University of Montana - Western	27
Missoula College	20
Gallatin College	15
Dawson Community College	14
City College	13
Miles Community College	13
Highlands College	4
Bitterroot College	4

Figure 1

Figure 2 displays the response rate for all campuses except community colleges. Due to a lack of complete data on faculty numbers, we could not develop response rate estimates for Flathead Valley Community College, Miles Community College, Dawson Community College, and Bitterroot College. Our overall response rate for institutions with complete faculty numbers data was 21%.
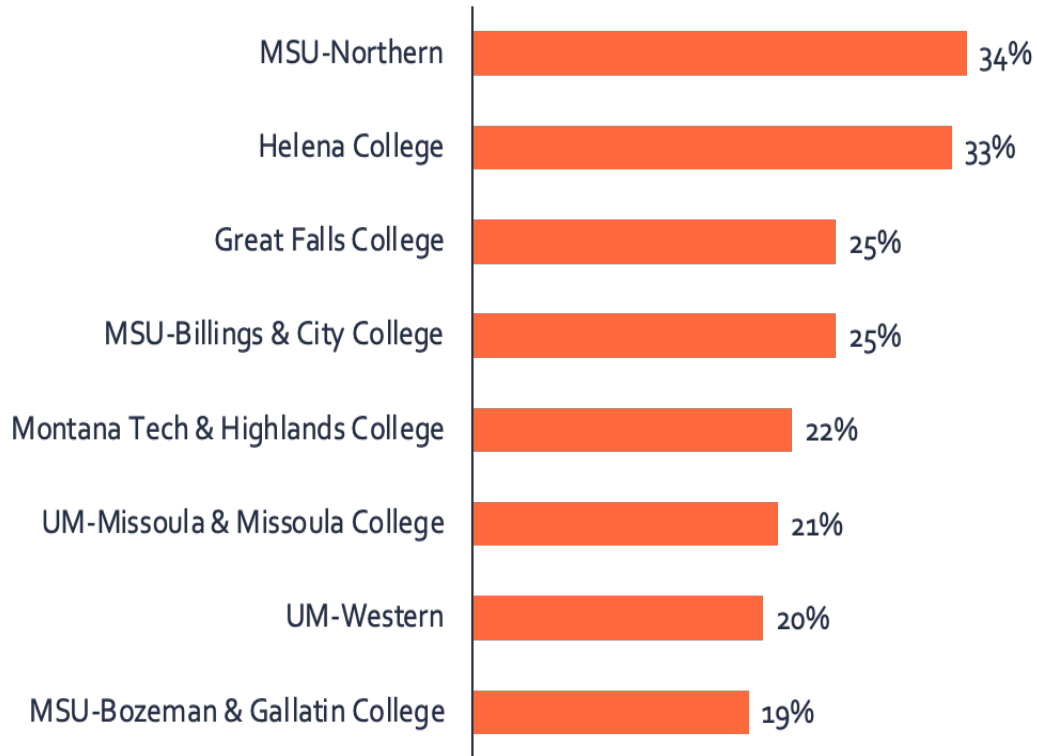
MSU-Northern — 34%
Helena College — 33%
Great Falls College — 25%
MSU-Billings & City College — 25%
Montana Tech & Highlands College — 22%
UM-Missoula & Missoula College — 21%
UM-Western — 20%
MSU-Bozeman & Gallatin College — 19%

Figure 2

ANALYSIS

The survey was analyzed using standard descriptive statistics and visualizations. Open text questions were also coded to identify common themes. Codes,emerging themes, and representative quotes were identified and independently cross-checked with assistance from members of the LMS Steering Committee.

RESULTS

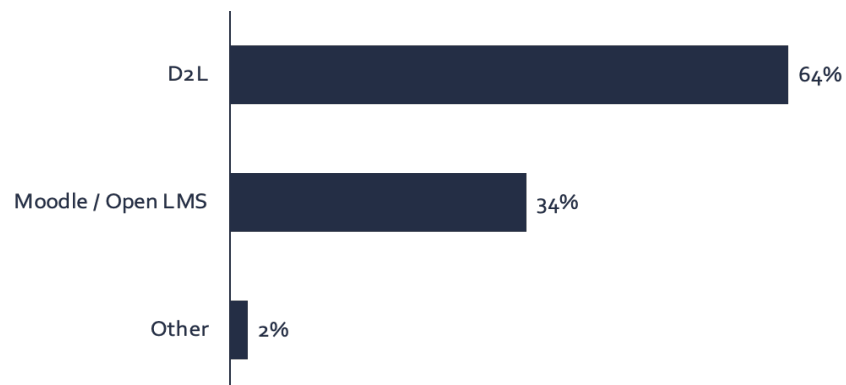This section is organized based on the order of questions in the survey.

Question #1

In which modalities have you taught? (Select all that apply)
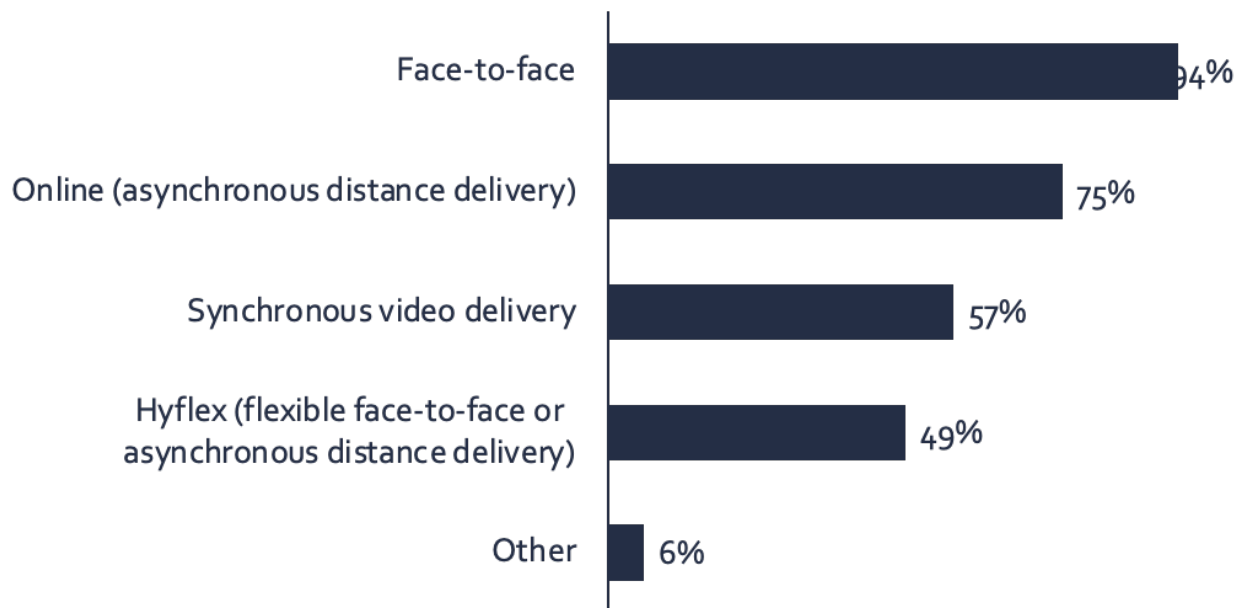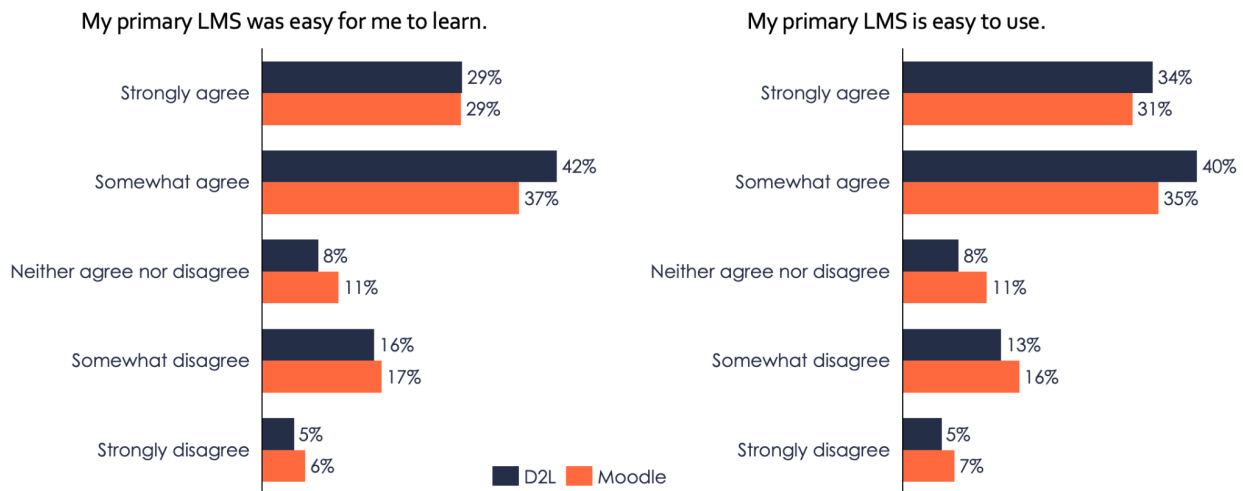

Question #2

Which LMS do you primarily use?

Questions #8 and #9
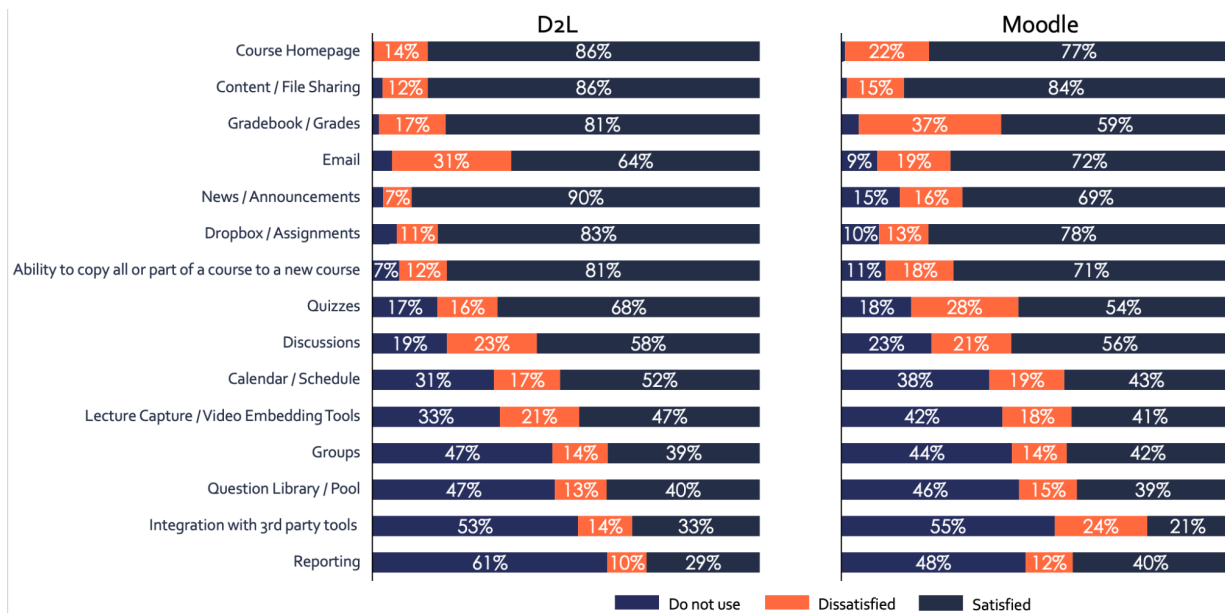
Do you agree with this statement:
- ● My primary LMS was easy for me to learn.
- ● My primary LMS is easy to use.

My primary LMS was easy for me to learn.

	D2L	Moodle
Strongly agree	29%	29%
Somewhat agree	42%	37%
Neither agree nor disagree	8%	11%
Somewhat disagree	16%	17%
Strongly disagree	5%	6%

My primary LMS is easy to use.

	D2L	Moodle
Strongly agree	34%	31%
Somewhat agree	40%	35%
Neither agree nor disagree	8%	11%
Somewhat disagree	13%	16%
Strongly disagree	5%	7%

Overall, 69% of respondents either strongly or somewhat agreed that their LMS was easy to learn, with 21% somewhat or strongly disagreeing. 71% agreed their LMS was easy to use, with 20% disagreeing.

Question #10

How satisfied are you with the functionality of the listed tool in your most used LMS?

	D2L			Moodle		
	Do not use	Dissatisfied	Satisfied	Do not use	Dissatisfied	Satisfied
Course Homepage	14%		86%	22%		77%
Content / File Sharing	12%		86%	15%		84%
Gradebook / Grades	17%		81%		37%	59%
Email		31%	64%	9%	19%	72%
News / Announcements	7%		90%	15%	16%	69%
Dropbox / Assignments	11%		83%	10%	13%	78%
Ability to copy all or part of a course to a new course	7%	12%	81%	11%	18%	71%
Quizzes	17%	16%	68%	18%	28%	54%
Discussions	19%	23%	58%	23%	21%	56%
Calendar / Schedule	31%	17%	52%	38%	19%	43%
Lecture Capture / Video Embedding Tools	33%	21%	47%	42%	18%	41%
Groups	47%	14%	39%	44%	14%	42%
Question Library / Pool	47%	13%	40%	46%	15%	39%
Integration with 3rd party tools	53%	14%	33%	55%	24%	21%
Reporting	61%	10%	29%	48%	12%	40%

Although a majority were satisfied with the tools available in the most commonly used LMS systems, substantial minorities expressed dissatisfaction with the email, discussion, and video functionality of D2L and with the gradebook and quiz functionality, course homepage organization and ability to integrate with 3rd party tools of Moodle.

Question #11

What do your students most struggle with when using your primary LMS?

553 participants provided a response to question 11. A given open text response may be coded into multiple themes.

- 27% reported general student complaints regarding the layout, organization and general user-friendliness of the LMS.

"They find it frustrating to find things and it's a very old system. It doesn't seem quite as old as DOS but it's almost as quaint."

"The layout is so antiquated they don't know how to approach using a course. The individual modules cannot be organized in a sensible way, so they struggle navigating the course."

- 20% reported that their students reported no substantial struggles when using the LMS.

"The desperate fear that we will switch to a different LMS while they are still in college."

"I use D2L every semester, and I do not know of any consistent problem relating to students managing the course via the LMS."

- 13% reported student challenges with the quiz and/or gradebook functionality

"Students often don't know their grade in a course due to pre-populated zeros in courses or because gradebooks haven't been properly set up."

"Their grades are never accurate because Moodle equally weights everything and I can never figure out how to get the weights to work."

"Students complain that they can't get into quizzes, or that quizzes aren't being handled correctly by the LMS."

- 10% reported that students struggled with the email and notifications functionality of the LMS.

"Students say they hate the email in D2L because it's clunky and if the students forward to their favorite gmail account, there's a significant time lag, sometimes later in the semester more than a day lag in replying to an email."

- 9% report that the main student struggle is inconsistent use and design of the LMS environment across faculty.

"From my observations, my students struggle with managing each instructors individual use of Brightspace. Each professor uses the LMS differently which causes frustrations for the students."

- 8% reported student issues uploading or storing certain file types (video, larger files, files with Mac extensions)

  "Students using Apple/mac devices sometimes struggle to save their files as a .pdf or .doc instead of in pages and the system can not open .pages files. Similar with photos that are .HEIC."

Question #12

What do YOU must struggle with when using your primary LMS?

617 participants provided a response to question 12. A given open text response may be coded into multiple themes.

- 37% indicated that the gradebook and quiz functionality was frustrating or lacking.

  "The platform itself is archaically slow and the interface is a mess, e.g. I cannot enter grades for more than 50 students at a time, when I save I have to scroll to the far left of the page, and then it performs two refreshes before I can move to the next section. There are some ways to bypass a few of the frustrations (e.g., importing grades from a spreadsheet), but the default shouldn't require a power user. "

  "Grading and quiz functions are clunky. There are a lot of little details that are not intuitive and I have to remember them all. When copying courses, adjusting the calendar is a mess. It is not easy to export grades directly into the grading system for the registrar at the end of semester."

  "It's super clunky. I spend way too much time getting grades to show up correctly, structuring quizzes (either adding or editing quizzes), entering attendance data, etc. It was a much larger part of my job than I anticipated, and due to my concerns I maintained a separate spreadsheet to track all student activity and grades, so that I could cross check the LMS and correct errors."

- 31% indicated that their LMS was not user-friendly or lacked a modern, attractive user interface.

  "It just feels clunky and not modern for what our students want."

"Figuring out how to do things. Again, there are too many ways to do the same thing and so I may set up a course using one method and another semester use a different tactic. I tend to have to take a lot of notes or go online for tutorials for functions that I use infrequently. Not very intuitive and often must go to multiple levels to find something"

- 13% reported no significant struggles or asked that the LMS not change.

  "It's actually not that bad...certainly not worth changing."

- 12% reported issues with the calendar, discussion board, or messaging functionality of the LMS.

  "Organizing discussions is difficult as is navigating them, and the email feature is dreadful."

  "I intensely dislike the schedule/calendar portion. I used it one semester and realized that if multiple courses were using it, it just looked like a mangled and disorganized mess to the student - it wasn't very useful for time management purposes."

- 4% indicated challenges integrating external tools, like publisher texts, etc.

  "It does not play well with other apps. It was such a problem that I simply stopped trying to link quiz grades from TechSmith and Perusall. When necessary, I hand-enter them into the D2L/Brightspace gradebook."

Other commonly indicated struggles include:
- Integration with lecture capture and other video tools
- Copying content course to course or semester to semester
- (Particularly in D2L) seeing how the LMS looks from the students' viewpoint
- Analytics on student participation and grade distributions
- Ease of use for non-credit, community, or professional development applications.

Question #13

What do you most want out of a new/improved Learning Management System? What tools and functionality would be most useful to you and your students?

590 participants provided a response to question 13. A given open text response may be coded into multiple themes.

- 32% indicated that they would prioritize improving the general user-friendliness and intuitiveness of the LMS.

  "I want a system that is INTUITIVE and user friendly for the faculty and student and NOT a system so cryptic that a course is needed just to learn how to use the LMS."

  "I think the tools exist in Brightspace, it is the user interface that is poor. Too many steps and clicks on student and faculty side."

- 24% requested improved quiz and gradebook functionality, including tighter integration between the LMS gradebook and the student information system.

  "Grading options - for all layers (quizzes, assignments, discussions, final work) need to permit flexibility (not everything needs to have points assigned but that doesn't mean it shouldn't be assessed). Students need to be able to easily view assessment feedback."

  "Direct connection between course gradebook and Banner grades: no more manually entering final course grades!"

- 16% indicated that they do not need any additional functionality and/or would prefer not to change.

  "To be honest, I'm very, very uneasy about a change in LMS at this moment. I've had some issues with Moodle through the years, for sure, but it's serving me quite well right now and I have a lot of intellectual/pedagogical material archived and redeployed within Moodle. It's getting extremely wearying to see the University change one platform or another with such unceasing regularity."

  "I don't really feel the need for a new learning management system as what we have is a modern, powerful tool that is constantly updating. I think it makes the most sense for faculty to learn how to maximize the one that we have (D2L) and apply best practices."

- 14% asked that the calendar, discussion board, and/or messaging tools be improved.

> "It would be nice if the "Discussion" functioned more like social media formats. The email posting back and forth just seems really bland and students never engage with it."

> "I'd like email that I can trust, quizzes that are easier to create, and a calendar for my students that's in a more obvious place."

- 13% requested that the LMS integrate well with external resources, such as common e-texts and grading software.

> "We regularly use Gradescope, and it's crucial that Gradescope and the LMS can communicate with each other (e.g., sync rosters, transfer grades)"

> "Integration with digital textbooks and grading systems is important."

Other commonly requested functionality included:
- A greater ability to customize course content and appearance
- The ability to manage video / lecture capture natively within the LMS platform
- Interactive polling
- Improved accessibility tools, such as automated captioning and accessibility checks
- Removing file size limits on assignment uploads
- Improved mobile functionality
- ePortfolio functionality

Question #14

We recognize that moving to a new LMS will be challenging and want to develop tools and supports to make the process easier. What are your main concerns about a possible LMS change? What supports would make the process easier for you?

608 participants provided a response to question14. A given open text response may be coded into multiple themes.

- 35% indicated that they would want help transferring content, including historical quiz and course materials.

> "My main concern is losing all the work in my current courses and/or not having it migrate smoothly. Making sure the migration process is supported, with clear instructions along the way will make the process much easier."

"Transferring course shells from one LMS to another. This is probably one of the major challenges for each school and transitioning to one LMS system."

" I hope you will provide us with tools to migrate content to the new LMS. This is particularly important for the quizzes I created. I shudder at the thought of having to recreate them from scratch in the new LMS."

- 29% indicated that they would want access to effective trainings and support staff.

"Longer session to walk us through the whole process is great, but short (5 min.) videos on each piece readily available for review when we are working on it, like grading, assignment creation, embedding library materials, etc. would be the most helpful."

"I thought the transition to online teaching during COVID worked. Thanks to IT and all the folks who made that happen. Frequent WebEx meetings that are recorded and that take the professor through different aspects of the new LMS is a good idea. Another option that would be useful is to have a LMS specialist review my online class to make sure I've set up things correctly."

- 25% indicated that the timeline for the change was their main concern, requesting that plenty of time be given for the transition and/or that faculty time be compensated for training and course uplift.

"During the migration process, it would be good to have for an extended period (maybe two semesters) both the old and the new LMS available. As I tweak the new LMS, it would be very helpful to check how I did things in the old LMS."

"I would have a lot of concern if MSU decided to transition to a new LMS mid-semester as it did with the transition from Box to One Drive/Sharepoint. Even transitioning between fall and spring semesters would be difficult. Please make the transition during the summer when we have more time to prepare for classes."

- 15% indicated that we should not change LMS.

"I do not want a new LMS. It's a waste of time to learn a new system for the same functionality. Changing LMS provides very little benefit to the faculty using the current LMS."

" I have spent countless hours and blood, sweat and tears into building my Moodle shells. If there wasn't a seamless integration (which I know does not exist), I'm not interested."

"The administration acts like there is no cost associated with switching the LMS. A change requires faculty hours, and faculty hours are among the most expensive hours of the university system. Multiply dozens of hours by a thousand faculty members and this becomes an exceedingly expensive proposition. Is the advantage of a "single" LMS really worth all the trouble? I do not think so."

- 9% indicated that they had no substantial concerns regarding the transition and/or felt that a change was warranted.

"I would embrace a new system. D2L is a rolling disaster."

"As long as it is a simpler system than Moodle, I don't have any concerns. I know training will be a large part of implementations, so that is not a concern."

Other common comments included:
- That the case and evidence for change has not been clearly communicated.
- That too many IT transitions (e.g. Box to OneDrive; TechSmith to Panopto) are happening at one time, causing fatigue for both faculty and staff.
- Concern regarding the bandwidth of IT and eLearning staff and requests that they receive substantial training on a new platform prior to any transition.
- Requests to develop standard templates for course content.
- Concern that the new LMS will lack important features they rely on.
- A request that, if a new system is implemented, the university system not change it for some time.
- Having access to historical course materials after a transition.
- Concern that a transition will lower faculty use/uptake of the LMS.

Question #15

When thinking about the ongoing review of LMSs and the possibility of moving to another LMS, is there anything else you think should be considered?

457 participants provided a response to question 15. A given open text response may be coded into multiple themes.

- 21% indicated that we should not change LMS.

"I think you will see a dramatic drop in use by faculty who teach primarily face-to-face and use the LMS as a course supplement."

"I do not want to spend the time to learn a new system at this point; the number of new approaches and systems that we have had to learn over the recent years has been exhausting and my teaching and research are suffering. Even with excellent technical support a change in this system will require considerable effort from instructors."

"Wow, I'm close to retirement, got a 0.00% raise last year, cost-of-living has just gone through the roof and now they are asking me to devote another 40 hours a week to just get my shells in working order (that were working just fine before). Hmm. Where was that recruiting email from Amazon... they allow remote work don't they…"

- 12% asked that the selection prioritize the student experience and general ease of use.

  "I would welcome a new LMS if functionality and ease of use are better."

  "Pick the most user friendly system even if it doesn't represent what the majority of instructors use right now. We are all smart capable adults and can adapt."

  "Please prioritize learner experience. Not administrator ease. Not faculty ease (and I'm faculty saying that!), but center the opportunities for students to access courses and have consistently good learning experiences."

- 11% commented on the time required to transition to and learn a new LMS, often questioning the cost/benefit of a change.

  "The system would need to be significantly better to justify the effort required to change. The benefit should be to students and faculty. It seems in the past, decisions have been made to change systems and the cost in faculty effort is not considered and not enough time is allowed for the change to be made"

  "Don't switch to a new LMS in another 3 years because you can save a few bucks. Recognize that this switch is costing staff and faculty numerous hours that could be spent pursuing another grant or creating an enriching activity for students."

"If you need to change, be sure to allow a lot of lead time for faculty to familiarize themselves with the new LMS."

- 9% emphasized the need for effective training and technical support

  "Don't rely on on-line tutorials alone. Make sure there are qualified/knowledgeable IT personnel that can respond quickly to technical problems and/or the need to take the instructors through a process, step by step."

- 8% requested that the MUS prioritize improving the LMS features and not simply select the lowest cost vendor.

  "I know cost is going to be an issue, but I think it should not be the primary issue. The issue should be how can we best meet the needs of our students. Making online courses more user friendly and engaging can help with student retention."

- 4% indicated that it would be valuable to have the same LMS across MUS campuses.

  "Having the MUS on a standardized LMS would enable students to easily take courses from different unit. It should also save costs, based on economies of scale."

Other common comments included:
- That the case and evidence for change has not been clearly communicated.
- Recommendations regarding which LMS to select. Of the alternate LMSs mentioned, Canvas was discussed the most positively.
- A request that, if a new LMS is implemented, the university system not change it for some time.
- Suggestions on how to seek feedback on or evaluate LMS vendors.

DISCUSSION

Findings from this survey will inform the Request for Proposals and any implementation of a new LMS.

Based on responses to questions 10, 12, and 13, review committees will pay particular attention to the user-friendliness and intuitiveness of the LMS environment and the performance of quiz and gradebook tools during their review of vendor proposals.

As noted in question 14, 34% of respondents expressed concerns regarding the migration of course content and 29% requested access to effective trainings and support staff. The steering committee and campus implementation teams should prioritize evaluation of vendors migration and training capabilities and investigate other appropriate migration support resources.

ACKNOWLEDGMENTS

We would like to thank the following people for their assistance developing, testing, and distributing the faculty survey and developing this report: Steve Swinford, Zachary Rossmiller, and Chris Fastnow.