

Canvas Spring 2014 Pilot Final Evaluation Report

July 2014

Academic Technology Services

Program Evaluation

Canvas Spring 2014 Pilot Final Evaluation Report

Executive Summary: Report Summary and Highlights

Introduction

The focus of this report is on the Spring 2014 Canvas pilot, which is related to one aspect of the full TLT agenda: migrating to Canvas as a common teaching platform. Results from our data and that from other universities indicate that Canvas is a strong and flexible platform for teaching and learning. Given Canvas' general strengths, this evaluation is intended to help TLT launch and support the most stable and appreciated Canvas product possible, in support of teaching and learning.

The report at this stage has two goals: (1) Document the migration progress and results as of the Spring 2014 Pilot; (2) Provide useful guidance to staff towards making the transition to Canvas as smooth as possible, with appropriate expectations for teachers and students.

Evaluation methods included and reported on:

- (1) Collection of analytics and summary of program activities
- (2) UserVoice placed on Canvas pages
- (3) Two surveys of students, teachers and instructional support staff

Summary Conclusions

Overall, the findings suggest the following conclusions:

- With a strong pilot test, our findings are consistent with experience elsewhere, indicating that with appropriate preparation, teachers and students appreciate the platform's strengths and functionality.
- Our survey measures regarding responses to the teaching and learning experience as supported by Canvas are similarly positive.
- Given the learning curve and transition needs, issues regarding learning to use Canvas and satisfaction can be addressed with focused support, further introduction to features, and encouragement to explore Canvas' potential for transforming teaching and learning.

Action Steps/Recommendations

The following are recommended action steps for key and/or front-line support staff:

- (1) Examine the open-ended negative comments closely and as a group, to identify top priorities for additional support and develop ideas on what support tools to use to address these issues.
- (2) Draw on the Satisfaction-Importance grids to identify training and use issues for teachers and students and areas for technical improvements. The four areas noted in the report suggest:
 - a. Addressing the three "most" important functions may yield important gains for overall satisfaction: providing assignments, posting readings, managing announcements.
 - b. Additional attention to the student's online class discussion experience may be helpful.
 - c. Faculty, particularly those with smaller classes, may need support to post course readings more often, with potentially significant gains for student satisfaction.
 - d. Canvas use may reach more of its potential if the support area targets low-use functions to encourage and report on successful use, keeping in mind satisfaction results for each function.
- (3) Re-develop the iSites-Canvas comparison table, given new information on faculty transition needs.
- (4) Support and encourage course faculty in providing students with an early-term in-class demo of how Canvas will be used in the course.
- (5) In next steps for support and research, consider how Canvas can be integrated into teaching and learning in different course types and situations, as well as variation in faculty approaches and goals.

Summary of Detailed Findings

A. Pilot scope and outcomes

- (1) The pilot was a strong “test” of the system based on diverse activities.
 - a. Involved 9 of 11 schools, 47 courses, 284 teaching staff and 2,920 students
 - b. Posted 1,006 assignments, 1,273 discussion topics, 2,642 files and 165 media recordings
- (2) Support transitioned to a more stable Canvas experience over the semester.
 - a. Drop-off in help requests and UserVoice activity from mid-term to end-term, both of which did identify issues to address early in the term.
 - b. Four LTI tools were successfully built and integrated into Canvas supporting reserve reading, lecture video display, Skype group chat and student locations.

B. Canvas and the teaching and learning process

- (1) Ratings of the platform as a whole are moderately high at this stage, with the learning curve accounting for some mixed responses.
 - a. Around half or more in both groups rated “Functionality” and “Visual Look and Feel” highly.
 - b. Around 40 to 50% of students and 20 to 30% of teachers were comfortable using the platform (ratings 4-5 of site navigation, ease of use, overall experience).
- (2) An examination of satisfaction in relation to perceived importance and use of specific functions at this point can inform future support.
 - a. Most Canvas functions fall in the “high satisfaction” category for both students and teachers, with some variation between the two groups.
 - b. Teachers and students generally agree on the “high-importance” functions, with 5 of 6 being the same functions in the two analysis-grids.
 - c. The three functions considered most important, and which are also used the most, show high satisfaction ratings; they do, however, show unusually large satisfaction “gaps” due to their high value and use, which suggests they need continued attention.
 - d. Functions seen as less important are generally used less often. With some differences between the two groups, about half of these functions show less satisfaction, suggesting that some low-use functions are more successfully implemented than others.
 - e. A few other satisfaction-importance results stand out:
 - i. The **class discussion** function is high in importance to students and teachers and is widely used, but it is lower in satisfaction for students.
 - ii. While teachers cite the grading function positively in open-ended comments, they appear less satisfied with the **quiz** process, particularly given its importance.
 - iii. As noted above, satisfaction with the three functions rated as the most important appears to fall short of their importance (see satisfaction-importance gap); these include: **course assignments, course readings and announcements**.
 - iv. Providing **course readings** is often rated important, and is among the top three in importance, yet a majority of teachers were not using the function at this stage (40% non-use). (Teachers with larger classes are likely using it more, since students show only 20% non-use)

- (3) Students and faculty see value in the platform, indicated by high rates of agreement with statements about Canvas support for course logistics.
- a. A large majority of students agreed that the platform worked well in several communication areas: providing assignment grades, supporting class-wide communication, and providing feedback to students. A smaller majority gave high ratings to one-on-one communication.
 - b. Around two-thirds of the students agreed that the platform supported student engagement and enhanced opportunities for learning in general.
 - c. The results for teachers were similar, with slightly lower percentages agreeing.
 - d. A large majority of students also indicated that the platform was successfully used in their course to support participation through tools such as sending information via announcements and email, providing course readings, creating interactivity, using the course calendar with materials, and including live links and lecture videos.

C. Platform experience and interest/need for support:

- (1) A majority of both groups agreed that with an introduction the platform works well for students.
- (2) About half of the students and about three-fourths of the faculty found the interface confusing at first, with different needs for support. In both groups, smaller proportions found it remained confusing.
- a. Overall, teachers feel they have support and technical resources to draw on more often than students; at the same time, other responses suggest they do not find that these resources have been sufficient to prepare them to date or are unsure about whether they need more support.
 - b. Students feel more confident in using the platform and fewer feel the need for more support; however results indicate students have a specific need for in-class demonstrations to get introduced to the platform.
- (3) Teachers and students note many positive aspects to Canvas as a platform.
- General positive comments about the platform:
 - Students: clear, easy to use, integrated and organized, with a nice look and feel.
 - Faculty: integrated, attractive, feature-rich, interactive, and fast.
 - Specific features identified in positive comments:
 - Students: the grading system, document access and organization, discussion and/or chat, videos and slides, and calendars/reminders.
 - Faculty: grading tool, communication tools such as discussion and announcements; also conferencing, modules, quizzes, and the calendar.
- (4) In response to a separate question, respondents cited negative experiences. Many of these can be viewed as transitional and “incidental” at this stage, while also identifying some platform functions used. They will be examined more closely for improving support and setting expectations.

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Introduction

This report summarizes activity and survey results to date for the Spring 2014 Canvas Pilot. The spring pilot is one part of the larger Teaching and Learning Technologies (TLT) program in HUIT, which has several goals related to creating, supporting and benefiting from migrating to and developing a new online teaching and learning platform. Among TLT's goals is retiring the homegrown iSites platform in order to move to Canvas. The research described here therefore addresses one small component of the full TLT program: piloting of Canvas as part of the course migration plan.

The goal of the data collection and report is to provide feedback to program staff of TLT and the Canvas pilot so as to guide decision-making and inform future action. The results of this data collection project will also be presented alongside findings from parallel research conducted at other universities, which add information and confirm our findings.

Report Goal

Canvas is a robust product that well supports current teaching and learning and offers advanced technical-pedagogical opportunities. The TLT program as well as the Harvard schools working with it have made a commitment to move to Canvas following a decision-making process based on assessment of the community's needs and of the technical opportunities available (see Fall report: http://tlt.harvard.edu/files/tlt/files/fall_2013_canvas_pilot_results_-_final_report.pdf) The results of the evaluation research conducted on the previous fall pilot and now the spring pilot (described in this report), as well as results from other schools, support the decision to move to Canvas and demonstrate how it will support teaching and learning now and as it develops in the future.

Given Canvas' strengths and the commitment to develop it through TLT, what remains to be resolved are details of platform understanding and technical reliability, from the perspective of teachers and students. Given this background and confidence in the platform, the question to address through the spring pilot and its evaluation is how can we:

- Make the transition as smooth as possible,
- Set appropriate expectations around the transition, and
- Provide the best support and most stable and appreciated product possible?

Methods and Report Outline (Tables 1a-b)

The pilot evaluation plan began with relevant staff and the program evaluator jointly creating a logic model that identified participants, key activities, outputs, and outcomes for the spring term pilot. The research plan was then based on this developed description of the pilot as a mini-program, including survey measures as indicators as well as outputs to be tracked.

The three main elements of the evaluation plan were:

- 1) Operational analytics that describe pilot scope and scale;
- 2) Adding a UserVoice widget to the Canvas pages to gain ongoing feedback
- 3) Surveys at two points of three groups involved in the pilot: teaching staff, students, and instructional support staff within AcTS, iCommons, and schools.

The first section of this report reviews the metrics and analytics to describe the amount of program activity in different areas. Sources for the analytics section include:

- Review of ServiceNow tickets
- Review of UserVoice comments
- Canvas analytics on course activity
- Internal records and activity tracking

The second section of the report summarizes findings from the end-term surveys of faculty and students involved directly in pilot courses as well as relevant early-term results, where a comparison is appropriate. The two surveys had different objectives and were also linked in their content:

- The early-term surveys included background questions, questions relevant to semester start-up with a new platform, and a question to gauge what was “important” to the user regarding the course platform.
- The end-term surveys included additional background questions and questions regarding satisfaction and experience with the Canvas platform, including both the pedagogical and technical experience. The “satisfaction” items paralleled the earlier “importance” items.

Table 1a and Table 1b summarize the methods used to distribute surveys and response rates.

Notes for both tables:

- *Number Responded excludes those who did not answer any substantive questions.*
- *Sources: Canvas analytics (Contacted), Qualtrics (Viewed), data review of responses (Responded).*
- *At early-term survey, additional support staff in DCE also received the survey.*

Table 1a. Response Rates and Methods by Survey Group: Early-Term Survey

Survey Group	Number Contacted	Number Viewed Survey	Number Responded	Response Rate	Contact Method - by Email (January-April staggered)
Students	2824	729	690	24%	TLT to Students; 1 reminder
Teaching Staff (All Levels)	261	28	27	10%	TLT via Instructional Support to Faculty; some reminders
Instructional Support Staff	28	25	24	86%	TLT to Instructional Support; 2 reminders

Note: For each survey, 95-96% of those who viewed the survey responded substantively.

Table 1b. Response Rates and Methods by Survey Group: End-Term Survey

Survey Group	Number Contacted	Number Viewed Survey	Number Responded	Response Rate	Contact Method - by Email (5/6/14-5/16/14)
Students	2927	741	607	20%	Canvas email; 2 reminders
Teaching Staff (All Levels)	298	60	52	17%	Canvas email; 2 reminders
Instructional Support Staff	17	8	8	47%	Email from TLT; 2 reminders

Note: All support staff and 82-87% of students and teachers who viewed the survey responded substantively.

Prior Research

Two studies conducted around similar migration plans found results that are consistent with and add to the findings to be reported below. Reviewing these findings will help identify and proactively address hurdles, to move out of the “comparison to iSites” stage and into working fully with Canvas.

Indiana University conducted a pilot study, dividing courses into tests of three alternative platforms to their current platform, Oncourse: Canvas, Blackboard and Desire2Learn. The results indicate the following. (see: <http://next.iu.edu/reports/index.php>)

- Most teachers who used Canvas preferred it to the prior platform and with much higher rates than among those who piloted the other platforms.
- Student responses were not as enthusiastic in general and did not indicate a clear preference for Canvas at this pilot.
- Even with less enthusiasm for the experience, student responses clearly indicate much higher percentages for Canvas than for the other platforms indicating the platform supported them in specific learning and course participation tasks. These included:
 - Learning course content
 - Completing course assignments
 - Using time efficiently
 - Being in control of the learning
 - Communicating with the professor
 - Access to materials
 - Overall benefit to learning
- Students likes and dislikes:
 - Most liked: interface appearance; aspects of grading and tracking grades; viewing modules, assignments, due dates
 - Least liked: navigation across features; aspects of the Discussion tool; confusing and repetitive messages; using more than one platform across courses
- Faculty likes and dislikes:
 - Most liked: intuitive design; grading; modifying content; mobile and social network access; integrated design; to-do lists
 - Least liked: Inbox/Conversations tool; difficulty transferring from prior platform; technical problems with online discussions

Northwestern University also conducted pilot research on Canvas, towards a similar goal of transitioning from a previous platform (Blackboard) to Canvas, having ruled out several other platforms, and in order to support educational practices and encourage innovation. The majority of faculty in their pilot supported the switch, with the following results. (see: http://www.it.northwestern.edu/bin/docs/The-Canvas-Recommendation-Report_4-10-2014.pdf)

- The majority of faculty members involved in the pilot favored the switch from Blackboard.
- Students most appreciated: free mobile apps; clean design.

- Faculty most appreciated: adaptable, user-friendly design, that enhanced the capacity to focus on and innovate in teaching, with perceived positive effects on student learning.
- Faculty learning – among the pilot faculty:
 - About half reported that it took two hours or less to learn Canvas.
 - About half reported that it took five hours or less to create a course.
- Student learning – among the pilot students:
 - The vast majority took 30 minutes or less to learn the system.
 - The clear favorite for how to learn the system was through in-class demonstration.
 - The report concluded that students did not otherwise need extensive training.
- Detailed comments on what faculty liked most and least about Canvas may be of interest and can be found in the original report.

Pilot Scope and Outcomes

The process tracking and system metrics summarize the amount of activity for the program in terms of outputs to date. Metrics for the end of the term are based on analytics as of 6/11/14.

Outreach and Participation

Participation (Spring and Full Year 2014 courses)

- 47 courses
- 284 teaching staff members (unique)
- 2,820 students (unique)
- 35 instructional support staff (includes additional staff within DCE)

Pilot-related Group Meetings and Communications

- Community Meeting and Spring Pilot Workshop (1/17/14)
- Communication around early-term surveys (1/29/14-2/24/14)
- Coffee and Canvas (4/7/14)
- 19 sessions of Canvas Office Hours (2/01/14 - 5/27/14)
- Ongoing: communicating platform updates to instructional support staff and wiki

Canvas Pilot Use, Support and Integrations (Table 2)

Table 2. Course Activity Analytics

Activity Type	Mid-Term (3/27/14)	End-Term (6/11/14)
Assignments	587	1,006
Discussion Topics	842	1,273
Files Uploaded	1,884	2,642
Media Recordings	60	165

Canvas Support: ServiceNow Tickets and UserVoice Activity (Table 3)

Comparison of mid- to end-term figures suggest a significant drop-off in help requests.

- 298 tickets contained the word “Canvas” in the iCommons queue (132 at mid-term)
- 125 help requests submitted to ServiceNow through Canvas Help link (82 at mid-term)

Like ServiceNow tickets, UserVoice activity appears to have slowed after the mid-term also.

Table 3. UserVoice Activity

UserVoice Measure	Mid-Term (3/27/14)	End-Term (Date)
Total number of comments posted	51	63
Student comments	20	28
Faculty staff comments	12	14
Other teaching staff comments	9	10
Instructional support staff comments	3	3
Unknown role	7	10
Number of users who voted	45	58
Number of comments “voted up”	25	44

At the mid-term, the comments and staff responses were analyzed for content. As noted in the previous report, many comments at mid-term received from 4 to 7 votes from others; two comments received 10 and 14 votes each, raising attention to two course-specific issues (quiz function for a Calculus course and LaTeX editor).

Below is a summary of all UserVoice comments and staff responses at around mid-term.

- UserVoice comments included:
 - Valid bug reported: 3
 - General commentary: 18
 - Enthusiasm: 1
 - Frustration with navigation: 4
 - Frustration with equation editor functions (quiz, assignments): 5
 - Comments on course content, not related to the technology: 5
 - General: 3
- Responses provided by iCommons staff included:
 - Link to Canvas Feature Forums: 15
 - Training prompt (link to guides, instructions, local support help): 13
 - Planning of custom enhancement: 2

Tools Integrated into Canvas

The tools built for integration into Canvas at this stage extended the platform's functionality by supporting reserve readings, lecture videos, chat, and an app that shows student geographic location specifically for online courses. These LTI tools¹ are listed below:

- Reserve reading lists built by iCommons/TLT staff
- Lecture video display built by iCommons/TLT staff
- Skype group chat link built by iCommons/TLT staff
- Student locations built by DCE teaching staff/TLT staff

Canvas Pilot Assessment Activity

Survey Administration

- Early-Term and End-Term surveys
- Overall response rates and survey methods are shown in the section above.
- Of all instructional support staff both centrally and across the schools involved, 17 received the end-term survey and all 35 received the early-term survey.

Reporting

- Completed end-term Fall report on Canvas Pilot
- Completed Mid-Term Progress Report on results and usage to date
- Current End-Term Report on survey results and final spring pilot usage

Note: A separate report will include findings for instructional support staff. Full early-term results are available at: http://tlt.harvard.edu/files/tlt/files/spring_2014_mid-term_evaluation_full_report.pdf)

Additional Summary of Spring Pilot Participation by School (Tables 4a-e)

The following tables provide participation, course activity and survey responses by school.

Table 4a. Pilot Participation by School at End-Term (Counts)

School	Courses	Students	Teaching Staff	Instructional Support
FAS	24	1735	185	6
DCE	11	909	59	21
GSD	1	9	2	1
HDS	7	84	13	2
HKS	1	53	6	2
HSPH	3	137	33	3
Total	47	2927	298	35

Source: Canvas analytics at school's top-level subaccount for term; totals calculated as sum of rows.

¹ Learning Tools Interoperability

Table 4b. Course Activity by School at End-Term (Counts)

School	Assignments	Discussion Topics	Files Uploaded	Media Recordings
FAS	497	380	1661	65
DCE	225	869	898	10
GSD	6	12	41	1
HDS	116	77	79	0
HKS	21	38	87	0
HSPH	33	31	231	0
Total	898	1407	2997	76

Source: Canvas analytics at school's top-level subaccount for term; totals calculated as sum of rows.

Table 4c. Survey Response Rates by Course-School: Early-Term Survey

School	Number of Survey Responses		Response Rates	
	Students	Teaching Staff	Students	Teaching Staff
FAS	327	18	19%	10%
DCE	310	6	36%	12%
GSD	3	0	30%	0%
HDS	12	4	14%	33%
HKS	16	1	30%	25%
HSPH	32	2	41%	25%
Total	700	31	25%	12%

Table 4d. Survey Response Rates by Course-School: End-Term Surveys

School	Number of Survey Responses		Response Rates	
	Students	Teaching Staff	Students	Teaching Staff
FAS	292	36	17%	19%
DCE	345	20	38%	34%
GSD	4	0	44%	0%
HDS	24	4	29%	31%
HKS	0	0	0%	0%
HSPH	73	2	53%	6%
Total	780	63	27%	21%

Note: Totals for students and teaching staff do not equal the total number of individual responses; individuals may be connected with more than one course across schools. Missing data also results in estimates, including 42 students who did not identify a course among those listed. One teaching staff respondent indicated "SEAS."

Table 4e. Representativeness by Course-School: End-Term Surveys

School	Percent of Survey Responses		Response Rates	
	Students	Teaching Staff	Students	Teaching Staff
FAS	59%	62%	37%	57%
DCE	31%	20%	44%	32%
GSD	0%	1%	1%	0%
HDS	3%	4%	3%	6%
HKS	2%	2%	0%	0%
HSPH	5%	11%	9%	3%
Total	100%	100%	100%	100%

Note: Green indicates over-representation; Blue indicates under-representation.

- High participation by DCE combined with a high response rate lead to high proportion of DCE users among respondents (44% of students, 32% of faculty).
- With high participation and average response rates, FAS also makes up a significant proportion of the respondent group (37% students, 57% faculty).
- HSPH makes up a smaller proportion of the participants, but students responded at a high rate, resulting in a higher proportion of the respondent group (9% students).

Pilot Feedback: Detailed Spring Survey Results

Introduction

The early-term survey was designed to gauge interest in platform features and anticipated support concerns. The end-term survey was designed to gain feedback following a semester of experience. The following summary is based on the end-term results, integrating in early-term results as relevant.

Note regarding comparisons between the two surveys: the respondent groups for the surveys do not include the same individuals; respondents cannot be matched, and response rates are not 100%. Therefore comparisons for the results are not based on individual change and 1:1 matching, but on overall group figures, with resulting limitations in interpretation. The two groups are likely similarly representative of those who have the greatest interest in Canvas.

Background of Respondents (Tables 5-7)

Students

The following describes the student respondents' level and course participation:

- Extension students: around one-third for both surveys (30% mid-term vs. 35% end-term)
- Freshman proportion decreased in proportion (30% vs. 20%); upper-class undergraduate students also decreased (20% vs. 15%)
- Graduate/professional students: somewhat higher proportion at end-term (20% vs. 29%).
- Overall, at end-term over half were on-campus only students and almost 30 percent were distance-only; another one-fifth were studying both on-campus and as distance students.

Table 5. Year in School: Students (Count, Percent)

Q: What is your year in school?	Count	Percent
Freshman	112	20%
Sophomore	34	6%
Junior	30	5%
Senior	24	4%
Graduate or professional student only	161	29%
Extension/Continuing Education student only	191	35%
Other (1 TA, 2 BTI)	5	1%
Total	559	100%

Table 6. Type of Enrollment: Students (Count, Percent)

Q: How are you enrolled in the course checked at the beginning of this survey?	Count	Percent
On campus only	287	52%
Distance education only	163	29%
A combination of on campus and distance	106	19%
Total	556	100%

Teachers

The following describes the level of the pilot-participating teaching staff members who responded.

- Teaching Assistants made up almost half the respondents at the end-term survey, almost double the proportion compared to the early-term (26% vs. 49%).
- Faculty-level teachers decreased in proportion of from early-term (59% vs. 38%).
- At each survey, 3 preceptors responded.

Table 7. Level of Teaching Staff (Count, Percent)

Q: Please indicate your role for t his Canvas pilot.	Count	Percent
Faculty	17	38%
Preceptor	3	7%
Teaching Assistant	22	49%
Other (Instructor, Head TF, Course leader)	3	7%
Total	45	100%

Overall Ratings of Platform at End-Term (Tables 8-9)

Student ratings of the platform on overall qualities clearly leaned toward the positive side; however, a noticeable minority rated the platform as less than “Good” (3 on the 5-point scale).

- Around half or more rated each of the general aspects of the platform as “Very Good” or “Excellent” (4 or 5 on the 5-point scale).
- Around one-fifth of the students rated aspect as "Poor" or "Fair" (14%-29%).
- “Look and Feel” and “Functionality” were rated highly most often (60% and 54% 4-5).
- Site Navigation and Ease of Using Site Functions were rated lower (29% and 25% 1-2).

Table 8. Overall Platform Ratings: Students (Percent)

Q: How would you rate your online course experience with Canvas?	Poor or Fair (1-2)	Good (3)	Very Good or Excellent (4-5)
Functionality	18%	27%	54%
Visual Look and Feel	14%	26%	60%
Site Navigation	29%	29%	41%
Ease of Using Site Functions	25%	29%	47%
Overall Experience	21%	30%	49%
Total N = 584 to 595			

Teachers were somewhat more critical than students, although again with many positive responses.

- “Look and Feel” and “Functionality” again received the highest ratings (48%, 46% 4-5).
- Excluding Look and Feel, two-fifths or more rated the general aspects of the platform as “Poor” or “Fair” (40% to 55%).
- Interestingly, the teachers were very split on Functionality: nearly equal proportions rated it lower (40% 1-2) versus higher (46% 4-5).

Table 9. Overall Platform Ratings: Teachers (Percent)

Q: How would you rate your online course experience with Canvas?	Poor or Fair (1-2)	Good (3)	Very Good or Excellent (4-5)
Functionality	40%	15%	46%
Visual Look and Feel	27%	25%	48%
Site Navigation	55%	24%	20%
Ease of Using Site Functions	45%	31%	24%
Overall Experience	42%	25%	33%
Total N=31 to 43			

Educational Value of the Platform (Table 10, Figures 1-2, Tables 11a-b, 12)

The surveys included two types of questions designed to understand the educational and pedagogical value teachers and students saw in using Canvas as a platform. First, the surveys asked both groups to indicate how important specific online course functions were to them, and then their satisfaction with that function as it was delivered through Canvas. Comparing responses in importance and satisfaction indicates expectations and also whether the platform is performing adequately for purposes that are seen as important to teaching and learning. Second, another set of questions included agree-disagree statements that were designed to assess whether the platform was serving educational goals, for both teachers and students.

Canvas Features: Importance, Satisfaction, and Use (Table 10)

The early-term survey included a question for both teachers and students to gauge how **important** various platform functions were to each group. In the second survey, the same list (with the addition of course videos) was presented to each group, with a question about **satisfaction** with the function. The following presents a summary of results from both surveys, followed by an analysis of satisfaction specifically in relation to importance.

The following summarizes the findings on the perceived **importance and potential use** of specific Canvas functions. Original questions and additional details on this can be found in the early-term report.

- Except for one item with the strongest rated importance for both groups (Provide Course Assignments), faculty interest is lower on all functions compared to students’.
- Rankings indicate three sub-groups of functions in terms of interest and use.
 - Three items with substantial agreement on importance and high use
 - *Provide Course Assignments*
 - *Provide Course Readings*
 - *Keep Students Posted via Announcements*
 - Four items with higher ratings and some difference between faculty and students
 - *Provide and Grade Quizzes/Problem Sets*
 - *Provide Course Assignment Grades*
 - *Use Online Course Calendar*
 - *Create Online Class Discussions*
 - Seven items with lower ratings, variation, and also uneven use
 - *Create Online Sections*
 - *Hold Online Office Hours*
 - *Web Conferencing with Class*
 - *Use a Chat Feature for Course*
 - *Use a Mobile App for Course*
 - *Integrate Wikis into a Course*
 - *Integrate Blogs into a Course*
- On most functions listed, instructional support staff expected to see more use than teaching staff reported. The largest gaps suggest a need for more clarity or support on these features perhaps. The items with the biggest gaps between expectations of use and actual use include:
 - *Course Calendar (89% vs. 48%, with a 42% difference)*
 - *Online Sections (63% vs. 17%, with a 46% difference)*
 - *Announcements (100% vs. 70%, with a 30% difference)*
 - *Chat Feature (47% vs. 17%, with a 30% difference)*

The following summary points and table describe the satisfaction results but also refer to use and importance. According to the satisfaction measure used, students and faculty are largely satisfied, consistent with the overall quality ratings of the platform reported above. At the same time, transition issues and lack of familiarity make for ratings that are not at the highest level at this point.

More specific results on satisfaction and use that also draw on the first survey indicate the following:

- Students are largely satisfied according to end-term responses, even if not always giving the platform the highest ratings on the 5-point satisfaction scale.
 - For all features, over half of the students gave one of the two highest ratings (4-5) and one third or more gave the highest rating (5).
 - All features except for blogs have 60%-plus ratings of 4-5.
 - Six items received over 70% ratings of 4-5.
 - Means hover around 4 on the 5-point scale (not in table).
 - Students often show lower satisfaction with functions that are not as widely used or seen as important: e.g., blogs, wikis, conferencing, mobile apps, sections, office hours.
 - Class discussions stand out as an item that is both higher in importance and lower in satisfaction for students (satisfaction is comparable to items of lower importance).
 - Course lecture video function is notable in that it is not high in importance to many but has very high satisfaction, indicating that it is working well for those who do need it.
- Faculty show similar satisfaction levels to students except in a few areas.
 - Like students, half or more gave above-average ratings to most functions, and one-third or more gave the highest rating.
 - Of the full list of functions, nine items have 60%-plus ratings of 4-5 on the 5-point scale and four items over have over 70% ratings of 4-5.
 - Teachers who are using wikis appear more satisfied with this function than the students are (100% vs. 60% ratings 4-5).
 - Where these functions are being used, teachers appear less satisfied than students with web conferencing, mobile apps, course lecture videos, and quizzes/problem sets.
- The patterns also suggest possible action steps to encourage feature use.
 - Lower importance and lower satisfaction often correspond with less use.
 - Providing Course Readings stands out as an exception: it is often rated important, and yet a majority of teachers were not using that function at this stage (40% non-use). (Larger classes may be using it, since students appear to use it more, at 20% non-use).

(See detailed table on the next page.)

Table 10. Satisfaction and Use: Students and Teachers (Percent)

Guide to the table:

- Items are ordered by “Importance” from the early-term survey, as reported by Students; Faculty “importance” falls in the same three categories as indicated by the headers for sub-sections.
- Blue shading indicates an item is low-use, as indicated by non-response rate in second survey; this largely overlaps with “less importance” except in the case of Online Course Calendars.
- 4=Fairly; 5=Very; non-response rate for the item was used to indicate non-use of the feature.

Feature	SATISFACTION RATINGS				NOT USING	
	Students		Faculty		Students	Faculty
	5	4-5	5	4-5	NA	NA
Group 1: Top Importance						
Provide Course Assignments	53%	77%	38%	70%	8%	23%
Provide Course Readings	49%	74%	35%	74%	20%	40%
Keep Students Posted via Announcements	45%	72%	29%	64%	7%	19%
Group 2: Middle Importance						
Provide and Grade Quizzes/Problem Sets	48%	71%	27%	53%	25%	42%
Provide Course Assignment Grades	54%	78%	39%	67%	20%	37%
Use Online Course Calendar	42%	68%	32%	68%	49%	63%
Create Online Class Discussions	33%	59%	32%	64%	33%	52%
Group 3: Lowest Importance*						
Create Online Sections	42%	68%	33%	67%	63%	88%
Hold Online Office Hours	43%	63%	50%	50%	73%	88%
Web Conferencing with Class	37%	66%	0%	25%	72%	92%
Use a Chat Feature for Course	45%	67%	43%	71%	67%	73%
Use a Mobile App for Course	40%	60%	0%	33%	81%	83%
Integrate Wikis into a Course	37%	60%	0%	100%	84%	94%
Integrate Blogs into a Course	33%	53%	40%	40%	71%	90%
Course Lecture Videos (satisfaction only)	44%	74%	15%	55%	33%	62%
Total N 98 to 562 for students, 3 to 42 for faculty						

* Note: For all but Chat, the number of cases is less than 10 for Faculty; percentages are not reliable.

The next section connects satisfaction and importance more directly.

Analysis: Hi-Low Satisfaction in Relation to Hi-Low Importance and Use (Figures 1-2)

Introduction

A common type of analysis in consumer and other types of audience studies is to consider satisfaction in relation to importance for a service or product. The general framework suggests that the service provider wants to see high satisfaction ratings on items that are of great importance to the consumer or user. Where items or features are of less importance in general, the service provider typically is less concerned with satisfaction. Analyses have been developed which combine importance and satisfaction ratings, so as to see where there is a gap to be filled (satisfaction is not as high as importance), or where there is no need for further effort (satisfaction is higher than importance). The calculation involves some version of subtracting importance from satisfaction in order to see which is higher than the other and interpreting the gap.

In the case of a teaching platform and its functionality, this type of analysis has value, as will be demonstrated below. At the same time, the analysis for platform functions is also somewhat complicated for various reasons.

- First, there may be an interest in expanding use of features that are not currently perceived as important.
- In addition, satisfaction and importance may interact significantly: increased satisfaction can lead to more use, which can lead then to more perception of importance. The role of academic support technologists may even be seen as moving the needle in these types of directions, while providing robust and dependable technical solutions towards pedagogical goals.
- Further, where a function is being used by only a small number of faculty members, it might not be widely viewed as important. As a result, we might consider their use to be “cutting edge” and they may even show high satisfaction with the function. This is particularly relevant given the split already seen between faculty who are more satisfied versus less satisfied with the functionality overall. Where this is the case, we might consider the question of how we can encourage more teachers to consider this tool for their courses, and in way that which yield satisfaction when used appropriately.
- Finally, in a different situation, a widely used function may also lead to more dissatisfaction, as those using it vary more in their skills and abilities to explore the new platform.

As a result of all these scenarios, the following analysis might be taken as a jumping off point for thinking more broadly about what features of Canvas are currently being used, more than simply about satisfaction in relation to importance.

Results

The following describes the method used to develop an analysis of satisfaction and importance for Canvas functions currently. This description also provides a guide to reading the two grids below, one for students and one for faculty.

(1) Grid Cells

The cells show the function-item and all corresponding data for that function in percentages: 4-5-ratings on Importance; 4-5-ratings on Satisfaction; Use as indicated by 1-5 responses; Gap between Satisfaction and Importance as % 5-ratings (negative = Sat < Imp).

Cut-off points for cells were developed based on all responses, comparing all functions to categorize each as being “High” or “Low” in Importance, Satisfaction, and Use. The categories are based on the percentages giving the two highest responses on Importance and Satisfaction and proportion of 1 to 5 responses on Satisfaction indicating Use, as below.

Hi-Lo Cut-Offs:	Students	Faculty
Importance	68% (68-96%; 17-63%)	48% (48-96%; 9-17%)
Satisfaction	63% (63-78%; 53-60%)	64% (64-100%; 25-53%)
Use (1-5 Response)	51% (51-93%; 16-37%)	37% (37-81%; 6-27%)

(2) Shading

Green shading in the grid indicates the item is categorized as “High” in Importance, according to the cut-off criterion. Tan shading indicates “Low” in Importance.

Again, use of the function (along with the number of cases) corresponds strongly with importance ratings. As a result, items in the tan shaded area are lower “importance” and also are often used much less frequently at present.

Note: While low-use categories often overlap with low-importance, one exception is online discussions for students. As noted in the table, it is “low importance” for students, but “high use” and “high importance” to faculty.

(3) Gap Figures

Gaps between satisfaction and importance are calculated as: percent indicated “5” on the 5-point Satisfaction scale minus percent indicated “5” on the 5-point Importance scale.

- A negative gap indicates satisfaction is lower than importance.
- A positive gap indicates satisfaction is higher than importance.

(4) Font

Red font indicates items that are at the top of the list in terms of importance. Bolded notes indicate where teachers and students have different results.

With that introduction to the method, the two grids below summarize data gathered on satisfaction, importance and use. The findings from this analysis include the following:

- Overall, most items fall under “High” satisfaction:
 - For students, 10 out of the 14 items fall under “High” satisfaction and for almost all of the functions satisfaction exceeds importance.
 - For teachers, 9 out of 14 items fall under “High” satisfaction, with similar positive gaps for most items.
- Where Satisfaction is low, Importance-Use is also generally low, with one exception.
 - The items that are low on both Satisfaction and Importance-Use might be given attention in order to broaden use and understanding of the feature.
 - Faculty and students: integrate blogs; mobile app
 - Faculty: web conferencing; office hours
 - Students: integrate wikis; online class discussions
 - ATTN: The one exceptional case may need immediate attention as it is higher-importance-use for faculty and has low satisfaction: Provide and Grade Quizzes.
- ATTN: Significantly, the three items rated most highly in importance by students and faculty (red font) fall in the high satisfaction cell but they are the only ones that show a large gap between importance and satisfaction for both teachers and students. These items may need specific attention, to improve satisfaction.
 - Provide Course Assignments (Gaps: -30%, 36%)
 - Provide Course Readings (-26%, 21%)
 - Keep Students Posted via Announcements (-16%, 19%)
- ATTN: Two items show low Importance-Use but high Satisfaction for faculty, according to the category and the gap-indicator. This pattern suggests we might increase understanding and use in these areas among faculty. They include:
 - Create Online Sections (29%)
 - Use a Chat Feature for Course (39%)
- ATTN: There are a few functions where students and teachers may have different attitudes, noted in bold. These differences are based on the high-low categories and not the gap figures.
 - Students appear more satisfied than teachers with:
 - Provide and Grade Quizzes/Problem Sets
 - Web Conferencing with Class
 - Hold Online Office Hours
 - Teachers indicate more satisfaction than students with:
 - Integrate Wikis into a Course and Create Online Class Discussions
 - Online Discussions is notable also because students are less likely than teachers to rate this as important, and use in courses is higher.

(See Figures 1-2 below for the grids describing the results.)

Figure 1. Importance-Satisfaction Grid: Students (Percent Importance, Satisfaction, Use, Satisfaction-Importance Gap)

		"HIGH" SATISFACTION				"LOW" SATISFACTION					
		<i>Platform Function</i>	<i>Imp</i>	<i>Sat</i>	<i>Use</i>	<i>Gap</i>	<i>Platform Function</i>	<i>Imp</i>	<i>Sat</i>	<i>Use</i>	<i>Gap</i>
"HIGH" IMPORTANCE		Provide Course Assignments	96%	77%	92%	-30%					
		Provide Course Readings	92%	74%	80%	-26%					
		Keep Students Posted via Announcements	90%	72%	93%	-16%					
		Provide and Grade Quizzes/Problem Sets	81%	71%	75%	-10%					
		Provide Course Assignment Grades	75%	78%	80%	5%					
		Use Online Course Calendar	68%	68%	51%	8%					
"LOW" IMPORTANCE		Web Conferencing with Class	32%	66%	28%	22%	Create Online Class Discussions	44%	59%	67%	12%
		Create Online Sections	36%	68%	37%	26%	Integrate Blogs into a Course	17%	53%	29%	27%
		Hold Online Office Hours	33%	63%	27%	30%	Use a Mobile App for Course	31%	60%	19%	27%
		Use a Chat Feature for Course	30%	67%	33%	31%	Integrate Wikis into a Course	17%	60%	16%	31%

KEY

Grid Cells

The cells show the platform function and corresponding data: percent 4-5-ratings on Importance; percent 4-5-ratings on Satisfaction; percent Use indicated by 1-5 responses on Satisfaction; Gap between Satisfaction and Importance.

Importance-Satisfaction Gap

Gap calculated as: percent indicated "5" on the 5-point Satisfaction scale minus percent indicated "5" on the 5-point Importance scale. Negative gap indicates satisfaction is lower than importance. Positive gap indicates satisfaction is higher than importance.

High-Low Category Cut-offs

	<i>Students</i>	<i>Faculty</i>
Importance (4 or 5 rating)	68% (68-96%; 17-63%)	48% (48-96%; 9-17%)
Satisfaction (4 or 5 rating)	63% (63-78%; 53-60%)	64% (64-100%; 25-53%)
Use (Satisfaction 1-5 response)	51% (51-93%; 16-37%)	37% (37-81%; 6-27%)

Fonts: red font indicates three top-importance items; bold indicates teachers and students have different results.

Figure 2. Importance-Satisfaction Grid: Teachers (Percent Importance, Satisfaction, Use, Satisfaction-Importance Gap)

		"HIGH" SATISFACTION				"LOW" SATISFACTION					
		<i>Platform Function</i>	<i>Imp</i>	<i>Sat</i>	<i>Use</i>	<i>Gap</i>	<i>Platform Function</i>	<i>Imp</i>	<i>Sat</i>	<i>Use</i>	<i>Gap</i>
"HIGH" IMPORTANCE	Provide Course Assignments	96%	70%	77%	-36%	Provide and Grade Quizzes/Problem Sets	52%	53%	58%	-8%	
	Provide Course Readings	74%	74%	60%	-21%						
	Keep Students Posted via Announcements	70%	64%	81%	-19%						
	Use Online Course Calendar	48%	68%	37%	1%						
	Create Online Class Discussions	57%	64%	48%	2%						
	Provide Course Assignment Grades	50%	67%	63%	6%						
"LOW" IMPORTANCE	Integrate Wikis into a Course	9%	100%	6%	-4%	Web Conferencing with Class	13%	25%	8%	-4%	
	Create Online Sections	17%	67%	12%	29%	Use a Mobile App for Course	13%	33%	17%	0%	
	Use a Chat Feature for Course	17%	71%	27%	39%	Integrate Blogs into a Course	13%	40%	10%	36%	
						Hold Online Office Hours	17%	50%	12%	46%	

KEY

Grid Cells

The cells show the platform function and corresponding data: percent 4-5-ratings on Importance; percent 4-5-ratings on Satisfaction; percent Use indicated by 1-5 responses on Satisfaction; Gap between Satisfaction and Importance.

Importance-Satisfaction Gap

Gap calculated as: percent indicated "5" on the 5-point Satisfaction scale minus percent indicated "5" on the 5-point Importance scale. Negative gap indicates satisfaction is lower than importance. Positive gap indicates satisfaction is higher than importance.

High-Low Category Cut-offs

	<i>Students</i>	<i>Faculty</i>
Importance (4 or 5 rating)	68% (68-96%; 17-63%)	48% (48-96%; 9-17%)
Satisfaction (4 or 5 rating)	63% (63-78%; 53-60%)	64% (64-100%; 25-53%)
Use (Satisfaction 1-5 response)	51% (51-93%; 16-37%)	37% (37-81%; 6-27%)

Fonts: red font indicates three top-importance items; bold indicates teachers and students have different results.

Teaching and Learning Process: Overall Statements (Tables 11a-b, 12)

The second survey included additional questions about the software in agree-disagree format for statements about:

- How Canvas supports Teaching and learning goals (faculty; students; staff)
- How effectively Canvas was used in the courses (students)

The responses to statements about how well the platform supported specific interactions indicate that the platform supports teaching and learning at a relatively high level, which is consistent with the results found by other universities. At the same time, some items pointed to interactions that worked more successfully than others:

- A relatively high proportion of students and faculty gave higher ratings on:
 - Receiving assignment grades (80%, 70%)
 - Class-wide communication (73%, 66%)
 - Receiving feedback (74%, 66%)
 - One-on-one communication (62%, 65%)
- Items on student engagement and enhancing learning received fewer high ratings from both groups.

Table 11a. Overall Interaction Ratings: Students (Percent)

Statement	Disagree and Strongly Disagree	Neutral	Agree and Strongly Agree
The platform supported appropriate class-wide communication for the course	11%	16%	73%
The platform supported one-on-one communication with teaching staff as needed	17%	20%	62%
The platform's system for receiving assignment grades worked well	10%	9%	80%
The platform's system for receiving assignment feedback worked well	13%	13%	74%
Overall the platform supported student engagement with the course	12%	22%	66%
The platform enhances opportunities for learning in a course in general	14%	21%	65%
Total N =387 to 521			

Table 11b. Overall Interaction Ratings: Teachers (Percent)

Statement	Disagree and Strongly Disagree	Neutral	Agree and Strongly Agree
The platform supported appropriate class-wide communication for the course	21%	13%	66%
The platform supported one-on-one communication with teaching staff as needed	23%	13%	65%
The platform's system for receiving assignment grades worked well	9%	21%	70%
The platform's system for receiving assignment feedback worked well	25%	9%	66%
Overall the platform supported student engagement with the course	13%	31%	56%
The platform enhances opportunities for learning in a course in general	14%	30%	56%
Total N = 31 to 43			

An additional question for students included statements about how successfully the course used specific platform features. In response, students gave relatively high ratings to their experience of the features in courses for all items listed, with some items rated more highly than others.

- Overall, 62% to 79% of students gave higher ratings for all the items.
- The most positive ratings were for: course lecture videos; emailed information; announcements; readings.
- There were somewhat lower ratings for: live course interaction tools; course calendar with materials.

Table 12. Overall Ratings on Function Use in Course: Students (Percent)

Overall, how successfully did your Canvas course(s) use the following features to support course involvement?	Not at All or Slightly	Moderately	Fairly or Very
Send information via announcements	12%	12%	76%
Send information via email	10%	13%	77%
Provide course readings electronically	11%	13%	76%
Use live course-interaction tools (e.g. web conferencing, chat feature, etc.)	22%	17%	62%
Include material in online course calendar	16%	15%	69%
Connect to outside weblinks related to the course	12%	16%	73%
Offer course lecture videos	13%	9%	79%
Total N = 283 to 495			

Technical Experience, Support and Learning Curve (Tables 13a-b, 14-17)

The second survey also included questions about the software in agree-disagree format for statements about support, the technical experience, and the learning curve (faculty; students) and open-ended questions about the overall experience. Overall, it appears that teachers feel they have support and technical resources to draw on, but are not sure they are sufficient. Based on the early-term survey results and these responses, students may feel more confident, but also have a specific support need, which is in-class demonstrations.

Technical Experience and Support: Students and Teachers (Tables 13a-b, 14)

Responses to the agree-disagree questions indicate “learning curve” issues, which are notable but not deal-breakers, with more technical confusion among faculty and lower perceived support for students.

- About half of the students and about three-fourths of the faculty found the interface confusing at first (49%, 73% agree or agree strongly); much smaller percentages indicated it remained confusing throughout the course (22%, 27%).
- Teachers were more likely to feel they received sufficient introduction at first (51% vs. 35%) and more likely to feel they had support if needed (76% vs. 44%).
- A majority of both groups agreed that with sufficient introduction the platform works well for students (64% and 62%).
- Only around half of each group felt that there were minimal technical concerns overall (55% and 47%).

Table 13a. Overall Learning Curve Ratings: Students (Percent)

	Disagree and Strongly Disagree	Neutral	Agree and Strongly Agree
The user interface was confusing at first NEGATIVE PHRASING	37%	15%	49%
The user interface was confusing throughout the course NEGATIVE PHRASING	60%	18%	22%
I received sufficient introduction to the platform at the beginning of the term	38%	27%	35%
With sufficient introduction, the platform functions well for students	12%	25%	64%
Helpful support on using the platform was available if needed	28%	28%	44%
There were minimal technical concerns overall in using this course platform	23%	21%	55%
Total N = 347 to 546			

Table 13b. Overall Learning Curve Ratings: Teachers (Percent)

	Disagree and Strongly Disagree	Neutral	Agree and Strongly Agree
The user interface was confusing at first - NEG	13%	13%	73%
The user interface was confusing throughout the course - NEG	42%	31%	27%
I received sufficient introduction to the platform at the beginning of the term	30%	19%	51%
With sufficient introduction, the platform functions well for students	12%	26%	62%
Helpful support on using the platform was available if needed	8%	16%	76%
There were minimal technical concerns overall in using this course platform	44%	9%	47%
Total N = 37 to 45			

In response to a question about technical support, the majority of students indicated the support was sufficient, but a substantial proportion also indicated it was not; overall, teachers were more unsure.

- About half of the students indicated they did not need more technical support or introduction than they received (54%), while almost half responded that they wanted more or weren't sure.
- A somewhat smaller proportion of the teaching staff indicated they did not need more support or introduction than they received (40%), compared to students; less than one fifth indicated that the support was sufficient, with over half indicating they needed more or were not sure.

Table 14. Interest in More Technical Support: Students and Teachers (Count, Percent)

Q: Did you want more technical support or introduction than you received?	Students		Teachers	
	Count	Percent	Count	Percent
Yes	153	28%	8	18%
No	297	54%	18	40%
Not Sure	99	18%	19	42%
Total	549	100%	45	100%

Teacher Involvement, Resources Used and Prior Platform Experience (Table 15-17)

Finally, there are some additional results for the teachers and students regarding respondent involvement in Canvas, the resources used for learning, and prior experience with platforms.

Among teachers, most of the those who responded were at least somewhat involved in day-to-day activity supporting the Canvas course platform (84%) and almost two-thirds were “regularly” involved (64%).

Table 15. Teacher Involvement in Course Platform (Count, Percent)

Teachers: How involved was your role this term in day-to-day activity related to the Canvas course platform?	Count	Percent
Not at all involved in day-to-day activity	3	7%
Somewhat involved in day-to-day activity	13	30%
Regularly involved in day-to-day activity	28	64%
Total	44	100%

The resources teachers draw on to learn about Canvas have changed somewhat since the early-term survey. Note, however, that the respondents at this stage were more likely to be Teaching Assistants than at the earlier survey.

- At this stage, the most commonly used resources for faculty who responded to the survey to learn how to use Canvas were Instructional Support Staff (56%) and Canvas guides (56%).
- Significant numbers of teachers also reported that they consulted with peers or colleagues using Canvas (39%) and on-line Canvas feature forums (24%).
- With fewer responses at the earlier point, it appears that teaching staff members who responded at this stage were:
 - Somewhat less likely to use “other” sources (30% vs. 12% now) and on-line feature forums (30% vs. 24%)
 - Somewhat more likely to use Canvas guides (48% vs. 56% now).

(Note: Change in wording may have affected the larger difference in use of instructional support staff.)

Table 16. Use of Canvas Learning Resources: Teachers (Count, Percent)

Q: What resources have you used to learn about Canvas so far?	Count	Percent	Early-Term Percent
Instructional support staff*	27	66%	44%
Guides produced by Canvas	23	56%	48%
Peers or colleagues using Canvas	16	39%	41%
On-Line Canvas Feature Forums (30% before)	10	24%	30%
Other [Blue Button tech support; Lynda.com, Google, self-taught (2)]	5	12%	30%
None of the above	2	5%	11%
Total N of Responses	41		27

Percentages total more than 100%; multiple responses possible.

* Early term parallel: iCommons Liaisons

As noted above, the early-term results from students indicated strong support for in-class course-related demonstrations as a way to learn about Canvas initially. Those results also were gained through open-ended comments, which suggests a very strong interest, since the survey did offer this as a suggestion. The following summarizes the early-term survey results about student interests in support:

- Almost one-third were interested in receiving at least brief guidance on how to use Canvas early in the semester (30% checked “Fairly” or “Very” important, n=207 out of 689).
- Asked how they wanted to receive guidance, the most commonly suggested methods were:
 - Initial introduction by the teaching staff providing an overview of how the software would be used in the specific course (at least 30% of 101 responses)
 - On-page help (at least 22%)
 - On-line tutorials (at least 22%)

Finally, in the early-term survey, only one teacher-respondent had used Canvas prior to this semester. With a greater number of respondents overall, there were four teachers with prior Canvas experience among those who responded at the end-term. The full details of prior platform experience are in the table below.

Table 17. Prior Platform Experience: Students and Teachers (Count, Percent)

Before this term, which of the following course website platforms had you ever used?	Students		Teachers	
	Count	Percent	Count	Percent
Course iSites	430	77%	43	96%
Canvas	89	16%	4	9%
Microsoft SharePoint	40	7%	3	7%
Other (e.g. Blackboard, Moodle, Desire2Learn, etc.)	208	37%	18	40%
Blackboard	81			10
Moodle	21			3
Piazza	4			3
Desire2Learn	3			1
Elluminate	3			0
Adobe Connect	2			0
Stanford’s platform	2			0
None of the above	41	7%	1	2%
I don’t know	8	1%	0	0%
Total N of Responses	556		45	

Percentages total more than 100%; multiple responses possible.

Other platforms listed in “Other”

Students:

- | | | | |
|--------------------|------------------------------|----------------------------------|---------------|
| - Chalk (UChicago) | - Haiku | - my.harvard.edu | - Stellar |
| - Collaborate | - HarvardX | - Rice University site | - Voicethread |
| - Courseplus | - HBS Learning Hub | - RioLearn | |
| - Coursera | - Independent course website | - Sakai | |
| - Courseworks | - LearningSuite | - Simple website (Scott Bradner) | |
| - eChalk | | | |

Teachers:

- | | |
|------------------|--------------------|
| - CS50 Submit | - Harvard SEAS ILT |
| - Self-developed | - Web Assign |
| - Aspen | - Stanford's LMS |

Positive and Negative Experiences Reported (Open-Ended Responses) (Tables 18-21)

At the second survey, open-ended questions also explicitly asked for positive experiences, negative experiences, and general responses, summarized below.

The following summary indicates approximately how often respondents listed positive and/or negative experiences, and the themes among the positive reports. The negative experiences will be examined in more detail in another format for their content.

Table 18. Positive and Negative Experiences: Open-Ended Comments (Count, Percent)

Comment Category	Students		Teachers	
	Count	Percent	Count	Percent
No comment	251	41%	20	33%
Positive and Negative Comments	238	39%	30	50%
Positive Only	43	7%	3	5%
Negative Only	76	13%	7	12%
Total	608	100%	60	100%

Note: Totals include small number of respondents who commented and did not otherwise complete the survey.

Student Detail

The positive comments by students included these repeated themes and mentions.

- General comments that identified the platform as clear and easy to use, integrated and organized, with a nice look and feel.
- Comments on specific features that frequently identified the grading system, document access and organization, discussion and/or chat, videos and slides, and calendars/reminders.

Table 19. General Positive Experiences: Open-Ended Comments by Students (Count)

Category	Count
Clear/easy to use	47
Integration/organization	34
Look and feel/design	24
General features	22
Interactivity	11
Functionality/look	6
Off campus access in real time	3
Other: Communication, General improvement, Intuitive/easy to learn, Support	4
Feature-Only Comment (no general comment)	135
Total Number of Comment-Codes	286
Number of Positive Comments Overall	264

Table 20. Specific Positive Experiences: Open-Ended Comments by Students (Count)

Category	Count
Grades/assignments/tests	69
Document access/organization	26
Discussion/chat	24
Video/slides	14
Calendar/reminders	11
Announcements	6
Remote quizzes	5
Email	4
Group project work	4
Modules	4
Other: Blog, Mobile Access, Preview, Right-side panel, Scribd, Student lists, Conferencing	8
Total Number of Specific Feature Comment-Codes	175
Number of Positive Comments Overall	264

Based on a limited examination of the negative experiences, students identified the following features:

- Discussion: 79 instances
- Navigation: 75 instances
- Assignments: 96 matches
- Quizzes: 31 instances
- Mail: 43 instances
- Video: 66 instances
- Slow: 31 instances

Teacher Detail

The positive comments by teachers included these repeated themes and mentions.

- General comments that identified the platform as integrated, attractive, and fast.
- Comments on specific features frequently identified the grading system and communication tools (discussion, announcement, conferencing), modules, quizzes and calendar.

Table 21. Positive Experiences: Open-Ended Comments by Teachers (Count)

Category	Count
General: Integrated, Attractive design, Fast, Interface and functionality, Look and ease	12
Grading	13
Communication: discussion, announcement, chat room, email	6
Conferencing	2
Modules	2
Quizzes	2
Calendar	2
Total Number of Comment-Codes	39
Number of Comments	39

Based on a limited examination of the negative experiences reported by faculty, they most often identified email (14 instances), quiz (12 instances) and grading (31 instances).

Sample Positive Quotes from Students and Teachers

The negative-experience responses were closely tied to specific experiences and are useful more for support awareness. The full group of negative-experience responses from both teachers and students will be examined in more detail in another forum and report.

The following are quotes only from the “positive” experiences open-ended question. These are helpful for building on the success that has been achieved so far with the platform.

Student-Quotes – Positive

Clear and easy to use:

- *We enjoyed a quite simple interface with all the information we needed: from lecture notes, to grades, files we should use in the assignments, forums and the videos were posted always on time (24 hours past the online lecture).*
- *It is a pretty UI and has logical structures and flows which is really nice. Especially compared to the iSites currently.*
- *The Canvas platform is easy to use and has a simple, easy-to-use interface.*
- *The platform had a strong visual appeal and allowed me to keep track of the class information.*
- *This was a very user-friendly platform. It was my first time taking an online course, and I'd say there were a lot of useful features.*
- *Overall was great. Easy to navigate and find what I am looking for*
- *It was very clear and streamlined.*

Specific features:

- *The Chat feature was very efficient, usable, and instant as opposed to the chat features with other live lectures. I also enjoyed the grade feature, both to examine my own grades, compare them to class performance, and to estimate hypothetical grade calculations.*
- *I loved the ease of finding the lectures, and the format of turning in homework. I know that if I am using another device and want to view what I've turned in, it is easy to see with a submission date. I can download the file if I need to, or resubmit it with any little corrections before the due date!*
- *I find the idea of having chat room discussions while in-class terrific! The level of intuitiveness is superb. We can simultaneously look at the ppt presentations and preview session documents, while at the same time chatting and exchanging ideas through the discussion boards.*
- *Being able to see and keep with your grades was awesome. I really liked the way the Assignment submission worked. You can see if you did it and when. if you are late. The chat was awesome. it is easy to navigate. Very well organized in terms of looking for things. I liked how you can see videos and notes separately.*
- *The grading system. The notification and calendars keeping us posted on upcoming assignments. Showing top, average, and low scores. The file submission page. These were all FABULOUSLY improved over our old platforms.*

General functionality:

- *It was convenient and very conducive to my learning experience with distance. I feel like Harvard is catching up with the global trend of IT education, and cannot applaud more.*
- *Great one stop location for all my class needs*
- *As a software person I am qualified to say that I think this system has great bones. Keep working on the transactional stuff and I think you will have a really great thing*

- *Canvas is SOOOOO much more functional than iSites. It's like night and day. Honestly, when I have to migrate back to iSites for my other courses, it makes me sad. That's not to say that Canvas is perfect -- it needs some major improvements, particularly in terms of navigation, but it is head and shoulders above iSites and even HarvardX.*
- *Although many of my responses do not reflect a glowing experience, I truly feel that the Canvas platform has great promise. I think additional training needs to be done both for the teaching assistants, and the class members, but it has great promise.*
- *I strongly recommend this platform over the one currently used by DCE. It has significantly helped in keeping track of readings and it has been incredibly helpful for me to keep track of grades and assignments. I sincerely, sincerely hope that this platform is utilized in future classes.*
- *I thought Canvas was a vast improvement over the other system. I specifically appreciated the calendar view with links which was instrumental in staying organized in this class and the ability to review discussions/chats after the lecture.*

Interactivity

- *The ideas behind Canvas are great. I enjoy the interactivity that it brings to the class experience and the community it helps build among the students in the class.*
- *I think it facilitated my communication with my TA. Not sure how, but it looks as if when I submitted an assignment she got a message, and if she made some comments I got them as a conversation, which is perfect. I think it facilitated the interaction. Also, I got messages when grades or announcements were posted, I felt I wasn't missing anything that was posted.*
- *it has promise, with evolutionary design progress, of being a very successful tool - it is clean, with obvious potential for quick, easy, comprehensive interactivity*
- *The connectivity is building of a community is terrific.*
- *The Grading page was very good, don't change anything there. I liked that students could download slides, and information was easily available. Experience was good, it was like a real class.*

Teachers-Quotes – Positive

- *Chat room is KEY. The previous DCE model was not good at all, this was a big step up. Most of the navigation is quite good. Some hiccups at first as we got used to it, but overall this is a significant improvement. Canvas is the way to go in the future, for sure.*
- *Ease of use is awesome. Thinking through how to organize a course so that students know what to do and don't have to hunt around for information is difficult, though. This is partly my own needing to rethink my design, but partly that the platform can be awkward. What would be awesome would be some templates/examples/guidelines that show good ways to employ Canvas features to create a good student experience. This is an information design issue as much as anything.*
- *I like the look and feel and especially like the Modules feature where all pertinent information for a particular section of the syllabus can be grouped together. Though I didn't use all the features, I am impressed with the number and variety of features available.*
- *Grading (Speed Grader) and Big Blue Button are really great tools. I used them a lot and they really made a difference in the course.*
- *Gradebook was great. Also, Discussion board created good community. Chat room was great and we used during every on-campus lecture. So, Gradebook, Chat and Discussion are all superior than previous LMS--iSites.*
- *The integration of the grading and the grade book is surprisingly useful, as are the (admittedly crude) analytics.*

Summary of Findings and Recommended Action Steps

Summary of Findings

The results reported are consistent with the findings from these other universities: with appropriate preparation and support for faculty, teachers and students at Harvard report comparable positive responses and experiences. In addition, even with issues reported, our survey measures regarding teaching and learning are similarly positive.

More specifically, this report comes to the following conclusions, relevant to future support and decision-making.

- Canvas and the teaching and learning process:
 - Results on “satisfaction” and the technical learning curve indicate satisfaction is relatively high objectively and for this stage.
 - Satisfaction relative to what is seen as “important” can inform future support in specific, targeted areas.
 - Close-ended responses on teaching and learning-related statements indicate students and faculty see educational value and benefits from the platform.
- Platform experience of the software and interest/need for support:
 - In open-ended comments, teachers and students note many positives aspects to Canvas as a platform, with repeated themes.
 - Some cited negative experiences, which can be seen as transitional and “incidental.”
 - As found in other studies, the early-term report found that students identified in-class demonstrations as the preferred way to be introduced to the system.

Recommended Action Steps

- (1) Examine the open-ended negative comments closely and as a group, to identify top priorities for additional support and develop ideas on what support tools to use to address these issues.
- (2) Draw on the Satisfaction-Importance grids to identify training and use issues for teachers and students and areas for technical improvements. The four areas noted in the report suggest:
 - a. Addressing the three “most” important functions may yield important gains for satisfaction: providing assignments, posting readings, managing announcements.
 - b. Attention may be helpful to address the student online class discussion experience.
 - c. Faculty, particularly those with smaller classes, may need support to post course readings more often, with potentially significant gains for student satisfaction.
 - d. Canvas use may reach more of its potential if the support area targets low-use functions to encourage and report on successful use, while keeping satisfaction results for different functions as reported here in mind.
- (3) Re-develop the iSites-Canvas comparison table, given new information on faculty experience.
- (4) Support and encourage course faculty in providing students with early-term in-class demo of how Canvas will be used in the course.
- (5) In next steps for support and research, consider how Canvas can be integrated into teaching and learning in different course types and situations, as well as variation in faculty approaches and goals.