Curriculum Committee Meeting Agenda

January 29, 2016	12:00 – 12:50 pm; Deans Conference Room (N304 DSB)
Dr. DC Holmes, Chair	Recorder: Ms. Michelle Krupp

Lunch served.

Agenda Items	Responsible Individual
1. Approval of December 4, 2015 Minutes	Holmes
2. Canvas LMS transition – ICON	Annette Beck
3. Curriculum Alignment - Discussion	Krupp/Holmes/Garcia
4. Departmental Curriculum Review - Endodontics	Garcia/Krupp
5. Round Table Comments	Committee
6. Next Meeting: **February 26, 2015**	

Action Items			
Status	**Action to be taken**	**Responsible**	**Due Date**
Pending	ICCMS Implementation in the College	Kolker/Guzman-Armstrong	
Pending	• Patient Ingress & Treatment Planning • Address the Endo Boot Camp Concern • Prerequisite Basic Science Question	Garcia	

Curriculum Committee (2015-2016):

DC Holmes, Chair
Dan Caplan
Marsha Cunningham-Ford
Darren Hoffman
Terry J. Lindquist
Natalia Restrepo-Kennedy
Cheryl L. Straub-Morarend

Fabricio Teixeira
Paula L. Weistroffer
D1 – Kyle Nicholson
D2 – Brandon Turley
D3 – Josh Hindman
D4 – Brad Albertson

Ex Officio:

Lily T. Garcia, Associate Dean for Education
Michelle Krupp, Director, Education Development
Tad Mabry, Chair, Clerkship Directors
Galen B. Schneider, Executive Associate Dean
Catherine M. Solow, Associate Dean for Students
Sherry R. Timmons, Chair, CAPP Committee

Members Presents: Drs. DC Holmes (Chair), Dan Caplan, Terry Lindquist, Natalia Restrepo-Kennedy, Fabricio Teixeira, Paula Weistroffer, Lily Garcia, Tad Mabry, Galen Schneider, Sherry Timmons, Ms. Marsha Cunninghan-Ford, Kyle Nicholson – D1, Brandon Turley – D2, Ms. Michelle Krupp

Guest: Annette Beck, Dean Johnsen

Absent: Drs. Darren Hoffman, Cheryl Straub-Morarend, Ms. Cathy Solow, Josh Hindman – D3, Brad Albertson – D4

Meeting called to order 12:08 p.m.

I.   Approval of December 4, 2015 Minutes – approved as written.

II.   Canvas LMS Transition – ICON – Ms. Annette Beck, Director ITS Office
- Ms. Beck gave a brief introduction to the Unizen Consortium and overview of the Canvas pilot. See handout for complete presentation. It is anticipated that the official University announcement to migrate to Canvas will be mid-February.
- There were positive feedback/reviews from students and faculty involved in the pilot. Dr. Caplan, pilot participant, stated that there is a small learning curve, but if you have used ICON, the transition will be very easy. He also said that Dr. Allareddy says the more he uses it, the more he likes it.
- University migration will begin summer 2016. They will move 2 years of content and archive the rest. Specific transition date for the COD will be determined at the administrative and collegiate level by the Office of Education.

III.   Curriculum Alignment – Drs. Holmes & Garcia, Michelle Krupp
- Drs. Garcia & Holmes charged Ms. Krupp to align the ADEA Competencies with CODA standards and the current Collegiate Competencies. Dr. Garcia stated that she presented this to the Administrative Staff (Dean and Associate Deans) and received approval to adopt the *ADEA Competencies* as the COD Competencies. Dr. Holmes commented that ~50% of schools use the ADEA Competencies as their institutional competencies. See Competencies Handout attached. Additional revisions are possible over time. Ms. Krupp's observations of the alignment process follows:

ADEA Competencies

- The ADEA Competencies are categorized into 7 Domains that define what a dental graduate will be able to do upon graduation. These broad categories help make sense of what we are trying to accomplish in four years of dental school. By thinking as the graduate in broad terms, faculty can easily see the big picture -- what we as a school are working towards and building. In the future, all evaluation tools can easily be aligned to the domains. This will help faculty to see that the process of obtaining competency is a 4-year endeavor and each faculty, each course in all four years contributes to the process.
- The Competencies have an enriched language that better defines what a graduate will be able to do. On the handout, text in red indicates language not found in the current Collegiate Competencies. It is important to note that a robust curriculum begins with well-articulated

competencies that defines what we want our graduates to be at the end. The enhanced language of the ADEA Competencies will help faculty and students see what the intended outcomes are and will allow for continual discussions on curricular content. This will not only help identify gaps in the curriculum, but also allow for faculty to be creative in developing new curriculum to address the Competencies.

- Foundation Knowledge and Preclinical skills are embedded and threaded throughout the Competencies. They are present in all Domains. This will help faculty to see that these pre-skill sets begin in the D1-D2 years, but are applied in the D3-D4 years. This will allow for innovative curriculum to be threaded into all four years perhaps integrating basic sciences more in the D3-D4 years or more clinical skills in the D1-D2 year. Silos will begin to breakdown between each year and among the specialties as everyone will have a sustained role in the process.

- Each ADEA Competency aligns to several CODA standard which signifies the comprehensiveness and the integration of all the Domains. These Competencies are not written to solely suffice as a CODA standard checkmark or intended to be stand-alone competencies, but rather developed through the educational process and learning experiences that will lead to the attainment of these Competencies.

- Adopting the ADEA competencies does not mean we will lose our Iowa identity. All dental graduates across the nation should have the same knowledge, skills, and attitudes. What defines Iowa is *how* we teach and assess these competencies.

Collegiate Competencies

- Current Collegiate Competencies are written inconsistently which makes it very difficult to align. For example:
    - Some competencies are experiences, i.e. *Competency #12: Students must participate in community-based learning experiences.* This does not indicate what the student will be able to do. It is a CODA Standard but not a competency.
    - Some competencies are 'pre-requisites', i.e. *Competency #3: Foundations in Biomedical Sciences and #5: Foundations in Dental Science – Students must demonstrate preclinical competence.* At the end of four years, we do not want our students to be pre-clinically competent, we want them to be clinically competent. The ADEA competencies are written to be linked to requisite foundation knowledge and skills and allows for the development and application of these knowledge and skills to occur throughout the entire curriculum.
- Each Collegiate Competency is linked to only one CODA Standard whereas the ADEA Competencies can be linked to several Standards enabling us to better highlight and document our comprehensive curriculum for accreditation.

    IV.   Department Curriculum Review: Endodontics – Dr. Garcia & Michelle Krupp
    - Dr. Teixeira has submitted his Department's Curriculum review and Dr. Garcia & Ms. Krupp will in turn review the document and ask for clarification if needed. They will present the review to the committee after the process. Dr. Teixeira felt the review was a worthwhile task allowing him to get more acquainted with his department's educational efforts.

    V.   Round Table Comments – Committee
    Committee members shared brief comments to end the meeting. Due to time constraints, there were few comments.

Next Meeting: March 4, 2016

Minutes recorded: Ms. Michelle M. Krupp

Future of Canvas at the University of Iowa
January 2016

Overview and Recommendation

Canvas is a learning management system (LMS) and is a competitor to Desire2Learn (D2L) which is the current LMS that supports the base functions of ICON (Iowa Courses Online) at the University of Iowa. The ITS Office of Teaching, Learning & Technology (OTLT) is leading a series of pilots of the Canvas LMS due to the University's membership in Unizin. (http://teach.its.uiowa.edu/initiatives/unizin) So far, the outcomes of the Canvas pilots have been very successful, which now leads us to further discussion regarding which LMS should be used in the future in ICON.

Unizin is a "consortium of like-minded institutions facilitating the transition toward collaborative digital education" whose mission is to "improve the learning experience by providing an environment built on collaboration, data, standards, and scale." (http://unizin.org) The University of Iowa became a member of Unizin in December 2014 and, as of December 2015, Unizin membership includes eleven founding institutions and eleven subscribing institutions. (Appendix A).

The new Unizin learning environment will include numerous instructional technology tools supporting a full range of online instructional activities. The first layer of this environment is the Canvas LMS. In order for the University of Iowa to fully leverage the future vision of Unizin, we will need to migrate our ICON infrastructure to the Canvas LMS. Canvas is a platform very similar to D2L, but has seen rapid adoption in higher education over the past two years (Appendix B)

The specific aspects of the Unizin future vision that appear to provide the most opportunity for the University of Iowa, and which are currently not available in the ICON environment, are:

- **Analytics:** Rich access to data that will improve our ability to provide meaningful learning analytics to students and instructors
- **Content sharing:** Flexible content sharing that will offer faculty the opportunity to discover, contribute and share learning objects, from individual test questions and assignments, to entire courses, as they choose

A migration to a new LMS is a major undertaking and requires serious consideration, testing, planning and implementation. D2L has been the single LMS at Iowa for 10 years and is heavily used across campus. Any move to a new platform will be viewed as a major change, even if the new LMS is substantially the same or even better. Therefore, seeking as much consensus as possible across campus will be critical to success.
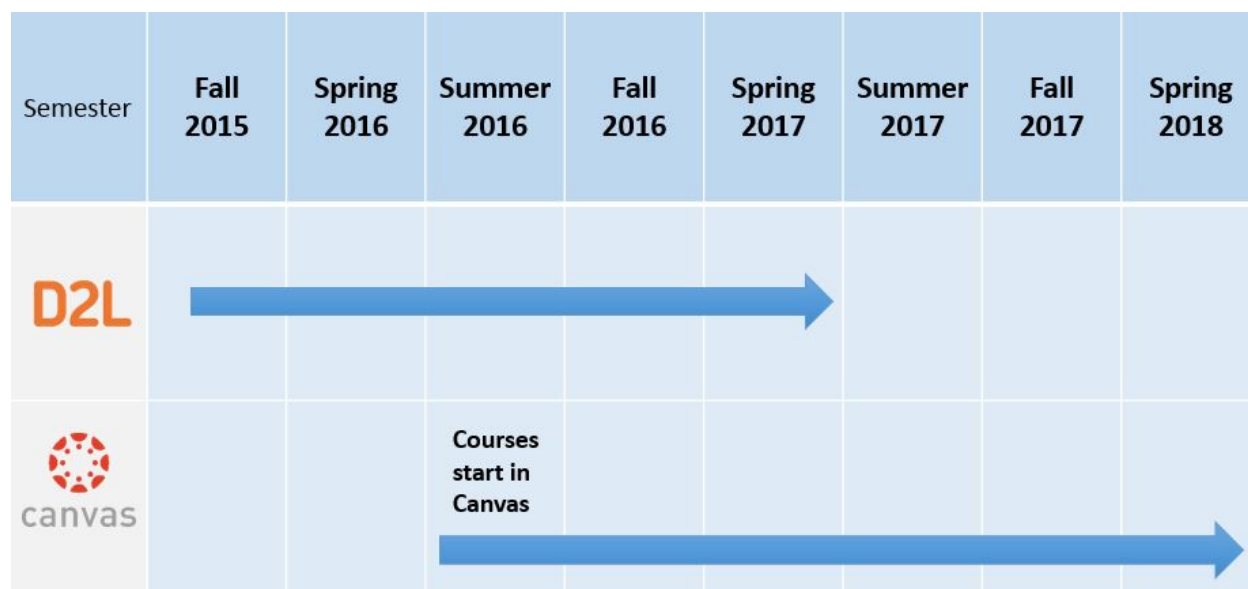
Early conversations with campus stakeholders indicate a growing consensus that full migration to Canvas, and away from our current D2L platform, is the appropriate next step. In particular, these stakeholders have expressed confidence in the ability of ITS staff, local support staff and faculty to complete a migration successfully, based on the past experience of large migration projects, including the major ICON upgrade completed in fall 2014, and they are impressed with early pilot outcomes.

These conversations have already included:

- The Canvas pilot faculty – (Appendix C)
- Associate Dean & Directors
- UI Library Leadership
- Information Technology Advisory Committee (ITAC), a Faculty Senate Charter Committee
- Academic Technology Advisory Council (ATAC)
- The Support Community for Instructional Technology (SCIT)
- Various collegiate IT committees and faculty groups

We are completing a broader communication plan to the remaining campus stakeholders and, barring any major concerns, plan for full migration to the Canvas platform by the end of spring 2017. This will allow us to complete any final data archiving or other issues within the D2L platform prior to the end date of our contract with them, which is December 30, 2017. Beginning this process with the summer 2016 courses will provide us the best opportunity to meet a summer 2017 deadline. This timeline assumes a final decision, with contracts in place, by the end of February 2016.

The high level timeline for migration would be:

Semester	Fall 2015	Spring 2016	Summer 2016	Fall 2016	Spring 2017	Summer 2017	Fall 2017	Spring 2018
D2L								
canvas			Courses start in Canvas					

Additional Resources

For information on Iowa's Unizin initiative:
http://teach.its.uiowa.edu/initiatives/unizin

For more information on the Canvas Pilot:
http://teach.its.uiowa.edu/initiatives/unizin/canvas-pilots

For more information on the Unizin Consortium and its members:
http://unizin.org/

Canvas Pilot Outcomes

ICON staff have now fully supported two live pilots of the Canvas environment – summer 2015 and fall 2015 – and we are in the midst of a much larger pilot this semester. The Canvas pilot license provided for ten courses and up to 2,500 students during the summer and fall semesters, and twenty courses and up to 5,000 students in spring 2016 semester. In preparation for the pilots, Canvas was integrated into the ICON dashboard to provide seamless access for instructors and their students. Students were able to log into the ICON dashboard and access their Canvas courses in the same way that they currently access their D2L courses.

A team of staff identified a range of course sizes and types, both fully online and traditional, from every college on campus, in order to provide substantial information regarding the functionality and usability of the platform. That same team worked closely with individual pilot faculty and provided necessary support for transferring course material from D2L to Canvas, as well as ongoing support throughout the pilot. The length of time needed to transfer and/or rebuild sites varied for each course. However, simple migrations of content from D2L to Canvas appear to take approximately 5 minutes and are quite accurate.

Instructors and students were invited to provide both positive and negative feedback to the ICON team about the functionality of Canvas in comparison to D2L, and to rate the perceived difficulty of migrating to Canvas in the future. Both summer and fall assessment results indicate generally positive response from instructors and somewhat neutral results from students.

After benefiting from two fairly successful pilots, we substantially increased the spring pilot in order to provide one final, more robust opportunity to test the system and determine future support needs for a successful migration. The spring semester has kicked off with no major concerns.

Faculty Survey Results– Summer and Fall 2015

As mentioned above, Canvas was piloted in live courses beginning with summer 2015 and continuing through the end of spring 2016. The summer pilot was smaller than the fall or the spring pilots simply because there are fewer classes offered in the summer sessions than the rest of the year. The majority of courses piloted in the summer were online courses.
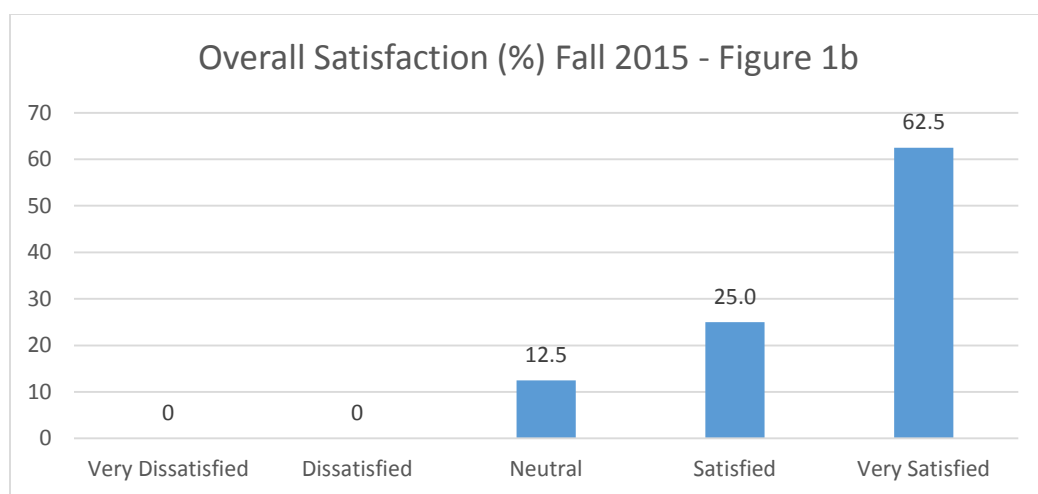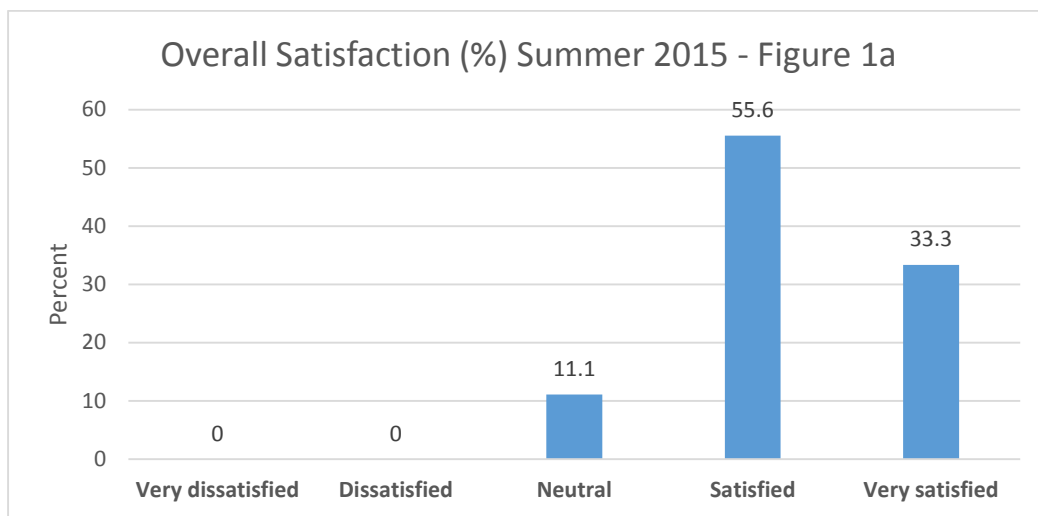
Nine instructors from eight courses participated in the summer Canvas pilot study. Five of them were associate or full professors, two lecturer or adjunct faculty, and two teaching assistants. All instructors indicated intermediate, advanced, or expert for their technology proficiency. All instructors were satisfied with the accessibility of Canvas with their computers including laptops and tablets. Only one instructor's response was neutral regarding access using a cell phone.

During the fall semester, eight instructors from eight courses participated in the Canvas pilot assessment - six tenured faculty, one lecturer and one adjunct faculty. Seven respondents indicated intermediate, advanced, or expert technology proficiency and one instructor reported basic proficiency. All instructors were satisfied with accessibility of Canvas with their devices, including laptops and tablets. No instructors accessed Canvas using a cell phone.

Eighty-nine percent of the summer instructors indicated overall satisfaction with Canvas, with 11% indicating a neutral satisfaction level (Figure 1a). During the fall pilot, instructors again indicated overall satisfaction with Canvas with 87.5% either satisfied or very satisfied (Figure 1b).

Instructors' were asked to compare the usability and effectiveness of Canvas in comparison to our current LMS, D2L (Desire2Learn). Responses regarding usability and effectiveness were generally positive.
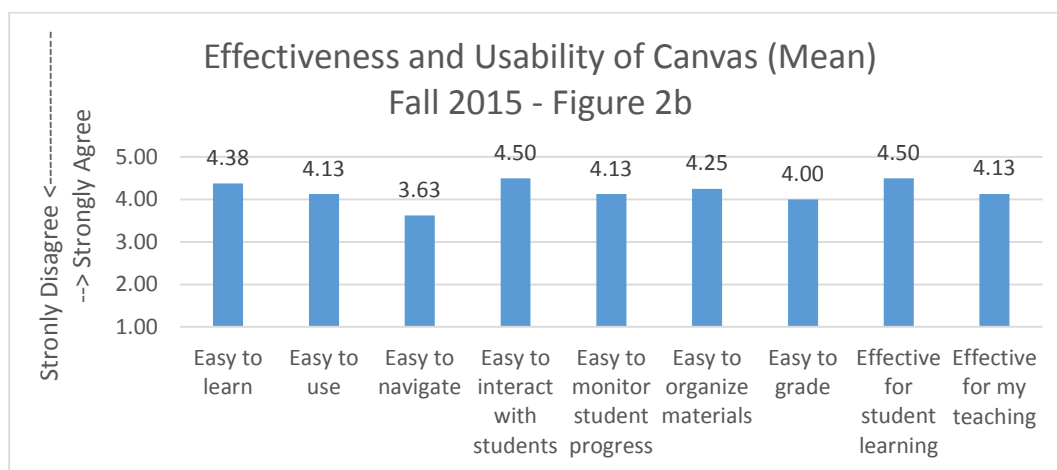
Below, see other statistics regarding usability and effectiveness (Figure 2a and 2b), ease of transition from D2L to Canvas (Figure 3a and 3b), and the desire to continue using Canvas instead of D2L (Figure 4a and 4b).

Overall Satisfaction (%) Summer 2015 - Figure 1a

Category	Percent
Very dissatisfied	0
Dissatisfied	0
Neutral	11.1
Satisfied	55.6
Very satisfied	33.3

Overall Satisfaction (%) Fall 2015 - Figure 1b

Category	Percent
Very Dissatisfied	0
Dissatisfied	0
Neutral	12.5
Satisfied	25.0
Very Satisfied	62.5

Instructors' perceptions of usability and helpfulness for students with twenty Canvas tools were positive. Of twenty Canvas tools, announcement, assignments, gradebook, files, homepage, and SpeedGrader (https://www.youtube.com/watch?v=0rp5rT6M-xY) were used by most instructors.
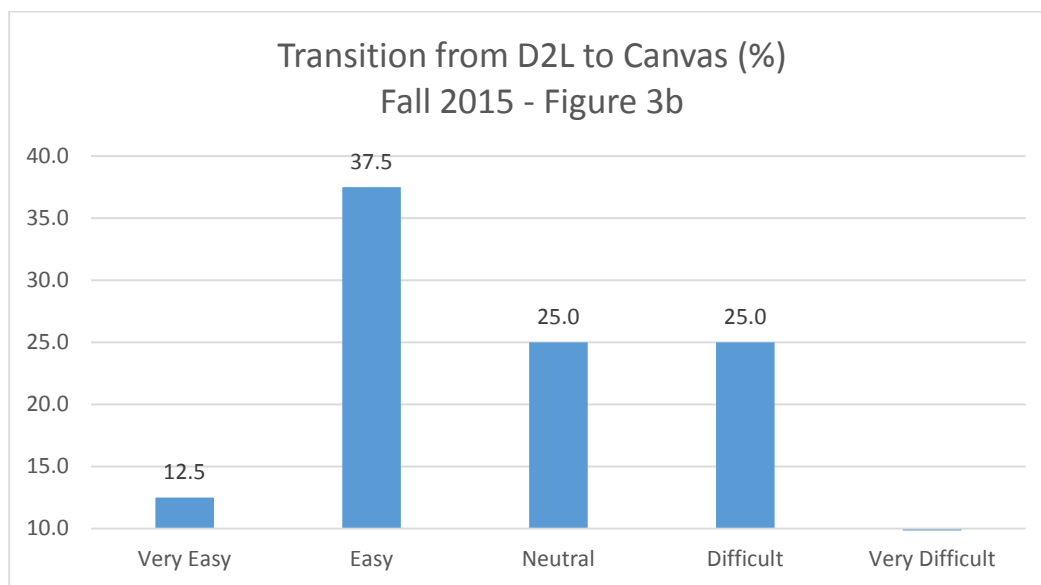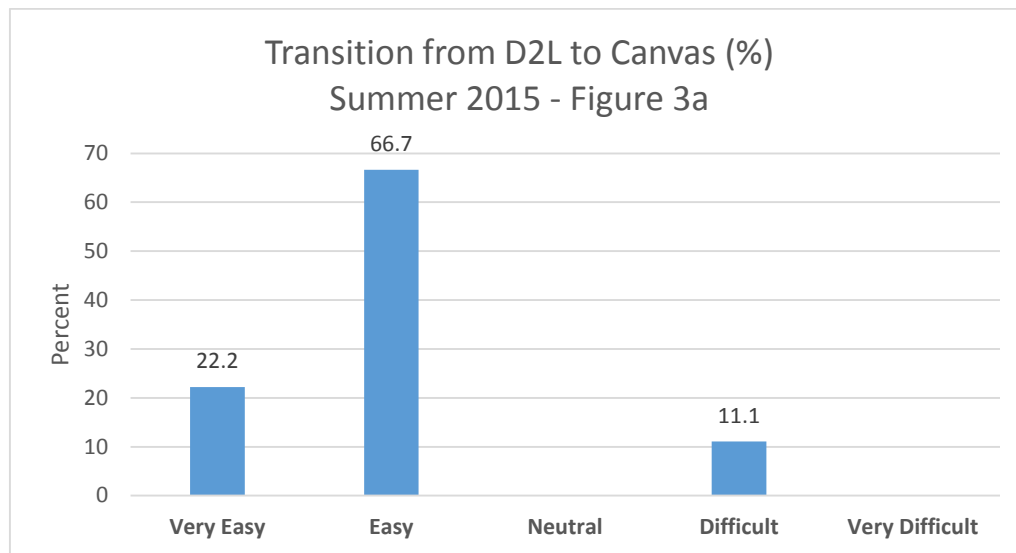
When asked how helpful the analytics in Canvas were for their teaching, six summer instructors responded and all of them found the analytics helpful for their teaching. Only three fall instructors used "analytics" and they perceived analytics helpful in their teaching. They used analytics to see what resources students used, when students last interacted with the course site and to monitor students' activities.

In the fall, instructors' positive perceptions with Canvas were related to a calendar organization feature, fewer clicks to complete tasks, better grading and rubrics, including 'SpeedGrader', and overall better interface than D2L. On the other hand, the negative perceptions were related to not being able to drag and drop files, email function, and file interface. The instructors' direct comments are listed at the end of this document in Appendix D.

Usability and Effectivess of Canvas (Mean) Summer 2015 - Figure 2a

Effectiveness and Usability of Canvas (Mean) Fall 2015 - Figure 2b
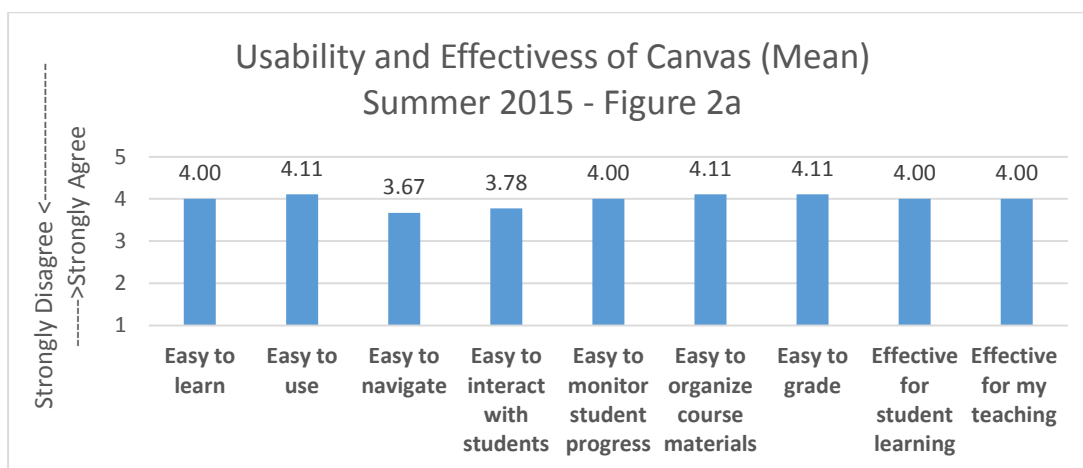
In the summer pilot, 88.9% of the faculty reported easy or very easy transition to Canvas, with one respondent (11.1%) reporting difficulty in transition (Figure 3a). During the fall, 50% percent of the pilot instructors found the transition from D2L to Canvas easy or very easy, two instructors found it difficult, and two instructors were neutral (Figure 3b).

Transition from D2L to Canvas (%)
Summer 2015 - Figure 3a

Category	Percent
Very Easy	22.2
Easy	66.7
Neutral	
Difficult	11.1
Very Difficult	

Transition from D2L to Canvas (%)
Fall 2015 - Figure 3b

Category	Percent
Very Easy	12.5
Easy	37.5
Neutral	25.0
Difficult	25.0
Very Difficult	

Overall, instructors' experiences with Canvas and the support they received were positive. More than half the instructors indicated that they would recommend Canvas to their colleagues and that they would like to continue using Canvas instead of D2L.

Faculty Preference Canvas over D2L (%)
Summer 2015 - Figure 4a

	Stronly Disagree	Disagree	Neutral	Agree	Strongly Agree
Percent			33.3	33.3	33.3

Faculty Preference Canvas over D2L (%)
Fall 2015 - Figure 4b

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	0	0	12.5	25.0	62.5
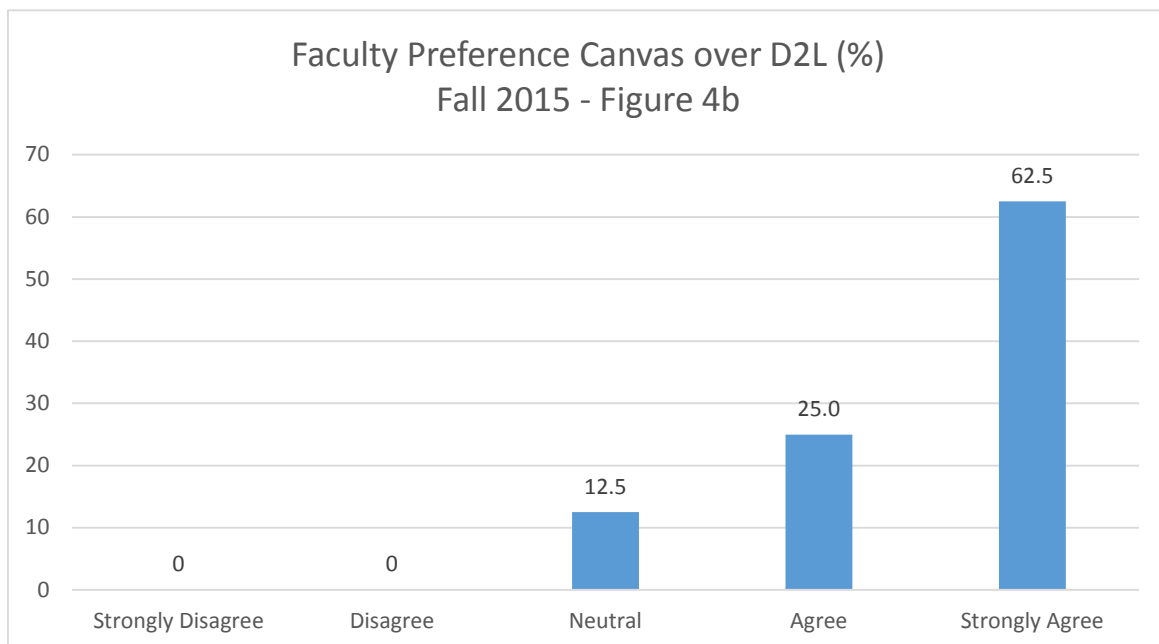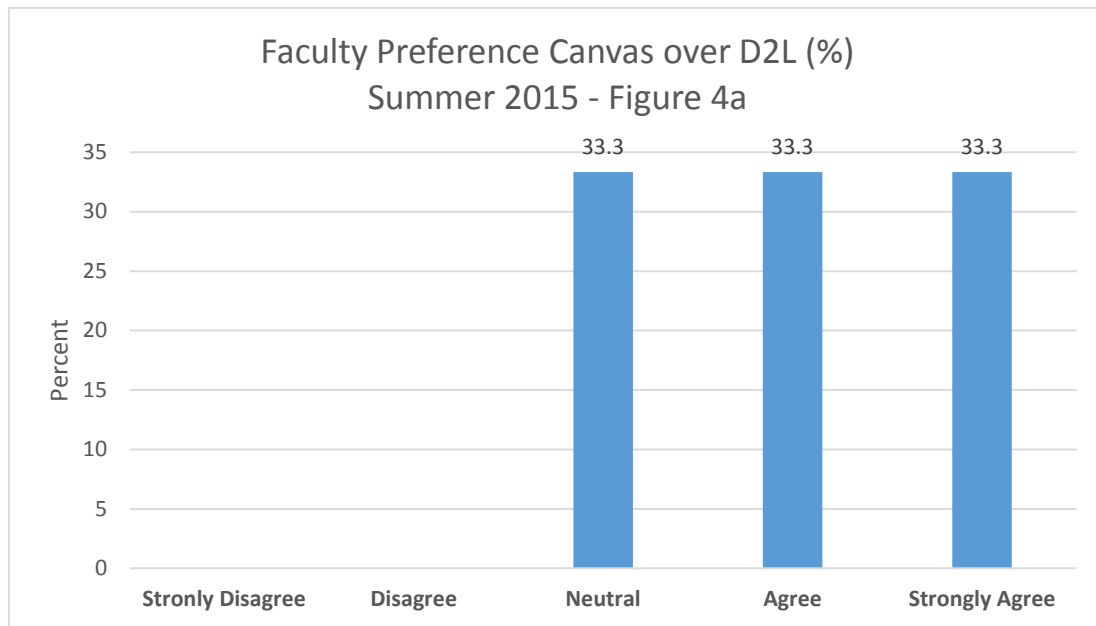
Student Survey Results– Summer and Fall 2015

During the summer 2015 pilot of Canvas, 236 students were enrolled in pilot sections. Of those students, 88, or 37.3%, responded to a survey regarding their experiences in the Canvas environment. During the fall pilot, 603 students participated in the Canvas pilot. Of this group, 163 responded to the survey, representing a 27 % response rate.
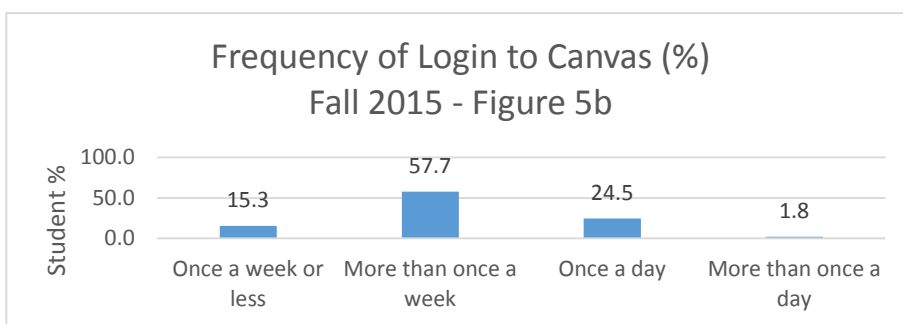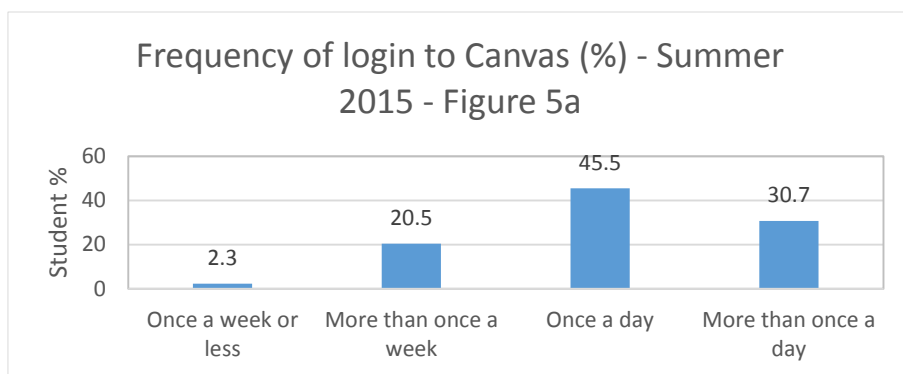
Participants

Of 88 summer participants, juniors made up the largest group (46.6%), sophomores and seniors were each 25% and 23.9%, respectively. Only one freshman, one graduate student, and one non-degree student made up the remainder of the students responding. In the fall, the 163 survey participants included 12.3% sophomores, 39.9% juniors, 31.9% seniors and 13.5% graduate students. There were only two freshmen participants and two non-degree students.

Among the summer participants, 87.5% of students reported that they did not have any experience with Canvas prior to this summer. This percentage was relatively the same in the fall with 85.9% reporting no experience with Canvas prior to fall 2015.

Device usage & Satisfaction with accessibility with each device

Most of the summer students reported that they logged into Canvas frequently; more than once a day (30.7%) and once a day (45.5%). Over 20% of students reported that they logged in more than once a week.

Over 57% of fall students reported that they logged more than once a week, 24.5% once a day, and 15.3% once a week or less. Three students (1.8%) reported that they logged more than once a day.

Frequency of login to Canvas (%) - Summer 2015 - Figure 5a

Frequency of Login to Canvas (%) Fall 2015 - Figure 5b

In both semesters, students reported using a variety of devices to access Canvas, with personal laptops being the most used in both semesters. However, cell phones and tablets were used frequently as well. This trend indicates the importance of an easy-to-use, but feature-rich, mobile interface, which we have struggled to attain in the D2L platform.
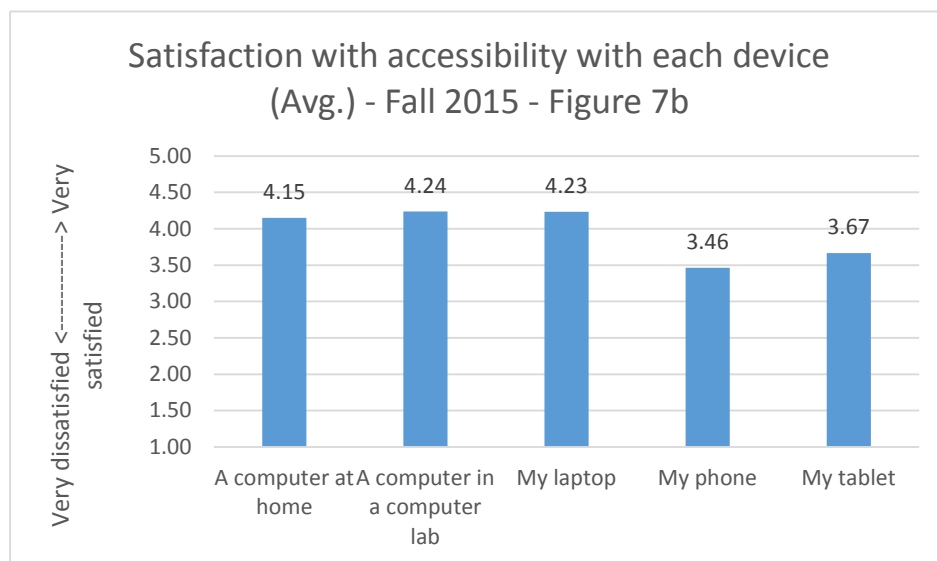
Usage of Students' Devices (%)
Summer 2015 - Figure 6a

Device	Student %
A computer at home	61
A computer in a computer lab	34
My laptop	94
My phone	57
My tablet	27

Usage of students' Devices (%)
Fall 2015 - Figure 6b

Device	Student %
A computer at home	62%
A computer in a computer lab	67%
My laptop	91%
My phone	65%
My tablet	35%
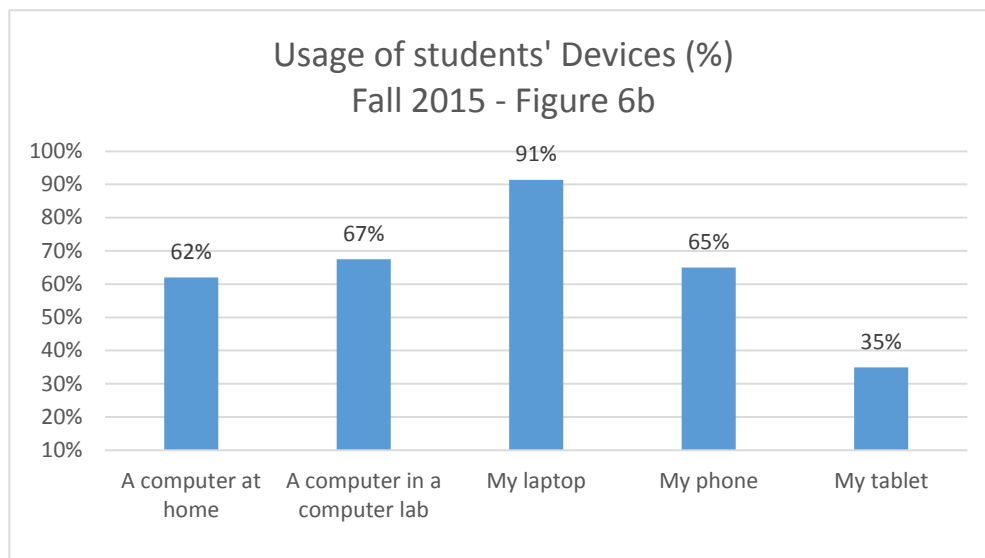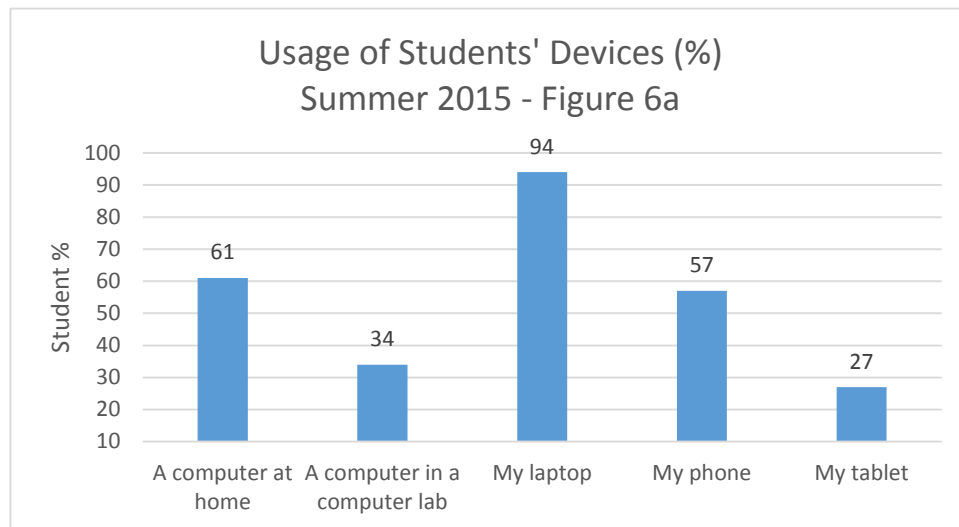
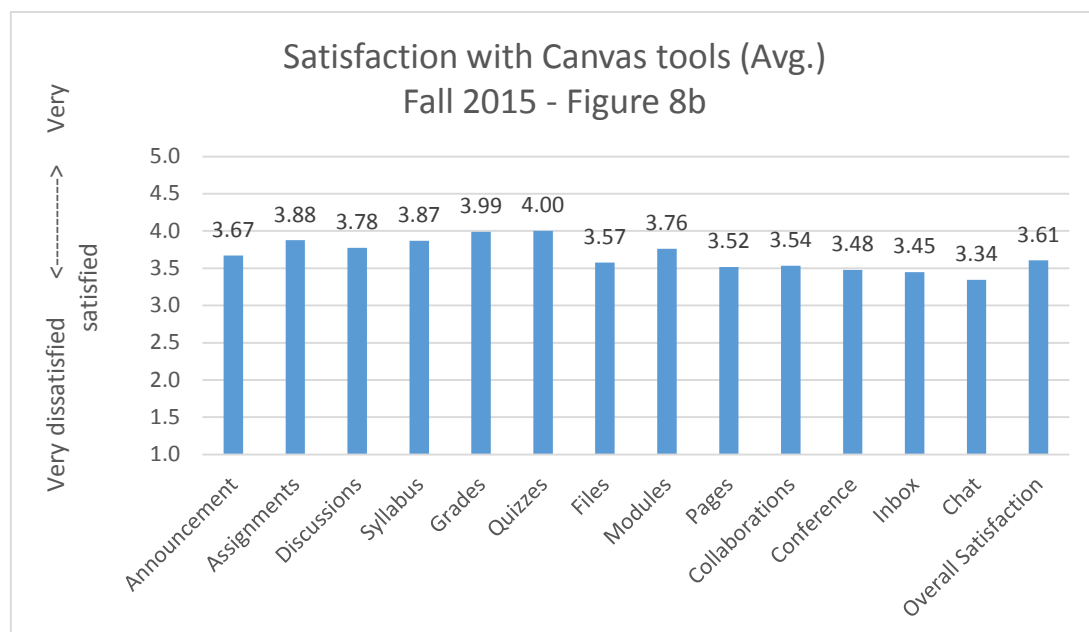Students were relatively satisfied in the accessibility (meaning the ease-of-use) of all devices, with scores above the mean on a 5-point scale, although phones and tablets were still reported as less accessible than other devices.

Satisfaction with accessibility with each device (Avg.) - Summer 2015 - Figure 7a

Very dissatisfied <---------> Very satisfied

Device	Score
a computer at home	4.09
a computer in a computer lab	4
my laptop	4.12
my phone	3.48
my tablet	3.42

Satisfaction with accessibility with each device (Avg.) - Fall 2015 - Figure 7b

Very dissatisfied <---------> Very satisfied

Device	Score
A computer at home	4.15
A computer in a computer lab	4.24
My laptop	4.23
My phone	3.46
My tablet	3.67

Canvas Features

Students' reported neutral to somewhat positive experiences with Canvas features during both semesters. (Figures 5a and 5b)
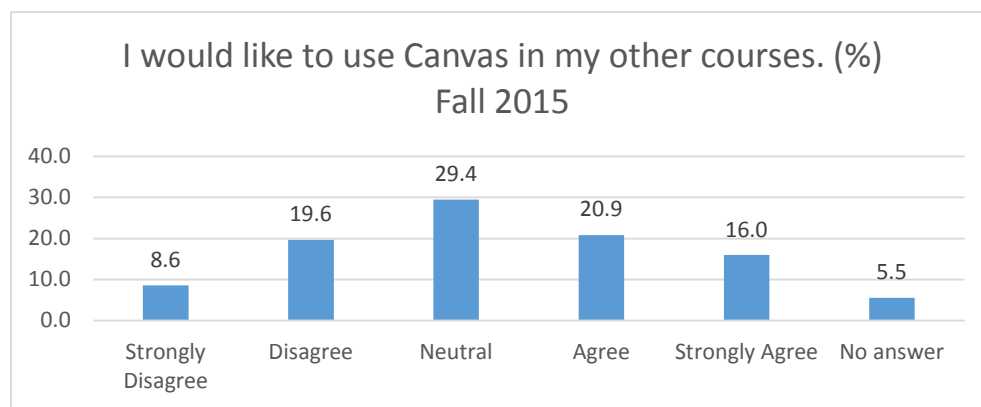

Satisfaction with Canvas Tools (Avg.) Summer 2015 - Figure 8a

Satisfaction with Canvas tools (Avg.) Fall 2015 - Figure 8b
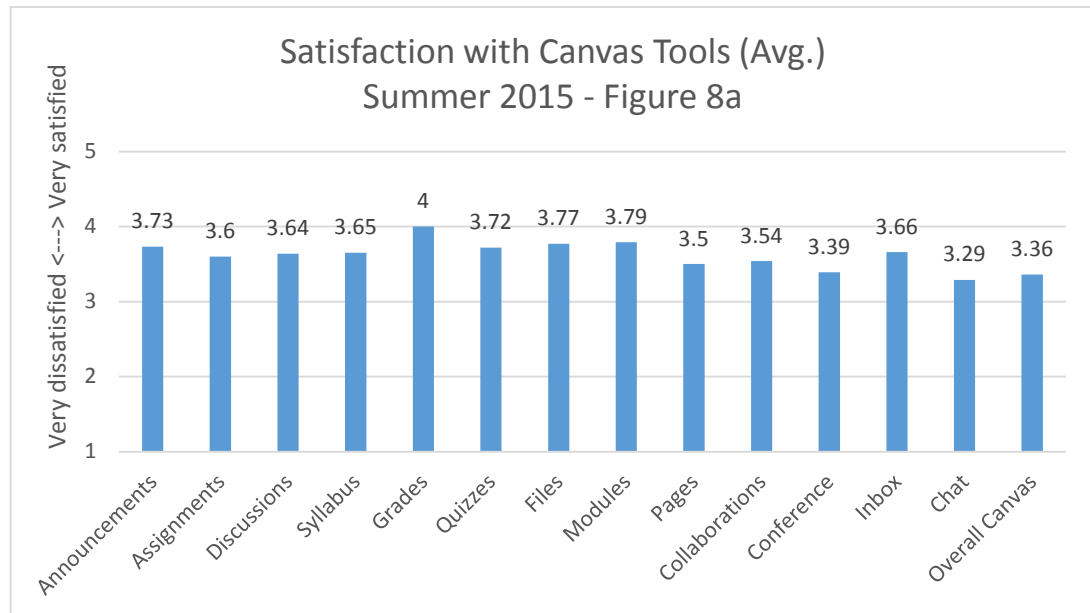
Among the features offered by Canvas, students were most satisfied with the "Grades" tool. Students were least satisfied with the "Chat" tool.

Despite the fact that student satisfaction with Canvas was neutral to somewhat positive, their desire to use Canvas in other courses is relatively low. Analysis of student comments related to this question

indicate that students did not see enough difference between Canvas and D2L to warrant any large change or that they were confused about whether "ICON" would be discontinued. Since Canvas will actually become ICON, future communication with students will need to address this misconception.

I would like to use Canvas in my other courses. (%)
Summer 2015 - Figure 9

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No answer
20.5	19.3	28.4	17.0	10.2	4.5

Student %

I would like to use Canvas in my other courses. (%)
Fall 2015

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	No answer
8.6	19.6	29.4	20.9	16.0	5.5
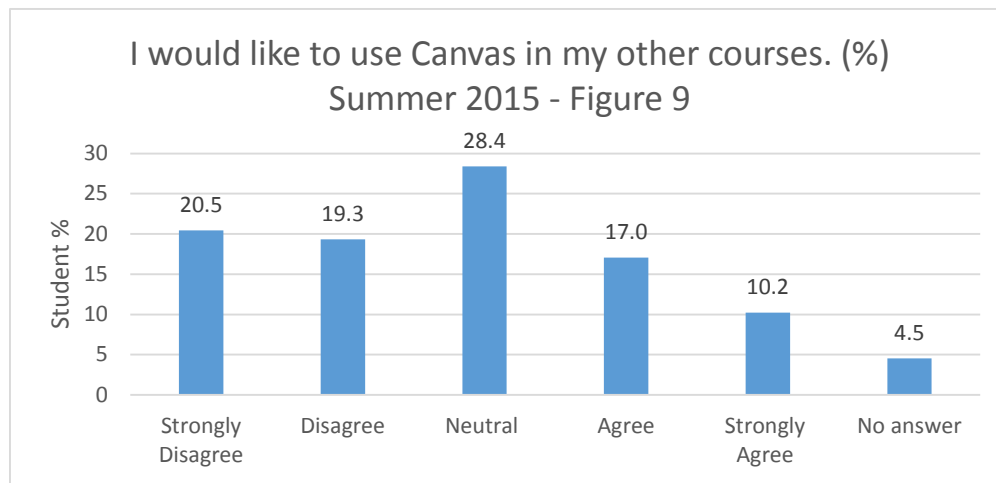
**Students were asked to comment on their responses to the above scale and they commented:**

- I feel that it is the same as ICON
- I don't have a preference. ICON is fine.
- Simple and easy
- It's extremely similar to ICON but the grade tool is much better in canvas
- It didn't affect my learning, so I don't have an opinion.
- I don't see it more useful than ICON
- It is the same as ICON and its unnecessary to change
- It is useful it just seems like the exact same thing as ICON
- It's basically the same as ICON so I don't care.
- I like how you can dictate your grades base on what you have already as a score in the class.
- It is much more user friendly. Also, I feel it is more organized.
- I thought the layout was far better than ICON, having the tabs more condensed on the left was better than on the top like ICON. I like how it updated me quicker and more pertinent

info rather than giving me too many emails about assignments due in a weeks' time like ICON. Better site entirely.

- It is exactly like ICON. Pointless to make the switch
- Canvas is basically ICON, there are no real differences in features and CANVAS is harder to maneuver. The upside is being able to calculate your grade by inputting "fake" scores into the system.
- Easier to navigate than ICON
- I really don't actually care that much
- I really have no preference. I could get to materials in the same way.
- It seems to have the same features and similar organization to ICON. ICON is familiar and therefore i think is better to just keep using ICON. The only feature unique to canvas that I appreciated was you could calculate your possible grades on different assignments and the feedback was more clear and had more information than ICON offers.
- I am used to ICON, therefore I would rather use that. Also, I didn't like how it didn't tell you what modules you had opened/read like ICON does. When you know you have opened it, it is easy to assume what assignment is next.
- We didn't use it enough in class for me to really choose an answer
- I feel it's a lot like ICON just set up a little differently. I don't really have a preference

Experience any technical difficulties using Canvas

Students reported relatively few technical problems using Canvas overall, with improved technical issues in the fall. Some of this might be attributed to technical staff having more experience by the fall semester in supporting the faculty and the system.
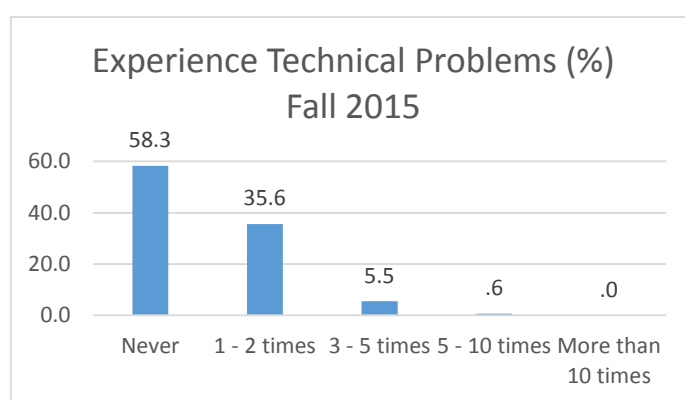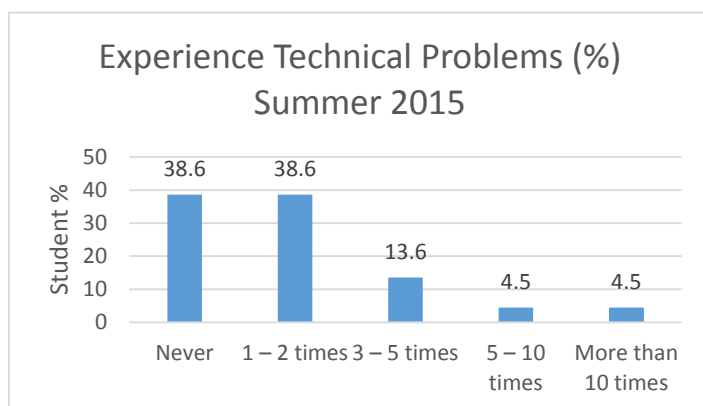
Satisfaction and Preference Canvas

Students' overall satisfaction with Canvas and preference for Canvas over D2L was positively related to the frequency of logins with Canvas but negatively related to their experiences with technology difficulty. However, their preferences were not related with students' academic year nor with prior experiences with Canvas.

Overall

While student responses and comments do not indicate the same level of enthusiasm for Canvas as seen in the faculty surveys, there were no extremely negative outcomes that would cause us to pause movement toward Canvas. We are using this information to engage student leadership across campus to help understand and address any concerns regarding a Canvas migration.

Additional general comments from the students to other questions in the survey are located in Appendix D. Full reports for both the faculty and student outcomes are available upon request.

Special thanks to Jae-Eun (Jane) Russell, PhD, for her work on these assessments.

Appendix A – Unizin Membership

Founding Members:

- Colorado State University
- Indiana University
- Oregon State University
- Penn State University
- The Ohio State University
- University of Michigan
- University of Florida
- University of Iowa
- University of Minnesota
- University of Nebraska Lincoln
- University of Wisconsin-Madison

Subscribing Members:

- University of Florida System – eleven schools

Appendix B – Higher Ed Canvas Adoption

The Unizin member schools are all in some stage of migration or pilot of Canvas, but it is also being used or considered at three of the non-Unizin CIC institutions (see table below).

Unizin Member Institutions

	Current/Past LMS	Status
Indiana	Sakai	Canvas migration almost complete
Iowa	Desire2Learn	Canvas pilots
Michigan	Sakai	Canvas migration almost complete
Minnesota	Moodle	Canvas pilots
Nebraska	Blackboard	Canvas pilots
Ohio State	Desire2Learn	Canvas pilots
Penn State	Angel from Blackboard	Canvas migration beginning
Wisconsin - Madison	Desire2Learn	Canvas pilots

Non-Unizin Institutions

	Current/Past LMS	Status
Illinois	Multiple	Multiple
Maryland	Canvas	Canvas
Michigan State	Desire2Learn	Desire2Learn
Northwestern	Canvas	Canvas
Purdue	Blackboard	Canvas pilots in next year
Rutgers	Blackboard	Blackboard

Canvas is experiencing rapid adoption outside the CIC and Unizin as well. Per an article on ListedTech on November 23, 2015 (http://listedtech.com/lms-providers-market-share-implementation-year/), Canvas "now represents around 50% of all new implementations" in the North American market.

APPENDIX C

Canvas Pilot Faculty Participants

Summer 2015

	Who	College	Department
1	Jill Smith	Business	Management & Organizations
2	Jill Davis	CLAS	Anthropology
3	Rebekah Chappell	CLAS	Dance
4	Rebekah Kowal	CLAS	Dance
5	Linda Knudtson	CLAS	Microbiology
6	Brian Lai	CLAS	Political Science
7	Sarah Vigmostad	Engineering	Biomedical Engineering
8	Al Ratner	Engineering	Mechanical Engineering
9	Jo Eland	Nursing	Nursing

Fall 2015

	Who	College	Department
1	Jon Garfinkel	Business	Finance
2	Bryant McAllister	CLAS	Biology
3	Eloy Barragán	CLAS	Dance
4	Heidi Lung	CLAS	Museum Studies
5	Bob Cook	CLAS	Music
6	Christopher Roy	CLAS	School of Art and Art History
7	David McGraw	CLAS	Theater
8	Veeratrishul Allareddy	Dentistry	Oral Pathology, Radiology & Medicine
9	David Roman	Pharmacy	Medicinal & Natural Prd Chemistry
10	Tanya Uden-Holman	Public Health	Health Management and Policy

Spring 2016

	Who	College	Department
1	Bob Hartman	Business	Accounting
2	Michael Hill	CLAS	English
3	Amanda Van Horne	CLAS	Speech Pathology & Audiology
4	Daniel Caplan	Dentistry	Preventive & Community Dentistry
5	Leonardo Marchini	Dentistry	Preventive & Community Dentistry
6	Joseph Ochola	Education	Educational Technology Center
7	Nancy Langguth	Education	Teaching & Learning
8	Asghar Bhatti	Engineering	Civil-Environmental Engineering
9	Hans Johnson	Engineering	Electrical and Computer Engineering
10	James Buchholz	Engineering	Mechanical Engineering
11	Paul Gowder	Law	Law
12	Daniel Gall	Libraries	Libraries Distance Ed Services

13	Darren Hoffmann	Medicine	Anatomy & Cell Biology
14	Mike Kelly	Pharmacy	Academic Affairs
15	Morgan Sayler	Pharmacy	Applied Clinical Sciences
16	Stevie Veach	Pharmacy	Applied Clinical Sciences
17	David Eichmann	SLIS	Graduate College
18	Brett Cloyd	Libraries	Reference & Government Information Librarian
19	Troy Atwood	UIHC	Healthcare Information Systems
20	Samuel Melessa	Business	Accounting
21	Katherine Walden	CLAS	Rhetoric
22	Julie Jessop	Engineering	Chemical & Biochemical Engineering
23	Kate Hassman	Libraries	
24	Catherine Cranston	Libraries	
25	David McGraw	CLAS	Theater
26	Iulian Vamanu	SLIS	Graduate College
27	Pamela Wesely	Education	Secondary Education
28	Christina Boyles	SLIS	Graduate College
29	Heidi Lung	CLAS	Museum Studies
30	Pilar Marce	CLAS	Spanish & Portuguese

Appendix D – Faculty and Student Comments

Instructors' Comments – *note that all comments are verbatim from the survey with no editing or correction*

When asked what Canvas does most effectively, instructors reported:

- *Summer 2015*
  - o Grading: SpeedGrader function, made grading faster and more efficient
  - o Communication with students: a notification feature associated announcement & mobile app
  - o Interface is better
  - o Easy to create and edit content: Direct editing function
- *Fall 2015*
  - o Calendar organization to the course. Students know what's due and when
  - o Overall interface is excellent and responsive compared to ICON
  - o Compared to ICON less clicks to complete the task at hand. Also, I think it looks so much better than ICON which looks outdated. Images and videos are easily imported. Communication with students. I like the notifications Canvas sent me when I had a student contacting me.
  - o Grading. Rubrics are wonderful, Speed Grading is excellent. And I have a lots of small, participation-based assignments. Being able to click on full-credit for a 2-point project for all but those who were absent is terrific.
  - o Allow for customizing delivery of course materials through the Pages feature. In ICON, I embedded wiki pages into the homepage for this. However, in Canvas the Pages feature provides a seamless integration of a wiki.
  - o I like "less clicks" and the analytics. I enjoy being able to give students feedback in different forms of media. I very much like the Discussion tool. It looks more up to date. Having been new to both ICON and Canvas this semester, I very much preferred Canvas for ease of set up. I am sure there are several tools I am not using with Canvas that I would find useful.
  - o It will be very painful to go back to ICON. The rubrics alone would be the selling point. But the SpeedGrader is excellent for providing detailed feedback and back-and-forth conversations for ongoing assignments. I also really loved the Modules so that I could make a long-term assignment appear for multiple class sections easily. And if I need to add information or make an adjustment to an assignment, I could do it in one place and it would appear everywhere. I changed the submission format for a project a week after assigning it but a week before it was due and I only had to make the change in one place.

When asked what support/training should be provided to faculty using Canvas for the first time, instructors reported:

- *Summer 2015*
  - o Instructors would need assistance helping to transfer materials from ICON to Canvas.
  - o Understand how the "assignments and gradebook work and link up."
  - o Initial training
  - o Set up a forum or establish time each week when faculty could drop in to discuss issues.

- *Fall 2015*
  - o I self-figured it out, it was that easy.
  - o I wish I had known more about the analytics before I started. How to migrate course content from ICON to Canvas will be most useful.
  - o Tutorial
  - o I did not require any support at launch.
  - o Course templates should be available for basic course functions. I wish I had a better understanding of the differences between Pages and Modules and their functions within Canvas.

When asked about drawbacks or gaps of Canvas, Instructors reported:

- *Summer 2015*
  - o Need an email function
  - o It is problematic that in order for the gradebook to work there need to be correlating assignments turned in in the dropbox (e.g., grade for participation)
  - o Setting the gradebook was difficult
  - o In the gradebook, a total grade and assignment grades cannot be turned off.
  - o See attendance in a different format
  - o Problems with the content posted under the "file" tab – could not see the files and uploaded content depending on the browser.
  - o File upload system
  - o The ability to give bonus points
  - o The ability to use a PowerPoint show
  - o Some students had problems in seeing images
  - o The exam function is not as customizable compared to D2L (currently in ICON).
  - o Needs to be quicker navigation between groups and to get back home, count a Discussion posts and responses per student
- *Fall 2015*
  - o Only drawback I've found is not being able to drag and drop files like I can in D2L.
  - o Analytics on time spent watching/listening to recordings (accessed via Canvas but coming from Sharestream).
  - o File interface system could be better, display power point without ability to locally download the file.
  - o The discussions cannot be put into folders. I had to constantly pin/un-pin discussions to help students find the current topics.
  - o I never mastered control of the automated Canvas Notifications sent each Sunday night. Canvas also incorrectly reported to students the time that assignments were due (I expect this was because the students did not have the time zone set correctly). / There should also be better control of the Pages Interface with greater opportunity for the Instructor to organize the course pages.
  - o Some simple functions such as "email the whole class" are very clunky. Needs a streamlined way to do that. / Also, having exams and quizzes that need to be created as "assignments" to appear in the gradebook is not intuitive.
  - o Overall it is user, but certain aspects of it including Files are used and how to embed an image how it has to be uploaded is clunky, once you upload an image it does not

immediately update unless you exit out of the questions and return. This is an extremely clunky way of doing things.

- o Setting up simple things in the course in Canvas seemed more difficult than with ICON. It may be because my greater familiarity with ICON, but some aspects of Canvas were not very obvious or manageable. For example, I never managed the Announcements so that useful information was delivered to students. Canvas kept sending notifications after a due date and the email was delivered to the Junk folder. / I couldn't find an option to create a page that was open for students to edit. I ended up needing to use the UI wiki service for this feature. / I also do not like the organization of the Pages interface. There is no way for the user to control the order of the pages other than sorting alphabetically or by date.

Student Comments - *note that all comments are verbatim from the survey with no editing or correction*

When asked what they liked most about Canvas and why, students responded:

- Grades
- It's organized
- I like that the completed grades are right on the side of the home page of canvas
- User friendly
- The grading because it was easy
- The level of organization and categorization. I feel like everything is in a place where I can find it.
- The layout because it makes using the site more fluid.
- The grading
- Being able to input pretend scores to calculate your final grade
- I like the side tool bar that plainly and simply lists all of the pages
- Canvas has a great personality and a beautiful smile
- Format is easy to use.
- The features in the grades section. Many students want to calculate their potential grade if they do well or not so well on assignments. This feature and others in the grades section is helpful information.
- I really like the comments in the grade section because it is a quick response from your instructor letting you know how you did.
- Pretty fast at loading, very little delay at downloading or viewing items
- I liked that the links were on the side

When asked what they liked least about Canvas and how it could be improved, students responded:

- How it doesn't show you what files you have or have not opened and viewed.
- Slow
- Have modules organized better
- Nothing because i thought it was utilized well
- Nothing just similar to icon

- It's hard to maneuver and the interface is not as simple as ICON. It seems like a hassle for both students and professors to learn the new system when there is really nothing wrong with the old system.
- I wish there was a notifications button similar to that of ICON
- You can't tell what links you have opened or used before.
- I don't like how it doesn't tell you what modules you have already opened. This could be fixed by changing the color of the title of the modules after they have been opened.
- It didn't check off what I had done like ICON does and I found myself opening and looking at things I had already looked at. Also everything looked the same, no colors or icons differentiated different sections.
- I just didn't really feel comfortable with the program because I had never used it before and am so used to ICON.

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency. Red Text = language not found in Collegiate Competencies*	CODA	Previous Collegiate Competencies
Critical Thinking *Graduates must be competent to:*	**1.1 Evaluate and integrate emerging trends in health care as appropriate.** *Trends in healthcare, Health care policy, Economic principles of health care delivery , Health care organization and delivery models, Quality assessment and quality assurance , Demographics of the oral health care workforce, Interprofessional health care relationships, Relationship of systemic health to oral health and disease, Impact of political and social climate on health care delivery, Critical evaluation of health care literature*	2-9, 2-19, 5-2, 6-3	**1. Critical thinking** Students must demonstrate competence in the use of critical thinking & problem-solving, including their use in the comprehensive care of patients, scientific inquiry & research methodology. (CODA 2-9) **2. Self-Assessment & Self-Directed Lifelong Learning** Students must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning. (CODA 2-10) **9. Evidence-Based Dentistry** Students must demonstrate competence in the five steps of EBD (to ask the question, to access, critically appraise, & apply) and communicate scientific and lay literature as it relates to providing evidence-based patient care. (CODA 2-21)
	1.2 Utilize critical thinking and problem-solving skills. *Application of scientific method to clinical problem-solving, Evidence-based delivery or oral health care, Clinical reasoning skills , Diagnostic skills, Treatment planning, Self-Assessment, Reading comprehension, Verbal and written communication skills, Computer literacy*	2-9, 2-10, 2-21, 5-2	
	1.3 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. *Application of scientific method to clinical problem-solving, Evidence-based delivery of oral health care, Critical thinking and problem-solving skills, Cultural competence, Communication skills, verbal and written, Reading comprehension, Ethics, Statistics literacy, Computer literacy, Epidemiological methods*	2-9, 2-16, 2-20, 2-21, 5-2, 6-3	

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency.* Red Text = language not found in Collegiate Competencies	CODA	Previous Collegiate Competencies
Professionalism	**2.1 Apply ethical and legal standards in the provision of dental care.** *Ethical decision making and conflicting obligations , Legal and regulatory principles and standards*	2-17, 2-20	**8. Ethical practice of Dentistry** Students must demonstrate competence in the application of the principles of ethical decision making and professional responsibility. (CODA 2-20) **6. Managing the Practice of Dentistry** 6a. Students must demonstrate competence in applying legal and regulatory concepts related to the provision and /or support of oral health care services. (CODA 2-17) **2. Self-Assessment & Self-Directed Lifelong Learning** Students must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning. (CODA 2-10)
	2.2 Practice within one's scope of competence, and consult with or refer to professional colleagues when indicated. *Self-assessment of competence, Standards of care , Communication skills, both orally and in writing , with patients, patient's families, colleagues, and others with whom other health care providers must exchange information in carrying out their responsibilities; Scope of practice of dental and medical specialties and social support services, Identification of community resources for referrals*	2-10, 2-19, 2-20, 2-23c	
Communication & Interpersonal Skills *Graduates must be competent to:*	**3.1 Apply appropriate interpersonal and communication skills.** *Communication theory and skills (interpersonal communication principles, verbal & nonverbal principles conflict resolution, reflective listening), Collaborative teamwork, Emotional & behavioral development & sensitivity , Physiological and psychological indications of anxiety & fear, Addressing patient concerns/issues/problems, Behavior modification & motivation techniques, Special needs/diversity of patients, Health literacy, Language barriers, Cognitive barriers*	2-15, 2-19, 2-24	**4. Foundations in Behavioral Sciences** 4b. Students must demonstrate competence in managing a diverse patient population and have the interpersonal and communications skill to function successfully in a multicultural work environment. (CODA 2-16)
	3.2 Apply psychosocial and behavioral principles in patient-centered health care. *Counseling skills and motivational interviewing principles, Social & behavioral applied sciences, Behavior modification, Fear & anxiety management, Pain management (acute & chronic pain), Geriatrics, Special patient needs, Cultural competence*	2-15, 2-16, 2-24	
	3.3 Communicate effectively with individuals from diverse populations. * Influence of culture on health and illness behaviors, Culture related to oral health, Complementary and alternative therapie s, Communication with patients in a culturally sensitive manner , Communication in overcoming language barriers , Communication with special needs patients, Communication skills to address diversity-related conflict*	2-16, 2-25	

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency.* Red *Text = language not found in Collegiate Competencies*	CODA	Previous Collegiate Competencies
Health Promotion *Graduates must be competent to:*	**4.1 Provide prevention, intervention, and educational strategies.** *Patient and family communication , Education of patient and/or family, Risk assessment, Prevention strategies (intervention, motivation, nutrition); Clinical evaluation*	2-23d	**4. Foundations in Behavioral Sciences** 4a. Students must demonstrate competence in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health. (CODA 2-15) 4b. Students must demonstrate competence in managing a diverse patient population and have the interpersonal and communications skill to function successfully in a multicultural work environment. (CODA 2-16) **7. Interprofessional Health Care** Students must demonstrate competence in communicating and collaborating with other members of the health care team to facilitate the provision of health care. (CODA 2-19) **10d:** health promotion & disease prevention, including diet (CODA 2-23d)
	4.2 Participate with dental team members and other healthcare professionals in the management and health promotion for all patients. *Various practice settings (community setting), Organizational behavior of team, Professional communication, Collaborative and leadership skills, Interprofessional education*	2-16, 2-19, 2-24, 2-25	
	4.3 Recognize and appreciate the need to contribute to the improvement of oral health beyond those served in traditional practice settings. *Cultural competence, Alternative oral health delivery systems, Barriers to improving oral health, Global health, Population trends, National and international health goals*	2-16, 2-25	

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency.* Red Text = language not found in Collegiate Competencies	CODA	Previous Collegiate Competencies
Practice Management & Informatics *Graduates must be competent to:*	**5.1 Evaluate and apply contemporary and emerging information including clinical and practice management technology resources.** *Data analysis for disease trends, basic understanding of computer software, Basic computer utilization skills, Evidence-based literature on practice managemen t, Models of dental practice and types of delivery systems, Application of contemporary electronic information systems, Computer systems for practice management*	2-18	**13. Emerging Technology in Dentistry** Students should be able to evaluate, assess and apply current and emerging science and technology. (CODA 2-23: Intent statement) **6. Managing the Practice of Dentistry** **6b.** Students must demonstrate competence in applying the basic principles and philosophies of practice management , models of oral health care delivery and how to function successfully as a leader of the oral health care team. (CODA 2-18) **10a:** Patient Assessment, diagnosis, comprehensive treatment planning, prognosis & informed consent (CODA 2-23a, 5-1, 5-3)
	5.2 Evaluate and manage current models of oral health care management and delivery. *Business models of dental practice, Effects of governmental health policy decisions, Workforce models, Auxiliary utilization principles , Application of contemporary clinical information systems*	2-18, 5-2	
	5.3 Apply principles of risk management including informed consent and appropriate record keeping in patient care. *Principles of record keeping/documentation, Concepts of professional liability, Risk management protocols, Legal responsibilities in patient care management, Management of patient information, Quality assurance*	2-10, 2-17, 2-18, 2-23a, 5-1, 5-3	
	5.4 Demonstrate effective business, financial management, and human resource skills. *Effective functioning of the oral health care team, Principles of business management , Employment laws and regulations, Reimbursement systems , Basic communication skills, Leadership and motivation skills, Organizational behavior*	2-17, 2-18, 2-18, 2-19, 2-20	
	5.5 Apply quality assurance, assessment and improvement concepts. *Self-assessment for quality improvement , Concepts and principles of quality assurance and quality assessment, Awareness of continuous professional development , Lifelong learning*	2-10, 2-18, 2-20, 5-3	
	5.6 Comply with local, state, and federal regulations including OSHA and HIPAA. *Elements of applicable local, state, and federal regulations; Methods of effective application and pursuance of local, state, and federal regulations*	2-17, 2-20	
	5.7 Develop a catastrophe preparedness plan for the dental practice. *Emergency response planning, Emergency evacuation planning, Preparedness measures and emergency response skills*	2-18	

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency. Red Text = language not found in Collegiate Competencies*	CODA	Previous Collegiate Competencies
Patient Care **A. Assessment, Diagnosis & Treatment Planning** *Graduates must be competent to:*	**6.1 Manage the oral health care of the infant, child, adolescent, and adult as well as the unique needs of women, geriatric and special needs patients.** *Human development (structure & function*), *Pathophysiology of oral and systemic disease, Patient and social /family assessment, Communication, History taking, Exam techniques, Diagnostic tests and evaluation, Diagnosis, Risk assessment, Treatment planning, Implementation , Outcomes assessment*	2-16, 2-19, 2-22, 2-23a, 2-24	**10. Comprehensive General Dentistry** Students must demonstrate competence in providing oral health care within the scope of general dentistry to patients in all stages of life. (CODA 2-22) **11. Patients with special needs** Students must demonstrate competence in assessing the treatment needs of patients with special needs (CODA 2-24). **10g:** communicating & managing dental laboratory procedures in support of patient care (CODA 2-23g)
	6.2 Prevent, identify, and manage trauma, oral diseases and other disorders. *Epidemiology of trauma, oral diseases & other disorders; Patient motivation/education for prevention , Preventing principles and therapies, Patient assessment and treatment planning, Risk analysis , Lab findings, Systemic conditions , Diagnostic skills, Pharmacology and patient medications, Clinical evaluation, Applied biomedical sciences related to trauma , oral diseases, and other disorders*	2-13, 2-14, 2-22, 2-23a, 2-23g	
	6.3 Select, obtain, and interpret patient/medical data, including a thorough intra/extra oral examination, and use these findings to accurately assess and manage all patients. *History acquisition and interpretation, Pharmacotherapeutics, Clinical evaluatio n, Medical and dental referrals, Diagnostic test interpretation , Risk assessment, Assessment and management of patient behaviors, Assessment and management of patient social context*	2-22, 2-23a	
	6.4 Select, obtain, and interpret diagnostic images for the individual patient. *Diagnostic imaging modalities, Interpret forms of imaging used in dental practice , Differential diagnosis, Imaging safety protocols, Imaging technologies and techniques*	2-22, 2-23a	
	6.5 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care. *Systemic manifestations of oral disease, Systemic medical conditions that affect oral health and treatment, Oral conditions that affect systemic health*	2-22, 2-23	
	6.6 Formulate a comprehensive diagnosis, treatment, and/or referral plan for the management of patients. *Clinical evaluation, Diagnostic skills and techniques, Risk assessment & analysis, Patient assessment, Sequencing of treatment , Critical thinking & analysis, Evidence-based healthcare, Treatment presentation , communication & considerations ; Treatment alternatives & financial considerations , Self-assessment of clinical competence & limitations, Referrals, Case management*	2-9, 2-10, 2-21, 2-22, 2-23a, 2-24	

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency. Red Text = language not found in Collegiate Competencies*	CODA	Previous Collegiate Competencies
Patient Care **B. Establishment and Maintenance of Oral Health** *Graduates must be competent to:* ***Competency 6.1 serves as an umbrella competency for all competencies (6.7-6.21) under Establishment and Maintenance of Oral Health.**	**6.7 Utilize universal infection control guidelines for all clinical procedures.** *State/federal regulatory guidelines, Universal in infection control protocols , Applied biomedical sciences related to transmission of disease*	2-14, 2-17, 2-22,	
	6.8 Prevent diagnose and manage pain and anxiety in the dental patient. *Psychological & social manifestations of pain , Pathophysiology of pain, Pharmacotherapeutic management of pain and anxiety, Behavioral management of pain & anxiety*	2-15, 2-22, 2-23, 2-23e	**10e:** local anesthesia & pain & anxiety control (CODA 2-23e)
	6.9 Prevent, diagnose, and manage temporomandibular disorders. *Epidemiology of temporomandibular disorders ; Physical, psychological, & social factors; Multidisciplinary approaches , Outcomes assessment, Applied biomedical sciences related to temporomandibular health and disorders*	2-13, 2-14, 2-19, 2-22, 2-23?	
	6.10 Prevent, diagnose, and manage periodontal diseases. *Epidemiology of periodontal disease, Pharmacologic management, Behavioral modification, Nonsurgical management, Surgical management , Applied biomedical sciences related to the periodontium and periodontal diseases*	2-13, 2-14, 2-15, 2-22, 2-23, 2-23i	**10i:** periodontal therapy (CODA 2-23i)
	6.11 Develop and implement strategies for the clinical assessment and management of caries. *Caries risk factors and assessment, Pharmacotherapeutic management, Mechanical management, Behavioral modification , Applied biomedical sciences related to dental hard tissues, disease transmission & caries*	2-14, 2-15, 2-22, 2-23a, 2-23i	**10p:** screening and risk assessment for caries and periodontal disease (CODA 2-23p)
	6.12 Manage restorative procedures that preserve tooth structure, replace missing or defective tooth structure, maintain function, are esthetic, and promote soft and hard tissue health. *Biomechanical concepts, Principles of biomaterial sciences , Behavioral modification , Applied biomedical sciences related to soft and hard tissues*	2-14, 2-15, 2-22, 2-23a, 2-23f	**10f:** restoration of teeth (CODA 2-23f)
	6.13 Diagnose and manage developmental or acquired occlusal abnormalities. *Principles of biomaterial sciences, Multidisciplinary approaches, Behavioral modification, Applied biomedical sciences related to health and pathology of dental hard tissues*	2-13, 2-14, 2-15, 2-19, 2-22, 2-23a, 2-23n	**10n:** malocclusion & space management (CODA 2-23n)
	6.14 Manage the replacement of teeth for the partially or completely edentulous patient. *Principles of biomaterial sciences, Multidisciplinary approaches, Behavioral modification , Principles of biomechanics, Applied biomedical sciences related to oral tissues*	2-14, 2-15, 2-19, 2-22, 2-23a, 2-23h	**10h:** replacement of teeth including fixed, removable & dental implant prosthodontic therapies (CODA 2-23h)

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency.* *Red Text = language not found in Collegiate Competencies*	CODA	Previous Collegiate Competencies
	6.15 Diagnose, identify and manage pulpal and periradicular diseases. *Epidemiology of pulpal and periradicular disease , Principles of endodontic therapy , Applied biomedical sciences related to the pulpal and periradicular tissues and associated diseases*	2-13, 2-14, 2-22, 2-23a, 2-23d, 2-23j	**10j:** pulpal therapy (CODA 2-23j)
	6.16 Diagnose and manage oral surgical treatment needs. *Multidisciplinary approaches, Behavioral modification, Principles of biomaterials, Applied biomedical sciences related to oral surgery*	2-14, 2-15, 2-19, 2-22, 2-23a, 23-l	
	6.17 Prevent, recognize, and manage medical and dental emergencies. *Emergency protocol , Pharmacotherapeutics, Multidisciplinary approaches, Non-pharmacologic approaches , Applied biomedical sciences related to emergency care*	2-14, 2-19, 2-22, 2-23a, 2-23m	**10m:** dental emergencies (CODA 2-23m)
	6.18 Recognize and manage patient abuse and/or neglect. *Signs & symptoms of abuse and/or neglect, Cultural awareness, Behavioral modification, Multidisciplinary approaches, Ethical/legal principles and responsibilities*	2-15, 2-16, 2-17, 2-19, 2-20, 2-22,	**8. Ethical practice of dentistry** Students must demonstrate competence in communicating and collaborating with other members of the health care team to facilitate the provision of health care.
	6.19 Recognize and manage substance abuse. *Signs & symptoms of abuse and/or neglect, Cultural awareness, Behavioral modification, Multidisciplinary approaches, Ethical/legal principles & responsibilities*	2-15, 2-16, 2-17, 2-19, 2-20, 2-22,	**8. Ethical practice of dentistry** Students must demonstrate competence in communicating and collaborating with other members of the health care team to facilitate the provision of health care.
	6.20 Evaluate outcomes of comprehensive dental care. *Criteria for evaluation, Evaluation methods, Mechanisms for continuous quality improvement*	2-9, 2-10, 2-22, 2-23o, 5-3	**10o:** evaluation of the outcomes of treatment, recall strategies & prognosis (CODA 2-23o)
	6.21 Diagnose, identify, and manage oral mucosal and osseous diseases. *Epidemiology of oral soft tissue and osseous diseases, Multidisciplinary approaches, Pharmacotherapeutic management, Nonsurgical management, Surgical management , Applied biomedical sciences related to the health & pathology of oral soft tissue & osseous tissues, Screening & risk assessment for oral, head & neck cancer*	2-13, 2-14, 2-19, 2-22, 2-23a, 2-23b, 2-23d, 2-23k	**10b**: screening & risk assessment for caries, periodontal disease, head & neck cancer (CODA 2-23b) **10k:** oral mucosal & osseous disorders (CODA 2-23k)

IOWA Domains	IOWA (ADEA) Competencies Competencies in Bold. *Supporting foundation knowledge and skills appear in italics below each competency.* *Red Text = language not found in Collegiate Competencies*	CODA	Previous Collegiate Competencies
	Foundation Knowledge for the General Dentist (Joint Commission on National Dental Examinations)	2-11, 2-12, 2-13	**3. Foundations in Biomedical Sciences** 3a. Biomedical science instruction in dental education must ensure an in-depth understanding of basic biological principles, consisting of a core of information on the fundamental structures, functions & interrelationships of the body systems. (CODA 2-11) - Human Physiology (MPB 8115)** - Biochemistry (BIOC 8101)** - Human Gross Anatomy (ACB 8120)** - Histology for Dental Students (ACB 8121)** - Dental Microbiology (MICR 8230)** 3b. The biomedical knowledge base must emphasize that the oro-facial complex is an important anatomical area existing in a complex biological interrelationship with the entire body. (CODA 2-12) 3c. In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis for oral and oral –related diseases. (CODA 2-13) - Human General Pathology (PATH 8133)** - Oral Pathology (OPRM 8235)**
			5. Foundations in Dental Sciences Students must demonstrate preclinical competence (as defined by the Course Director) in each of the following areas 5a. Dental Anatomy (OPER 8120)** 5b. Preclinical Operative Dentistry (OPER 8122)**(CODA 2-23f) 5c. Preclinical Prosthodontics (CODA 2-23h) 5d. Preclinical Periodontics (didactic)(PERI 8140 and PERI 8230)**(CODA 2-23i) 5e. Preventive Dentistry skills (PCD 8116 and PCD 8118)** 5f. Preclinical Endodontics (ENDO 8241)**(CODA 2-23j) 5g. Anesthesia & Pain control (OMFS 8115)** (CODA 2-23e) 5h. Oral and Maxillofacial Radiology (OPRM 8120 and OPRM 8245)** 5i. Preclinical Orthodontics (ORDN 8235)** (CODA 2-23n)
			12. Community-based learning experiences Students must participate in community-based learning experiences. (CODA 2-25)