# Improving Canvas for Students in the Ultrasound and X-ray Programs at Cox College

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#### I. Background and Statement of the Problem

The experience using Canvas for Ultrasound and X-ray students at Cox College could be improved. Canvas is an integral part of their learning journey. When their interaction with the platform is improved, their learning potential will also improve. In the long run, this will increase their knowledge and understanding of the instructional material and, ultimately, will improve patient outcomes. This project will determine ways to improve student learning through interaction with the Canvas LMS. Training will be provided to instructors in the Ultrasound and X-ray programs to improve the Canvas interface and communications, which will improve student experiences.

#### II. Needs Analysis

#### A. Overview

Students in the Ultrasound and X-ray programs at Cox College in Springfield, Missouri were surveyed by Group 8 team members to identify areas on the Canvas LMS that unfavorably impact their learning, for example, a felt and expressed need of students finding the varying formats of modules between courses to be confusing and hard to use. Two instructors of the Ultrasound and X-ray courses were also surveyed and expressed the need for more training on basic features of the LMS (for new users), tutorials, and transparency for updates to the LMS's tools.

This training seeks to analyze the needs of the instructors and students. This will fill the normative need, as determined by the results of surveys, of optimizing the training of instructors on Canvas' tools and features to improve learner outcomes and lessen frustration with the LMS.

#### B. Data Methods and Analysis

Two methods were used to collect data. The first method was a survey completed by one class of Ultrasound students and one class of X-ray students at Cox College in Springfield, MO. The survey consisted of ten questions relating to Canvas LMS and how the instructors used the LMS, areas the students found difficult to use, and their feelings about Canvas (easy or not easy to use and why). (See Appendix 1.) For this portion of the needs assessment, we received responses from 27 students. Students also commented on what could be done to improve problem areas in Canvas.

The second method used was an email interview consisting of six questions that was sent to one instructor of Ultrasound courses and one instructor of X-ray courses at Cox College in

Springfield, MO. These questions were similar to those asked of the students and included questions on what the instructors themselves found difficult, what training or guidance the college provided on the creation of Canvas courses, and what they thought could be done to improve Canvas for both students and instructors. (See Appendix 2.) We received two responses.

Data Source	Analysis Informed	Sample/Data Size   Sampling Method
Learner Survey	Gap - Students have a difficult time finding resources on different class Canvas LMS. (submitting assignments and finding information is difficult)	Survey completed by 27 Ultrasound and X-ray students at Cox College in Springfield, MO
Learner Survey	Needs - Students need a more consistent layout between courses so that they can more easily access information between courses.	Survey completed by 27 Ultrasound and X-ray students at Cox College in Springfield, MO
Interview with SME #1	Task - need more training on new features and how to use the LMS before training someone else.	Emailed interview correspondence with SME #1
Interview with SME #2	Needs - an online reference for questions would be beneficial	Emailed interview correspondence with SME #2
Interview with SME #2	Gap - not comfortable using the testing feature, so it is not utilized	Emailed interview correspondence with SME #2

#### C. Gap Analysis

The Canvas LMS that Ultrasound and X-ray students use while learning online could be improved to increase their engagement and learning success. Developing a consistent layout for instructors to use for their courses and training instructors on how to utilize the Canvas LMS more effectively will help lessen the frustration learners experience and increase their engagement with the platform.

<b>Current State</b>	Desired State	Root Cause	Evidence of Root Cause	Strategies to Address
Instructors are not utilizing all of the features and analytics in	Improve instructor usage and engagement with the Canvas	Lack of training for instructors on how to use Canvas, which	We interviewed two teachers at Cox College. One instructor	Train instructors on how to use key Canvas features so they
Canvas	LMS	makes it difficult	stated they	can train and

		for students using Canvas to have a positive learning experience	never received training, and it's "hard to make it easier for someone else when you are still learning how to make it easy for yourself."	teach students to make their learning experience a success
Students are frustrated with the layout of the Canvas LMS and how it isn't consistent between instructors.	Create standardized templates and course shells that are easy to use and adapt for a variety of courses within Cox College.	Lack of consistent department-wid e templates for instructors to use	We interviewed the students and discovered that there was frustration with the layout of the Canvas LMS. They stated they were often so differently formatted that it made locating information or turning in assignments difficult.	Work with the department to create standard course templates for instructors to use and train instructors on how to create courses with the new Canvas templates so they can make courses uniform from class to class. A faculty champion is needed to make this happen.

Teachers are resistant to change and want to maintain the status quo.	Teachers would be willing to adapt to new ways of creating Canvas courses independently. Openness to learning and adapting to new technologies and platforms.	Lack of teaching experience, training, resources, and time to make adjustments.	We interviewed two teachers at Cox College. One instructor stated they never received training on Canvas making it hard to understand and teach others how to use it. One instructor seemed very resistant to changing her layout on Canvas. This is her first year teaching, and she is using all her energy getting through the year.	Support teachers with training through workshops, in person or virtually. Offer ongoing support through helpdesk services and online resources to help navigate and utilize Canvas effectively.
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#### i. Implications of Gap Analysis for Training Design

The training should focus on teaching instructors how to more effectively utilize the Canvas LMS, specifically layout consistency, assignment management, course content organization, and communication so the courses are more consistent across classes to improve student experience and learning.

Additionally, standardized templates and course shells would be beneficial, but this is beyond the scope of this project.

#### D. Learner Analysis

Twenty-seven student survey responses and two instructor interview responses were received as results of data collection completed by Group 8 regarding feelings toward Canvas, demographics of users, and needs of users. The students and instructors are part of the Ultrasound and X-ray courses at Cox College in Springfield, MO. The learning environment for the students is hybrid, with a mix of in-person learning in an on-campus classroom and virtual learning on Canvas. Tools that the instructors use in Canvas are listed in the instructor chart below. The student survey results informed the interviews that were conducted with the instructors.

#### i. Learner Analysis - Students

Category	Data Sources	Learner Characteristics
Entry behaviors	Survey from Class	Have knowledge of how to
		operate a computer, navigate

		a web browser and login to Canvas, and how to navigate between pages on Canvas.
Prior Knowledge of Topic	Survey from Class	Several years of experience working with Canvas (1-5 years of using Canvas).
Attitudes toward content	Survey from Class	Generally positive, but expressed frustration at inconsistent layout between courses which makes using Canvas confusing or not as user-friendly.
Attitudes toward delivery system [technology, training format]	Survey from Class	Generally positive but have issues with formatting and tools not being intuitive or easy to learn/access.
Motivation for Instruction	Survey from Class	Taking courses at Cox College that utilize Canvas.
Demographics [specifics vary by project- age, gender, years of experience in job, etc]	Survey from Class	College-aged, mostly seniors.

## ii. Learner Analysis - Instructors

Category	Data Sources	Learner Characteristics
Entry behaviors	Interview with SME #1 Interview with SME #2	SME#1- On Canvas - Pages, Modules, Navigation Tabs, Mystery Paths, Assignments, Quizzes, Discussion Boards, Announcements, LockDown Browser, Studio, Files SME#2 - Knowledge of modules that allow them to post PowerPoint, videos, and quizzes
Prior Knowledge of Topic	Interview with SME #1 Interview with SME #2	Several years of experience working with Canvas - The instructors have one and three years of experience using using Canvas as

		instructors. They have two years of prior experience as students using Canvas.
Attitudes toward content	Interview with SME #1 Interview with SME #2	Generally positive, but expressed frustration at inconsistent layout between courses which makes using canvas confusing or not as user-friendly. An online guide for questions or a tutorial system when questions arise is desired.
Attitudes toward delivery system [technology, training format]	Interview with SME #1 Interview with SME #2	Generally positive. However, Instructors would like to see more training and support for Canvas for all employees.
Motivation for Instruction	Interview with SME #1 Interview with SME #2	Instructing students through Canvas for Ultrasound classes at Cox College in Springfield; making facilitating student learning and improved student outcomes easier.
Demographics [specifics vary by project- age, gender, years of experience in job, etc]	Interview with SME #1 Interview with SME #2	Instructors - 1st and 3rd year teachers; they have three and five years total experience with Canvas; both instructors are females in their mid-30s.

#### iii. Implications of Learner Analysis for Training Design

The majority of our training will focus on the instructors instead of student learners as we initially planned. After interviewing the students, we discovered that there was frustration with the layout of the Canvas LMS; they were often so differently formatted between courses that it made locating information or turning in assignments difficult. The training will focus on how to use four key features of the Canvas LMS (layout consistency, assignment management, course content organization, and communication).

Additionally, consistent course layouts and course templates would provide a better experience for instructors and students. This is beyond the scope of this project. Cox College is scheduled to merge with Ozarks Technical Community College (OTC). After the merger, conversations with the OTC Center for Academic Innovation (CAI) should be scheduled to determine if OTC utilizes a standard template. If it does, arrangements can be made to assist the Ultrasound and X-ray

faculty in updating their courses. If standard templates are not utilized, faculty and leadership champions should be identified to assist in creating the standard templates.

#### **E. Contextual Analysis**

Canvas, as the primary platform for course delivery and interaction in the Ultrasound and X-ray program, plays a crucial role in facilitating learning experiences for students. However, a thorough examination of the contextual factors surrounding its usage reveals areas for potential improvement and optimization to enhance student engagement and usability. (Modified ChatGPT, Appendix 3)

#### a. Orienting Context

**Learner Factors:** Instructors stated in their interview responses that they feel comfortable using Canvas and creating their courses. They indicated that there are several features where additional training would be beneficial to help them feel more confident and competent using the features in their courses. The instructors are open to additional training and resources on how to use Canvas and to using a standardized template.

**Immediate Environment Factors:** The immediate environment encompasses Canvas's digital interface, including its responsiveness, loading times, and consistency in displaying assignments across different devices (e.g., mobile vs. browser). (ChatGPT, Appendix 3)

Organizational Factors: While instructors have the autonomy to design their Canvas courses, this freedom can lead to inconsistencies in layout and navigation, posing challenges for students in adapting to different course structures. When colleges and universities provide department-wide templates, consistency across courses is improved. Templates would improve the instructor's productivity and effectiveness and would improve the student experience. Department leadership would need to approve this change and allocate resources to determine the standardized template and train instructors regarding implementation. (Modified ChatGPT, Appendix 3) It is unclear at this time if the department is open to creating standardized templates. Additionally, Cox College is scheduled to merge with Ozarks Technical Community College (OTC). It is unknown if OTC utilizes standardized templates. Additional conversations need to occur at a departmental and college level to ascertain what training or discussions need to occur to develop standardized templates and buy-in.

#### b. Instructional Context

Initial training will occur via a self-paced online training. The training will demonstrate how to utilize key Canvas features and how to implement them. Drop-in support sessions will be available for instructors to implement what they have learned into their own courses and receive assistance as needed.

Ongoing instructor support will be provided through the Ozarks Technical Community College (OTC) Center for Academic Innovation (CAI). As of the creation of this report in April 2024, Cox College is scheduled to merge with OTC. After the merger, Cox College instructors will have access to OTC faculty resources. Support will include instructional design support, such as

curriculum development, learning experience and assessment design, content development, delivery strategy development, individualized consultations, and Canvas training and support. (https://faculty.otc.edu/center/instructional-design/)

#### c. Performance Context

Instructor training should aim to equip faculty with the knowledge and skills necessary to develop Canvas courses using four key strategies. By providing guidance on these key strategies for layout design, assignment management, course content organization, and communication, training initiatives empower instructors to create a consistent learning environment across courses. (Modified ChatGPT, Appendix 3)

After completing the training, instructors can collaborate with instructional design support staff to revise their courses. They can ask questions and receive feedback on the modified course design. Through the hands-on application of the standardized template training, they will acquire fluency that will enable them to update additional courses.

#### i. Implications of Contextual Analysis for Training Design

Training initiatives should focus on teaching faculty to incorporate four key Canvas course design principles, particularly in areas such as layout consistency, assignment management, course content organization, and communication. Additionally, efforts to standardize layout and formatting across courses can contribute to a more uniform and intuitive user experience for students, ultimately improving engagement and learning outcomes. (Modified ChatGPT, Appendix 3)

#### III. Task Analysis

Faculty instruction will be provided on four key areas:

- The Canvas interface Understanding how to create a course with Canvas navigation, layout, and modules.
- **Effective Assignment Management** Understand how to create and manage assignments within Canvas.
- **Organizing Course Content** Understand how to organize course content such as course materials, files, videos, syllabus, and course schedules.
- Facilitating Communication Understand how to utilize communication tools within Canvas such as announcements and discussions to facilitate interactions between instructors and students, as well as among students themselves.

Additional Canvas training will be provided by the OTC CAI. This project will specifically focus on training instructors on how to utilize the above four areas and how to locate additional support and resources through the OTC CAI.

Topic Analysis	Topic Analysis			
Topic	Description			
The Canvas interface	Understand how to create a course with Canvas navigation,			
	layout, and modules.			
Effective Assignment	Understand how to create and manage assignments within			
Management	Canvas.			
Organizing Course Content	Understand how to organize course content such as course			
	materials, files, videos, syllabus, and course schedules.			
Facilitating Communication	Understand how to utilize communication tools within Canvas			
	such as announcements and discussions to facilitate			
	interactions between instructors and students, as well as			
	among students themselves.			
Procedural Analysis				
Procedure	Description			
Training Material	Identify key areas requiring training, such as Canvas navigation			
Development	and layout, assignment management, course content			
	organization, and communication strategies. Develop			
	comprehensive training materials.			
Training Sessions	Schedule hands-on training sessions for instructors. Provide			
	opportunities for practice and clarification of concepts.			
Support Resources	Offer ongoing support through helpdesk services, online			
	resources, and additional support materials such as FAQs and			
	troubleshooting guides.			
Implementation and	Encourage teachers to implement training insights into their			
Feedback	teaching practices. Collect feedback to identify areas for			
	improvement.			
Monitoring and Evaluation	Monitor teachers' use of Canvas and evaluate training			
	effectiveness based on feedback and observed improvements.			
	Continuously iterate on training strategies.			

## A. Facts/Concepts

## 1. Understanding Canvas Interface:

• **Course Creation**: Understand the steps involved in creating a new course shell, including setting up course details, customizing course settings, and adding users.

- **Canvas Navigation:** Familiarize instructors with the layout of Canvas, including the course navigation menu and sidebar.
- **Modules:** Modules are a way to organize course materials and assignments logically. Instructors should understand how to create modules using a weekly modular structure.

#### 2. Assignment Management Process:

- Assignment Creation: Instructors should learn how to create various types of assignments (e.g., online, file uploads, text entries) and set different submission types, due dates, and grading criteria.
- **Assignment Groups:** Understand how to organize assignments into groups and manage assignment categories for easier grading and organization.

#### 3. Organizing Course Content:

- **Course Materials:** Instructors should know how to upload and organize various types of content, including documents, presentations, videos, and external links.
- **Syllabus:** Instructors should be able to create a syllabus page.
- **Course Schedule:** Instructors should utilize the Calendar feature to schedule and organize course events.

#### 4. Facilitating Communication:

- **Announcements:** Instructors should understand how to create and send announcements to communicate important information to students.
- **Discussions:** Utilizing discussion boards for fostering student interaction, including creating discussion topics, moderating discussions, and grading discussions.

(Modified ChatGPT, Appendix 5)

#### **B.** Procedures

#### 1. Understanding Canvas Interface:

#### a. Creating a Course:

- 1. Log in to Canvas
- 2. In the Global Navigation Menu, click the Dashboard link.
- 3. In the Dashboard sidebar, click the Start a New Course button.

  Note: If you do not see this button in Canvas, your institution has disabled this feature.
- 4. In the Course Name field, enter the name for your course. A course code is automatically created based on the first string of connected characters in the course name. If allowed by your institution, the course code can be changed in Course Settings.
- 5. To create the course, click the Create button. To cancel course creation, click the Cancel button.

6. View the new course. Depending on your institution's preference, you can use either the Course Setup Checklist or the Canvas Course Setup Tutorial to populate your course.

(Note: This information was taken from an Official Instructor Guide for Instructors by Canvas https://guides.instructure.com/m/4152/l/41327-how-do-i-create-a-new-course-from-the-da shboard-as-an-instructor)

#### b. Navigating the Canvas Interface:

To view the Global Navigation, Course Navigation, Sidebar, and Help link:

- 1. The Global Navigation helps you get to where you want to go across all of your Canvas courses.
- 2. The Course Navigation helps you get to where you want to go within your student's course(s). The Navigation shows you where you have navigated to inside of a course and gives you a quick and easy way to move backward.
- 3. Depending on the page you are visiting, your student's upcoming assignments and events may be displayed.
- 4. The Help link is very important. To ask for assistance from your student's teacher or the Canvas Support Team, click the Help link.

#### c. Creating Modules:

Modules are used to organize course content by weeks, units, or whatever organizational structure works for your course. With modules, you are essentially creating a one-directional linear flow of what you would like your students to do. Once you create modules, you can add content items, set prerequisites, and add requirements. Steps include:

- 1. Open Modules
- 2. In Course Navigation, click the Modules link.
- 3. Click the Add Module button.
- 4. Add Module Name. Type a name in the Module Name field.
- 5. Lock Module Date
- 6. Add Module Prerequisites

  If you have added at least one module to your course, you can require a prerequisite module. A prerequisite module means students must complete the added modules before they can view the new module.
- 7. Click the Add Module button.
- 8. View your created module.

9. To add items to your module, click the Add icon or drag and drop to add files to an empty module.

#### 2. Assignment Management Process:

#### a. Creating Assignments Option 1:

- 1. Navigate to the Assignments tab within your course.
- 2. Click on the "+ Assignment" button.
- 3. Fill in assignment details such as name, description, due date, points possible, and submission type.
- 4. Choose assignment settings such as availability dates, submission types, and peer review options.
- 5. Click on the "Save & Publish" button to create the assignment.
- 6. Add the assignment to the appropriate module by navigating to the Modules tab and clicking the "+" next to the module to which you want to add the assignment. Click on the assignment you want to add to this module, choose if you want to indent or not indent, and click "Add Item."

#### a. Creating Assignments Option 2:

- 1. Navigate to the Modules tab.
- 2. Click the "+" next to the module to which you want to add the assignment. Ensure assignment is chosen in the dropdown box for "Add [Assignment] to [Module Name]."
- 3. Click on "[Create Assignment.]"
- 4. Enter assignment name and choose if you want to indent or not indent.
- 5. Click "Add Item."
- 6. Click on the new assignment to open it.
- 7. Click "Edit" to enter assignment details such as name, description, due date, points possible, and submission type. Also, choose assignment settings such as availability dates, submission types, and peer review options.
- 8. Click "Save & Publish."

#### c. Managing Assignment Groups:

- 1. Navigate to the Assignments tab and click on the "+ Groups" button.
- 2. Create assignment groups based on categories or grading criteria.
- 3. To assign weights to each assignment group for weighted grading, click on the three dots next to "+ Group" and "+ Assignment" buttons, click on Assignment Groups Weight, and check the box for "Weight final grade based on assignment groups."
- 4. Drag and drop assignments into the appropriate assignment groups or to rearrange the assignments.

(Modified ChatGPT, Appendix 5)

#### 3. Organizing Course Content:

#### a. Uploading Course Materials:

You can add a file to your course by uploading a file. You can also import files using the

course import tool in Course Settings. As an instructor, you can drag and drop files from your personal files into course files. Steps include:

- 1. Open Files
- 2. Click Upload File
- 3. Click the title of the file you want to upload and click the Open button.
- 4. Upload Files via Drag and Drop. Some web browsers contain a unique feature that allows the user to add to files by simply dragging and dropping the files from a file window directly into the Canvas file repository. Click the title of the file you wish to add and drag the file to your open browser. Your file will automatically upload.
- 5. View Upload Progress
- 6. View File

#### **b.** Creating Syllabus:

- 1. Access the Syllabus tab within your course.
- 2. Click on the "Edit Syllabus Description" button to customize the syllabus page.
- 3. Add course details, objectives, policies, and other relevant information.
- 4. Utilize the Calendar feature to schedule course events, assignments, and other activities.
- 5. Embed the syllabus page and calendar within course modules for easy access.

#### c. Creating Course Schedule:

- 1. Log in to Canvas and navigate to the desired course.
- 2. 2. Click on the "Calendar" link in the course navigation menu.
- 3. Once you're in the Calendar view, click on the date and time slot where you want to create the event.
- 4. A pop-up window will appear. Click on the "+ Event" button within the pop-up window.
- 5. Fill in the event details.
- 6. Save the event.

(Modified ChatGPT, Appendix 5)

#### 4. Facilitating Communication:

#### a. Sending Announcements:

- 1. Navigate to the Announcements tab within your course.
- 2. Click on the "+ Announcement" button.
- 3. Enter a subject and message for the announcement.
- 4. Choose posting options such as delayed posting or sending to specific sections/groups.
- 5. Click on the "Save" button to post the announcement.

#### **b.** Creating Discussions:

- 1. Navigate to the Discussions tab within your course.
- 2. Click on the "+ Discussion" button.

- 3. Enter a title and description for the discussion topic.
- 4. Choose discussion settings such as availability dates, grading options, and group settings.
- 5. Click on the "Save" button to create the discussion topic.

(Modified ChatGPT, Appendix 5)

#### IV. Training Design

#### A. Broad Goals

Our training goal is:

 Instructors will be able to create a sample Canvas course incorporating four key Canvas features: layout consistency, assignment management, course content organization, and communication.

#### **B.** Overview of Training Design

The training will be a self-paced online training housed in a Canvas training course that focuses on the importance of utilizing four key Canvas design principles: layout design, assignment management, course content organization, and communication. This training will consist of a recorded screencast demonstrating how to create a Canvas course using the four design principles. Accompanying handouts will also provide step-by-step instructions. Instructors will practice carrying out the steps in a sandbox environment.

Drop-in sessions at the OTC CAI will be available to instructors to receive assistance.

#### C. Learning Objectives

bjective 1: Instructors will be able to demonstrate how to create a new Canvas course with a course navigation menu and two weekly modules.

Objective 2: Instructors will be able to create three assignments of different submission types, due dates, and grading criteria.

Objective 3: Instructors will be able to organize Canvas course materials by uploading a PDF, video, and external link.

Objective 4: Instructors will be able to create a syllabus and upload it to the sample course.

Objective 5: Instructors will be able to create a calendar event on their sample course.

Objective 6: Instructors will be able publish an announcement on their sample course.

Objective 7: Instructors will be able to create a graded discussion on their sample course.

Objective 8: Instructors will be able to locate additional resources and support for Canvas course design at the end of the workshop.

#### **D.** Learning Experiences

The training will occur via watching screencast videos and/or following instructions on handouts. The training will demonstrate how to utilize four key Canvas design principles: layout design, assignment management, course content organization, and communication. Instructors will follow along and practice creating a Canvas course in a sandbox environment.

Ongoing instructor support will be provided through the OTC CAI. Support will include instructional design support, such as curriculum development, learning experience and assessment design, content development and delivery strategy development; individualized consultations; and Canvas training and support.

In addition to the training described above, standard templates and course shell examples would also be beneficial but are beyond the scope of this project. The instructional design support staff and department leadership will need to work together to design standardized templates and approved variations. Faculty and leadership champions need to be identified.

Learning Objective	Instructional Strategy	Assessment Strategy	Time
Objective 1: Instructors will be able to demonstrate how to create a new Canvas course with a course navigation menu and two weekly modules.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.  Generative Activity: Instructors will carry out the task in a sandbox environment.	Instructors will submit "I have completed this assignment." on the assignment in the Canvas training course. Facilitators will verify that the task was completed correctly in the sandbox environment.	Varies
Objective 2: Instructors will be able to create three assignments of different submission types, due dates, and grading criteria.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.  Generative Activity: Instructors will carry out the task in a sandbox environment.	Instructors will submit "I have completed this assignment." on the assignment in the Canvas training course. Facilitators will verify that the task was completed correctly in the	Varies

		sandbox environment.	
Objective 3: Instructors will be able to organize Canvas course materials by uploading a PDF, video, and external link.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.  Generative Activity: Instructors will carry out the task in a sandbox environment.	Instructors will submit "I have completed this assignment." on the assignment in the Canvas training course. Facilitators will verify that the task was completed correctly in the sandbox environment.	Varies
Objective 4: Instructors will be able to create a syllabus and upload it to the sample course.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.  Generative Activity: Instructors will carry out the task in a sandbox environment.	Instructors will submit "I have completed this assignment." on the assignment in the Canvas training course. Facilitators will verify that the task was completed correctly in the sandbox environment.	Varies
Objective 5: Instructors will be able to create a calendar event on their sample course.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.  Generative Activity: Instructors will carry out the task in a sandbox environment.	Instructors will submit "I have completed this assignment." on the assignment in the Canvas training course. Facilitators will verify that the task was completed correctly in the sandbox environment.	Varies
Objective 6: Instructors will be able publish an announcement on their sample course.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.	Instructors will submit "I have completed this assignment." on the assignment in the	Varies

	Generative Activity: Instructors will carry out the task in a sandbox environment.	Canvas training course. Facilitators will verify that the task was completed correctly in the sandbox environment.	
Objective 7: Instructors will be able to create a graded discussion on their sample course.	Presentation: Watch the screencast video demonstrating how to carry out the task described in the objective.  Generative Activity: Instructors will carry out the task in a sandbox environment.	Instructors will submit "I have completed this assignment." on the assignment in the Canvas training course. Facilitators will verify that the task was completed correctly in the sandbox environment.	Varies
Objective 8: Instructors will be able to locate additional resources and support for Canvas course design at the end of the workshop.	Presentation: Additional resources will be provided, including design principles instructions and the OTC Center for Academic Innovation services website link.  Generative Activity: Instructors will schedule an individualized consultation with the OTC Center for Academic Innovation.	of their scheduled appointment	10 min

#### E. Assessment Plan

#### **Formative assessment:**

- Instructors will submit "I have completed this assignment." on each assignment in the Canvas training course. The training facilitators will verify that the task was completed correctly in the sandbox environment.
- Instructors will submit a screenshot of their scheduled appointment confirmation with the OTC CAI.

#### **Summative assessment:**

• Facilitators will verify that the instructors completed all tasks in the Canvas training and ensure accuracy and adherence to requirements.

### F. Implementation Plan

#### **Canvas Training Course**

Training Needs:

- Laptop or desktop computer
- Internet access
- Access to a printer

#### Prior to the training:

• Instructors need to be granted access to the Canvas training course and the sandbox environment prior to the workshop.

#### After the training:

- OTC CAI staff will verify that the instructors completed the exercises in the sandbox environment.
- OTC CAI staff will verify that instructors submitted a screenshot of their scheduled appointment confirmation.

#### V. Evaluation Plan:

#### A. Formative Evaluation

The formative evaluation will be conducted via an expert review with the instructional designers, a one-to-one usability observation with the two instructors, a small group meeting consisting of the Group 8 team members and the subject matter experts interviewed, and a field test utilizing the instructors from the original Ultrasound and X-ray courses.

The formative evaluation will be conducted early in the development process, but also throughout as needed, to ascertain whether the Canvas training course is clear and easy to follow. Based on their feedback, the training will be adjusted to ensure those needs are met.

#### Approaches to gain information:

<u>One-to-One Usability Observation:</u> A proctored usability test will be conducted wherein one to two learners will (at separate times) go through sections of the training and provide feedback through questionnaires and verbal comments. See Appendix 6.

<u>Small group:</u> During a small group meeting between the Group 8 team members and the subject matter experts originally interviewed, the training will be discussed to determine if training needs have been met through the training.

<u>Field test:</u> A field test will be conducted utilizing the instructors from the original Ultrasound and X-ray courses. Collected data will consist of a Qualtrics survey feedback on what works for the instructors, what makes sense, what they do not like, what is intuitive or not, and recommendations from the instructors on what can be improved based on their experience using the training. See Appendix 7.

#### **B. Summative Evaluation**

To determine the effectiveness of the training and evaluate the instructors' reactions to the training, the instructors will complete a survey at the conclusion of each workshop. Metrics will be collected to determine the effectiveness of the skills development training, and facilitators will evaluate adherence to the course development best practices.

#### Post-training surveys

After completing the training, participants will complete a survey sent via Qualtrics. Based on the feedback, the facilitators can determine if the step-by-step instructions should be revised. See Appendix 8.

#### C. Confirmative Evaluation

Instructors at Cox College will have learned how to create a Canvas course utilizing four key Canvas features: layout consistency, assignment management, course content organization, and communication. Instructors will be surveyed before the training and six months after the training to see if they are able to implement the four key Canvas features and know how to receive ongoing support.

For the confirmative evaluation, we want to ensure that the following goals are met.

- Instructors will be able to create online Canvas courses that enhance student learning and engagement.
- Instructors will know how to receive ongoing support such as training, 1:1 consultations, and additional resources.

To evaluate the effectiveness of the training, we will conduct a post-training survey of the instructors (see Appendix 2) and repeat the student survey (see Appendix 1) after the next two semesters. We will also conduct instructor focus groups (see Appendix 9) and analyze Canvas analytics of student interaction with the platform.

#### Post-training survey

Instructors will be surveyed using the same questionnaire as during the needs analysis six months after the training. The survey results will be compared to the initial surveys conducted during the needs analysis phase to determine what impact the training had on their understanding of how to create a Canvas course. (See Appendix 2)

#### Student survey

Students will be surveyed using the same questionnaire as during the needs analysis at the end of the next two semesters. The survey results will be compared to the original surveys conducted during the needs analysis phase to determine if the courses are more consistent and easier to navigate, thus improving student engagement and success. (See Appendix 1.)

#### Instructor focus groups

Focus group discussions will take place at the end of the semester following the training. The purpose will be to determine the instructor's experience with the training, identify areas that were helpful in increasing their skills and confidence, and areas that need improvement. The focus groups will be conducted through a synchronous meeting that is informal in nature to encourage discussion and dialogue. Questions will be posed to the focus group participants and answers will be recorded by an observer. (See Appendix 9.)

#### **Analytics analysis**

Collect quantitative metrics related to course engagement, such as student participation rates, assignment submission rates, and discussion forum activity before and after the training, and compare the data to identify any significant changes.

#### VI. Instructional Materials / Prototype

Sample video training: <a href="https://vimeo.com/934522502">https://vimeo.com/934522502</a>
Ozarks Technical Community College Listing of Services - see below
Canvas Course Design Principles Overview - see below
Quick-reference Handout for Creating Assignments in Canvas Lesson - see below

## **Ozarks Technical Community College Services**

https://faculty.otc.edu/center/services/

Services provided by Ozark Technical College include the following: Instructional design and an instructional media studio. The school also provides individualized consultations for individual faculty, departments, and staff, and service learning, and Canvas support.

## **Contact Information**

#### **Center for Academic Innovation:**

Monday - Thursday: 8:00 a.m. - 5:00 p.m.

Friday: 8:00 a.m. - 4:30 p.m.

Email: facdev@otc.edu Phone: (417) 447-4800

#### **Canvas Support:**

Monday - Friday: 8:00 a.m. - 8:00 p.m.

Email: online@otc.edu Phone: (417) 447-8200

#### **Virtual Live Support (via Microsoft Teams):**

Monday - Friday: 10:00 a.m. - 2:00 p.m.

• myotc.in/online

#### **Consultation Scheduling:**

#### **Consultation Request Form**

https://faculty.otc.edu/center/individualized\_consultation/

#### **Office Address:**

Information Commons 104 1001 East Chestnut Expressway Springfield, Missouri 65802

## **Canvas Course Design Principles**

## **Understand Canvas Interface**

Understand how to create a course with Canvas navigation, layout, and modules.

## **Manage Assignments Effectively**

Understand how to create and manage assignments within Canvas.

## **Organize Course Content**

Understand how to organize course content such as course materials, files, videos, syllabus, and course schedules.

## **Facilitate Communication**

Understand how to utilize communication tools within Canvas such as announcements and discussions to facilitate interactions between instructors and students, as well as among students themselves.

## **Creating Assignments in Canvas**

## **Creating Assignments Option 1:**

- 1. Navigate to the Assignments tab within your course.
- 2. Click on the "+ Assignment" button.
- 3. Fill in assignment details such as name, description, due date, points possible, and submission type.
- 4. Choose assignment settings such as availability dates, submission types, and peer review options.
- 5. Click on the "Save & Publish" button to create the assignment.
- 6. Add the assignment to the appropriate module by navigating to the Modules tab and clicking the "+" next to the module to which you want to add the assignment. Click on the assignment you want to add to this module, choose if you want to indent or not indent, and click "Add Item."

## **Creating Assignments Option 2:**

- 1. Navigate to the Modules tab.
- 2. Click the "+" next to the module to which you want to add the assignment. Ensure assignment is chosen in the dropdown box for "Add [Assignment] to [Module Name]."
- 3. Click on "[Create Assignment.]"
- 4. Enter assignment name and choose if you want to indent or not indent.
- 5. Click "Add Item."
- 6. Click on the new assignment to open it.
- 7. Click "Edit" to enter assignment details such as name, description, due date, points possible, and submission type. Also, choose assignment settings such as availability dates, submission types, and peer review options.
- 8. Click "Save & Publish."

#### VII. Appendices

#### Appendix 1 - Learner Survey

Survey Questions sent via Qualtrics:

- Are you open to watching short tutorials on how to use different features on Canvas?
  - o No
  - Yes
- How often do you log in to Canvas and utilize the site?
  - Not at all
  - Once a month
  - Several times a week
  - Daily
- What features have you used on Canvas for school? (Select all that apply)
  - Discussion boards
  - Video (embedded, Panopto, or external links)
  - o Assignment submissions
  - Accessing information for class (example: syllabus or readings)
  - Communicating with classmates
- In general, do you find Canvas to be easy to use?
  - o No
  - Somewhat
  - Yes
- Do you believe, overall, that Canvas improves your school experience and learning?
  - No
  - Maybe
  - Yes
- Which of the following would assist in improving your experience on Canvas? (Select all that apply)
  - Consistent layouts between modules for each class
  - Easier to access options to turn in assignments
  - Clearer instructions/documentation
  - Interactive user guides
- In what ways, if any, do you find Canvas difficult to use (list below)?
- How long have you used Canvas?
  - Less than 6 months
  - o 6 months 1 year
  - 1 5 years
  - $\circ$  5 + years
- In what role have you used Canvas?
  - Student
  - Teacher
  - Both

#### Appendix 2 - Interview with SME

Interview Questions sent via email

- What templates, guidance, or standards has the college provided to instructors regarding creating Canvas courses?
- What do you think would make Canvas easier for students to navigate?
- From your perspective, what aspects of Canvas are the most important for students to utilize?
- What features of Canvas do you utilize as an instructor?
- What features would you utilize more if you had additional training on them?
- What would make your job as an instructor easier using Canvas?

#### Appendix 3 - ChatGPT Output for Contextual Analysis

OpenAI. (2024). ChatGPT (3.5) [Large language model]. https://chat.openai.com I need to write a context analysis. I am going to provide several pieces of background information. Please do not provide any results until I let you know that I have provided all of the information you will need to compose the analysis.

#### ChatGPT

Of course! Please provide the background information you have, and I'll assist you in composing the context analysis once you've provided all the necessary details.

#### Me

Here is the background and problem statement: Medical field students do not fully utilize Canvas and its resources. This project will determine ways to improve student usage and engagement with the Canvas site. Training will be provided to students and instructors as relevant.

#### ChatGPT

Thank you for providing the background information. Let's outline the key components for your context analysis based on the provided details:

#### 1. Introduction to the Problem:

- Introduction of Canvas: Canvas is an online learning management system commonly used in educational institutions to facilitate communication, content delivery, and assessment.
- Problem Statement: Despite the availability of resources on Canvas, medical field students are not utilizing it to its full potential.

#### 2. Identification of Stakeholders:

- Students: The primary users of Canvas who are not fully utilizing the platform.
- Instructors: Responsible for creating and managing content on Canvas.
- Administrators: Oversee the implementation of Canvas and may have a vested interest in maximizing its utilization.
- IT Support: Provide technical assistance related to Canvas.

#### 3. Analysis of Current Usage Patterns:

- Review existing data on student engagement with Canvas, including login frequency, access to course materials, participation in discussions, and submission of assignments.
- Identify common challenges faced by students in navigating and utilizing Canvas effectively.
- Assess the level of awareness among students regarding the resources available on Canvas.

#### 4. Evaluation of Training Needs:

- Determine the gaps in knowledge and skills among students and instructors that hinder effective use of Canvas.
- Identify specific areas where training is required, such as navigation, content creation, communication tools utilization, and assignment submission processes.

#### 5. **Proposed Solutions**:

- Develop tailored training programs for students and instructors to enhance their proficiency in using Canvas.
- Implement strategies to promote awareness of Canvas resources and encourage active engagement.
- Explore potential integration of Canvas features with existing learning activities to enhance relevance and utility.

#### 6. Implementation Plan:

- Outline the steps required to implement the proposed solutions, including scheduling training sessions, allocating resources, and obtaining necessary approvals.
- Define metrics to measure the effectiveness of the interventions, such as increased login frequency, improved participation rates, and enhanced satisfaction surveys.

#### 7. Risk Assessment:

- Identify potential challenges and obstacles that may arise during the implementation process, such as resistance to change, technical issues, or resource constraints.
- Develop contingency plans to address these risks and mitigate their impact on the project's success.

#### 8. Conclusion:

- Summarize the importance of improving student engagement with Canvas and the potential benefits it can bring to the medical field education.
- Reinforce the significance of ongoing monitoring and adaptation to ensure the long-term effectiveness of the interventions.

Once you're ready with any additional details or specific aspects you'd like to include, please let me know, and we can proceed with drafting the context analysis.

#### Me

This is the information I need to address in the analysis and how the analysis should be formatted. Contextual Analysis [Provide a brief introduction to the contextual analysis before

delving into the details of each subheading] Orienting Context [Learner Factors, Immediate Environment Factors, Organizational Factors: How does the collective goals of the learner, the social environment in which change needs to occur, and management/leadership buy-in for the change factor into the training design and potential success of the program] Instructional Context [Physical environment available for training and logistics of training. Are there certain times already available for professional development? Are the established training programs that the training you are designing should be aligned with? What technology resources are available? What classroom/training space is available?] Performance Context [What is the performance context for the skill and knowledge that will be the focus of the training? What opportunities will learners have to apply the training skills to the performance context?] Implications of Contextual Analysis for Training Design [Summarize how you will use these results to inform your training design] Please do not provide the analysis yet. I will provide more information.

#### ChatGPT

Thank you for providing the detailed outline for the contextual analysis. Please take your time to provide the additional information you have, and I'll be here to assist you further once you're ready.

#### Me

We asked an instructor the following questions:

#### ChatGPT

It seems like you haven't provided the questions you asked the instructor. Could you please provide the questions so I can better understand the information you're providing?

#### Me

1. What templated, guidance, or standards has the college provided to instructors regarding creating Canvas courses? 2. What do you think would make Canvas easier for students to navigate? 3. From your perspective, what aspects of Canvas are the most important for students to utilize? 4. What features of Canvas do you utilize as an instructor? 5. What features would you utilize more if you had additional training on them? 6. What would make your job as an instructor easier using Canvas?

#### ChatGPT

Thank you for providing the questions you asked the instructor. With this information, we can proceed to incorporate their responses into the contextual analysis. Whenever you're ready, feel free to provide any additional information or details you'd like to include, and we can begin drafting the analysis.

#### Me

Here are her answers: 1. Our canvas shell is ours to design at liberty. We are provided a standardized syllabus to assimilate to and course content from previous instructors. But the course page is ours to design. 2. Faculty training or support on course design in canvas. It is hard to make it easier for someone else when you are still learning how to make it easy for yourself.

3. Course home pages or outline, and Modules 4. Pages, Modules, Navigation Tabs, Mystery Paths, Assignments, Quizzes, Discussion Boards, Announcements, LockDown Browser, Studio, Files 5. I personally hate New Quiz, the analytics are hard to access and it just doesn't record as many analytics as Classic Quiz does. I would like a training orientation on the transfer of content to New Style Quiz from classic and how to access the same analytic data. With the ability to integrate my content. Also, for new users there needs to be more basic instruction of layout design and page formatting. That I have done all on trial and error. 6. More tutorial information on new features. And more transparency when updates to the platform are made. I will provide student answers in a moment.

#### ChatGPT

Thank you for providing the instructor's answers to the questions. These responses will be valuable in understanding the current instructional context and potential areas for improvement. Once you're ready with the student answers, please provide them, and we can proceed with integrating all the information into the contextual analysis.

#### Me

When students were asked In what ways, if any, do you find Canvas difficult to use, they provided the following answers: I don't like that it kicks you back out to the classes screen when it won't load. I don't like when some assignments wont pop up on the calendar. I use the calendar to navigate all my assignments so sometimes I will miss something. Formatting is not consistent between mobile and browser usage. Too many tabs to get to an assignment. More consistent layout between classes Not all pages of canvas are utilized by each teacher and they can have different set ups/locations for accessing assignment information. I think Canvas is very user friendly. I have used it for 2 classes now. Both times have been a great experience. Sometimes different courses have completely different layouts The most difficult part about canvas is the difference between two courses taught by two different instructors. Each course may have a different layout depending on who is constructing it. Some assignments may be under "modules" but not listed in "assignments" Add a better loading screen to increase its ability to load the information. Have everything show on the calendar. Assignment more directly on homepage Make all pages active for each teacher and have less customization options so they can't vary too much from class to class, making it more uniform and easy to learn how to navigate. Having them all use the same format I think just having a uniform layout would be helpful in allowing students to access course materials in an easier fashion Have one place that stores all assignments. Given these data, please write a context analysis using the format I provided earlier.

#### ChatGPT

#### **Contextual Analysis**

#### Introduction:

Canvas, as the primary platform for course delivery and interaction in the educational setting, plays a crucial role in facilitating learning experiences for both students and instructors.

However, a thorough examination of the contextual factors surrounding its usage reveals areas for potential improvement and optimization to enhance student engagement and usability.

#### **Orienting Context:**

**Learner Factors:** Students demonstrate varying levels of familiarity and comfort with Canvas, ranging from finding it user-friendly to encountering difficulties related to navigation, consistency, and layout across different courses.

**Immediate Environment Factors:** The immediate environment encompasses the digital interface of Canvas, including its responsiveness, loading times, and consistency in displaying assignments across different devices (e.g., mobile vs. browser).

**Organizational Factors:** While instructors have the autonomy to design their Canvas courses, this freedom can lead to inconsistencies in layout and navigation, posing challenges for students in adapting to different course structures.

#### *Instructional Context:*

The physical environment available for training and logistics of training are integral components influencing the effectiveness of Canvas utilization. While faculty express a desire for training and support in course design within Canvas, the availability and alignment of professional development opportunities with established training programs remain areas of consideration. Additionally, technology resources and classroom/training space availability play roles in shaping the training landscape.

#### Performance Context:

The performance context for utilizing Canvas revolves around students' ability to effectively access and navigate course materials, assignments, and assessments. Opportunities for learners to apply the training skills acquired through Canvas are contingent upon the platform's usability and instructors' adherence to consistent layouts and formats across courses.

#### Implications of Contextual Analysis for Training Design:

The insights gleaned from instructor and student feedback underscore the importance of tailored training programs aimed at addressing key pain points and enhancing usability. Training initiatives should focus on providing faculty with guidance on course design principles within Canvas, particularly in areas such as layout consistency, assignment organization, and utilization of new features like the New Quiz format. Additionally, efforts to standardize layout and formatting across courses can contribute to a more uniform and intuitive user experience for students, ultimately improving engagement and learning outcomes.

In conclusion, a contextual analysis of Canvas usage highlights the interconnectedness of learner, environment, and organizational factors in shaping the training landscape. By leveraging

these insights to inform training design, educational institutions can foster a more conducive learning environment conducive to student success.

#### Me

Please rewrite the performance context from the perspective of providing training for instructors regarding consistent templates.

#### ChatGPT

Performance Context (Instructor Training Perspective):

The performance context for instructors regarding the design and implementation of Canvas courses revolves around their ability to create consistent and user-friendly templates. This involves understanding how to structure course content, organize assignments, and utilize features effectively within Canvas. Opportunities for instructors to apply training skills are evident in their ability to implement standardized templates that enhance the clarity and accessibility of course materials for students.

Instructor training programs should aim to equip faculty with the knowledge and skills necessary to develop cohesive and standardized course templates within Canvas. By providing guidance on best practices for layout design, assignment organization, and feature utilization, training initiatives empower instructors to create a consistent learning environment across courses. The effectiveness of instructor training in this context is measured by the extent to which instructors are able to implement standardized templates that streamline navigation and optimize student engagement with course content.

#### Appendix 4 - ChatGPT Output for Task Analysis

The task analysis was generated using ChatGPT while going through a lot of refinement, by taking into consideration information from the literature as well as personal experience while using Canvas with College students.

This particular copy of a Ph. D dissertation was helpful: Student Satisfaction with Canvas Use in Face-to-Face Courses at Colorado Mountain College. A Doctoral Research Paper Presented to The Faculty of the Morgridge College of Education University of Denver.

https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=1005&context=he\_doctoral University of Denver. Digital Commons @ DU. Higher Education: Doctoral Research Projects. 2019.

\*\*\*\*\*\*\*\*\*

#### Added by Semi Necibi on Saturday March 02, 2024

Task Analysis

Latest version gathered from ChatGPT

Notes:

- (1) The document has gone through multiple revisions of the prompts. An important aspect has to do with reducing the importance given to using videos by medical students.
- (2) The information related to attitudes and Task analysis was missing from my earlier draft. It was updated here using ChatGpt. It calls for having the proper attitude by faculty in particular toward student learning. A genuine desire to better serving students.

The most recent version of the document gathered from ChatGPT is included here:

#### **Essential Facts/Knowledge:**

- 1. Understanding of Canvas LMS interface:
  - Navigation through Canvas dashboard, course modules, and assignments.
  - Knowledge of where to access course materials and resources.
- 2. Video integration features in Canvas:
  - Familiarity with uploading, embedding, and linking videos within Canvas.
  - Understanding different video file formats supported by Canvas.
- 3. Faculty expectations regarding video usage:
  - Understanding the role of videos in course content and assignments.
  - Knowing assignment guidelines related to video integration.
- 4. Student challenges with Canvas:
  - Awareness of common difficulties students face in accessing course materials, including videos.
  - Understanding student preferences for learning materials and formats.
- 5. Canvas Analytics:
  - Knowledge of accessing and interpreting data from Canvas Analytics.

• Understanding how to use analytics to identify usage patterns and trends related to video access.

#### **Essential Procedures:**

- Navigating Canvas Interface:
  - Logging into Canvas securely.
  - Accessing course materials, assignments, and discussions.
- 2. Accessing Course Materials:
  - Locating and accessing videos within course modules.
  - Understanding methods of accessing videos, such as embedded or linked.
- 3. Utilizing Video Integration Features:
  - Uploading videos directly to Canvas or linking from external sources.
  - Embedding videos within course pages or assignments effectively.
- 4. Addressing Faculty Expectations:
  - Following faculty instructions and guidelines for incorporating videos into assignments.
  - Communicating with faculty to clarify requirements and expectations regarding video usage.
- 5. Addressing Student Challenges:
  - Providing support and assistance to students encountering difficulties accessing videos.
  - Communicating with students to understand their challenges and preferences regarding video access.
- 6. Implementing Alternative Solutions:
  - Exploring alternative methods for facilitating video access and engagement.
  - Assessing the effectiveness of alternative solutions in improving student learning and engagement.
- 7. Utilizing Canvas Analytics for Data Collection:
  - Accessing and interpreting data from Canvas Analytics to gather insights into student engagement with videos.
  - Analyzing usage patterns and trends to identify areas for improvement in video accessibility and utilization.

#### **Attitudes:**

- 1. Openness to learning and adapting to new technologies and platforms.
- 2. Willingness to collaborate with faculty and peers to address challenges and improve Canvas usage.
- 3. Commitment to enhancing student learning experiences through effective use of instructional materials and resources.
- 4. Proactive approach to seeking assistance and support when encountering difficulties with Canvas or video integration.
- 5. Emphasis on data-driven decision-making and continuous improvement in Canvas usage for better student outcomes.

#### Appendix 5 - ChatGPT Output for Task Analysis, Revised

Me

We will be creating a training for instructors using Canvas on the following four areas: \* The Canvas interface - Understanding how to create a course with Canvas navigation, layout, and modules. \* Effective Assignment Management - Understand how to create and manage assignments within Canvas. \* Organizing Course Content - Understand how to organize course content such as course materials, files, videos, syllabus, and course schedules. \* Facilitating Communication and Collaboration - Understand how to utilize communication tools within Canvas such as announcements and discussions to facilitate interactions between instructors and students, as well as among students themselves. Please Describe key facts and concepts necessary to master the content.

#### ChatGPT

Certainly! Here are key facts and concepts for each of the four areas you've mentioned:

#### 1. The Canvas Interface:

- Canvas Navigation: Familiarize instructors with the layout of Canvas, including the global navigation menu, course navigation menu, and sidebar.
- Course Creation: Understand the steps involved in creating a new course shell, including setting up course details, customizing course settings, and adding users.
- Modules: Modules are a way to organize course materials and assignments logically. Instructors should understand how to create, edit, and reorder modules to structure their course effectively.

#### 2. Effective Assignment Management:

- Assignment Creation: Instructors should learn how to create various types of assignments (e.g., online, file uploads, text entries) and set different submission types, due dates, and grading criteria.
- Assignment Grading: Familiarize instructors with the SpeedGrader tool for efficiently grading and providing feedback on student submissions.
- Assignment Groups: Understanding how to organize assignments into groups, apply weighted grading, and manage assignment categories for easier grading and organization.

#### 3. Organizing Course Content:

- Course Materials: Instructors should know how to upload and organize various types of content, including documents, presentations, videos, and external links.
- Files: Understanding how to manage files, folders, and permissions within the course Files area.
- Syllabus and Course Schedule: Instructors should be able to create and customize a syllabus page and utilize the Calendar feature to schedule and organize course events.

#### 4. Facilitating Communication and Collaboration:

• Announcements: Instructors should understand how to create and send announcements to communicate important information to students.

- Discussions: Utilizing discussion boards for fostering student interaction and collaboration, including creating discussion topics, moderating discussions, and grading discussions.
- Collaboration Tools: Introduce instructors to collaborative tools within Canvas, such as group assignments, peer reviews, and collaborative documents.

Additionally, instructors should be familiar with best practices for accessibility and usability to ensure that course content and communication are inclusive and accessible to all students. Regular training and updates on new features and updates to the Canvas platform are also essential to staying current with its capabilities.

#### Me

Thank you. For this same training, please provide step-by-step procedures that will be necessary to master the content.

#### ChatGPT

Certainly! Here are step-by-step procedures for each of the four areas:

- 1. The Canvas Interface: a. Creating a Course:
  - 1. Log in to Canvas and navigate to the Courses tab.
  - 2. Click on the "Create a Course" button.
  - 3. Fill in the course details, including name, course code, start/end dates, and visibility settings.
  - 4. Customize course settings such as course navigation options and homepage layout.
  - 5. Click on the "Create Course" button to finalize.
- 2. b. Navigating the Canvas Interface:
  - 1. Explore the global navigation menu for accessing different areas of Canvas.
  - 2. Navigate to a specific course and explore the course navigation menu and sidebar.
  - 3. Familiarize yourself with the Dashboard for an overview of course activities and notifications.
- 3. c. Creating Modules:
  - 1. Access your course and navigate to the Modules tab.
  - 2. Click on the "+ Module" button to create a new module.
  - 3. Give the module a name and description (optional).
  - 4. Add content items, assignments, or other activities to the module by clicking on the "+" icon.
  - 5. Rearrange modules and module items by dragging and dropping them into the desired order.
- 4. Effective Assignment Management: a. Creating Assignments:
  - 1. Navigate to the Assignments tab within your course.
  - 2. Click on the "+ Assignment" button.

- 3. Fill in assignment details such as name, description, due date, points possible, and submission type.
- 4. Choose assignment settings such as availability dates, submission types, and peer review options.
- 5. Click on the "Save" button to create the assignment.

#### 5. b. Grading Assignments:

- 1. Access the SpeedGrader tool from the Grades tab or directly within an assignment.
- 2. Review student submissions and provide feedback using annotation tools, comments, and rubrics.
- 3. Enter grades and feedback for each submission.
- 4. Use the navigation arrows to move between student submissions.
- 5. Click on the "Submit" button to save grades and feedback.

#### 6. c. Managing Assignment Groups:

- 1. Navigate to the Assignments tab and click on the "Assignment Groups" button.
- 2. Create assignment groups based on categories or grading criteria.
- 3. Assign weights to each assignment group for weighted grading.
- 4. Drag and drop assignments into the appropriate assignment groups.
- 5. Adjust assignment group settings as needed for grading and organization.

### 7. **Organizing Course Content**: a. Uploading Course Materials:

- 1. Navigate to the Files tab within your course.
- 2. Click on the "Upload" button to upload files or drag and drop files directly into the Files area.
- 3. Organize files into folders for easier management.
- 4. Set permissions for files and folders to control access.
- 5. Link files and folders to modules or other course content.

#### 8. b. Creating Syllabus and Course Schedule:

- 1. Access the Syllabus tab within your course.
- 2. Click on the "Edit Syllabus Description" button to customize the syllabus page.
- 3. Add course details, objectives, policies, and other relevant information.
- 4. Utilize the Calendar feature to schedule course events, assignments, and other activities.
- 5. Embed the syllabus page and calendar within course modules for easy access.

#### 9. Facilitating Communication and Collaboration: a. Sending Announcements:

- 1. Navigate to the Announcements tab within your course.
- 2. Click on the "+ Announcement" button.
- 3. Enter a subject and message for the announcement.
- 4. Choose posting options such as delayed posting or sending to specific sections/groups.
- 5. Click on the "Save" button to post the announcement.

#### 10. b. Creating Discussions:

- 1. Navigate to the Discussions tab within your course.
- 2. Click on the "+ Discussion" button.
- 3. Enter a title and description for the discussion topic.

- 4. Choose discussion settings such as availability dates, grading options, and group settings.
- 5. Click on the "Save" button to create the discussion topic.
- 11. c. Utilizing Collaboration Tools:
  - 1. Explore features such as group assignments, peer reviews, and collaborative documents within Canvas.
  - 2. Create group assignments by assigning specific tasks or projects to student groups.
  - 3. Enable peer reviews for assignments to facilitate student feedback and collaboration.
  - 4. Utilize collaborative documents for real-time collaboration on projects or class notes.

These step-by-step procedures provide a comprehensive guide for mastering each area of Canvas training for instructors.

#### Me

Please create more detailed procedures for these two tasks: 1. Create group assignments by assigning specific tasks or projects to student groups. 2. Enable peer reviews for assignments to facilitate student feedback and collaboration.

#### ChatGPT

Sure, here are more detailed procedures for creating group assignments and enabling peer reviews in Canvas:

- 1. Create Group Assignments: a. Navigate to the Assignments tab within your course. b. Click on the "+ Assignment" button. c. Fill in the assignment details such as name, description, due date, and points possible. d. Scroll down to the "Assignment Group" section and click on the checkbox next to "This is a group assignment." e. Choose whether students will submit individually or as a group. If submitting as a group, specify the number of students per group. f. Optionally, set group assignment settings such as: i. Group Formation: Choose how groups will be created (automatically or manually). ii. Group Submission: Decide whether each group submits one assignment for the entire group or if each member submits individually. iii. Peer Review: Choose whether peer reviews will be enabled for this assignment (if desired). g. Click on the "Save" button to create the group assignment. h. If you chose manual group formation, you will need to create groups and assign students to them. To do this, click on the "People" tab in your course, then click on the "+ Group Set" button to create a new group set. Once the group set is created, click on the group set name and then click on the "+ Group" button to create individual groups. Finally, click on the gear icon next to each group to add students to them.
- 2. **Enable Peer Reviews**: a. Navigate to the Assignments tab within your course. b. Click on the assignment for which you want to enable peer reviews. c. Click on the "Edit" button

to edit the assignment settings. d. Scroll down to the "Peer Reviews" section and check the box next to "Require Peer Reviews." e. Set the number of peer reviews each student must complete. You can choose to assign a specific number of reviews per student or allow Canvas to automatically assign reviews. f. Optionally, set other peer review settings such as: i. Due Date: Specify when peer reviews are due. ii. Anonymous Reviews: Choose whether peer reviews will be anonymous. iii. Review Rubric: If you've created a rubric for the assignment, you can choose to use it for peer reviews. g. Click on the "Save" button to apply the peer review settings. h. Once peer reviews are enabled, students will see a "Peer Review" section when they access the assignment. They can access their assigned peer reviews from this section and provide feedback to their peers according to the specified criteria.

These detailed procedures should help instructors effectively create group assignments and enable peer reviews in Canvas, facilitating student collaboration and feedback.

#### Me

Please provide 4-5 steps for creating an event in a canvas course

#### ChatGPT

Certainly! Here are 4-5 steps for creating an event in a Canvas course:

#### 1. Access the Calendar:

- Log in to Canvas and navigate to the desired course.
- Click on the "Calendar" link in the course navigation menu.

#### 2. Create a New Event:

- Once you're in the Calendar view, click on the date and time slot where you want to create the event.
- A pop-up window will appear. Click on the "+ Event" button within the pop-up window.

#### 3. Fill in Event Details:

- In the event creation window, fill in the details for the event.
- Enter a title for the event in the "Event Title" field.
- Provide a description of the event in the "Description" field (optional).
- Specify the start and end date and time for the event.
- Optionally, you can set the event to repeat if it occurs regularly (e.g., weekly lectures).
- Enter the location of the event in the "Location" field (optional).

#### 4. Add Additional Details:

- If desired, you can add additional details to the event by clicking on the "More Options" button.
- In the expanded view, you can:
  - Assign the event to specific calendar(s) or groups.
  - Set a reminder for the event.

- Invite specific users or groups to the event.
- Choose whether to make the event public or private.

#### 5. Save the Event:

- After entering all the necessary details, click on the "Save" button to create the event.
- The event will now be added to the calendar on the specified date and time.
- Students enrolled in the course will be able to view the event on the course calendar, and they may receive notifications depending on their notification preferences.

#### Appendix 6: Formative Evaluation One-to-One Usability Observation

Adapted from the usability observation example from ISLT 7361.

Thank you for agreeing to join me here today so I can observe you completing the self-paced Canvas training course. Your experience work through the modules will help me refine the design and organization of the lessons so that they are easier to understand and more effective for future instructors. During this experience, please remember that you are not being tested. Rather, we are working together to help me create a better course. If anything I ask you to do seems difficult to you or confusing, this is not a reflection on your ability, skill or knowledge; your experience will help me figure out what improvements are needed in my design.

In order for me to understand what you are doing and thinking about, I'd like to ask you to do a few things while you try out the web page(s)/website. The first, and most important, is that you should constantly verbalize what you are thinking about while you are doing something -- if you are confused say what confuses you and why. If you like something (such as text or design) please say so.

Ok are you ready? Do you have any questions before we start?

Ok, now let's begin. Please take about 2 or 3 minutes to explore the introductory information.

Now you may begin working through the course. Again, remember to continue verbalyzing your progress through the course.

[Use a separate page to record user's comments.]

Thank you for helping me.

[At the end of the module, ask the user the following questions.]

- What was the experience navigating the course?
- What was confusing about the course?
- What was particularly helpful about the course?
- What would you like to have been included in the course?
- What was your overall experience with the course?

Well, that's it! We're done.

Thank you again for providing input on improving this course. Do you have any questions or final thoughts?

#### **Appendix 7: Formative Evaluation Field Test Survey Questions**

Questions sent via Qualtrics.

- Did you find the training to be user-friendly and helpful in improving your Canvas pages?
- What did you like and dislike about the training program?
- Did the information in the handouts aid in your understanding of Canvas features?
- Will you utilize what you learned in this training in creating future courses?
- What would you like to have been included in the training or handouts?

#### **Appendix 8: Summative Evaluation Post-Training Survey Questions**

Questions sent via Qualtrics.

- What was most helpful in this training?
- What do you wish had been included in the training?
- How confident do you feel to update your courses independently?
- How supported do you feel with ongoing support from the OTC AIC?
- What would make this training a better experience?

#### **Appendix 9: Confirmative Evaluation Instructor Focus Groups**

Questions will be posed to the focus group participants and answers will be recorded by an observer.

- In what ways were you able to apply what you learned in the training to creating or revising your Canvas courses?
- How confident do you feel about creating or revising a Canvas course as a result of the training?
- What about the training was most helpful to you?
- What would you change about the training?