

## **Executive Summary**

Kritik is an educational platform designed to enhance critical thinking skills through peer assessment and feedback [1]. This project's focus is on optimizing the activity creation and scheduling processes to streamline workflows of Kritik. The following document outlines the project's objectives, methodologies, and proposed actions to achieve these goals efficiently.

The current interface presents challenges for teachers, particularly in navigating the assignment creation and scheduling functionalities. In recognition of the crucial role of educators, this project aims to address these challenges and enhance the platform's usability for educators in university settings.

By examining user interactions/preferences and contextual factors, the analysis aims to identify areas for improvement and inform the redesign process. The scope encompasses a comprehensive understanding of user needs and challenges, ensuring that future proposed solutions can take these values into consideration.

A Hierarchical Task Analysis (HTA) serves as a framework for dissecting the assignment creation and scheduling processes within Kritik. Through this model, the project aims to portray the user's journey, identify key tasks and subtasks, and pinpoint areas of unnecessary complexity. The HTA guides the redesign process to enhance usability and effectiveness. In addition, data collection through observations, interviews, and surveys provides valuable insights into the difficulties teaching teams face when using Kritik. By capturing both quantitative metrics and qualitative feedback, the data highlights recurring issues and user preferences. Analysis of this data will inform design decisions, ensuring that proposed solutions address the most pressing needs of teachers.

Based on the findings from the task analysis, later phases of the project will recommend actionable steps like iterative design approaches and prototyping to improve the assignment creation and scheduling processes within Kritik. Ultimately, this comprehensive and iterative approach to redesigning the assignment creation and scheduling functionalities within Kritik will contribute to a more seamless teaching experience for university teaching teams.

## 1.0 Introduction

Kritik is a platform designed to help students develop critical thinking skills through evaluation of their peers and improving their own work based on feedback from classmates. For an optimal student experience, activities must be clearly organized. However, the current interface poses challenges for university teaching teams in efficiently using the platform. With this issue in mind, this project focuses on university teaching teams as the target user group. Thus, from hereinafter, the term university teaching teams will be referred to as instructors. Processes should be straightforward and defaults convenient and intuitive, but as the platform stands currently, there is a gap. The steps required to create and schedule assignments are tedious, hindering the clarity and speed with which instructors can release assignments for students. The focus of this project is to redesign the task creation and scheduling functionalities to enhance the user experience. This report further details the scope and focuses of the project, task analysis, data collection processes and findings in section 2.0, and next steps moving into the *Create* phase in section 3.0.

## 2.0 Hierarchical Task Analysis (HTA) Methodology and Findings

Task analysis was completed in order to easily understand how users approach Kritik's interface and difficulties/challenges that are present in their experiences. The following subsections go over the approach, results, and implications.

### 2.1 Scope & Target Users

In order to understand how users perform the task in various contexts and environments, the scope of the task analysis performed includes the context of Kritik's interface, considering factors like time cost, organization, and consumer engagement. The task's complexity, variations, and characteristics of the users involved will be assessed by examining the number of steps, subtasks, and user difficulties to better inform design decisions that optimize task performance.

The primary target users are members of university teaching teams. In terms of post secondary education, university professors and others on teaching teams often have research and other projects in addition to the courses they teach. As such, they do not have the time to struggle to understand a platform. According to a study at Boise State University in 2014, faculty

participants spent on average 61 hours per week working, proving that university educators live busy lives [2]. Moreover, 50% of the post-observation survey responses indicated participants found the process of creating and scheduling an assignment in Kritik tedious. Although this preliminary survey had a small sample size, trends and common issues could be found and analyzed. Due to the frequency of use of these functions, they require a redesign to improve the efficiency of the platform.

## 2.2 System Functions

A full breakdown of all core functions in the instructor view was completed to identify system functions, including but not limited to website access, sign-in functions, adding students, and assignment editing. The final system function chosen was creating and scheduling an assignment, as instructors would have to become accustomed to the process due to the frequency of use. The same study at Boise State University found that class preparation took the third most amount of time (see Figure 1) and research activities must be done in the summer [2]. The analysis aims to identify weaknesses in the design of these functions, so instructors may allocate that additional time and energy according to their own needs.

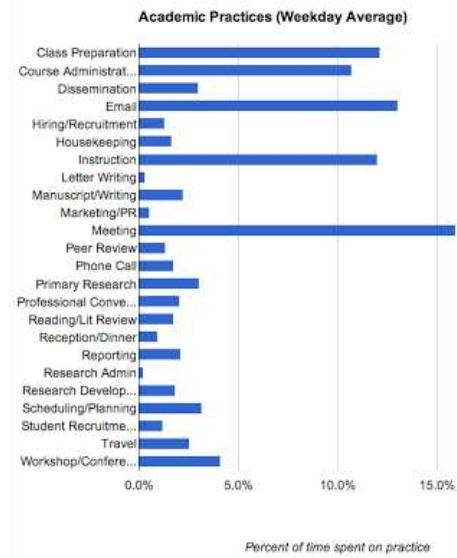


Figure 1: Breakdown of Instructor time usage [2].

## 2.3 HTA Model

The model highlights the overarching function and goal of this document by identifying the main hurdles associated with the selected functionalities in the HTA (see Figure 2).

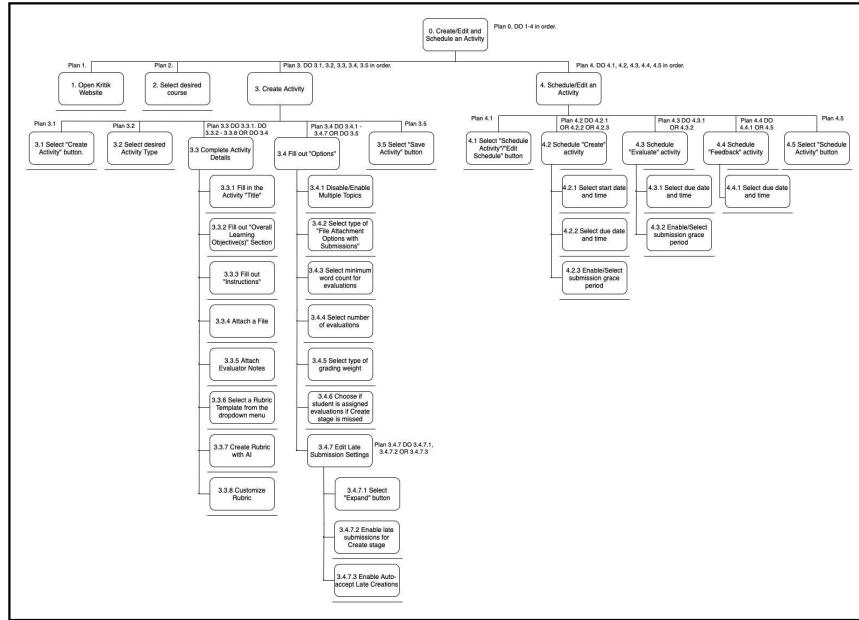


Figure 2. HTA in graphical form. An image with higher resolution can be found [here](#).

## 2.4 HTA Breakdown

In order to further the goal of improving instructor experience, the team conducted and documented an in-depth walkthrough of the Kritik instructor experience to help dissect the selected core functionalities into tasks (see Appendix A).

These tasks were broken down further into subtasks (see Appendix A), until the interface responses were described, at which point a stopping rule was applied. The HTA (see Figure 2), is a comprehensive guide of how a new computer-literate instructor would navigate Kritik.

In Plan 3.0, the user must complete the task of creating an activity. This is the start of the user's journey within the platform. Through activity creation, users initiate the process of setting objectives, defining tasks and rubrics, and establishing some minor assignment features. This

lays the groundwork for subsequent actions, serving as the cornerstone to guide users through initial stages of project planning.

In Plan 4.0, the user must complete the task of scheduling the activity created in Plan 3.0. Assigning specific dates and times to activities allows for smooth activity creation and ultimately leads to enhanced productivity.

## **2.5 Real World Task Data**

This section outlines the data collection process including the methodology and types of data collected.

### ***2.5.1 Data Collection Process***

To gain a comprehensive understanding of the create and assign functionalities, three methods of data collection were employed: observation, unstructured interviews, and surveys/questionnaires, each aimed at gathering different types of data (see Table 1). Participants provided consent to participate in the data collection process and underwent screening to ensure they had no prior experience with Kritik. Subsequently, participants were briefed on Kritik's background and instructed to assume the persona of a professor while completing the assigned task.

Table 1: Collected Data Types and Descriptions

Data	Description	Units
Time	Table of time required to complete each functionality and task (see Appendix B)	Minutes
Ease of Use Scale	Level of difficulty to complete the assignment task on a likert scale (see Appendix B)	Scale 1-5 1- very easy 5- very tedious
Comments	Users recount their likes and dislikes, as well as overall experiences through prompted questions.	N/A

Observations	Observed comments and actions written down by the team while participant fulfills the task	N/A
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Participants were instructed to complete a diverse set of tasks, which were read aloud by a team member. Upon completion of each task, the time taken was recorded into a table (see Appendix B). Observation was carried out as users navigated the interface, with users encouraged to verbalize their thought processes. Following the observation, volunteers were asked a series of questions to gather insights into their thoughts and feelings about the design (see Appendix B). Subsequently, a Google Forms questionnaire was conducted to gather participants' opinions on the ease of use of the selected functions (see Figure 5).

The image shows a screenshot of a survey question from Google Forms. The question is "What was the level of difficulty that you found with creating a task? \*". Below the question are five numerical options (1, 2, 3, 4, 5) and their corresponding labels: "Easy" under 1 and "Hard" under 5. There are five empty circles for selection, one next to each number. The numbers are centered above the circles.

1	2	3	4	5	
Easy	<input type="radio"/> Hard				

Figure 5. Example Survey Likert scale question

### 2.5.2 Data Collection Results

At the end of data collection, 10 sample points were obtained for analysis. Despite the small sample size, recurring concerns indicated a need for redesign of certain features. Upon thorough examination of the results, several problem areas were identified (see Appendix B).

Based on the Likert scale responses collected in the questionnaire, an ease-of-use chart (see Figure 9) was constructed to visually represent participants' perceptions.

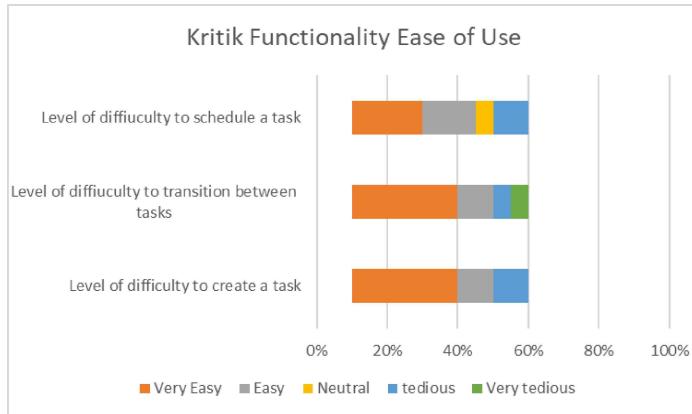


Figure 9. Ease of Use Survey Results

## 2.6 HTA and Data Collection Implications

Some questionnaire responses suggested that it would be helpful if the interface was more consistent with other similar websites, which would follow the knowledge in the world principle in Memory Principles from *Designing for People: An Introduction to Human Factors Engineering* [3]. Similarly, some responses also referenced how the interface contained too much information to compute at once, failing the attention principle of avoiding resource competition [3].

Moreover, analysis of the ease-of-use survey revealed predominantly positive feedback, with a notable trend towards ease of use across the surveyed functionalities: creating, scheduling, and transitioning between tasks (see Figure 9). The majority of participants rated the process as fairly easy, indicating a favorable user experience overall. These findings suggest that the interface design is generally intuitive and user-friendly, aligning well with the objectives of improving usability for university instructors within the Kritik platform.

However, the questionnaire participants filled out have a dissimilar conclusion, with around half of the responses being dissatisfied with the interface. In conclusion, the results were inconclusive due to the conflicting responses. Therefore a solution must address the feedback left in the questionnaire, without disrupting the flow of tasks that are already functioning well. When observations were applied to the HTA graph, the team noticed several areas of confusion and difficulty across multiple participants within the "Create" section (see Table 2) and the

“Schedule” function (see Table 3). With this knowledge, the team can focus further on streamlining the interface at these particular subtasks.

Table 2: Implication of subtasks and issues in the ‘Create’ function from HTA

Sub - tasks	Issues
3.1	Unable to find ‘Create’ button Participant 1,6 (see Appendix B)
3.3.2	Unable to identify icons to use ‘quotation’, ‘hyperlink’, and “remove formatting” Participant 1,2,3,4,5,6,7,8,10 (see Appendix B)
3.4.3/3.4.4	Unsatisfied with drop down menu , cannot manually edit Participant 1,2,4,5,6,10 (see Appendix B)

Table 3: Implication of subtasks and issues in the ‘Schedule’ function from HTA

Sub - tasks	Issues
4.2.1	Unintuitive time adjustment control, Users found arrows finicky and tedious Participant 1,2,3,4,5,6,7 (see Appendix B)
4.2.2/4.3.1	Unintuitive time adjustment control, Users found arrows finicky and tedious Participant 1,3,4,5,6, (see Appendix B)  Conflicting with start time and date Participant 5,6,8,7,10 (see Appendix B)
4.2.3/ 4.3.2	Unintuitive design, when turning off the grace period phases times and dates do not move to accommodate. Participant 1,5,8 (see Appendix B)

Furthermore, by utilizing a sequence diagram (see Figure 10), one can pinpoint specific characteristics of various personas. One such persona is the technologically literate adult users requiring an online platform for posting and collecting work. These personas help personify future users of the interface and inform the design and prototyping processes.

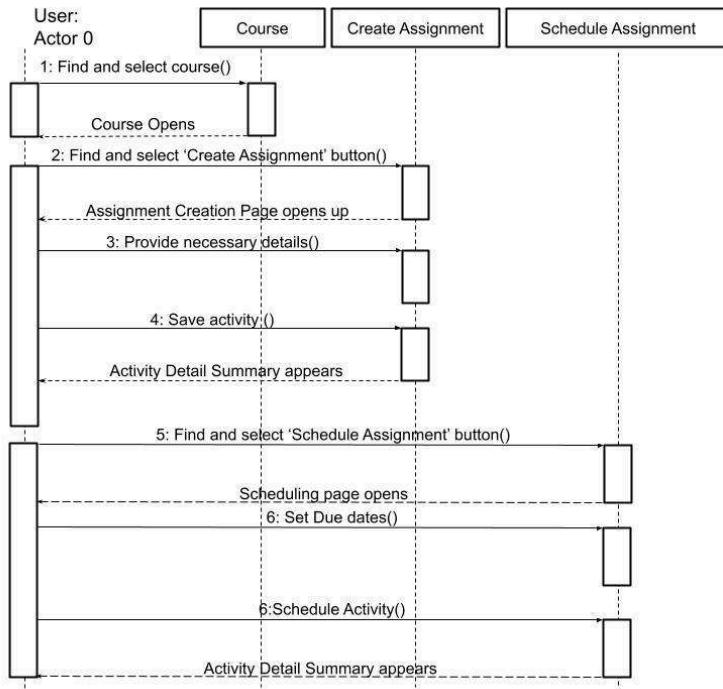


Figure 10. Sequence Diagram

### 3.0 Conclusion

In conclusion, to reach the goal of improving the experience of university instructors' that are new to Kritik, it is imperative that modifications be made to the activity creation and scheduling processes. These changes will aid new instructors' in adapting to and comprehending the platform faster, creating a more effective environment for all involved. Moving forward, the team will prioritize the feedback gathered from the data collected in this report, while considering the user persona throughout the iterative design process. Utilizing the principles of design and human-computer interaction, design alternatives that address the shortcomings of the platform will be generated to further enhance Kritik for its users.

## 4.0 References

- [1] “Kritik App,” Kritik, Available: <https://ca.kritik.io/>. (Accessed Feb. 23, 2024).
- [2] Flaherty, Colleen, “So Much to Do, So Little Time,” Inside Higher Ed, 8-April-2014. [Online]. Available: <https://www.insidehighered.com/news/2014/04/09/research-shows-professors-work-long-hours-and-spend-much-day-meetings>. (Accessed Feb. 23, 2024).
- [3] J. D. Lee, C. D. Wickens, Y. Liu, L. N. Boyle, *Designing for People: An Introduction to Human Factors Engineering*, 3rd ed., CreateSpace, 2017. [Online]. Available: [https://www.researchgate.net/publication/319402797\\_Designing\\_for\\_People\\_An\\_introduction\\_to\\_human\\_factors\\_engineering](https://www.researchgate.net/publication/319402797_Designing_for_People_An_introduction_to_human_factors_engineering). (Accessed Feb. 23, 2024).

## 5.0 Appendices

### Appendix A: Hierarchical Task Analysis

Table 4 below explains the justifications of the chosen functionality in depth along with Figures 11 and 12 that feature the specified parts of the HTA.

Table 4. Functionality justifications

<pre> graph TD     3CreateActivity[3. Create Activity] --&gt; Plan31[Plan 3.1]     3CreateActivity --&gt; Plan32[Plan 3.2]     3CreateActivity --&gt; Plan33[Plan 3.3 DO 3.3.1, DO 3.3.2 - 3.3.8 OR DO 3.4]     3CreateActivity --&gt; Plan34[Plan 3.4 DO 3.4.1 - 3.4.7 OR DO 3.5]     3CreateActivity --&gt; Plan35[Plan 3.5]      Plan31 --&gt; 31SelectCreateActivity[3.1 Select "Create Activity" button]     Plan32 --&gt; 32SelectDesiredActivityType[3.2 Select desired Activity Type]     Plan33 --&gt; 33CompleteActivityDetails[3.3 Complete Activity Details]     Plan33 --&gt; 331FillInTitle[3.3.1 Fill in the Activity "Title"]     Plan33 --&gt; 332FillOutOverallLearningObjectives[3.3.2 Fill out "Overall Learning Objectives" section]     Plan33 --&gt; 333FillOutInstructions[3.3.3 Fill out "Instructions"]     Plan33 --&gt; 334AttachFile[3.3.4 Attach a File]     Plan33 --&gt; 335AttachEvaluatorNotes[3.3.5 Attach Evaluator Notes]     Plan33 --&gt; 336SelectRubricTemplate[3.3.6 Select a Rubric Template from the dropdown menu]     Plan33 --&gt; 337CreateRubricWithAI[3.3.7 Create Rubric with AI]     Plan33 --&gt; 338CustomizeRubric[3.3.8 Customize Rubric]      Plan34 --&gt; 341DisableEnableMultipleTopics[3.4.1 Disable/Enable Multiple Topics]     Plan34 --&gt; 342SelectTypeOfAssignmentOrAssessments[3.4.2 Select type of Assignment or Assessments]     Plan34 --&gt; 343SelectMinimumAndCountForEvaluations[3.4.3 Select minimum and count for evaluations]     Plan34 --&gt; 344SelectNumberOfEvaluations[3.4.4 Select number of evaluations]     Plan34 --&gt; 345SelectTypeOfGradingWeight[3.4.5 Select type of grading weight]     Plan34 --&gt; 346ChooseIfStudentAssignedEvaluations[3.4.6 Choose if student assigned evaluations if Create stage is missed]     Plan34 --&gt; 347EditLateSubmissionSettings[3.4.7 Edit Late Submission Settings]     Plan34 --&gt; 3471SelectExpandButton[3.4.7.1 Select "Expand" button]     Plan34 --&gt; 3472EnableLateSubmissionsForCreateStage[3.4.7.2 Enable late submissions for Create stage]     Plan34 --&gt; 3473EnableAutoAcceptLateCreations[3.4.7.3 Enable Auto-accept Late Creations]      Plan35 --&gt; 35SelectSaveActivityButton[3.5 Select "Save Activity" button]   </pre>	<p>The first function the user must complete in the process is activity creation (see Figure 11). This was chosen as the first function because assignment creation is the start of the user's journey within the platform. Through activity creation, users initiate the process of setting objectives, defining tasks, and establishing timelines, which are fundamental steps in organizing their workflow. By beginning with activity creation, users lay the groundwork for subsequent actions, such as resource allocation and team collaboration. It serves as the cornerstone for effective project management, guiding users through the initial stages of project planning and enabling them to progress smoothly towards their goals.</p> <p>The second critical step in the HTA is activity scheduling (see Figure 12). This was chosen as the second function because assignment creation focuses on efficiently organizing tasks, allocates resources, and ensures smooth project execution by</p>
<pre> graph TD     4ScheduleEditActivity[4. Schedule/Edit an Activity] --&gt; Plan41[Plan 4.1]     4ScheduleEditActivity --&gt; Plan42[Plan 4.2 DO 4.2.1 OR 4.2.2 OR 4.2.3]     4ScheduleEditActivity --&gt; Plan43[Plan 4.3 DO 4.3.1 OR 4.3.2]     4ScheduleEditActivity --&gt; Plan44[Plan 4.4 DO 4.4.1 OR 4.4.5]     4ScheduleEditActivity --&gt; Plan45[Plan 4.5]      Plan41 --&gt; 41SelectScheduleEditActivity[4.1 Select "Schedule Activity"/"Edit Schedule" button]     Plan42 --&gt; 42ScheduleCreateActivity[4.2 Schedule "Create" activity]     Plan42 --&gt; 421SelectStartEndDates[4.2.1 Select start date and time]     Plan42 --&gt; 422SelectDueDate[4.2.2 Select due date and time]     Plan42 --&gt; 423EnableSelectGracePeriod[4.2.3 Enable/Select submission grace period]      Plan43 --&gt; 43ScheduleEvaluateActivity[4.3 Schedule "Evaluate" activity]     Plan43 --&gt; 431SelectDueDate[4.3.1 Select due date and time]     Plan44 --&gt; 44ScheduleFeedbackActivity[4.4 Schedule "Feedback" activity]     Plan44 --&gt; 441SelectDueDate[4.4.1 Select due date and time]      Plan45 --&gt; 45SelectScheduleActivityButton[4.5 Select "Schedule Activity" button]   </pre>	<p>Figure 11. Functionality 1- Create Activity</p> <p>Figure 12. Functionality 2 - Schedule Activity</p>

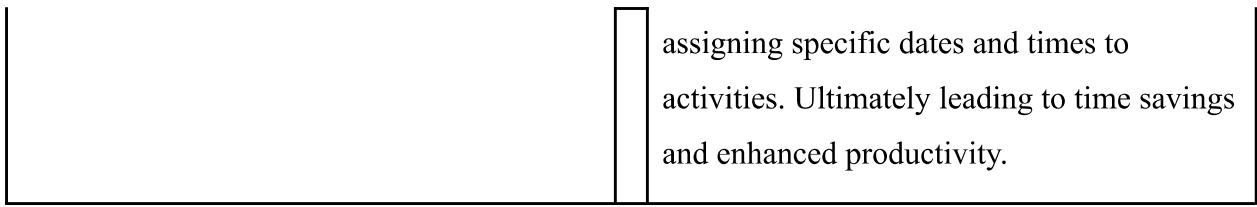


Figure 13 demonstrates how the functions were broken down into tasks and subtasks.

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- The diagram shows a detailed breakdown of tasks and subtasks. It consists of a large rectangular box containing two nested lists. The first list is labeled '1. Creating the activity' and includes three sub-items: 'a. Complete Activity Details', 'b. Fill Out Grading Options', and 'c. Save'. The second list is labeled '2. Scheduling the activity' and includes four sub-items: 'a. Schedule ‘create’ activity release date and due date', 'b. Schedule ‘evaluate’ activity release date and due date', 'c. Schedule ‘feedback’ activity release date and due date', and 'd. Save'.
1. Creating the activity
    - a. Complete Activity Details
    - b. Fill Out Grading Options
    - c. Save
  2. Scheduling the activity
    - a. Schedule ‘create’ activity release date and due date
    - b. Schedule ‘evaluate’ activity release date and due date
    - c. Schedule ‘feedback’ activity release date and due date
    - d. Save

Figure 13: HTA Function, Task and Subtask Breakdown

## Appendix B: Data Collection

Figures 14, 15, and 16 feature the responses collected from participants in the questionnaire as part of the data collection process. The comments boxed in red are ones that specify dissatisfaction with Kritik’s interface.

The platform is very intuitive so minimal instruction is required to create an activity independently.

easy to use and understand

would appreciate a video demo at the begin to go through the process.

Pretty intuitive

confusing, objective is okay but everything after was really confusing

very straight forward

It is not too bad.

Instructions could be a little clearer

I felt that I had to use a lot of brainpower to take in everything on the page.

Creating an assignment was pretty simple.

Figure 14. Questionnaire responses to a question about participants' thoughts on activity creation

The flow of scheduling a task was logically laid out.

very good!

Not too complicated if you understand the process

The time clicky thing sucks

the direction is not clear, the scheduling button is not obvious

very straight forward

Some section can be more user friendly. For example, if I can just enter the time, instead of clicking the up and down buttons.

No comment

It's too much work to have to click the arrows to increase or decrease the times when you set custom time.

The icons were nice but not consistent between the creation and scheduling phases. The grace periods and how those affected things was a little confusing.

Figure 15. Questionnaire responses to a question about participants' thoughts on activity scheduling.

Very intuitive experience and thoughtful user experience.

Depending on the purpose, this software may still need a lot improving such as approval workflows

It's helpful for the teaching stuff to create and schedule their tasks.

The time clicky thing sucks . Should be a typing input instead.

not a good tool

Great !

I guess it can be better.

Straightforward and easy to use once explained. The time setting dialogs were unwieldy.

The pages are too busy and there's too much information on the page, it's really distracting and the instructions aren't clear enough

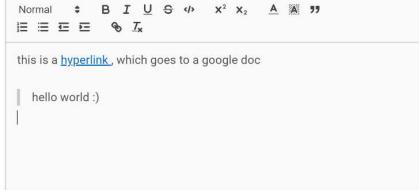
I am not a professor and so do not know any comparable programs and software that might be alternatives to this.

Figure 16. Questionnaire responses to a question about participants' overall experience

Figure 17 is a screenshot of the script used for the observations period of the data collection. This script was used for all of the observations conducted.

Now let me walk you through the instructions for the experiment:  
 Testers please start time:  
 \*testers please track time to complete each step and reset

1. Please create an individual activity, called "Test Assignment 1"
2. In the overall learning objectives please write '**Creating and Scheduling a Kritik assignment**' in bold
3. In the instructions section please duplicate this image:



The link is provided here:  
[https://docs.google.com/document/d/1F0fbUYgrB1u7LYMrB6CrhoVNBHj7GrwXIk\\_cZdLI2Q/edit](https://docs.google.com/document/d/1F0fbUYgrB1u7LYMrB6CrhoVNBHj7GrwXIk_cZdLI2Q/edit)

4. Please find select the "STEM MASTER TEMPLATE", once selected and saved then navigate back to the assignment
5. Change minimum word count to 30 and # of evals to 3
6. Save Activity
7. Now please schedule the activity you just made to be released on March 1th at 9pm, and due on March 5th at 9pm.
8. The evaluate portion should be due in the 6th at 11:59pm
9. The feedback should be due on March 11th at 8 am. subject some
10. Please remove grace period and save your changes

Stop time:  
 Thank you again for your participation!

Figure 17. User instruction sheet.

Table 5 lists out all the times, in minutes, that participants took to complete their assigned task.

Table 5: Time in minutes to complete each task

	Create					Transition	schedule			Total
	1	2	3	4	5		7	8	9	
Task #										
001	0:18	0:20	4:20	0:30	0:18	0:10	0:45	0:16	0:06	7:03
002	0:20	0:20	3:09	0:15	0:10	0:13	0:30	0:30	0:18	4:58
003	0:15	0:28	1:30	0:22	0:24	0:04	0:23	0:15	0:01	3:42
004	0:23	0:17	3:09	0:17	0:08	0:15	0:30	0:30	0:15	4:57
005	1:00	1:00	5:40	0:08	3:16	0:56	1:00	0:28	0:23	13:40

006	0:45	0:30	5:57	0:43	0:57	0:06	2:13	2:08	0:11	13:28
007	0:15	0:18	1:40	0:23	0:23	0:03	0:22	0:16	0:09	3:48
008	1:00	1:00	5:40	0:08	3:16	0:50	1:00	0:28	0:26	13:43
009	0:15	0:28	1:30	0:22	0:24	0:04	0:19	0:19	0:14	3:55
010	0:13	0:25	4:22	0:28	0:18	0:09	0:45	0:16	0:03	6:59

Figures 18-27 are the written down observations of each participant that participated in the observations collected in the data collection phase.

Helen - test 001

Create stage ~12 min

- Create activity button took awhile to find, scrolled around the entire activities page to find it
- Once found and pressed, some general confusion at seeing the page open up for the activity
- Followed the tasks as presented sequentially on the page
- When at the Instructions section, some confusion was seen on the participant's face while reading over the Instructor instructions in the text box. In particular, participant was noted to mouth over the "Check the schedule to the right of your screen in the activities section" and search across the interface for the corresponding part on the page. There was overall confusion in this part of the task. (some outside interaction was needed in order to most past this section)
- All other tasks were moved through pretty smoothly, due to the defaults.

Schedule ~5 min

- Schedule activity button also took awhile to find, scrolled around the entire particular activity page that had been created to find it
- Defaults seemed to be good, agreed with the time set according to the default
- Instructions clear

Feedback:

How did you find it? Pretty easy, simple

When urged to recall certain parts of the task and how it felt:

- Interviewer question: How did you find the creating and scheduling?
  - Scheduling is on a different page
  - Different icon
  - Not under the same page
  - More instruction might be more helpful on the scheduling part
  - Scheduling button is totally on top and away from everything else which made it harder to see
- Interview question: How was the activity creation?
  - Too many steps in activity creation
  - A bit confusing
- Interviewer question: How was the initial entering the page and navigating it?
  - Create activity button was not very noticeable said participant when asked to recall their feelings during the create stage of the experiment

Figure 18. Observation notes of the first participant.

**Tanya- Test 002****Creating Assignment ~7 minutes**

- Subject was a little overwhelmed initially
- Noticed individual assignment is set as default
- Filled in activity instructions without difficulty
- Thinks that defaults are reasonable (default word minimum for activities)
- When trying to save the activity, received error saying evaluator notes invalid
  - Subject was confused where this issue was, and found it unclear what fields were mandatory to be filled
- Thinks that activity creation was straightforward, and basic, but could be less brief in the descriptions of sections to better understanding

**Scheduling Assignment ~4 minutes**

- End of day default is midnight not 11:59
- Default for evaluation stage starting does not change if grace period for create phase changes
- Subject looked at icons with dropdowns on the far left to see time between each phase
- Subject says they think the default for feedback being 9 hours after evaluate is too short
- Only used preset times (no customization)

**Overall:****What went well...**

- Stages were clearly broken down
- Straightforward process
- Not too difficult to understand

**Could be improved...**

- Indicators for mandatory fields
- Icons should be consistent on the creation and scheduling pages

Figure 19. Observation notes of the second participant.

Anna - Test 003:

Creating Assignment ~5 minutes

- Subject finds UI familiar
- Likes the AI functionality, lost trust due to the AI consistently crashing
- Bugs in creating the assignment, error messages do not explain what went wrong only that something went wrong
- Subject clicked stars expecting an interactive portion
- Subject preferred to rely on keyboard shortcuts rather than the provided icons for hyperlink, bolding ect.

Scheduling Assignment ~5 minutes

- Subject commented the grace period was nice
- Subject likes the calendar but suggests manual entry as well

Overall:

What went well...

- The assignment creation process and scheduling sectioned in a linear fashion
- Contextual clues helped

Could be improved...

- Icons for assignment creating box could be labeled
- Subject commented that a tutorial may be helpful to onboard the user
- Definitions of each stage were not explained very clearly, subject was left to guess what each stage is for

When urged to recall certain parts of the task and how it felt:

How did you find the creating and scheduling?

How was the activity creation?

How was the initial entering the page and navigating it?

Figure 20. Observation notes of the third participant.

#### Test 004

subject struggled to figure out the the icons for hyperlink, as well as finding the quotation button  
 5:09.subject had to physically press Buttons to adjust time and date

Transition: Easy

subject glitched out the clock, started to spin rapidly

Do you find this site familiar to other sites you use regularly (such as quercus, d2l ect) ? inuitive  
 What do you feel went well?

clear, what different functions are ui is well organized logic

What do you feel could be improved on?

timer to click for each min typing,

Figure 21. Observation notes of the fourth participant.

## Test 005

1. 1 mins
2. 1 min
3. 7 subject struggled to find the hyperlink, subject struggle quotation

1. 8 secs
2. 4:16 subject struggled to

Transition: Easy

1. Now please schedule the activity you just made to be released on March 1th at 9pm, 56 secand due on March 5th at 9pm. Subject manual 1 mins
2. The evaluate portion should be due in the 6th at 11:59pm 44secs manually changed the time
3. The feedback should be due on March 11th at 8 am. 55 was forced to click the button many times
4. Then save your changes time: 1:34

Time 10

Do you find this site familiar to other sites you use regularly (such as quercus, d2l ect) ?

no ,

What do you feel went well? Easy to use

What do you feel could be improved on?

Time due date is not manually edit

Figure 22. Observation notes of the fifth participant.

## Test 006

- User clicked an existing activity 45
- 30
- 2 mins user
- 
- 57 secs

Transition: Easy 6.5

5. 1:13
6. 21 secs
7. 22sec
8. 2:11

Time: 13:28

Do you find this site familiar to other sites you use regularly (such as quercus, d2l ect) ?

no

What do you feel went well?

Not too difficult, with instruction

What do you feel could be improved on?

preparation documents, more pictures to be more eyecatching first time users might be difficult, website is not self explanatory

Figure 23. Observation notes of the sixth participant.

Helen  
Test 007

Observations:

Create activity stage: ~ 3 minutes

- When selecting individual activity, clicked on the select individual activity and was unsure when popped up if you are sure, but clicked on yes despite the confusion
- Confusion with inserting an image into the Overall objectives option, Thought it was using the link option at first, then later found the add file button.
- Moved through the instructions step quickly.
- Moved through selection of rubric quickly
- Showed confusion after rubric, scrolled up in confusion but soon scrolled back down and found the right area of the page – this took about 15 seconds
- Used the up and down buttons to change the word count

Schedule activity stage: ~ 3 minutes

- Scrolled around looking for schedule activity button, but found it after around 20 seconds
- Moved through initial scheduling steps quickly
- When scheduling evaluation stage for the 6th, got stuck, clicked around and eventually found that unchecking grace period would allow participant to be able to click the 6 on the pop up calendar ( this took around 50 seconds)
- Moved through other steps quickly

Everything was mostly straightforward and easy for participant

Previously studied project managing and MBA, so has prior experience with similar software programs.

Figure 24. Observation notes for seventh participant.

Helen  
Test 008

Observations:

Create activity stage: ~ 5 minutes

- Moved through steps mostly quickly
- Had some trouble figuring out the way to add a link in the Instructions section (this took around 1 min 30 sec)
- Used arrows when changing word count and number of evaluations

Schedule activity stage: ~ 4 minutes

- Had trouble finding the schedule button on the activity page
- Clicked around the page to find it (this took around 1 minute)
- Even after knowing the instructions, saw the defaults and thought they were the correct dates, further inspection, realized needed to change to meet the instructions (30 seconds)
- Clicked shown times to change the time when realized had to use custom time to change the submission time and eventually realized need to use the up and down arrows to change the time (20 seconds)
- Showed confusion in why participant wasn't able to click the 6 on the calendar
- Found the submission grace period and changed it so that would be able to click 6 on the calendar for the evaluations stage
- Showed frustration and confusion when using the arrows for changing time
- Said that using arrows to change time is tedious and not intuitive
- Otherwise, saving the scheduled activity was quickly done

Figure 25. Observation notes for eighth participants.

**Observation 009**

Subject has used Kritik before, not on instructor view. Has high computer literacy

Creating Assignment ~2 minutes

- Create activity was easily found
- Said they had to click 'ok' too many times
- Filling out activity instructions and other fields with no difficulty
- Subject id not reading

Scheduling Activity ~1 minute

- Navigated to scheduling page with ease
- Subject did not enjoy having to click the arrows to set custom times
- Turned off the grace period without any trouble

Post trial Interview

Have you used anything similar?

- Subject has never used platform to schedule like this

What went well?

- Platform looks nice

What could be improved?

- Instructions should be clearer and more concise
- Less information on the page, it's too busy
- There's too much to do, too many options
- Should be able to input times without clicking the arrows

Figure 26. Observation notes for ninth participant.

### **Observation 010**

Subject has no experience with Kritik, and has low computer literacy.

Creating Assignment ~4 minutes

- Trouble finding the create activity button
- Filling out text sections with ease
- Subject has trouble finding buttons when prompted

Scheduling Assignment ~3 minutes

- Found the schedule button faster than create button
- Didn't interpret start date as release date for activity (confused by the wording)
- Difficulty removing grace period
  - Subject think the on/off setting (the check mark) for the grace period was unclear
  - When prompted to remove the grace period, subject entered the setting to set a time for it and missed the check box to turn off the grace period
- Complained about having to click the arrows to change the custom times

Post trial Interview

Have you used anything similar?

- Subject has used work scheduling software HMworks, Fresh Desk; but did not find Kritik similar to them

What went well?

- Pages have good flow
- Easy to follow

What could be improved?

- Should be able to input times without clicking the arrows
- Grace period details need to be clearer (worded differently)
  - Checkbox should be more obvious if it must be used

Figure 27. Observation notes for tenth participant.