Project 6:

UX Evaluation and Reporting

Simplified Sckhaedgeuler (SS)

Snow College

UX Evaluation and Reporting

Leedan Johnson, Alex Thayn, Jackson Porter

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1. System Concept Statement

The *Simplified Sckhaedgeuler* provides an all-around solution to room scheduling for the Snow College campus. From students to building managers our software adapts to fit each user's needs:

- Experience a consistent and easy to use web interface.
- Finding a room for last minute study sessions is no longer a problem.
- Searching for the "right" room has been simplified, users can filter search results to find the room of their dreams.
- Academics take priority! No more getting kicked out of your reservation.
- Managers will maintain control of each building and receive up-to-date feedback about room issues from users.
- View and report issues with a room instantly.
- Never forget a meeting again! Sign up for notifications to receive reminders about your upcoming reservations and events to which you've been invited.

Our software helps all overcome the challenges of traditional room management, allowing the process to be effortless and enjoyable.

2. Our UX Inspection Process

Our inspection process focused on determining the level of usability of our prototypes. We built three prototypes, one for each of our three main personas. We conducted a design walkthrough with our evaluators, encouraging them to think aloud as they navigated through our prototypes. We filmed each evaluation recorded the screen as they were interacting with the prototype.

We began each evaluation with an introductory script. The script introduced each evaluator to our prototype and allowed us to determine the background of each person evaluating through a series of contextual questions. After reading the script, each evaluator was given a set of three main tasks to complete, each task was from the perspective of a different persona. They were then asked to step through these tasks without and help from the design team. After completing the tasks, we asked each user to answer a list of ending questions. The questions focused on how they felt while using the prototypes, such as what they liked and especially anything they disliked. We ended the evaluation by asking them to fill out a survey about their experience and then thanked them for their help.

Evaluation videos

MT Evaluation: https://youtu.be/pXKWYFX2hcU

TB Evaluation: https://youtu.be/TZqOjbYQn28

NH Evaluation:

- Part1: https://youtu.be/1Zmi2DDgTpo
- Part2: https://youtu.be/BRvGP0Go55M
- Part3: https://youtu.be/f2-JmzMFu44
- Part4: https://youtu.be/8U-Jb-O1_tY

Screen Recordings

TB: https://youtu.be/t9TrH_z2Ops

NH: https://youtu.be/OT2luCPTOSo

MT: https://youtu.be/oFqxf3CqDxU

AR: 1. https://youtu.be/-Xqiv90RC_Y

2. https://youtu.be/oJdGYsGIx9o

3. Key Tasks

We prepared three main tasks to drive our inspection. Each task was written from the perspective of our three personas: A Snow College student, building manager, and system administrator. While creating these tasks we also created and expected path for each task so we were able to compare our mental model with the user's mental model in a quantitative way.

Student Task

You are a Snow College student who was just assigned a group project. You are given the task of reserving a study room in the library. Your group wants to meet Nov 21 at 3:30 pm. There are 5 of you in the group, so you need to find a room with at least 5 chairs, they also want a TV or projector in the room. You will also need to send invites to your group mates.

Manager Task

You are a building manager for a college. Part of your responsibilities include handling requests students have submitted to override an existing reservation. Today we need you to resolve one of these conflicting requests. Academic meetings are given priority over extracurricular activities.

System Admin Task

You are the system administrator for a college. Part of your responsibilities include handling reservations by outside businesses. Today we need you to make a reservation for one of these outside businesses. The business has requested a room to seat at least 20 people, and has a

projector. They will have their one hour meeting at 6:00 pm on December 4th. They are paying for the room, so they have priority over any existing reservations.

4. Found UX Problems

We were able to extract the a list of problems from the evaluations we held. By combing through the evaluation data and recordings, we noted each problem as it was mentioned and we were able to compile a weighted list of problems. Each problem is weighted according to the number of times is was mentioned throughout all the evaluations. The table containing our list of problems is one the next page.

Problem	Times Mentioned	Where Mentioned
ALLVIEWS: The software showed already reserved rooms by default!	4	MT 14:07, MT 14:44, MT 15:15, MT 16:19
ManagerView: Pending issues was misleading. Couldn't find room conflicts.	7	TB 11:47, TB 13:38, MT 9:00, MT 9:31, MT 10:50, NH2 0:20, NH4 0:15
AdminView: Expected to have a business-level priority	2	TB 16:15, MT 13:36
StudentView: Didn't really understand what/why "visibility" option	3	TB 8:28, MT 6:26, NH 4:04
Student View: Didn't understand priority	2	TB 7:52, MT 6:02
All Views: Why recursive link to homepage?	1	TB 5:50
AdminView: Expected an "any" option for building filter	1	TB 15:34
AdminView: User hesitate when presented with Invite Friends for business reservation	2	TB 16:47, NH3 0:38
User View: Expected info after clicking on Collaboration icon	1	TB 5:01
User View: Didn't understand what feedback was	1	TB 5:30
StudentView: Didn't understand reservation description field	1	MT 6:09
AdminView: Clicked "rooms" attempting to create a reservation	1	NH3 0:0
AllViews: Didn't understand friend invite functionality	1	AR
AllViews: Placeholder Data wasn't sufficient.	4	TB 18:05, TB 19:19, TB 13:15 NH4 2:13
AdminView: Expected some fields to be omitted for business (eg. details to be always hidden)	2	TB 16:23, NH3 0:28
ManagerView: Didn't know if student would be notified of changes	1	MT 10:25

AllViews: Reservation button was hard to find/too small	1	NH4 1:35
StudentView: Didn't understand the purpose of the "room" filter	2	TB 9:42, MT 4:47
Student View: filter bar, there's a lot of stuff	1	TB 6:16
AllViews: User made a mistake, and wants "go-back" functionality	1	MT 10:02
AllViews: Expected a new page after filters were applied	1	AR
AdminView: User expected to be able to click on calendar day.	1	MT 12:46
ManagerView: Dashboard layout was a problem	5	TB 13:51, TB 19:38, TB 19:57, AR, NH4 0:56
StudentView: Too Many Clicks	1	MT 7:18
AdminView: Dashboard was confusing	1	AR
StudentView: User wanted social Media Integration	1	TB 10:00
AllViews: Flow was a problem	1	TB 17:57

5. Problems selected for Cost-Importance Analysis

We chose to use all the problems listed below to perform cost analysis. Instead of narrowing down the selection before performing analysis, we performed cost-importance analysis on all of our main problems to help us determine priority in a more objective way.

Problems Selected

- ALLVIEWS: The software showed already reserved rooms by default!
- ManagerView: Pending issues was misleading. Couldn't find room conflicts.
- Student View: Didn't understand priority
- User View: Didn't understand what feedback was
- AdminView: Expected an "any" option for building filter
- StudentView: Didn't understand reservation description field
- AdminView: Clicked "rooms" attempting to create a reservation
- AllViews: Placeholder Data wasn't sufficient.
- AdminView: Expected to have a business-level priority
- StudentView: Didn't really understand what/why "visibility" option
- All Views: Why recursive link to homepage?
- ManagerView: Didn't know if student would be notified of changes
- AdminView: User hesitated when presented with Invite Friends for business reservation
- User View: Expected info after clicking on Collaboration icon
- AllViews: Didn't understand friend invite functionality
- AllViews: Reservation button was hard to find/too small
- StudentView: Didn't understand the purpose of the "room" filter
- Student View: filter bar, there's a lot of stuff
- AllViews: User made a mistake, and wants "go-back" functionality
- AllViews: Expected a new page after filters were applied
- AdminView: Expected some fields to be omitted for business (eg. details to be always hidden)
- ManagerView: Dashboard layout was a problem
- AdminView: User expected to be able to click on calendar day.
- StudentView: Too Many Clicks
- AllViews: Flow was a problem
- AdminView: Dashboard was confusing
- StudentView: User wanted social Media Integration
- StudentView: Can't the software make assumptions to speed things up?

6. Cost-Importance Explanation and Table

To perform cost-importance analysis, we added a solution to each problem listed and estimated a cost involved with fixing each problem. We also weighted each problem according to its importance. Using the cost and importance columns we were able to calculate a priority ratio. Then we chose to sort the table according to the priority ratio, we did this for all problems but the top one, which we considered to be of the highest priority (must fix), because it compromised functionality, so we kept it as our highest priority. All members of our team had a part in deciding what was most important in our table.

COST-IMPORTANCE ANALYSIS

Problem	Importance	Solution	Cost (Hours)	Priority Ratio	Priority Rank	Cumulative Cost	Resolution?
ALLVIEWS: The software showed already reserved rooms by default!	M	Add an option on the room page to display available rooms and all rooms	5	M	1	5	Fix now
ManagerView: Pending issues was misleading. Couldn't find room conflicts.	5	Remove the pending issues button as it is redundant and only serves to confuse	0.5	10000	2	5.5	Fix now
Student View: Didn't understand priority	3	Add a quick description here about the different priority types.	0.5	6000	3	6	Fix now
User View: Didn't understand what feedback was	5	Add "fake data" to this section to further users understanding	1	5000	4	7	Fix, time permitting
AdminView: Expected an "any" option for building filter	3	Add an "any" option in the building dropdown	1	3000	5	8	Fix now
StudentView: Didn't understand reservation description field	3	Make the label more descriptive	1	3000	6	9	Fix, time permitting

AdminView: Clicked "rooms" attempting to create a reservation	3	Make the label more descriptive	1	3000	6	9	Fix now
AllViews: Placeholder Data wasn't sufficient.	5	Add "fake data" to prototype and not just squiggly lines.	2	2500	7	11	Fix now
AdminView: Expected to have a business-level priority	1	Add another priority level	0.5	2000	8	11.5	Fix, time permitting
Line of Affordability (12 person-hours 2 working days)							
StudentView: Didn't really understand what/why "visibility" option	1	Add a quick description about visibility. Maybe legal disclaimer here	0.5	2000	9	12	Wait until next version
All Views: Why recursive link to homepage?	1	Remove the recursive link	0.5	2000	10	12.5	Wait until next version
ManagerView: Didn't know if student would be notified of changes	3	Add a message that tells the manager the student has been notified	2	1500	11	14.5	Wait until next version
AdminView: User hesitated when presented with Invite Friends for business reservation	1	Remove this option for the business reservation case.	1	1000	12	15.5	Wait until next version
User View: Expected info after clicking on Collaboration icon	1	Add a mouse over description to this icon	1	1000	13	16.5	Wait until next version
AllViews: Didn't understand friend invite functionality	1	add a quick description about the invite function	1	1000	14	17.5	Wait until next version
AllViews: Reservation button was hard to find/too small	5	redesign the reservation button to make it more clear	5	1000	15	22.5	Wait until next version
StudentView: Didn't understand the purpose of the "room" filter	3	Re-evaluate the filter to make it more clear to the user	5	600	16	27.5	fix, time permitting
Student View: filter bar, there's a lot of stuff	3	Redesign the filter to make it more clear to users	5	600	17	32.5	Wait until next version

AllViews: User made a mistake, and wants "go-back" functionality	3	Provide an undo button or back button	5	600	18	37.5	Wait until next version
AllViews: Expected a new page after filters were applied	3	make the transitions smoother between clicks	5	600	19	42.5	Wait until next version
AdminView: Expected some fields to be omitted for business (eg. details to be always hidden)	1	Change the view to the user if they are creating a business reservation	2	500	20	44.5	Wait until next version
ManagerView: Dashboard layout was a problem	5	This would require a complete redesign of the manager dashboard	10	500	21	54.5	fix, time permitting
AdminView: User expected to be able to click on calendar day.	3	Add the option to add a reservation by clicking on a calendar day	8	375	22	62.5	Wait until next version
StudentView: Too Many Clicks	3	Re-evaluate the flow based on evaluation data	10	300	23	72.5	Wait until next version
AllViews: Flow was a problem	3	Re-evaluate the flow using the evaluation feedback and expected path vs actual path data	10	300	24	82.5	fix, time permitting
AdminView: Dashboard was confusing	1	Redesign the admin dashboard according to evaluation data	10	100	25	92.5	Wait until next version
StudentView: User wanted social Media Integration	1	Add the abililty for users to import their social media contact	10	100	26	102.5	postpone indefinitely
StudentView: Can't the software make assumptions to speed things up?	1	Have the software remember certain user data to speed up the interaction	10	100	27	112.5	Fix on next version

7. Conclusions of Cost-Importance

We thought the cost-importance analysis was a really helpful exercise. It allowed us to detect the problems in our design and figure out what we should fix first and which things we could wait to fix.

The first thing that one notices when looking at the above table is the cumulative cost if all items were to be fixed at the current moment. This can really explain that not issues and problems within a product can be fixed all on the same “round.”

The next thing that we noticed is we had a good Line of Affordability. Below that line, we found most of our issues could wait until the next version. We didn’t have any extremely critical fixes that we were unable to schedule.

8. How We Tailored the Scope

For this project we tailored our scope according to the three personas. We didn’t include support for anything outside personas. The evaluations only tested a small subset of our prototype functionality. We wrote 3 tasks that we felt would test a wide enough range of our prototypes so that the results from the evaluation would be useful to us. We only supported one task for each persona but we tailored each task so they would have to step through a wide variety of screens, thus getting each screen the most exposure to potential users. We didn’t think of other users that might use our software in the future.

9. What Worked and What Didn’t

The first evaluation we held did not go to plan quite as well as we would have hoped. We had everything all set up: a webcam, screen recorder, script in hand, and tasks prepared. Unfortunately the webcam decided to stop and start recording according to its own desire, so we got a bunch of short clips from the first evaluation, and no recording at all for the second one we held. Fortunately we were able to learn from these technical difficulties and correct for them in the next evaluations we held.

The last two evaluations we held went very smoothly because we were able to iron out the kinks and all our technology worked correctly. I think the last two were even more helpful because we had more practice with holding evaluations, and we were able to ask more insightful questions as the evaluation was happening.

We recorded the screen for all of our participants, but overall, we felt that the thinking out loud technique with the participants was more effective than seeing where they clicked on the screen. However, it would be nice to see to use eye-tracking software as we can see what parts of the page the user looks at first over another.

10. UX Evaluation to the Design Team

The evaluations we held were directed towards the design team as well as the product manager. In order to make our product successful, we wish to address our evaluations and the following summary to these executives.

Commented [1]: Krystal says, "Address your UX evaluation report to the design team." What does that mean? Ideas?

Commented [2]: I don't think we need to worry about it. I talked to her about what she meant with the last part. (Step 11) and it was basically just a reiteration of the assignment (if that makes sense) I think that's what this is also

Commented [3]: Ty said: "It is doing what we did for individual project 8, except toward our own project and including the feedback we got from the other groups"

Simplified Sckhaedgeuler

For this project we created a situation in which to test our product, *Simplified Sckhaedgeuler,* in its prototype form. We created a script and tasks for users to complete as they used the prototype. They also used the prototype in each form, as a normal system user, a building manager and a system administrator. After completing the tasks, we asked the testers to complete a survey and answer some general questions. From this evaluation, we were able to find some problems and wish to address these with you.

All of the problems of usability and in the prototype are listed earlier in this report, however, these were the main problems that should be addressed first:

ALLVIEWS: The software showed already reserved rooms by default!
ManagerView: Pending issues was misleading. Couldn't find room conflicts.
Student View: Didn't understand priority
User View: Didn't understand what feedback was
AdminView: Expected an "any" option for building filter
StudentView: Didn't understand reservation description field
AdminView: Clicked "rooms" attempting to create a reservation
AllViews: Placeholder Data wasn't sufficient.
AdminView: Expected to have a business-level priority

Some possible solutions could include:

ALLVIEWS: The software showed already reserved rooms by default!	Remove rooms from the list that are not available
ManagerView: Pending issues was misleading. Couldn't find room conflicts.	Change icon/text of pending issues or add conflict to pending issues menu, or simply add a room conflicts button on the dashboard.
Student View: Didn't understand priority	We could add a help icon and explain, or show the different priority options to the tester in the future
User View: Didn't understand what feedback was	We could add a help icon and explain, or change the wording of the products
AdminView: Expected an "any" option for building filter	Show different dropdown options to testers in the future (also change name to “Room Type”
StudentView: Didn't understand reservation description field	We could add a help icon and explain (maybe some grayed out text that says *i.e. Club meeting*)
AdminView: Clicked "rooms" attempting to create a reservation	Change icon/wording of icon in the administrator dashboard
AllViews: Placeholder Data wasn't sufficient.	Make sure in the next test to have “fake data” inserted into the prototype to make it more real
AdminView: Expected to have a business-level priority	Add option for a business-level priority, show priorities

In conclusion, we suggest the above problems and solutions in the next iteration of design of the prototype and the final version of this product release. We learned much from this evaluation, including the frustrations the user may have when using our software. From the evaluations, we hope to improve our software to be at a functional level and perform better than its competitors by creating the best user satisfaction ratings on the market.