



# Stage 4 Report: Evaluations

## Socially Awkward Penguins



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## **1. Goals, approach and rationale:**

In the stage 4 evaluation, the main difference will be the overall type of information we wish to discover during the interviews. Because of a lack of an operating prototype in Stage 3, the main goal was discovery, while in stage 4, it is refinement. We wish to discover and get a more refined idea of the workflow which users most naturally want to follow in order to refine our UI; While in stage 3, it was more so about discovery of wanted functionality.

There are minor implications for interviewing a different user pool than in Stage 3; this new set of users may not have the same values in functionality which the previous did which could muddy our qualitative data. However, because the functionality is set and the purpose of this stage is refinement, the impact is minimal and should not impact our data to a significant degree.

## **2. Execution details (e.g. actual Participant pool, etc)**

Representative Users: 2 Professors, 5 TAs, 1 Student

Observational Walkthroughs with a post task semi-structured interview. This will allow us to gather a high amount of qualitative data on how users find the prototypes as well as get a better indepth look at how users interact with them via observation.

## **3. Divergence from Stage 3 evaluation plan, if any, and justification**

Although not directly referenced in the stage 3 report (was more so implied), post task semi-structured interviews to gather qualitative information on user experience. We originally planned to conduct observations with professors only. However, due to the fact that we might not be able to get as many professors in such a short time, we decided to expand our user group to include professors, TAs, and students. Moreover, we are not doing a comparative observation of current Connect and our prototype because most users are unfamiliar with Connect.

## **4. Summary of data (from Step 2). Include key figures.**

For inheritance, we received positive responses about navigation, layout, and finding things. Participants find this feature particularly useful and hoping to have it implemented to replace the current way of sharing of course materials. We also found that one participant commented on not knowing whether the original owner can be completely removed from the course. 2 participants would like to have a pop-up asking for confirmation before the system delete data in course material and ownership.

In Test Creation, out of the 7 participants who we conducted the observations, all of them commented about that the layout and workflow were unintuitive. Lacking feedback and instructions are other key feedbacks they identified. 5 out of 7 participants had a hard time

figuring out that the Next button would provide them with a summary view of the quiz. 6 out of 7 participants did not understand what “Add to template” means and what it does. We interviewed two professors from the Math department and both of them stated that they are currently using webwork (another software to create exams) and would only migrate if Connect test creation supports programmatic question creation and features like exporting data.

As for Grouping, we interviewed 4 participants and all of them liked the layout and the idea of grouping. The 2 Math professors did not think they would use grouping due to the nature of the Math courses (no groups), but they all think that students would like to have this feature. However, the 2 students really liked the idea and thought that for any project based or lab based course, Grouping would be of great help for sharing files and organization. 2 out of 4 participants thought that homepage ‘online/offline’ lists were confusing and seemed to lack any sort of reason to exist. They were looking for clearer explanation of what ‘online/offline’ lists were for but could not find any clear instructions in our current prototype.

For quantitative data, out of the 8 interviews conducted, the most used words/phrases show what users place most importance in:

- functionality
- usability
- ease of use
- workflow
- UI

## **5. Conclusions (from Step 3)**

In summary, our findings indicate that the overall functionality which would be added to Connect via the prototypes is very much wanted by users and would act as a draw for users to implement Connect in a fuller manner. However, there are still some issues with our prototypes such as what we assumed would be the most natural workflow being conflicting with what the actual users felt. As well as many users feeling that some wording and layout issues still exist to maximize ease of use.

The overall evaluation process went smoothly with no hiccups. Although there is an inherent limitation of how much quantitative data we are capable of gathering from such a limited number of interview, the depth and quality of our data collected makes up for any such shortcoming.

The prototypes matched exactly what we needed for our evaluations; as we were doing observational walkthroughs, the level of functionality needed was already predefined as such making the possibility of accidentally under developing our prototypes impossible.

-Bias and concerns:

Participants are distracted with screen update when they are asked to read the required tasks at the same time. (Change blindness).

Limited number of exam and questions to inherit old exams to make a new one is not a clear concept.

Since we are only providing the user with a small subset of Connect functionalities and are not capturing the entire component of Connect, the user might falsely think that our version of Connect is very clean and intuitive to use.

## **Part B Deliverables**

### **B1: Final design rationale and discussion of the state of your design**

**Provide a report with conclusions and recommendations as described in Step 4 (1 page).**

Inheritance:

-Pop up confirmation before actually deleting the data. We thought this is a good idea because it does not clutter the current UI and it is a good error prevention method.

-Left sidebar currently changes text when user click on the course. We want to better notify the user by adding an arrow in front of the text that got changed.

- For the concern of not knowing whether the original owner can be removed from the course or not, since we think more data has to be provided before we make this decision we are not going to make that change at this stage.

- One user suggest "Export All" button to export all course material files into local drive at once but we still think that we would like to see more users making the same suggestion before we add that feature into the prototype (to prevent feature creep if the feature is not actually needed).

Test Creation:

-more straightforward layout

(Master Layout - visible throughout the entire exam creation process)

> Add progress bar (To show which step the user is currently on and the previous/future steps)

> Make the progress bar available for navigation around the process steps

(Exam Creation Page)

> move the Edit button to be besides the Question number

> make the "Add more choice" or "+" should be only visible after the "Edit" button is clicked

> Moving the "add to template" check box to the beginning of each question and change the wording to "Use this question?"

> Create 1~2 more questions

> Create another exam for comparison

> Change the wording of Next button to "Next step to Preview Student View"

> Add more separation / boundaries to separate up different questions, "to-be-used" questions and "other exams"

> Hide advanced options (exam deadline)

(Summary Page)

- > move this page to be shown after the Preview Page
  - > Remove most statistical data
  - > move all the summary data to exam creation and hide them under some “historical/statistical data tab” of each question
- e a quiz preview page. (2 people mentioned it)
- > additional question type: programmatic question creation and exporting functionality (2 out of 2 math professors mentioned it)

Grouping:

- Clarify naming of ‘contents’ to something more suitable such as ‘Files’
- Clarify the reason for online/offline lists to indicate that they are implementing chat functionality.
- Clarify the wording of “Danger Zone” in settings page to represent actual reason for being; ie “Admin Settings”.

## **B2: Reflection on your design process**

For stage 4, our design did change under the influence of user feedback. We are very grateful to have users suggesting improvements to us. Some suggestions are made by multiple users and that is where we confirm that a change is needed. Our biggest surprise was that we thought our UI was intuitive enough to have the users do their tasks without any guidance. However, it appeared to us that not enough instructions were provided by our prototype and the users were not able to complete certain tasks right away.

Our evaluation for Stage 2 was a little biased. Our problem was that we had an idea of what WE thought was wrong with connect before we even began asking users (i.e. We asked a question about test creation). It may have been better if we had gone into the interview without having these ideas in advance and conducted completely open ended interviews rather than semi-structured interviews. This way we will know what the USER's problem with Connect is rather than what users think of OUR problems with Connect.

Our evaluation process for Stage 4 was very effective. Our interviews/observations allowed our users to elaborate on their personal problems with Connect. The sample size was also very ideal in that we had enough data to find similarities amongst what people think about our prototype. We would not have chosen any different evaluation approach.

Our Prototyping process was quite difficult. Advanced HTML5 is not as easy and rapid as some other prototyping techniques. In addition, our feature set within Connect is very diverse. Therefore we ended up essentially having 3 different prototypes. The work required was much higher than some other groups and it was extremely rushed since the time frame for the prototype stage was not particularly long. Because of the diversity of the prototypes, we should probably have chosen a faster/easier prototyping approach. In the end, however, we were still able to make decent functional prototypes.

The interview and evaluation tutorials were really helpful in giving us an idea of what kind of information we need to get out of the subjects. Although we did not directly use it, Heuristic Evaluations were very important in giving us an idea of what makes up a good user interface. (Specifically the Heuristics)

One of the biggest issue that our group had was having an idea of what we wanted before doing evaluations. This caused us to not be as open minded as we otherwise could have been during our first evaluations (stage 2). Our interviews were conducted in such a way that tried to guide the results to what we wanted to see. It is very important that the evaluation comes first. Next time, we would not come up with any ideas in advance and try to be more open minded during the evaluations.

Our task examples were too diverse. In a large software system like Connect, we chose 3 functions that didn't have a lot to do with each other. This resulted in us basically having to make 3 different prototypes. In a limited timeframe this was very difficult to accomplish.

AppA.1

Tool Used:

- Dragon Naturally Speaking 12
- Photoshop



add change previous groups programming  
discussion download sharing connect great layout workflow  
preview notes existing tool version grab next make go  
time features based everything goodful test Easy easy  
made Everything another department modifying also Ease classes simple files don't straight forward use  
vertical one just need clear webwork course maybetabs templates interface get  
find Yes saving marks Since easier pretty feature lol took ca reason confusing know text homepage However  
beca work cool Simple idea study question/answer courses rs look current actually deleting functionality  
adding sub better Test easily UI question Workflow Creation students sidebar  
want math stuff like N/A page Inheritance somewhat things thing given Usability creation Sharing creating  
list bit objectives create Inheritance sure system Adding see  
lot lab teach much

344/544: CUMULATIVE COM						Tech Notes		TIPS	Version:
TEAM:		Socially Awkward Penguins	define week 1 : 3/Sep/12					EDIT COLORED CELLS ONLY	define week 1 :
SECTION:		T1B						Initialize	
Date Last updated:		9/30/2012						Update whenever edit	
SUMMARY:									
		Louie	Fang	Chan	Liu			Initialize	Park
Team Role (s):		Team Leader	Progress Manager	Web Master	Deliverable Manager			Initialize	Project Phase Leader
Cumulative Hours:	337	83	90	82	82			Cum is automatic	12
Percentage:	100%	25%	27%	24%	24%				4%
Team Comments (optional)									
Phase 1:		- Worked on coming up with task examples and preparing the report	- Worked on coming up with task examples and preparing the report	- Worked on coming up with task examples and preparing the report	- Worked on coming up with task examples and preparing the report			Complete when phase is due	- Worked on coming up with task examples and preparing the report
Phase 2:									
Phase 3:									
Phase 4:									
Phase 5:									
						To submit: print/pdf			
WEEKLY LOGS									
CLASS WEEK:									
		4							
24/Sep/12	Total	Louie	Fang	Chan	Liu	1st block diff			#REF!
1. REVIEW PREVIOUS WEEK									
Accomplishments (1 or more item 1:		<comments can wrap to multiple lines>	Emailed Matt about our final decision with the project idea	Provided ideas	Provided multiple suggestions			Examples:	Provided suggestion
item 2:			Held a group meeting to make sure we will have enough time to work on the project		research other topics			Collected data for 2nd evaluation	

item 3:				Completed one of the task examples specification and its analysis				Finished programming GUI	
~Hours spent:	24		6	6	6	6			6
Week %:	100%		25%	25%	25%	25%		DIV/0 til enter nonzero value in 'hours spent'	25%
Cumulative hrs:	24		6	6	6	6			6
Cumulative %:	100%		25%	25%	25%	25%			25%
Objectives met? (y/n)			Y	Y	Y	Y		Enter "y" or "n"	Y
If not: makeup?			N/A					If objectives not met, what makeup, if any, does M commit to?	
2. PLAN COMING WEEK									
Objectives (1 or more)									
item 1:			Come up with 2 new task examples	Coming up with task examples	Coming up with task examples	Coming up with task examples			Coming up with task examples
item 2:			New potential project ideas	Coming up with two new potential project proposal	Putting everyone's pieces together	Discuss with team about project stage 1			Discussing report
item 3:				Meeting with team to work on project stage 1					
CLASS WEEK:		5					use 2nd block to propogate		
1/Oct/12			Louie	Fang	Chan	Liu			#REF!
1. REVIEW PREVIOUS WEEK	1								
Accomplishments (1 or more)	2					provided multiple task examples			Came up with task examples/d the report
item 1:	3		Finalized chosen task examples for final proposal	Created cumulative commitment archive owner list (so each week there will be an owner in charge to make sure the task is completed	Came up with task examples	Discussing report			Coming up with task examples
item 2:	4		Decided to stay with original project idea of Connect	Came up with task examples and had a meeting with the team to work on the project stage 1	Gathered everyone's parts together	Review project stage 1 report			Discussing report
item 3:	5								
~Hours spent:	6								
Week %:	7	21	6	5	5	5			6
	8	100%	29%	24%	24%	24%			29%

Cumulative hrs:	9	45	12	11	11	11	12
Cumulative %:	10	100%	27%	24%	24%	24%	27%
	11						
Objectives met? (y/n)	12		Y	Y	Y	Y	Y
If not: makeup?	13		N/A				
	14						
2. PLAN COMING WEEK	15						
Objectives (1 or more)	16						
item 1:	17						Write the report
item 2:	18						
item 3:	19						
<b>CLASS WEEK:</b>		<b>6</b>					
<i>8/Oct/12</i>		Louie	Fang	Chan	Liu		#REF!
1. REVIEW PREVIOUS WEEK	1						
Accomplishments (1 or more)	2						
item 1:	3		Came out with new task examples for revised Proposal and put it together	Came out with new task examples for revised proposal	Analyzed the issues with the old proposal to help direct the task examples for the new one	Came out with new task examples for revised proposal	Dropped the course
item 2:	4						
item 3:	5						
	6						
~Hours spent:	7	24	6	6	6	6	
Week %:	8	100%	25%	25%	25%	25%	0%
Cumulative hrs:	9	69	18	17	17	17	12
Cumulative %:	10	100%	26%	25%	25%	25%	17%
	11						
Objectives met? (y/n)	12		Y	Y	Y	Y	Y
If not: makeup?	13						
	14						
2. PLAN COMING WEEK	15						
Objectives (1 or more)	16						
item 1:	17		Interview a prof	Interview a friend	Interview a prof	Interview a friend	
item 2:	18						
item 3:	19						
<b>CLASS WEEK:</b>		<b>7</b>					
<i>15/Oct/12</i>		Louie	Fang	Chan	Liu		#REF!
1. REVIEW PREVIOUS WEEK	1						
Accomplishments (1 or more)	2						
item 1:	3		Interview Prof	Interview Friend	Interview Friend	Interview a friend	
item 2:	4		Completed part B of Stage 2	Analyzed the data gathered from interviews	Analyzed the data gathered from interviews	Analyzed the data gathered from interviews	
item 3:	5						

	6							
~Hours spent:	7	28	7	7	7	7		
Week %:	8	100%	25%	25%	25%	25%		0%
Cumulative hrs:	9	97	25	24	24	24		12
Cumulative %:	10	100%	26%	25%	25%	25%		12%
	11							
Objectives met? (y/n)	12		Y	Y	Y	Y		Y
If not: makeup?	13							
	14							
2. PLAN COMING WEEK	15							
Objectives (1 or more)	16							
item 1:	17							
item 2:	18							
item 3:	19							
<b>CLASS WEEK:</b>		<b>8</b>						
<i>22/Oct/12</i>		<b>Louie</b>	<b>Fang</b>	<b>Chan</b>	<b>Liu</b>			<b>#REF!</b>
1. REVIEW PREVIOUS WEEK	1							
Accomplishments (1 or more)	2							
item 1:	3		Low-fi prototype for grouping	Low-fi prototype for history section	Low-fi prototype of quiz creation	Merged task example for inheritance and quiz		
item 2:	4							
item 3:	5							
	6							
~Hours spent:	7	25	6	7	6	6		
Week %:	8	100%	24%	28%	24%	24%		0%
Cumulative hrs:	9	122	31	31	30	30		12
Cumulative %:	10	100%	25%	25%	25%	25%		10%
	11							
Objectives met? (y/n)	12		Y	Y	Y	Y		
If not: makeup?	13							
	14							
2. PLAN COMING WEEK	15							
Objectives (1 or more)	16							
item 1:	17			work on the history section of medium fidelity prototyping				
item 2:	18			low fidelity prototyping for History section				
item 3:	19			walkthrough low fidelity prototype in History section				
<b>CLASS WEEK:</b>		<b>9</b>						
<i>29/Oct/12</i>		<b>Louie</b>	<b>Fang</b>	<b>Chan</b>	<b>Liu</b>			<b>#REF!</b>
1. REVIEW PREVIOUS WEEK	1							
Accomplishments (1 or more)	2							

item 1:	3		Began work on med-fi prototype of grouping	worked on the history section of medium fidelity prototyping	Began stage 3 report + clean up	Updated Low-fi prototype for inheritance and quiz			
item 2:	4			revised task examples & worked on low fidelity prototyping for History section					
item 3:	5			walkthrough low fidelity prototype in History section					
	6								
~Hours spent:	7	51	12	15	12	12			
Week %:	8	100%	24%	29%	24%	24%			0%
Cumulative hrs:	9	173	43	46	42	42			12
Cumulative %:	10	100%	25%	27%	24%	24%			7%
	11								
Objectives met? (y/n)	12		Y	Y	Y	Y			
If not: makeup?	13								
	14								
2. PLAN COMING WEEK	15								
Objectives (1 or more)	16								
item 1:	17			Fix on medium fidelity prototypes					
item 2:	18			Work on medium fidelity prototypes					
item 3:	19			Work on Stage 3 report					
<b>CLASS WEEK:</b>			<b>10</b>						
<i>5/Nov/12</i>			<b>Louie</b>	<b>Fang</b>	<b>Chan</b>	<b>Liu</b>			<b>#REF!</b>
1. REVIEW PREVIOUS WEEK	1								
Accomplishments (1 or more)	2								
item 1:	3		Continue Med-fi prototype for grouping	Fixed medium fidelity prototypes	Continue stage 3 report and gathered the parts together	Created Med-fi prototype for Quiz creation			
item 2:	4			Built home page, and history section of the medium fidelity prototypes					
item 3:	5			Worked on stage 3 report					
	6								
~Hours spent:	7	76	18	22	18	18			
Week %:	8	100%	24%	29%	24%	24%			0%
Cumulative hrs:	9	249	61	68	60	60			12
Cumulative %:	10	100%	24%	27%	24%	24%			5%
	11								
Objectives met? (y/n)	12		Y	Y	Y	Y			
If not: makeup?	13								
	14								
2. PLAN COMING WEEK	15								
Objectives (1 or more)	16								
item 1:	17		Prepare for Stage 4	Prepare for Stage 4	Prepare for Stage 4	Prepare for Stage 4			

item 2:	18								
item 3:	19								
<b>CLASS WEEK:</b>			<b>11</b>						
<b>12/Nov/12</b>			<b>Louie</b>	<b>Fang</b>	<b>Chan</b>	<b>Liu</b>			<b>#REF!</b>
1. REVIEW PREVIOUS WEEK	1								
Accomplishments (1 or more)	2								
item 1:	3		Presentation demo preparation	Completed consent form	Presentation demo preparation	Presentation demo preparation			
item 2:	4			Prepared interview questions					
item 3:	5			Presentation demo preparation					
	6								
~Hours spent:	7	48	12	12	12	12			
Week %:	8	100%	25%	25%	25%	25%			0%
Cumulative hrs:	9	297	73	80	72	72			12
Cumulative %:	10	100%	25%	27%	24%	24%			4%
	11								
Objectives met? (y/n)	12		Y	Y	Y	Y			
If not: makeup?	13								
	14								
2. PLAN COMING WEEK	15								
Objectives (1 or more)	16								
item 1:	17		Conduct interviews	Conduct interviews	Conduct interviews	Conduct interviews			
item 2:	18		Work on Stage 4 report	Work on Stage 4 report	Work on Stage 4 report	Work on Stage 4 report			
item 3:	19								
<b>CLASS WEEK:</b>			<b>12</b>						
<b>19/Nov/12</b>			<b>Louie</b>	<b>Fang</b>	<b>Chan</b>	<b>Liu</b>			<b>#REF!</b>
1. REVIEW PREVIOUS WEEK	1								
Accomplishments (1 or more)	2								
item 1:	3		Conducted interviews	Conducted interviews	Conducted interviews	Conducted interviews			
item 2:	4		Worked on Stage 4 report	Worked on Stage 4 report	Worked on Stage 4 report	Worked on Stage 4 report			
item 3:	5								
	6								
~Hours spent:	7	40	10	10	10	10			
Week %:	8	100%	25%	25%	25%	25%			0%
Cumulative hrs:	9	337	83	90	82	82			12
Cumulative %:	10	100%	25%	27%	24%	24%			4%
	11								
Objectives met? (y/n)	12		Y	Y	Y	Y			
If not: makeup?	13								
	14								
2. PLAN COMING WEEK	15								
Objectives (1 or more)	16								

item 1:	17		Prepare for final demo	Prepare for final demo	Prepare for final demo	Prepare for final demo			
item 2:	18		video recording	video recording		video recording			
item 3:	19								
<b>CLASS WEEK:</b>			<b>13</b>						
<i>26/Nov/12</i>			<b>Louie</b>	<b>Fang</b>	<b>Chan</b>	<b>Liu</b>			<b>#REF!</b>
1. REVIEW PREVIOUS WEEK	1								
Accomplishments (1 or more)	2								
item 1:	3								
item 2:	4								
item 3:	5								
	6								
~Hours spent:	7	0							
Week %:	8	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			#DIV/0!
Cumulative hrs:	9	337	83	90	82	82			12
Cumulative %:	10	100%	25%	27%	24%	24%			4%
	11								
Objectives met? (y/n)	12								
If not: makeup?	13								
	14								
2. PLAN COMING WEEK	15								
Objectives (1 or more)	16								
item 1:	17								
item 2:	18								
item 3:	19								