**What Is Your Problem**

A Resource to Share Common Solutions for First Generation College Students

**LBSC 708N – Fall 2011**

**Team Project**

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**Abstract**

The challenges that face college students are many. First generation college students (FGCS) have unique challenges as trailblazers in their family units. This study builds on the data provided by Karen Holtzblatt on first generation college students. The Holtzblatt data finds the issues faced by these students exist in a myriad of areas. Combining this data with interviews led to development of an interactive online solution by which first generation college students can help one another through the challenges they face. Our application was tested with users who felt it was “an interesting idea” and that it had potential to be helpful, provided a number of users entered quality information. They were able to see that this product produces more focused information and solutions than a search engine output would yield. Some interface design issues were identified which will need to be addressed in the next iteration. The product has good potential to help first generation college students succeed in college.

**Introduction**

Our team set out to address the challenges faced by first generation college students. We gathered data and assessed new and old data to learn what these challenges are and how we might develop an application to help solve some of the problems this demographic faces. Supporting these users in a fashion in which they can help one another with their solutions was a goal. Integrating our application with Facebook helps users interface with one another in solving their problems communally.

**The Problem**

The problem we suspected would rise to the top among the challenges that first generation college students (FGCS) is financial – not having enough money for college and living expenses. Based on the data presented by Karen Holtzblatt we also knew that time management and emotional support would figure highly in the needs of FGCSs. Our user interviews supported this theory.

**Gathering and Assessing User Data**

Our team “walked the data” supplied by Holtzblatt. We looked for common themes and outages. As we brought our findings together, we compared and found that there were several areas where FGCS struggled. Rather than trying to decide which areas were more important to focus on (acknowledging that our data was several years old), it was our decision to allow a current crop of FGCSs to help direct our efforts.

As a group, our team compiled a comprehensive list of questions, based on the Holtzblatt data to ask the FGCSs. We kept the range of questions broad so as to allow users to help us focus in on their current needs. We each contributed questions which were assessed by the team and distilled into a loosely structured interview script. Each team member located a willing FGCS to interview using the script. See Appendix A for script.

My FGCS was the only female of the users interviewed. I advised her about the details and goals of the project (to have FGCS like herself help design an application to solve the challenges they face) and explained that she was able to opt-out at any point in the process if she chose to. Her major was school counseling and she was a recent graduate. She was very clear about her largest challenge, which was a financial one. She stated that finding money for tuition was a constant struggle, as her family was in no position to provide monetary support.

My user felt ill-prepared for college in several ways. First, she was traveling in uncharted waters, being the first in her family to attend college. She had no prior role model or family experience to guide her, although she felt emotionally supported by her family. Next, she felt her high school guidance counselor did not provide sufficient guidance or direction. My participant felt she would have benefitted from having more information about the many possible degree programs that would be available to her in college. Given more information while in high school, she says that she might have pursued a different degree (perhaps in engineering).

She also felt that being directed towards Advanced Placement or more challenging courses to better prepare her for college would have been helpful. More and better advising at the high school level would have given her a smoother transition to college in her opinion. She felt knowing what resources were available – tutoring, financial, mentoring, general preparation, as well as an expectation of the time commitment – would have given her more confidence.

She wasn’t prepared for living on her own in another state away from her family and friends. She moved back home to attend a local college for a period of time and later came back to UMD to finish her degree. While away from home, my participant felt emotionally supported by family and friends, often through Facebook. She discovered that this was a tool she found very helpful in maintaining contact with and finding emotional support from her loved ones. Her family always provided “an ear to listen and motivation”.

She stated that locating money for tuition was her biggest challenge as an FGCS. She didn’t know where to look or how to apply for tuition assistance and scholarships. Through her own research, she found resources and became very good at locating and applying for funding for college. She stated that her best resource for obtaining said funding was through the Fast Web site. This was her most productive source of money for college.

Our team reconvened to review our findings from our individual interviews. Data was again compiled and examined for common denominators. We derived that the most important challenge for FGCS is money for college. We also learned that there are additional important issues they face, such as finding emotional support and developing good time management skills.

#### Participant combined data

* 26 years old, male, software engineering student, got bachelor degree three years ago.
* 23 year old male Fine Arts (sculpture) student. Just graduated from college
* 23 year old male First Year, mechanical engineering
* 24 year old female, major: education/school counseling, recently graduated from college

#### 1. Financial

* Main problem
* Had to learn how to manage financial issues
* No time was left because he had to work
* Challenges: primarily financial and locating funding
* Knowing resources that are available: financial
* Family not financially supportive
* Feels financial support info via social network would be helpful.
* Challenges: financial issues

#### 2. Time management / Distraction

* Lack of self-control, Easily distracted
* General preparation in high school to better estimate time commitment that would be required in college.
* Challenge: final exam, projects of part-time job/student activities,
* Difficulties in study: keep awake at class; attend every class; finish every homework;

#### 3. Difficulty with specific skills

* Language Exam(Time manage and Difficulty)
* Preparation of College(lack of course advise, goal)
* Writing ability(both CV, Resume and academic article)
* Felt adequately prepared for school
* Lack of people that had perspective on fine arts
* Knowing resources that are available: tutoring
* mentoring programs.
* General preparation in high school to better estimate time commitment that would be required in college.
* Take AP classes and more challenging classes
* More Travel to expand view and experience.
* participate into major related project earlier;
* some difficult courses.

#### 4. Lack of specific practical information

* Writing ability(both CV, Resume and academic article)
* Lack of suitable Intern information
* More knowledge of academic programs available.

#### 5. Housing

* Choose roommates with similar life attitude and goals.
* Terrible living situation

#### 6. Internship/Jobs

* Apply for a valuable internship.

#### 7. Love life

* Find a girlfriend.

#### 8. Social Networking

* Uses social network a lot
* Facebook kept her connected to family & friends back home.

#### 9. Studying with others

* Mentioned he would like smaller class sizes / Prefers studying with others
* Likes studying in groups
* Prefers individual study.
* Prefers individual study.
* getting known with more resourceful friends;

#### 10. Motivation-Support

* Motivation: family and friends back home
* Family is supportive, providing ear to listen and motivation.
* Motivation: get the degree and find good job
* finding real interests.

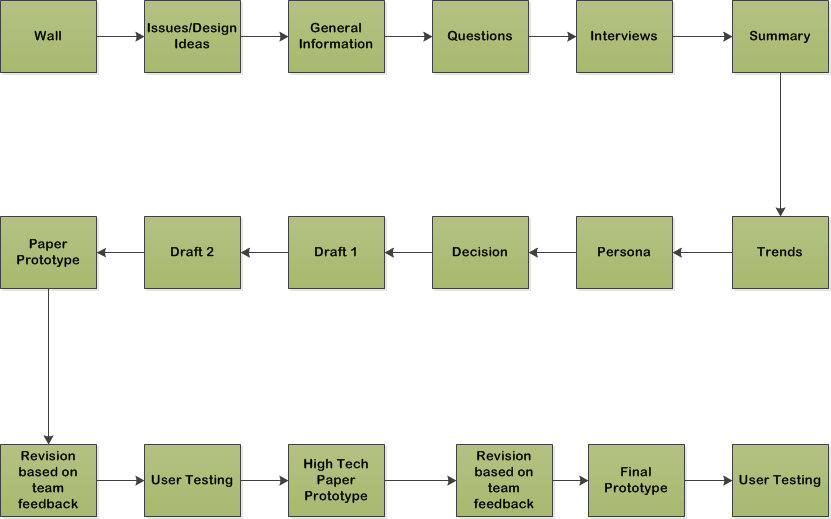
Based on the information gathered, our team arrived at a representative persona who reflected a composite of what we feel a current FGCS looks like and needs. Our student, George, is a freshman in college and struggles with financial issues. He is an amalgamation of the data we uncovered (above) and is a composite of the four individuals we interviewed. See Appendix B. We also named our project “What Is Your Problem?

We determined that our users desired a social element so the application was designed to allow users to interact with one another. This interaction allows the users to provide feedback and share their own solutions to the various problems posted on the site.

Design Process

Using a spiral design approach we set out to begin designing our solution. Based on our findings, the team solidified its original design idea, that of an online application to support FGCS. Our idea is for an application/website that allows FGCS to share resources and ideas for assistance. Users can log in through Facebook or anonymously. They are assured an anonymous login protects their identity. Login in either way is encouraged and identified as a means for the site to gather data and assist others.

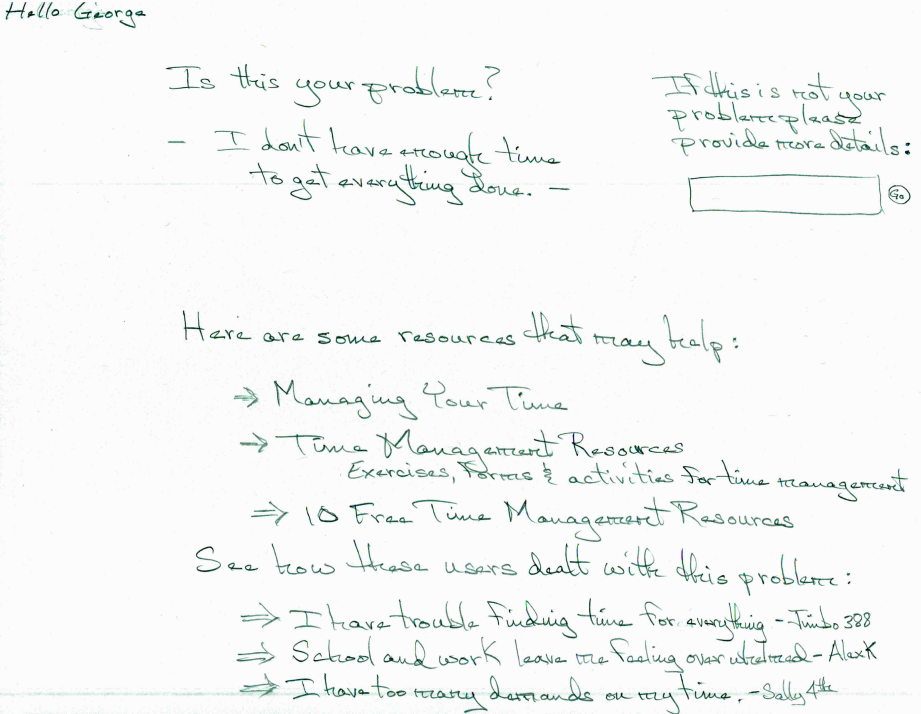
Our design flow is illustrated as below:



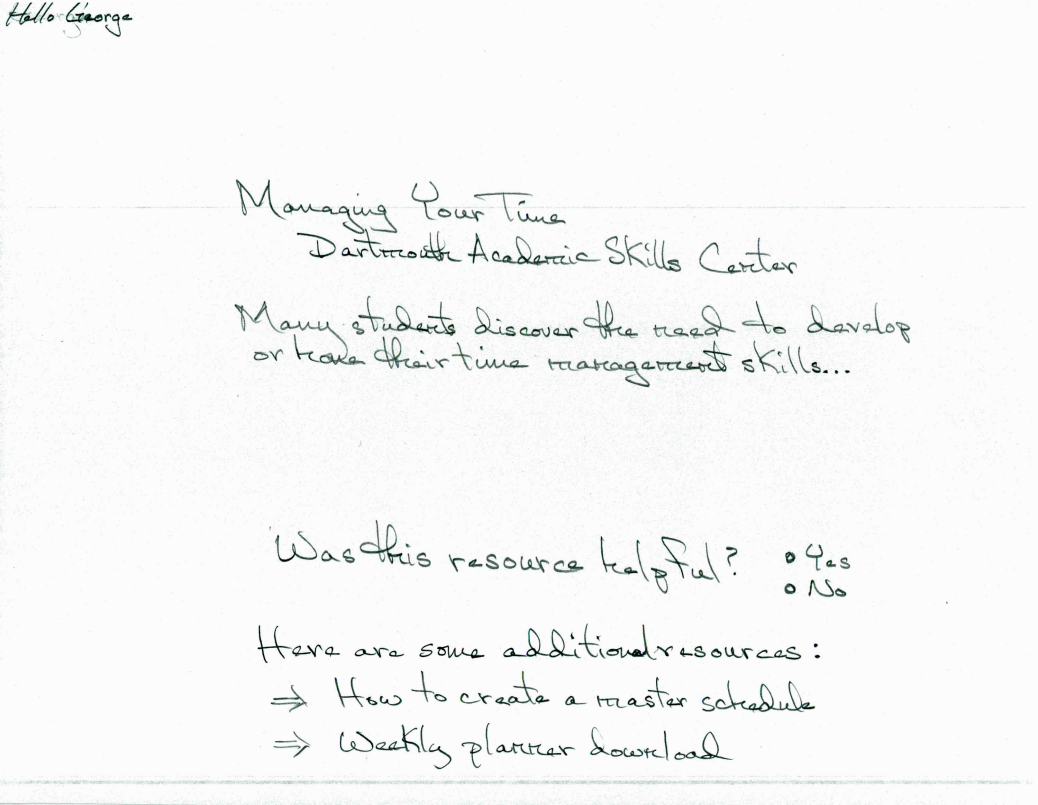
After the “wall walk” of Holtzblatt data we gathered ideas and general information. From this we developed our script of questions for our participants. Individually we interviewed our participants face-to-face, providing a description of the project and the opportunity to opt out at any time.

Our team reconvened to summarize our findings. We evaluated the participant responses and found trends that allowed us to create a representative persona for FGCSs. As a team we made the decision to divide the work into sections and we each went about the task of starting to develop the data for paper prototypes to fit our area of the web site application we were going to build. We developed a first draft and reviewed it with one another and refined the design with the second draft based on our input.

Paper prototypes were developed by each of the team members for review. Again, we reviewed our joint efforts and revised our prototypes based on team input. The revised paper prototypes were presented to the users for feedback.

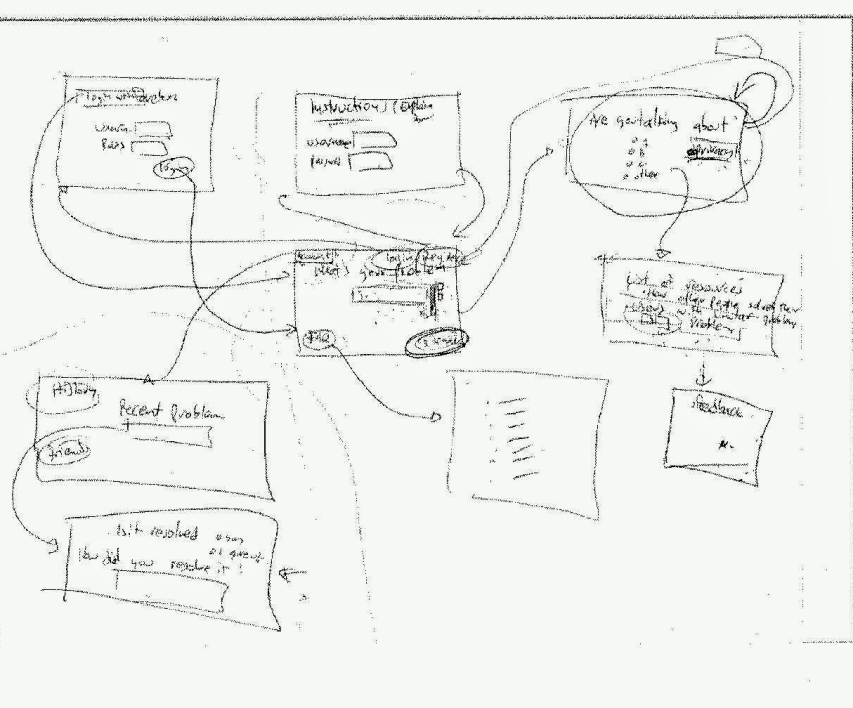


Resource Page 5 Paper Protoype



Resource Paper Page 6 Prototype

And we decided on logical navigation for our paper prototype of our “What Is Your Problem” website:

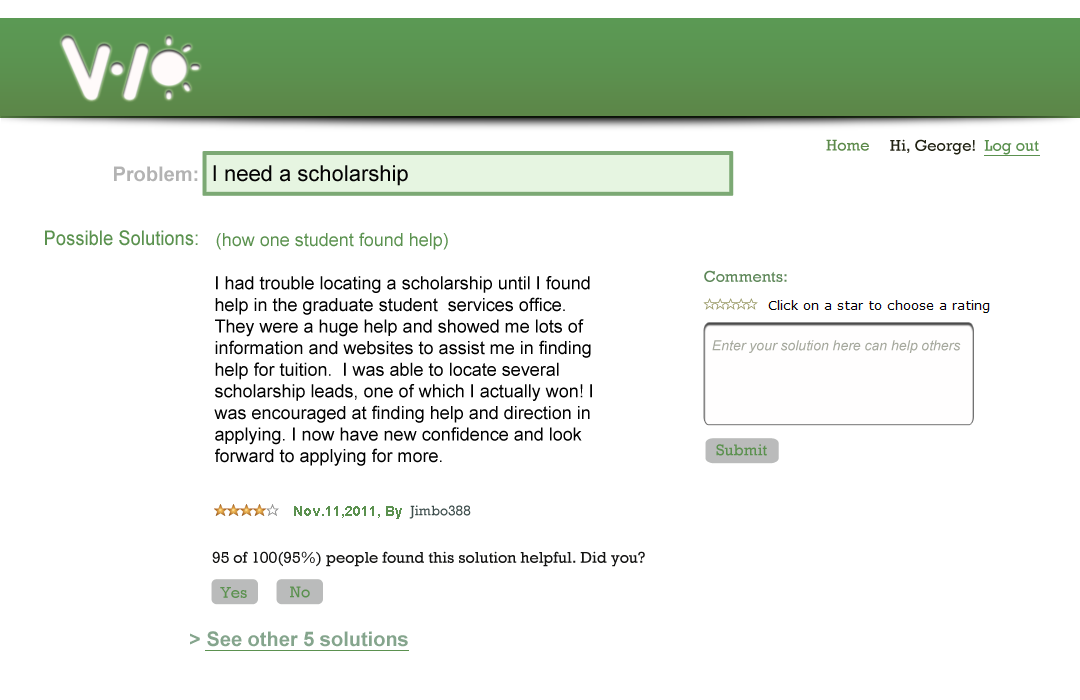


Site Navigation

Next we presented the paper prototypes to our participants and found areas where they were confused about navigation or how things were meant to work on the pages they interacted with.

See Appendix C.

We addressed the issues brought up by our participants and revised our prototype for team review. When we felt as though all noted issues had been resolved we built the final prototype for user testing.



Prototype for user testing



Prototype for user testing

**User Testing**

Our user testing provided additional insight and solved many of the issues discovered during the paper prototyping with users. Our users still had questions but were able to see how our site excelled over a search engine output for resolving problems specific to FGCSs. See Appendix D for list.

**Next Steps**

Taking the user feedback for the final prototype into consideration changes will be made to address the points of confusion the users expressed. We can improve the navigation and wording on the site to make it more user friendly.

**Conclusion**

We feel we came a long way in a short amount of time to address a need of a demographic that doesn’t feel very supported in many ways. This was personally a very challenging team project. Once again, communication is paramount in any undertaking of this nature and in that regard this project was particularly challenging.

**Presentation -** http://prezi.com/9ybggemd4gmg/lbsc708n-presentation/

# Appendix A

**Demographic questions:**

Age, gender, year in college, major

**General questions:**

Always ask why！！！

1. What’s your opinion about your current life in college?
2. What is a big challenge you face? Describe the challenge.
3. Do you feel like you were adequately prepared for college? 1(not at all),2,3,4,5(fully prepared) Why choose this number#?
4. What keeps you motivated?
5. What do you find difficult in your study?
6. If you could choose three things to help you succeed in college, what would they be?
7. If you could go back and re-do the last 3 years is there anything you would do differently to prepare for a successful college experience?
8. Do you prefer studying by yourself or with others?
9. Have you found yourself lacking knowledge/information that was crucial to your academic success?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course work |  | Housing |  | Financial issue |  |
| Work while study |  | Big brother |  | Find Job |  |
| Time management |  | Family issue |  | Writing ability |  |
| Transpiration |  | Technology assistant |  | OTHE |  |

**Specific questions:**

Do you feel hard to understand the class? 1 (very easy), 2, 3, 4, 5(very hard)

Do you feel your course overloaded? 1 (very easy), 2, 3, 4, 5(very hard)

Do you feel hard to finish the homework? 1 (very easy), 2, 3, 4, 5(very hard)

Do you work while you are in school? Why do you work?

Then do you prefer university work? Which kind of work do you prefer? Why?

Then you need to study and work, do you feel exhausted?

What is your most frequently used transportation method?

Do you need carpooling?

Do you find your current housing situation satisfactory? In what ways? (yes or no)

If you feel a need for educational, financial or emotional support where do you turn?

Do you find your family to be supportive? In what ways?

HOW you able to keep up with college and life demands?

Is time management easy or hard for you?

What assistance can you get from etutor (explain etutor first)?

Do you have financial issue?  
if Yes: Can you tell me the reason(From family or other reasons)?  
Do you think your issue has connection with your FGCS identity.  
Do you know how to get financial support from school and society service?  
Do you think it will be helpful, if there are some financial support information on social   
network?

Do you think you learned enough life skill from your family?  
What kind of life skill do you need to learn now?  
Can you tell me if there would be some differences with your life skill, if you are not FGCS?

Do you use Facebook?

How satisfied are you with the social support you're getting from your peers on Facebook?  
Not at all 1 2 3 4 5 Fully (Likert scale)

How would you feel about a Facebook plugin that would allow you to find other people facing similar problems?  
Hate the idea 1 2 3 4 5 Love the idea (Likert scale)

Are you currently living with your family?

If not, how hard are you finding it?  
I don't care 1 2 3 4 5 Extremely hard (Likert scale)

Are you confident with your CV/Resumé writing skills?

Do you know where to find scholarships and how to apply?

How confident are you with doing bureaucratic paperwork?  
Not at all 1 2 3 4 5 Fully (Likert scale)

How confident are you with your academic writing abilities?  
Not at all 1 2 3 4 5 Fully (Likert scale)

Do you think your family effects you on your motivation, and what’s their effect.  
What do you think wil be different, if you are not first generation college student(FGCS).

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# Appendix B

**George is a freshman and a first-generation college student. He is very motivated and wants to succeed in college, but he does not feel adequately prepared for college level studies. He is encountering many other problems, including financial issues and trouble with managing his time. These problems are making it hard for him to come up with solutions, since he is feeling overwhelmed.**

His family condition. (The reasons of financial issues)

George’s father works in a insurance company and his mom is a cashier in a supermarket. They have two kids. George’s little brother is studying in a high school. They don’t have much money left after they paid their living expense and the mortgage payment on their home. George’s college tuition is a big problem for them. So that, George has to look for some part-time job information on website frequently. George’s parents have to work hard to earn money to support this family, so they don’t have enough time to communicate with kids. That makes George feel lack of care and family support sometimes.

George’s high school advisor did not provide enough direction for George in planning for his academic pursuits. He was not counseled to take challenging coursework that would support his goals. He was also not made aware of the wide range of academic programs he would be able to pursue in college and was not offered the opportunity to take Advanced Placement coursework. George didn’t have to work very hard to succeed in high school so the challenges of multiple demands in college overwhelmed him, because of his inadequate time management skills.

George has trouble focusing and is easily distracted by the new environment and social activities on his college campus. His college courses are more difficult than he was used to in high school and he is struggling.

George doesn’t really like the amount of people in the classroom. He feels ashamed when he doesn’t know or understand information, because he doesn’t know if that is socially acceptable or not. However, he likes studying with others (in small groups) because he feels less ashamed to ask specifics. Furthermore, George finds the social interaction is a motivating factor. George uses Facebook a lot to connect to his family and friends back home.

He lives with 4 other people in a small house, but he isn’t friends with them. He wishes he could have roommates with similar interests so they could be friends and help each other out with college.

**Appendix C**

**Homepage:**   
**Problem**: Users wanted a description of the website  
Solution: When you mouse over the specific icons and add “how to use the website”  
  
**Problem**: Users didn’t see the difference between this and Google  
Solution: Subtitle “Focused solutions you can’t find on search engines”  
  
**Problem**: Users felt that the design of the login on this page is complicated  
Solution: We can try it with the font and see what it will look like and add the suggestion to the first results page and cut the text.  
  
**Problem**: Expected to enter keywords in the search bar.  
Solution: example  
  
**Login page**  
**Problem**: User Wants word anonymous bigger  
Solution: make it bigger  
  
**Problem**: Confused by the structure of the page  
Solution: Put on to the left and the other to the right  
  
**Problem**: More information on the difference between Facebook and anonymously  
Solution: Explain it on this page  
  
**Narrowing Down page**  
  
**Problem:** User wanted “none of these” selection  
Solution: We add a scroll bar and have all of results, remove more, and put “none of these” in the end in case it didn’t work. make the textbox “if you didn’t find your answer, provide more detail of your problem to let us help you better” + make it into a big button  
  
**Narrowing down more**  
**Problem:** Users don’t see the point didn’t know how it will affect the results  
Solution: Make the first question into “How urgent is this problem?” and slider with dates. Is your problem location specific? If yes, specify the location.We also realized that it would be best if we had questions that are more specific to the problem, because that would be much less confusing.  
  
**Problem:**users felt limited  
Solution:textbox for open ended input  
  
**Problem:** users didn’t know how their answers affected the results  
Solution: show them in some way  
  
Comment: The reason why there appears to be less problems from this point on is that the same problems came up often  
  
**List of resources**  
  
**Problem:** Does not realize that the questions put in the internal part are phrased like the users phrased them when searching  
Solution: Make it clearer that problems are relevant to people  
  
**Resource**  
  
**Problem:**He cannot evaluate whether the resource is useful or not just by reading the information on this page,  
Solution: 9/10 users thought this was usefulpage\_People can rate the answers and resources. Add a comment page  
  
**Account Problem/Feedback**  
  
**Problem:USers didn’t know what feedback was**  
Solution: Remove feedback and just keep problems  
**Problem:Didn’t like n and x**  
Solution: Primary sorting solved or not/ secondary date. make it into words solved and not solved  
  
**Problem:What is star and moon?**  
Solution: “My rewards “, mouseover: for trying to solve 10 problems  
Problem

# Appendix D

**Final Prototype User Feedback**

#### General comments about the idea and the Software

Thinks it’s an interesting idea

It is very dependent on how useful information people give

It is very dependent on the range of problems that are covered

It is very dependent on the number of users

Thinks it could be used by very different people, which is good.

Would use it if he knew that it’s helpful

Realizes how it is better than Google because it is focused (We didn’t mention it to him)

Likes that he can chat with people

This prototype is much better than previous prototype.

This prototype really need good visual design.

He would love to use it if it is a real website.

This website need very advanced natural language processing technology.

Where do first solutions come from when very limit person use this website?

This website need a better motivate strategy to motivate users to contribute to useful solutions.

#### Specific Interface problems

(The naming convention refers to the organization of the final prototype as it is presented in slide 29 of the presentation

<http://prezi.com/9ybggemd4gmg/lbsc708n-presentation/> )

##### Main Page

* Abscence of Go button is weird (We had assumed pressing enter would be sufficient)

##### Login Page

* What happens if you forget your password

##### Defining the problem and the solution

* Is not 100% sure what stars mean exactly
* Doesn’t know who Emily is
* What’s the GOOD option besides “Still not what I want” (We had assumed pressing enter would be sufficient)

##### Solutions

* Cannot see other people’s comments
* If I want to go into my account now, where should I click?

##### Users with similar problems

* User wanted chat mentioned in the main page
* Do I know Jinbo388?
* On the top of this page, should notify this resource came from what I choose: "apply scholarship"

##### Account

* Wants the unsolved ones red or text “solved” and “unsolved”. (Found current icons confusing)
* Doesn’t understand what badges are for.
* Didn’t understand “52 users etc.”. Mentioned that he wanted this to be with Green Letters
* Doesn’t know if friends are facebook friends or internal friends.
* Doesn’t know why the first problem is underlined
* Thinks the trash thing is too close to “label as” (thought it was one button)
* Wants create new with a different color
* Doesn’t understand the sorting function
* Doesn’t know what online consulting appointment is
* Click where I can create new label?
* Click where I can delete the problem?
* Why trash is so close to label?
* Why only first problem has underline?

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