CPSC 481

Human-Computer Interaction I

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P1: User Research

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Introduction

This document describes the user research that was done for our software tutoring system, MyTutor. MyTutor is an app that allows tutors to connect to students, and vice versa, for tutoring. This system will allow students to search for tutors by topic, including factors such as price, experience and education. Secondary features will include a calendar, a chat feature, an automated payment feature, a rate and review, and a sessions feature.

Stakeholders

In our research, we were able to identify three primary stakeholders who will use our service: university students, tutors, and parents of high-school students.

University Students

One of the main problems with finding a tutor as a university student is cost. As students, it is generally difficult to find employment which is sufficient enough to afford the high cost of tutoring. Many university students will struggle to pay for these services and as a result be unable to get the help they need.

Parents

As a parent, while cost is less of an issue (but still a major concern), ensuring that your child has the highest quality tutor becomes the utmost importance. Our service will allow parents to find tutors with a high number of great (or otherwise) reviews which will give them the ability to verify that a tutor is the right choice for their child.

Tutors

As discovered in our secondary research, tutors only receive half of the rate that is paid to the tutoring company. Our service aims to reduce costs paid out by tutors so that they are

able to receive more money for their work while automating away much of the administrative tasks. Furthermore, our service will allow tutors to easily find students that fit their area of expertise.

User Research

Methods Used

For this project, we decided to understand our users by using personas and secondary research. Personas are character profiles that provide a personal look into the life of your key users. Secondary research is assessing the environment of your users by analyzing articles and other previously done research. Together, the methods provided a deep and broad understanding of our users.

Persona

Justification for Use

With our research, we were able to identify three primary stakeholders: tutors, students, and parents. As each stakeholder has different use cases and values with regard to our service, we found it was necessary to create personas which highlight what each stakeholder would value in our system.

Persona 1: Overachieving Ophelia (Tutor)

Jamie Grill / Getty images

Brief Description:

Although Ophelia is still a student, she is tutoring others in High School. Ophelia does not have the time to advertise her services to high schools and on campus, therefore Ophelia aims to build her resume while also making some extra income on the side without the hassle of finding clients.

Goals:
- Make her resume look pristine with tutoring experience
- Looking to make some extra money on the side

Persona 2: Concerned Chris

Brief Description:

Chris is looking to hire a tutor who can help his son pass his math class. However, Chris has struggled in the past finding a tutor because of tutors who provided a poor experience for his son. Therefore, Chris is looking for a service that will allow him to easily find a qualified tutor and verify his credentials.

Goals:

1. Find a tutor who can tutor his son
2. Easily verify that this tutor is qualified to teach and has a proven track record.

Persona 3: Worrisome Whitney (Student)

Brief Description:

      Whitney Pret works hard to achieve excellent grades in her studies. However, no matter how hard she studies, she struggles to comprehend certain subjects in math and physics. However, being an undergraduate student, Whitney is unable to afford the high tutoring prices found with other services and is looking for a cheaper alternative.

Goals:

- Get help so that she can excel in math and physics
- Find an affordable tutor as she can not afford one through conventional services
- Gain more confidence in her abilities
- Improve her GPA

Summary

      These characters are relatable, memorable and applicable. As students ourselves, we can testify to knowing a Whitney or an Ophelia. By looking through their perspective, we can see that this system needs to be efficient and cost-effective above all else.

Secondary Research

Justification for Use

There are many students using tutoring services provided by different institutions. In this section we identify issues with available tools and resources while relating them back to the goals/motivations of our personas.

Industry Investigation

In this section we explore the current problems with the tutoring industry. Tutoring is a huge industry. In 2017, more than 40% of Grade 9 public school students failed their provincial Math test here in Alberta [1].

Based on our research these are three main issues with Tutoring Services:

1. Lack of Motivation:

Tutoring institutions pay Tutors just about 30 to 50 percent of what they Clients. For example, we called tutoring institutions in Calgary to find out the cost of private tutoring sessions here in Calgary. Most of them charge clients $40 to $70 per hour [2]. However, they only pay tutors $18 to $25 per hour [3] without reimbursing for travel.

2. Expensive Private Tutoring sessions:

As mentioned before, most tutoring institutions charge clients $40 to $70 per hour based on the level and subject. To get a two-hour private tutoring session twice a week, it will cost between $640 to $1120 per month. This is too expensive for most of students and their families.

3. Tutors do not receive major support from these Institutions:

Most of these institutions does not even provide the basic support for their Tutors. We went through the process to get hired by some of these institutions and found they don't even issue a T4 for you! You just work as a independent contractor with almost no support [4].

Based on the findings, success in this platform can be achieved by reducing administration costs. This will result in more affordable tutoring sessions for students while more appropriately compensating tutors for being contractors.

Comparison of similar websites

Alexa Page Rankings

Site	Global Rank	Local Rank
calgarytutoringcentre.com	5,698,437	
https://www.firsttutors.com/canada/town/calgary-tutors.php	142,798	44,353
https://www.tutortag.com/calgary	1,671,255	82,447
http://tutorbright.com/tutoring-calgary/	1,636,225	71,128

The first website, calgarytutoringcentre.com, is somewhat slow when loading the homepage. Elements of the website load in asynchronously, which leads to the website constantly resizing as new media is loaded into the page. The academic groupings are separately listed from the offered courses.

The second website, firsttutors.com, has a similar idea to us but is different in implementation. Visible on the home page are tutors along with their ranking, subject, etc. Each tutor also has a profile with information such as price, availability, and references. It seems that users can only search for tutors by subject. This is a major flaw as there is more than just subject of study that goes into hiring a tutor, and this lack of a search feature can lead to a bad user experience.

The third website, tutortag.com, is fast to load, and has a descriptive video on the front page. After you select a subject, you are redirected to a screen where you select a tutor, and information about the tutor is displayed. However, it is again not possible to filter the search beyond the subject of study.

The fourth website, tutorbright.com, is somewhat slow to load, but does not have media loading asynchronously like the previous site. There does not seem to be a listing of available tutors like the previous example, instead there is some basic information and an overlay with a quote. This is not informative at all.

The alexa page rankings seem accurate in terms of website popularity. firsttutors.ca is the clear favourite, while tutortag.com and tutorbright.com are more or less tied in terms for ranking. However, calgarytutoringcentre.com is much less popular in last place, which suggests that page implementation is a huge negative to the overall user experience. One common issue between all the sites is that they do not have a method to refine the search beyond subject of study.

Conclusion

Based on our findings in our secondary research, we discovered that there are design issues within websites and flaws in the industry. As shown in our industry investigation, tutors are inappropriately compensated and given zero support while students/parents are overcharged. Comparisons of similar websites show that they have similar usability issues and can be improved upon to create a high-quality, cost-effective tutoring service.

Reflection On Methods Used

Personas turned out to be a successful method of user research since it created relatable characters that we found are relevant to the tutoring topic. One problem we encountered with this method was personas that were too similar to each other and ended up being merged, which wasted valuable time. To stop this from happening again, we brainstormed new personas at group meetings, then filled out the details of each persona individually as opposed to creating personas without group consultation.

Secondary Research gave us an idea of how current solutions to this problem have been addressed, and what the current strengths/shortcomings of those solutions are. However, the problem we faced was that we could not gather information on every aspect of every single website, so the information we gathered and the resulting solutions may only represent a portion of the present problems. This issue can be addressed by following up with additional research methods, and we did so with the personas.

Task Descriptions

Tutors

1. Find Students
   a. User begins on home page and clicks on the "Find Students" Tab
   b. User is shown a map based on their location and pins that parents/students setup.
   c. User clicks on a pin and uses the contact to message the prospective client
2. Set up a tutoring session
   a. User begins messaging the client or a client has contacted them based on "Find Tutors"
   b. User and client agree on a time, place, and rate, then the user will book the time slot by sending an "invite" to the client
3. Receive payment
   a. Once a session has ended, the website will automatically calculate the total owed and pay out to the company, which will pay the user after administration fees.
4. Rate and review Clients
   a. After the session, the user will be presented with a popup on their screen which allows them to rate/review their client and submitted by clicking on the submit button.
5. Set/Change Profile

a. User clicks on a button with their profile picture which will lead them to the change profile page

b. User fills out the following information:
- i. profile picture
- ii. first/middle/last name
- iii. credentials
- iv. location
- v. experience (if applicable)
- vi. preferred subjects
- vii. rate range
- viii. bio (optional)

c. Once the user has filled out this information, they can click on a button to save changes, or cancel to erase them

Parents/Students

1. Find Tutors
   a. User clicks on the "Find Tutors" Tab
   b. User is shown a map based on their location and pins. The user has the opportunity to filter based on subject, location, etc.
   c. User clicks on a pin and uses the contact feature to contact the tutor

2. Set up tutoring session
   a. User has found a student using the "Find Tutors" task and agree on a time, place, and rate.
   b. The tutor will book the session by sending an "invite" to the user containing information discussed above
   c. The user will accept or decline this invitation by clicking on a button.
      - i. If the user accepts, the session will be booked on their calendar
      - ii. If the user declines, the tutor will be notified and the user/tutor re-discuss the terms

3. Start/end the tutoring session
   a. The user starts the session by going to the "sessions" page and clicking a start button on the session then confirming that the session is starting.

      b. When the session is over, the user ends the session by clicking on an end session button and confirming that the session is over.

4. Give Payment

      a. The system automatically calculates the total amount owed and bill the user appropriately when a session ends.

5. Rate and review tutors

      a. The user will be presented with a rate & review popup and they rate their tutor by clicking on a star rating and writing a review in a text box then clicking on a "submit" button.

      b. The user can also go to their "sessions" page and force the popup to appear by clicking on a "rate & review" button for some past session.

Resources:

1. https://calgaryherald.com/news/local-news/more-than-40-per-cent-of-grade-9-cbe-students-failed-math-pat
2. https://www.glassdoor.ca/Reviews/Employee-Review-Tutor-Doctor-RVW3447094.htm
3. https://ca.indeed.com/Tutor-jobs-in-Calgary,-AB
4. https://www.tutortag.com/calgary/opportunities