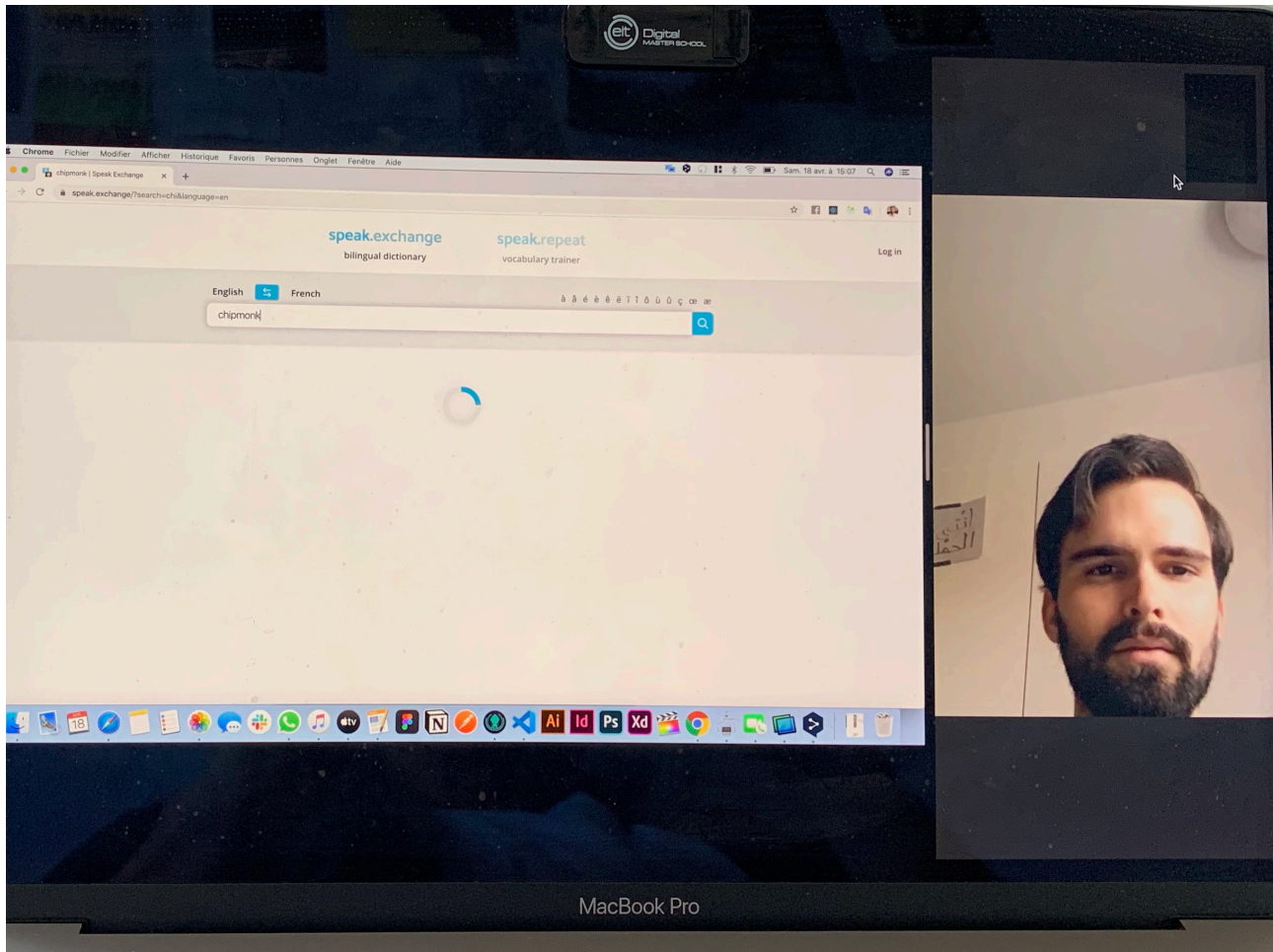


speak.exchange website user evaluation



Our participant evaluating speak.exchange.

To evaluate our application, we created and carried out a usability test on one participant based on Steve Krug's *Rocket Surgery Made Easy*¹. We first established research goals before conducting these tests. We also established a test script and used our website on speak.exchange. We devised recruiting and interview plans, and an interview schedule.

Research goals

We sought to apply the same key goals as our previous prototype usability testing as this is to be the first usability test conducted on our live website, which deviates from our prototype both in functionality and appearance; the most notable difference between the lack of “saved words” and “search history” functionality on the live website. The key goals for this test therefore remain unchanged:

There are several key goals we aimed for when designing and carrying out the usability testing. The first was to gauge whether our service had an easy learning curve, i.e. could a user work out the purpose and available functionality of the app quickly and without assistance? We also wanted to ensure our design minimised time spent on navigating in and between speak.exchange and speak.repeat, and that the user spent their time simply using the apps. Vitally, we wanted to make sure that the user understood the connection between the two apps, and utility of connecting them for the user.

¹ Steve Krug. 2009. *Rocket Surgery Made Easy: The Do-It-Yourself Guide to Finding and Fixing Usability Problems* (1st. ed.). New Riders Publishing, USA.

Recruiting plan

Like our previous evaluation, we aimed to target a user who was acquainted with existing online bilingual dictionary tools, as well as learning-by-flashcard and/or spaced-repetition systems. This would allow us to test the learning curve of our website by testing a user who was already acquainted with the domain (i.e. translating words, learning/memorising new words through an SRS-based flashcard system), as well as preventing any data being skewed by a user's potential unaccustomedness to the domain.

Interview plan

Within the limitations of the self-inflicted social isolation context we find ourselves in today, we managed to find a participant that matches our target user somewhat satisfactorily. Instead of recruiting a participant who matched our target user through outreach in an international student WhatsApp group with over 250 members, as we did in our prototype's user evaluation, we were limited to finding a participant whom could physically meet with us. This participant was a 25-year-old male Master student from Germany, whose mother tongues are German and English. He has had experience with learning French in the past and thus he now considers himself a total novice. He claims to not use any translation service and does not know what a bilingual dictionary is. He has used electronic flashcard systems in the past when revising for non-language-related studies and expressed they were definitely fruitful back then.

A debriefing session was held immediately after the usability evaluation was finished. We used a Macbook Pro to record audio and share the screen to the observers. One person in our Interaction Programming group was the interviewer and another was a remote observer. Our test was conducted in-situ at our own living room to emulate a natural-use environment on April 17. Our report was written on April 17.

Test script

We adapted a script written by Steve Krug in "Rocket Surgery Made Easy".

Hi _____, my name is _____ and I'm going to be walking you through the session today! We've asked you to be here today because you're the kind of person that we are looking for to test our new website.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything. You probably already have a good idea of why we asked you here but let me go over it again briefly. We're asking people to try to use an online translation service, so we can see whether it works as intended. The session should take half an hour. The first thing I want to make clear right away is that we are testing the service, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes. As you use the service, I'm going to ask you as much as possible to try to think out loud: to say what you're looking at, what you're trying to do, and what you were thinking. This will be a big help to us. Also, please don't worry that you're going to hurt our feelings. We're doing this to improve the service, so we need to hear your honest reaction.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we are interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done, I'll try to answer them then. And if you need to take a break at any point, just let me know. With your permission, we're going to transmit what happens on the screen and our conversation. The transmission will only be used to help us figure out how to improve the site, and it won't be seen by anyone except the people working on this project. And it helps me, because I don't have to take as many notes. Also, someone from our usability evaluation team will be observing the session in another room. They can see us and the screen. If you would, I'm going to ask you to sign a simple permission form for us. It just says that we have your permission to transmit images of you, and that the transmission will only be seen by the people working on the project.

[Give consent form and pen]

Do you have any questions so far ? Okay.

So now I just want to go over the difference between the two main components of our website: speak.exchange and speak.repeat. Speak.exchange is a bilingual dictionary which lets you translate words between French and English. It features a history of the words you have already searched before, as well as a list of all the words you have saved for the future. speak.repeat is a spaced-repetition flashcard system which allows you to create, edit and practice flashcards and memorise their definitions. These flashcards are collected and decks. You can rename edit and create decks.

Is all of that clear for you? Do you have any questions?

Okay, great. We can start looking at things.

I'm going to ask you to try some specific tasks. As much as possible, it will help us if you can try to think out loud as you go along.

[Read first task out aloud. Allow the user to proceed until you don't feel like it's producing any value, or the user becomes very frustrated. Repeat for each task or until the time runs out]

[Tasks:]

So you're having a chat with a French friend of yours and he texts you saying he just saw a *Écureuil*. You ask him what a *Écureuil* is but he struggles to remember the word in English. He mentions that it's similar to a chipmunk but he thinks there is another name for it. You have no clue how to say chipmunk in French so you go to speak.exchange and translate it to french. Was it the animal he saw ? You then translate the animal he saw, *Écureuil* to English.

Then you remember reading a word in French spelled M-A-I-N and you thought it might mean the same in English so you look it up.

Now that you know its meaning in french, look up its meaning in english.

Now Let's check out speak.repeat

The first thing I'm gonna ask you to do is to check out your own decks.

Please Log in

Let's begin by viewing the cards in the deck called *Firting*

You've come across one particular word, *Bise*, which you have heard in the past but thought it meant something else. So you go search for its meaning.

Once you've seen the different meanings of the word *bise*, you go back to your deck and edit the translation in the deck for the most popular definition you found.

You also realise there is no need to save the word *Adore* because it doesn't add any new information.

Now you want to practise the words in this deck. How can you do that ?

You are curious to see what other users of this website are, so you go and explore the community decks. How can you push all the untitled decks to the end of the page so they are the last you see when scrolling ?

You chose one deck that strikes your attention and decide to save it to your own decks.

You open it up in your own decks but change your mind: instead you want to delete it.

Now you want to create your own new deck. Give it your own name.

You add fifteen different words and its meanings to it.

Is there anything else you want to explore or do?

If not, please log out.

[Closing questions]

Overall, how easy was it for you to use speak.exchange?

How hard or easy was speak.exchange to learn how to use?

Overall, how easy was it for you to use speak.repeat?

How hard or easy was speak.repeat to learn how to use?

Can you describe how the link between speak.exchange and speak.repeat works?

Do you have comments you would like to share about speak.exchange and/or speak.repeat?

Finally, is there anything we haven't asked you about that you would like to talk about ?

Thanks, that was very useful. If you'll excuse me for a minute, I'm just going to see if the observer has any follow-up questions they'd like me to ask you.

[Call observation room to see if the observer has any questions]

[Ask the observer questions, then probe anything you want to follow up on]

Do you have any questions for me now that we're done?

[Give them their incentive]

[Stop the screen sharing software and save the file]

[Thank them and escort them out]

Research findings

We observed the following:

- When encountering the start page in speak.exchange, the user immediately exclaimed "Wow, that is long as f**k".
- The user made a typo when trying to search for the meaning of the word we instructed him to so he was not able to find any translation for it
- The user wanted to write the character "é" but was not sure how to do it in the computer he was testing our website. He failed to notice the special characters buttons above the search bar until our interviewer (precociously) pointed them out to him.
- The user had absolutely no issue understanding the switching between languages functionality.
- The user misunderstood that before logging in, his view is actually of the *Community Decks*, which were not created entirely by him. In fact, he took quite a while to notice the button '*My Decks*' to begin with.

- The user seemed to find the flow between speak.exchange and speak.repeat intuitive and seamless.
- Likewise, The user seemed to find the flow between Deck View and Flashcard View intuitive and seamless.
- In the Flashcard view, the user hesitated and debated out loud whether the translation or the native language should appear first. He suggested this could be tailored to the user's preference.
- The user understood clearly the sorting functionalities and the navbar in the Decks view.
- When using the sorting option to sort the decks from A-Z, the user realises that something does not work properly and that lowercase decks are shown last. Furthermore, he suggests both that untitled decks ought to be hidden and shows some concern on privacy issues relating to the community' decks. He points out that at no point when creating a deck was he presented with a prompt warning him his deck would be made public or was he presented with a choice whether to make it public or private.
- In the follow-up questions, when inquired about the learning curve and perceived usability of speak.exchange, he described it as "very easy, almost too easy". When reviewing it to give us a more detailed overview of it, however, he realised he had no clue what the short acronyms (n, nf, interj, adv, adj, vtr, vi, expo, etc...) in the beginning of each translation meant.
- When inquired in regards to speak.repeat, the user described it as fairly easy to use and particularly basic functionality wise.
- Concerning the learning curve for both sections of the website, he found both easy to learn and use, he described the learning curve, in his own words, as "very short and steep, i.e., quickly learnable, not hard".
- In regards to the overall aesthetics of the website, the user found it somewhat sterile which could influence his experience. He stated he "was not sure he would have fun using it, especially if there is no community interaction "

Recommendations

- To prevent spelling typos, we should implement spelling suggestions with prompts such as "did you mean ... ?"
- Somehow make more clear which decks were created by who and in which page one finds themselves at: either *My Decks* or *Community Decks*.
- Fix the bug that prevents a user from deleting a card.
- Provide the user the option to inverse the order of translation/word in the flashcard view
- Discuss the possibility of adding to each deck its author's name.
- Discuss the possibility of adding to each deck the private/public option, edited by its owner
- Create a legend in some place of the website for the expressions that appear in the beginning of each translation.
- Special characters should be evident that they are buttons that can be clicked on.
- Make it more evident which decks a user is viewing, i.e. whether they are viewing their own decks or the community decks.

Consent form: Usability evaluation of speak.exchange

For participants – 18 years and older.

You are invited to participate in a usability evaluation being conducted by the student evaluators listed on the bottom of the page. In order for us to be allowed to use any data you wish to provide, we must have your consent.

In the simplest terms, we would like to ask you questions around you, this service, and observe and evaluate your actions and experiences of the service to be analysed at KTH Royal Institute of Technology for the course DH2642 Interaction Programming and the Dynamic Web. This will involve:

- Transmitting your actions through screen capture and a video call to a remote observer.
- Recording your actions by writing through a remote observer.

The researchers and teaching staff will be able to look at our records (in written word) for the purposes of this project. You may stop participating at any time and ask for your information to be deleted and destroyed at any time.

You may consent to participating in this usability evaluation by checking off all the boxes that reflect your wishes and signing and dating the form below.

☒ I agree that any response I make may be recorded in writing and/or video to be analysed, discussed and seen by the evaluators of this usability evaluation and the teaching staff of DH2642 Interaction Programming and the Dynamic Web.

☒ I agree to be observed by usability evaluators at a pre-arranged location.

Name [please print]

Vincent Paul

Signature



Date

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Student usability evaluator

Contact information: Robert Falcasantos

Email: rjfa@kth.se

Number: +33 7 66 43 11 50

Student usability evaluator

Contact information: Blenda Fröjdh

Email: blendaf@kth.se

Number: +46 7 62 91 89 06

Professor

Contact information: Cristian Bogdan

Email: cristi@kth.se

Student usability evaluator

Contact information: Catarina Allen

Email: cads@kth.se

Number: +351 9 11 18 64 09

Student usability evaluator

Contact information: Julius Celik

Email: jcelik@kth.se

Number: +46 7 62 35 35 07