Usability testing of the Hospital Appointment System

1.INTRODUCTION

Epidemic diseases that have become widespread in recent years have brought many dangers. As infectious diseases endanger people's lives, the importance of online and contactless transactions began to be understood. Most hospitals needed an online appointment system because it could increase the risk of epidemics in making an appointment with the hospital due to epidemics. The online appointment system allows people to make an appointment online without contacting anyone else. Therefore, many patients found it healthier to make an appointment online without going to the hospital. Due to the increasing epidemic in recent years, hospitals that have switched to online appointment system need a more advanced, easier and understandable appointment system. **Most patients using online appointment systems have difficulty in finding the department related to their illness, they waste too much time searching for the department or cannot find the department they are looking for.** That's why we aimed to develop our own online hospital appointment system. **With the online Has project, patients can easily find the section related to their diseases with keywords and can easily make an appointment.**

Usability is closely related to the concepts of effectiveness, efficiency and effectiveness is related. For this purpose, we select 4 people for usability testing. There are two groups of four people in this study. The first group consists of two users with sufficient computer Knowledge, and the second group consists of two users with insufficient computer knowledge. The aim of this test is to identify the shortcomings of our application and to take notes to provide ease of use.

2. PURPOSE OF THE STUDY

It is to understand and investigate the use of **hospital appointment system**. The steps that users follow to make an appointment is to examine the problems they are experiencing.

3. PARTICIPANTS

Participants consist of 4 people between the ages of 19-48. Two of the users are men and two are women.. One person is a one person is a university student, two people are university graduates, and finally one person is a high school graduate. Three of the four users have never made an online appointment with a hospital before.

Users	Gender	Age	Computer skills	Education Status
User 1	Female	23	Advanced	Student (Universty)
User 2	Male	32	Adequate	Universty Graduated
User 3	Female	48	Adequate	Universty Graduated
User 4	Male	19	Advanced	High School Graduate

## 4. TASKS ASSIGNED TO PARTICIPANTS

Three tasks have been determined for the participants. These are:

1) ▇ To become a member of hospital appoitment website,
2) ▇ Login with user ID and password.
3) ▇ Making an appointment with the hospital.

For each task, we asked users to rate them out of 5 points, means evaluation; 5 very easy, 4 easy, 3 medium, 2 difficult, 1 very difficult and are indicated by a separate color for each task. The color of task 1 is blue, the color of task 2 is orange and the color of task 3 is gray.

5. EVALUATION RESULTS

Scoring participants according to their experience of completing usage tasks.

EVALUATION RESULTS
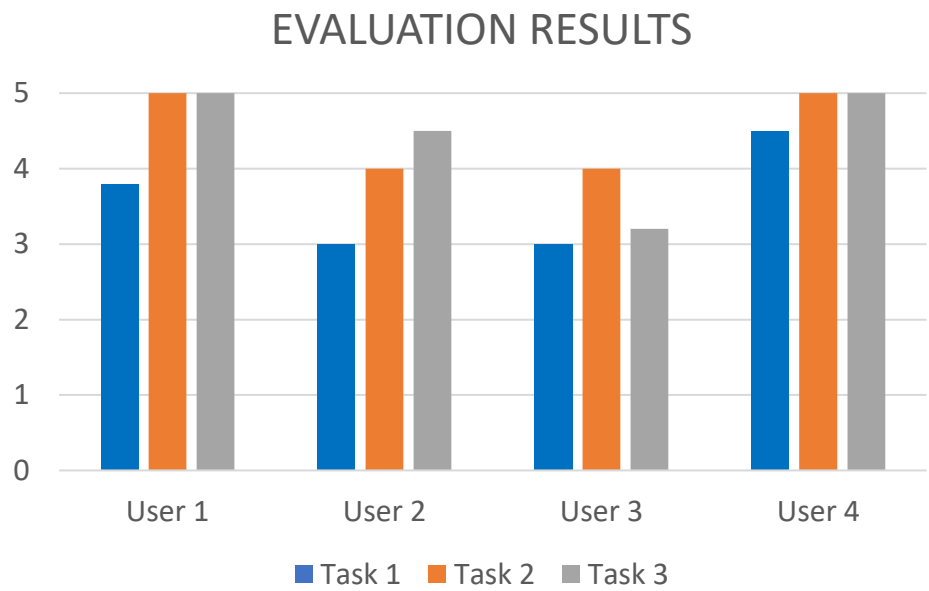
Percentile representation of the time participants spent on each task. The length and shortness of the colored parts give information about the task completion times. For example, less visible colored parts indicate that the task is completed faster.

TASKS AND DURATİONS
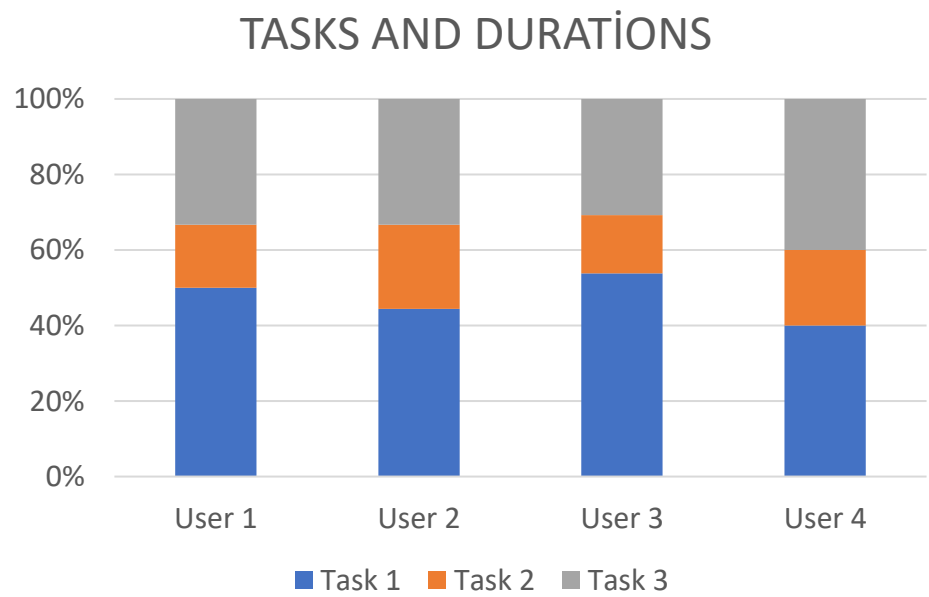
6. DETECTED PROBLEMS

All users have completed the tasks. Task completion times varied for each user. No significant time difference was observed in terms of usage between users who have never made an online appointment before and those who have used an online appointment system before. This means that even if users have not made an online appointment before, it shows that they know how to create user records from different applications. The most difficult task was experienced in user registration, and some users spent a lot of time in this section. Some users wrote keywords that we have not yet registered in our system at the last stage, as a result, there was no match with any hospital or department. In terms of age and gender, both sexes had the same difficulty or were able to get an appointment easily. The first user wanted to switch between pages but could not see the button. Except for one user, the others tried to make an appointment over the phone from the online hospital appointment system. No difference was observed when making an online appointment via computer or phone, users can make appointments by phone or computer.

7. SUGGESTIONS

One of the users wanted to switch between pages and could not switch, as a solution to this situation, we should make a link or button that goes from the appointment page to the homepage. In addition, a user requested more section and keyword repetitions while making an appointment. As a solution, we can add new frequently used words to our database to facilitate access to hospital departments. Finally, when we bring solutions to all these problems and enrich the visuality, we will provide ease of use for the user.

8. CONCLUSION

As a result, we had the online hospital appointment system tested by users of different genders and ages and we evaluated the application for ease of use for each user. Users who used computers and phones more completed tasks slightly faster than those who used less. However, since users have done any online transactions before, most users have been able to adapt to the online appointment system easily. Differences in age and gender did not lead to any significant differences in the usability of the program. Only users who use more mobile and computers were able to adapt a little faster, the main difference is at this point. We decided to start working as soon as possible to enrich the program with keywords and interface, and to make it a more useful program by providing links between pages.