Evaluation of the Graphic Interface and its Intuitiveness

Product or Interface Description:
The product being evaluated is a web application designed to assist teachers in their teaching work with children with ADHD. This application includes various features that were designed to help teachers learn, use, and apply them in their classrooms. It is intended for primary school teachers of any age and technological proficiency. Regardless of their familiarity with technology, all interfaces should be understandable and usable by teachers without the need to read or learn additional information.

Objectives:

- ✓ Complete a registration in the prototype.
- ✓ Access each function.
- ✓ User satisfaction when using the prototype.
- ✓ Accomplish tasks without receiving instructions.
- ✓ Complete all assigned tasks.
- ✓ Complete the test within the specified time frame.

Roles and Responsibilities:

- ➢ Facilitator: The person who provides the main instructions to the users, hands out the tasks to be performed on a sheet, and oversees each participant.
- ➢ Observer: Records the completion time for each task and the overall time for completion.
- ➢ User: Performs the tasks assigned by the facilitator.

Participant Selection Criteria:
Participants should be primary school teachers of any age range and technological proficiency.

Test Duration:
The expected duration for the test is a total of 15 minutes, with a maximum of 25 minutes.

Equipment and Software:
The software we will use includes:

- ✧ Web browser
- ✧ Figma web version

The hardware:

- ✧ Laptop
- ✧ MacBook

Resources and Materials:

- Prototype created in Figma
- Printed sheet with tasks to be performed
- Observer's sheet for making notes and recording task completion times
- Satisfaction questionnaire created in Google Forms
- Evaluation Method:
- Direct observation
- Satisfaction questionnaire
- Task completion times

Data Recording:
Data will be collected by an observer who will record the times at which each task is completed. Necessary notes will be made after each test with each user. In some cases, screen recordings may be used to ensure the accuracy of the observer's data.

Metrics and variables to measure

- **Success rate**: measures the number of times participants are able to correctly complete the tasks assigned in the application. Different scenarios that teachers could face in their day-to-day with children are presented, and it is evaluated whether they are able to use the application to record and track students' progress, consult relevant information about ADHD, and access the tools offered by the application.
  Usability Levels:
  Unacceptable: The participant is unable to complete any task
  Acceptable: The participant completes the majority of the tasks
  Excellent: The participant completes all the tasks

- **Time to complete**: measures the time participants take to complete each task assigned in the application. If the application is intuitive and easy to use, it is likely that teachers can complete tasks quickly and efficiently. Therefore, if the time to complete the task is short, it would indicate good usability.
  Usability Levels:
  Unacceptable: The participant takes more than 25 minutes to complete all tasks
  Acceptable: The participant takes just over 25 minutes to complete the tasks
  Excellent: The participant takes 15 minutes or less to complete the tasks

- **User satisfaction**: measures the participants' opinion of the application and its graphical interface. Questionnaires or interviews are used to gather this information. Teachers are asked what they thought of the application, whether they found it easy to use, whether they found the information they found in it useful, etc.
  Usability Levels:
  Unacceptable: No participant is satisfied with the application
  Acceptable: The majority of participants are satisfied with the application
  Excellent: All participants are satisfied with the application

Testing Environment:
The test should be conducted in a distraction-free environment, such as an unoccupied room. Alternatively, it can be carried out in a location with stable internet connectivity.

Scenarios and Tasks:
Scenario 1: Registration and Login
- ✓ Task 1: Register as a new user in the web application. (Estimated time: 1 minute)
- ✓ Task 2: Log in to the web application using existing credentials. (Estimated time: 1 minute)

Scenario 2: Review ADHD Information
- ✓ Task 1: Access the section containing information about ADHD and read the different articles and available resources. (Estimated time: 2 minutes)

Scenario 3: Register Students
- ✓ Task 1: Review the student section and check their details. (Estimated time: 2 minutes)

Scenario 4: Review Activities and Techniques for working with children with ADHD
- ✓ Task 1: Explore the activities section and review the details of each activity. (Estimated time: 2 minutes)
- ✓ Task 2: Explore the techniques section and check the details of each technique. (Estimated time: 2 minutes)

Scenario 5: General Navigation and Test Completion
- ✓ Task 1: Explore other sections of the web application. (Estimated time: 2 minutes)
- ✓ Task 2: Provide feedback and evaluate overall satisfaction with the web application in a final survey. (Estimated time: 3 minutes)

Testing Protocol:

Introduction
- Greeting and introduction of the facilitator.
- Explanation of the purpose of the test and its importance in improving the application.
- Ensure that the participant feels comfortable and without distractions during the test.

Participant Information
- Record the participant's name, age range, and any previous experience with similar applications.

General Instructions
- Explain that the participant will be presented with a series of tasks and the goal is to observe how they interact with the application.
- Clarify that there are no right or wrong answers, and that their feedback and opinions are valuable.
- Mention that the time taken to complete each task will be measured, and a satisfaction evaluation will be requested at the end.

Specific Tasks
- Present each scenario and briefly describe the assigned task.
- Start a timer to record the time spent on each task.
- Allow the participant to interact with the web application prototype in Figma.
- Note the time for each task and any observations.

End of the Test
- Ask the participant to fill out the satisfaction form.
- Thank the participant for their time.

Data Analysis Plan:

Data Collection:
- Record the time taken by each participant to complete each task. We use a data sheet to note the times in minutes.
- Use a satisfaction scale, such as a Likert scale from 1 to 5, for participants to evaluate their satisfaction with the ease of use and intuitiveness of the application. Record participants' responses.

Quantitative Analysis:

- Calculate the average time taken to complete each task by summing the times of all participants and dividing by the total number of participants.
- Analyze individual task times to identify patterns or significant discrepancies. If some participants took significantly longer to complete a specific task, investigate the reason behind it.
- Calculate the overall average satisfaction by summing all satisfaction responses and dividing by the total number of participants.
- Conduct cluster analysis to identify groups of participants with similar patterns of time and satisfaction. For example, participants who completed all tasks in less time and expressed high satisfaction can be grouped together.

Qualitative Analysis:

- Examine additional comments provided by participants in the satisfaction survey. Identify common patterns in the comments to understand perceived strengths and weaknesses of the application.
- Perform thematic analysis of the comments to identify recurring themes or issues mentioned by participants. This can help gain more detailed insights into specific challenges users faced during the test.

Report Generation:

- Prepare a report summarizing the findings from quantitative and qualitative analysis.
- Highlight average times for each task and the overall satisfaction average.
- Describe key themes identified in the qualitative analysis and provide examples of participants' comments.
- Provide recommendations based on usability test results to enhance the intuitiveness and ease of use of the application.

Ethical Considerations:

- Maintain anonymity and image protection for teachers who wish to remain anonymous.
- Only note the name if the teacher gives permission to do so.
- Remind the participant that their data will be used solely for analysis purposes.

Risks and Limitations:

- One of the main limitations is the availability of time for participants. It can be challenging to find mutually convenient time slots, which may affect the testing process.
- Another limitation is that we will only be using laptops, which might pose difficulties for individuals who are not accustomed to using them.

Action Plan and Follow-up:

Analysis of Results:

- Carefully review the quantitative and qualitative results of the usability test.
- Identify key strengths and weaknesses of the application in terms of intuitiveness, task completion time, and user satisfaction.
- Group problems and feedback into categories for easier understanding and future action.

Problem Prioritization:

- Classify the identified problems based on their impact on the user experience and the frequency of mentions.

- ✧ Establish a list of priority issues that require immediate attention.

Action Plan:
- ✧ For each priority problem, establish specific actions to be taken. Possible actions may include:
- ✧ Improve the user interface to make it more intuitive and user-friendly.
- ✧ Adjust the navigation flow to reduce the time required to complete certain tasks.
- ✧ Add clarity to the information provided in the "TDAH Information" section.
- ✧ Enhance the functionality of recording observations about students to make it more accessible and efficient.
- ✧ Review and improve the descriptions of activities and techniques to make them more understandable and useful for teachers.
- ✧ Assign clear responsibilities to team members for implementing each action.

Implementation of Improvements:
- ✧ Work with the development team to implement the identified improvements and solutions.
- ✧ Conduct internal testing to ensure that the enhancements effectively address the identified problems.

Follow-up and Evaluation:
- ✧ Conduct a second round of usability testing with the updated application to verify if the improvements have had the desired impact.
- ✧ Collect time and satisfaction data from participants in the second round of testing.
- ✧ Compare the results from the second round with the initial results to assess if the improvements have had a positive effect.
- ✧ Make additional adjustments as necessary and repeat the cycle of testing and improvements until the desired results are achieved.