Kindergarten Website

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Human Computer Interaction

System Overview

First the website is a kindergarten website which is considered as an alternative kindergarten and is used for helping the children to learn in simple ways and to make them love learning, make the children use the technology and get interacting with it in a useful way.

And this will be achieved by the following :

The website will contain all the lessons that the children must learn in kindergarten by providing them written or by videos, plays, stories and games in order to excite them learn and after the child learn a specific lesson there will be a quiz to ensure that the child learn the lesson well, if he doesn't pass the quiz, we will provide him with another video or game to make sure that he understands the lesson. There will be a dashboard of scores to encourage children to learn well and improve their score. The website will provide books for children to learn that reading is very useful and to make them like reading.The website will provide instructions for parents to help them use the website and tell them about what the children should do in their age as visit some places to know the sites of their country and to discover these places, provides a videos that will help the disable children to learn.

One of the problems that may happen is that if the parent leaves his child to use the website alone so the child may not learn and use the internet in bad ways so to skip this problem we will send a message for the parent to tell him if his child learn some lessons and solve the questions or not.

Another problem that may happen is that the account of the users in the website may be hacked so we may solve that by sending a message to the user to warn him.

the user may need some things to be provided so there will be a table for telling us the needs and it will be checked frequently to update the website according to the needs.

It is required To use the website that the user must create an account to log in and gives some information about his child like his name, his age.. As it will help us to create the scores dashboard, the user must follow the instructions.

Interaction Design Process

I.   Establish Requirements

1. It is required to make the children learn a lot of lessons in a fun way so they don't get bored with the lessons and provides different shapes of the website for the children.
2. Provides a simple ways of learning as videos, plays, stories and games.
3. Provides quizzes for each lesson to ensure that the child learn the lesson well.
4. Provides scores for answering these questions to encourage the children to improve their scores.
5. Provides instructions for parents to help them use the website and make their children learn well and health care and personal attention for children.
6. Provides books for children to make them like reading and provides videos for different hobbies.
7. Provides a places of entertainment for children that they could visit as museums, Alexandria Library.. So they will learn about the sites of their country.
8. Provides a chat between the children so they can communicate with each other.
9. Provides videos to help the disable children in learning.
10. Provides videos to teach the children how to be able to make small things of industry.

II.   Design Alternatives

The conceptual design

Board → using the concept of board to write the lessons by applying the lessons to be written by parents if they want to explain the lesson for their children.

Notes → using the concept of notes for child to write any notes he wants by applying a notepad for parents of children to write their notes.

sketchbook → using the concept of sketchbook of drawing by applying a paint app for him.

Color Pencils → using the concept of that of coloring by applying a color app for him.

Navigation → the child moves from different pages in books which he will read.

Define Users

I.   Primary Users

Children and their parents who will help them to use the website.

Teachers who need to get new ideas of teaching for their students.

II.   Secondary Users

Parents who will leave their children to use the website alone.

The designer of the website to update it and use the new features if it is valid.

III.   Tertiary Users

The developer of the games to know the new children games or any company that produces things for children.

Developers if they are going to design a website for the same idea to know what is required.

User Characteristics

the nature of the users who will use our system :

1. Age
2. Disability
3. Hobbies
4. The amount of understanding and comprehension
5. The kind of the child (Social, Introvert, Smart...)
6. The amount of time that child (with/out its parent) is free to use the website

Tasks & Goals

I. Tasks

It is required to design a website that will help the children from age 3 to 6 to learn a lot of lessons and to make these lessons more easier to be learned to make children like education.

 provide guidelines and instructions for parents of the children as how to use the website, which lessons to be started with their children, how to log in to the website.., and provides instructions about health care for children.

 provide a places of entertainment that children could visit them as Museums, Archaeological sites, and Alexandria Library.. .

 provide games and books that will help the children to be smarter and to like reading, encourage the children to learn and increase their scores.

Provides a different shapes of the website as the child wants and provides different ways to help the children improve their hobbies.

II. Goals

Goal → "we want to design a website to help the children get more lessons in efficient ways to make them like learning by providing simple ways of learning, the child uses the website every day from one to two hours."

Assumptions & Claims

1. ***Assumption:*** We assume that the children with age from 3 to 10 will use the website with their parents or alone.

   Claim: A lot of children will like learning, make the children interact with technology earlier and how to use it, make the children depended on himself/herself in learning.

2. ***Assumption:*** Children who have a disability can use the website with a help as we provide a videos that may help them.

   Claim: Make faire for all children to learn and give a chance for those children to take their rights in learning.

3. ***Assumption:*** We assume that the children that use this website will have an account to log in the website.

   Claim: By that we will know the names of every child and his scores to know his amount of understanding, in other ways this will help the child to have his owner account to interact with the technology.

4. ***Assumption:*** We assume that the parents will follow the instructions which are provided in the website to help us build a good generation.

   Claim: This will help the parents to help their children in learning more easily and get what they want to know about the website.

5. ***Assumption:*** We assume that the children will read books that are provided in the website, challenge with each other by solving the tests associated with every lesson.

   Claim: This will help the children to like reading and be a readers earlier, and This will help us to ensure that the children learn well and in the right way, and if the child's score was bad so the website will provide other ways of explaining the lessons to help him.

6. ***Assumption:*** we assume that the children will communicate with each other by using the chats.

   Claim: This will help the children to be more social to reduce the introvert.

Usability Measures

I.   The top 4 usability goals for the system

1. Usability - Learnability

    The website will be easy to use as the instructions and the design will be clear so anyone can understand it without explaining.

2. Usability - Memorability

    As the design of the website and the instructions will be clear to make anyone understand it so it will be easy to remember how to use the website more times, so

once the user uses the website, it will be easy for him to remember how to use it again.

3. Usability - Safety

As there are a dangerous conditions may happen for the users in using the website, if there is someone's account was hacked so a message must be sent to warn him or if the parent leaves his child to use the website alone so the child may not learn and use the internet in other bad ways so there must be a message for the parents to warn them.

4. Usability - Efficiency

As the website will provide instructions for users to help them use the website and get what they need more easily and encourages the children to like learning, reading and a lot of things to build a good and bright generation by providing books and lessons that will be learned in an efficient way using videos, games and stories, and provides instructions for parents to guide them about what places that children should visit and how to encourage them to learn by making them challenge with each other by providing a tasks with scores for each lesson.

The website will even help the disability children by providing videos that will help them.

So the website will support its users in carrying out their tasks more quickly.

II.   The excluded usability goals

1. Usability - Utility

As there will be games that will help the children to learn or to have fun with learning, these games may need some devices which won't be available.

As the website will help the children to learn a lot of lessons in different ways but it won't get all the ways they want or get all the needs that the parents want for their children to know or learn.

2. Usability - Effectiveness

As the website is used to help children learn a lot of lessons and it is the main idea of the website so the website will be good to do or achieve the main idea of it but the website isn't the only way for children to learn as there is a kindergarten that they may go to it to learn so we can dispense with the website.

Interactions

1. WIMP and GUI

   There will be many menus and icons with different shapes and colors to make the child more interactive with our website.

2. Multimedia

   to make sure that the child fully understand.

3. Augmented Reality

   to make the games more interesting.

4. Visualization and dashboards

   There will be dashboards to show the scores of the children .

5. Web

   An interactive educational website.

6. Mobile

   A mobile application to make that easy to sign in and learn even through the mobile.

7. Speech

   to be easy for the children who can not write yet to deal with the website.

8. Pen

   for the children to have fun and to learn painting.

9. Touch

   To make that easy for the children and their parents to deal with the website.

10. Multimodel

    The website will combine more than one model of interfaces.

'Un-dreamed-of' Need

- Each week the website will get the best 3 children that have the best 3 scores and put their names in a table (Best_Children) .

- the videos that are provided for children to help them in learning, we will make that the speaker of the video will talk to the child with his specific name to make the child be more awake.

- the games that will help the children learn more easily, if it wants the child to play so its name will be written in this game to make the child be more interested.