

**Usability Goals**

Human and Computer Interaction (CS-E)

FAST National University

**Submitted to**

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**Sources**

Usability goals are derived from:

1. Usability Requirements from User Profile
2. Issues in Contextual Task Analysis
3. Work Environment Analysis

**Usability Goals**

1. **Easy to learn**

**Reason:** Children do not have the extensive expertise to use software applications therefore application should be easy to learn.

**Reference:** 2nd usability requirement from user profile

1. **Colorful and vibrant interface**

**Reason:** As children are highly influenced by cartoons, animations, bright colors, and like green and blue as theme colors therefore UI must be colorful, cartoonish and vibrant.

**References:**

* 7th usability requirement from user profile
* 2nd point of work environment analysis

1. **Minimal text**

**Reason:** Application must contain short textual instructions as children are not in the habit of reading long lengthy paragraphs.

**Reference:** 13th usability requirement from user profile

1. **Minimal typing**

**Reason:** Majority of the children are not in the habit of writing/typing. Thus, the app should require less typing.

**Reference:** 5th usability requirement from user profile

1. **Easy to remember and recall**

**Reason:** Not all children have good memorization abilities so app should not contain activities requiring a lot of memory recall. For this, it must contain images and videos as it is easier for children to memorize and recall images and videos rather than plain text.

**Reference:** 3rd and11th usability requirement from user profile

1. **Simple display/screen**

**Reason:** Minimal interface needs to be implemented to avoid confusion and distractions as children love to try multiple things on the app screen and hence, they can get confused by too many navigation options on screen. Simple displays/GUIs will keep them glued to the application.

**References:**

* 12th usability requirement from user profile
* 7th point of work environment analysis

1. **Visual & audio aid**

**Reason:** Visual clips must be used to convey messages in application as children prefer them and learn quickly by viewing and listening instead of reading text.

**References:**

* 6th usability requirement from user profile
* 8th point of work environment analysis

1. **Consistency in navigation**

**Reason:**  As children have limited knowledge regarding the use of a software application therefore, they maintain biased insight regarding navigation by browsing the app in same way always. Thus, easy reversal of action must be provided in application.

**Reference:** 9th usability requirement from user profile

1. **Focus on all arithmetic operations**

**Reason:**  Since children have basic concept of addition and subtraction but are usually weak in division and multiplication so application must analyze through progress report that students get all the relevant understanding of the four concepts.

**Reference:** 8th usability requirement from user profile

1. **Ability to give one answer only**

**Reason:** The children may attempt to give multiple answers if they are unsure

**Reference:** 11th observation from the 1st use case

1. **Ability to select “Don’t know”**

**Reason:** Children may be reluctant to give a wrong answer

**Reference:** 9th observation in 1st use case

1. **Use a readable font**

**Reason:** Children cannot use the app if the text is illegible

**Reference:** 1st issue in 2nd use case

1. **Provide a hint if needed**

**Reason:** The question may be too hard for children, and their confidence must not be shattered.

**Reference:** 1st observation in 3rd use case

1. **No Time Limit for Solving Questions**

**Reason:**  As children take a longer time in thinking and solving a question hence they should not be restricted to time limits.

**Reference**: 8th observation in 3rd use case

1. **No Audio Input**

**Reason:** As majority of the children are unable to speak loudly and clearly at the same time, hence an audio input would be avoided.

**Reference:** 7th observation in 1st use case

1. **Language Independency**

**Reason:** As most of the users cannot read much hence meaningful icons and images should be used instead of text commands and questions would be well-constructed.

**Reference:** 5th observation in 1st use case

1. **Clear and Loud Sounds**

**Reason:** As most of the users may be present in a noisy environment sometimes, thus the sound of audio clips played should be loud.

**Reference:** 8th observation in 2nd use case