



BUBBLEX™

USER MANUAL

Version 1.0

by
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Overview

Welcome to BubbleX™!

BubbleX™ is a great educational tool for children age 4 to 6 who are in the process of learning colours, numbers and the alphabet. With the use of simple gestures, children can interact with the application through the Shared Reality Environment. Note that the current alpha system simulates these gestures through the use of the mouse.

Your child will start at the basic mode (Colour) and progress at his own speed based on his ability. This allows the child to get used to the application and the required gestures. Furthermore, your child will be guided through the lessons by a friendly voice to encourage him or her throughout his or her learning experience.

In no time, your kid will be learning rapidly because BubbleX™ is also a fun and dynamic application.

Gestures Used

There are three basic gestures that are used in the BubbleX™ application:

1. *Door-opening*: to navigate through doors -> with fist closed

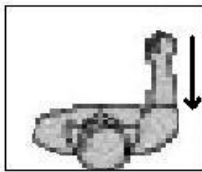


Figure 1: Extended arm with fist closed

2. *Rotation*: to move cursor to desired position (left/right, up/down) -> with open hand, bent arm

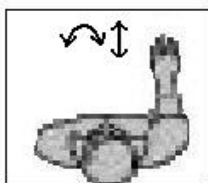


Figure 2: Bent arm with open hand facing down

3. *Selection*: to select bubble -> extended arm with finger pointing

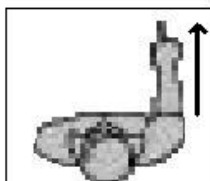


Figure 3: Extended arm with pointing index finger

Their specific functions will be described in more details below.

How to Use BubbleX™

Before starting, you will have set up your child's profile by including his age, name and uploading his picture through a configuration file.

Then, your child will only have to navigate through two menus (Profile and Mode Selection) before reaching the Lesson Screen, with the use of a cursor.

Profile Selection

Your child will be facing three doors, each one with a different name and picture and some menu options (see Figure 4). At this point, he can perform either of these actions:

- ❖ Choose his profile by opening the door with his name and picture on it using the Door-Opening gesture.
- ❖ Select other menu options located at the bottom using the Selection gesture.

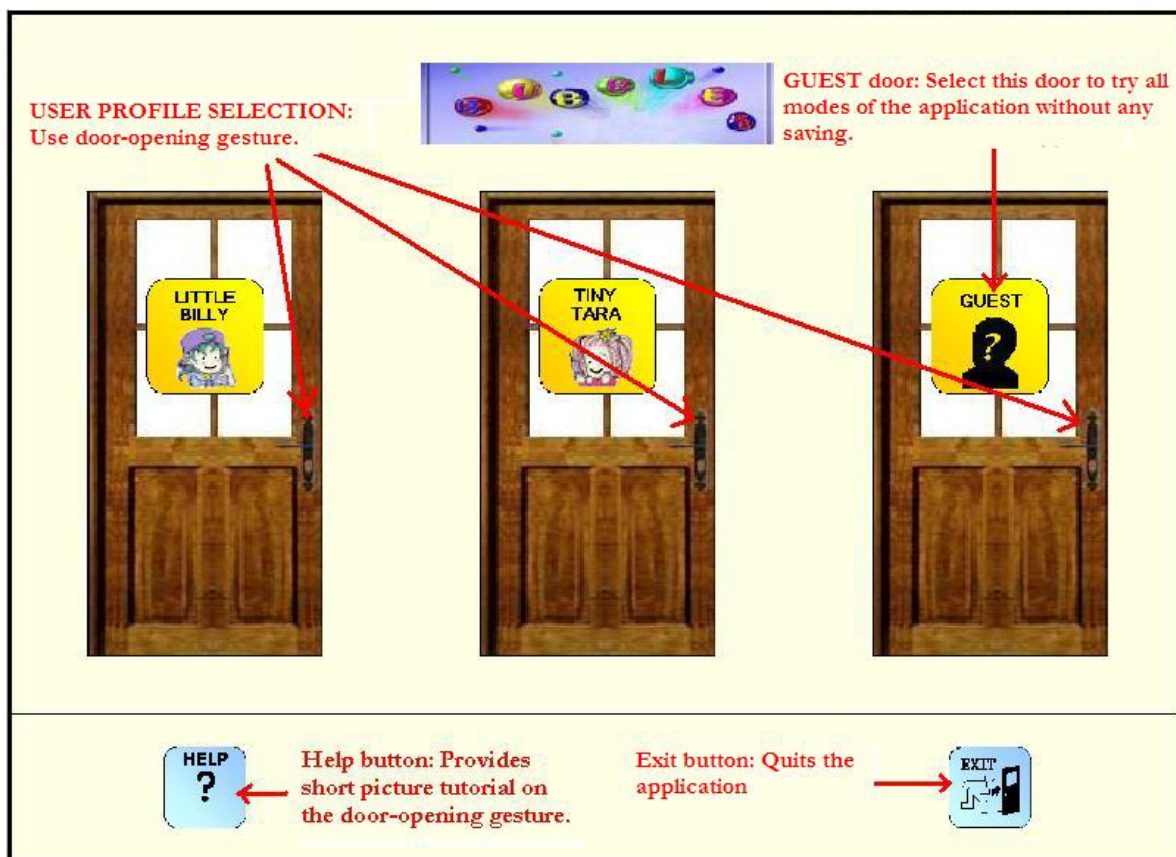


Figure 4: Profile Selection Menu

Mode Selection

Your kid must now choose the lesson mode in the same manner. Not all modes will be provided to him initially. He will have to start from the basic Colour Mode and progress at his own pace through each level (see Mode and Level Descriptions below). Once a mode is completed, your child will be allowed to move to the next mode and these “locked” modes will be unlocked as your kid progresses. Further, the level of difficulty will increase as he learns. If your child decides to return to a mode that has already been completed, a random level will be displayed.

Here is a summary of the Mode Selection Menu options in Figure 5:

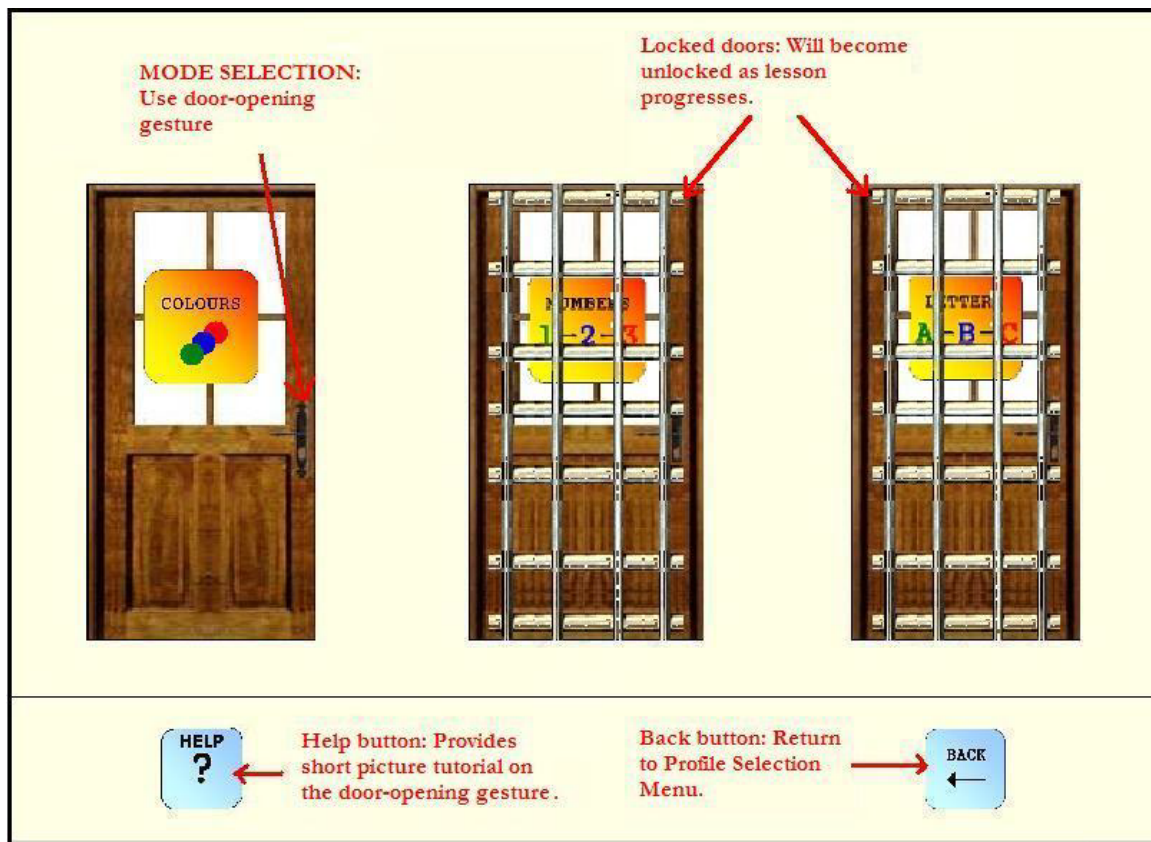


Figure 5: Mode Selection Menu

Lesson Screen

Your child has now reached the Lesson Screen. The following actions can be performed:

- ❖ Move the cursor around with the Rotation gesture.
- ❖ Select bubbles using the Selection gesture.
- ❖ Select menu options using the Selection gesture.

Here is a screen-shot illustrating the functionalities in more detail, with a short description besides each:

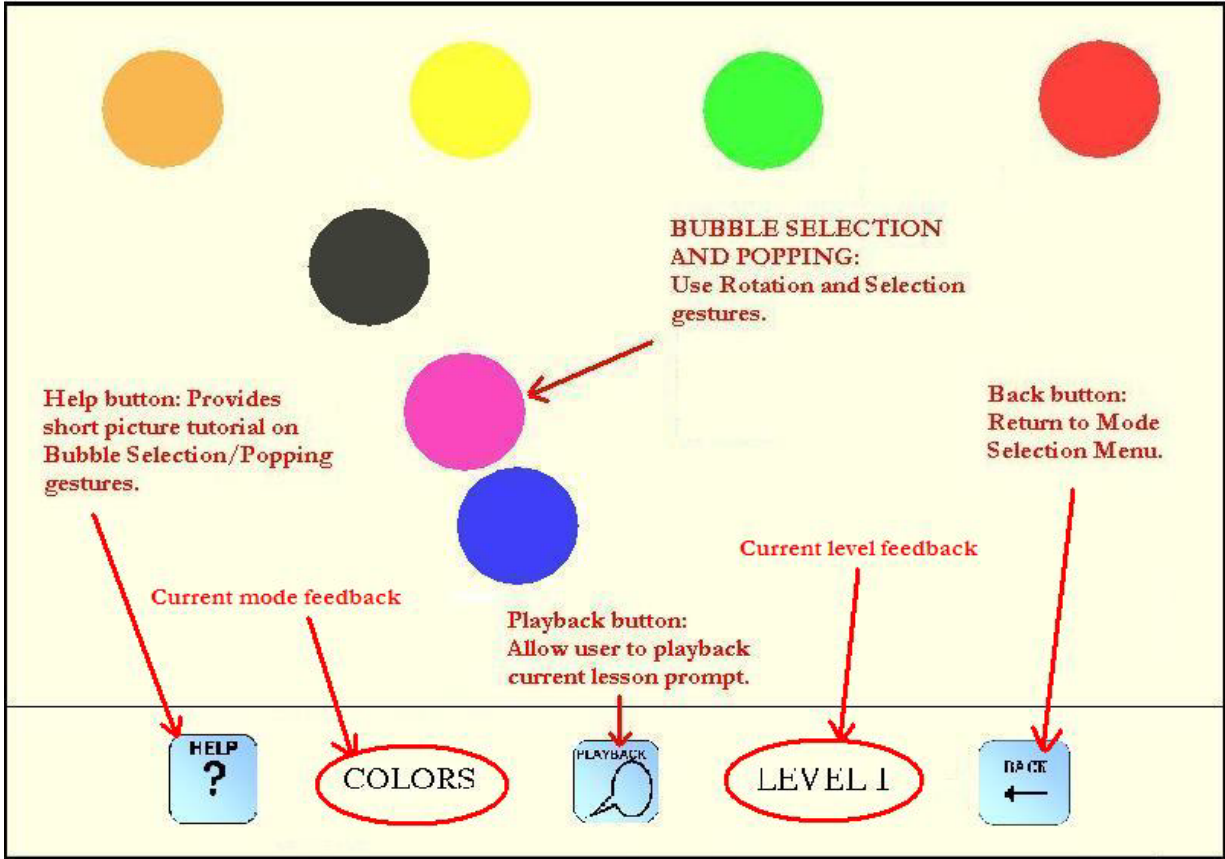


Figure 6: Lesson Screen

Mode and Level Descriptions

A list of current supported modes and levels in the BubbleX™ application is provided below.

Modes	Levels	Description
Colour	1	Individual colour identification
	2	Multi-colour sequences of bubbles
Number	1	Individual number identification
	2	Counting numbers (up and down)
Letter	1	Capital letter identification
	2	Lower-case letter identification
	3	Alphabet (A-J, K-T, U-Z)

Table 1: List of supported modes and levels

Questions and Concerns

In the future, look out for additional levels that will further increase your child's learning.

If you have any questions, suggestions or concerns, please go to <http://www.ece.mcgill.ca/~mbelca/hci> .

Thank you for using BubbleX™!