

XR Interaction Test3 – Questionnaire

Participant Information

Participant ID: _____

Age: _____

Gender: _____

VR Experience Level:

☐ Beginner ☐ Intermediate ☐ Advanced

Task 1: Toolbox Location and Tool Switching

Were you able to **clearly find the location of the toolbox** in the scene?

☒ Yes ☐ No

Were you able to **successfully switch between different tools** (for example, different brush sizes or the eraser)?

☒ Yes ☐ No

Please rate how **convenient** the tool switching was (1 = Very Inconvenient, 5 = Very Convenient):

1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐

Open-ended Question:

In many other VR painting applications, tools are switched using a virtual menu on the user's non-dominant hand.

In this prototype, the switching is done through **physical grabbing and changing**.

Which method feels more natural or easier to use for you, and why?

physically switching, since it feels like real world

Task 2: Pigment Picking and Placement

Were you able to **successfully pick and take a pigment** from the pigment box?

☒ Yes ☐ No

Were you able to **place the pigment onto the palette** smoothly?

☐ Yes ☒ No

Please rate how **intuitive** the color-picking process felt (1 = Very Unintuitive, 5 = Very Intuitive):

1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☐

Open-ended Question:

In previous versions, users needed to keep a specific distance between the brush tip and the palette to pick a color.

This time, the pigment-ball system was used instead.

Did this change make the interaction feel more natural?

If you still had difficulties, please describe them or give suggestions for improvement.

Task 3: Joystick Mixing System

Were you able to understand and complete the **color-mixing operation using the left joystick rotation**?

☐ Yes ☒ No

Please rate how **easy** the joystick mixing was to use (1 = Very Difficult, 5 = Very Easy):

1 ☐ 2 ☒ 3 ☐ 4 ☐ 5 ☐

Please rate how **natural and realistic** the mixing effect felt (1 = Very Unnatural, 5 = Very Natural):

1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Open-ended Question:

Did using the joystick to mix colors feel intuitive to you?

Would you prefer a future version that allows **real physical stirring** with the brush instead?

Please explain your preference and reasons.

Yes, I prefer stirring

Overall Experience

Please rate how **intuitive** the overall interaction experience was (1 = Not Intuitive, 5 = Very Intuitive):

1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐

Please rate how **enjoyable** the overall experience was (1 = Not Enjoyable, 5 = Very Enjoyable):

1 ☐ 2 ☐ 3 ☐ 4 ☒ 5 ☐

Open-ended Question:

Please describe which part of this experience you liked the most and what could be improved.

The palette
