## 1. APPENDIX 1: Questionnaires

1.1 Questionnaire for Experiment 1

## COFFEE TASTING

How flavourful is the coffee?
Not flavourful at all $1 \begin{array}{llllllll} & 2 & 3 & 4 & 5 & 6 & 7 & \text { Really flavourful }\end{array}$

How sweet is the coffee?
$\begin{array}{lllllllll}\text { Not sweet at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Really sweet }\end{array}$

How acidic is the coffee?
$\begin{array}{lllllllll}\text { Not acidic at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Really acidic }\end{array}$

How balanced is the coffee?
$\begin{array}{lllllllll}\text { Not balanced at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very much }\end{array}$ balanced

How warm did you feel the coffee was?
$\begin{array}{lllllllll}\text { Very cold } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very warm }\end{array}$

How much did you enjoy the coffee?
$\begin{array}{lllllllll}\text { Not at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very much }\end{array}$

How much did you like the experience of drinking this coffee?
$\begin{array}{lllllllll}\text { Not at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very much }\end{array}$

How likely is it that you will purchase this coffee?
$\begin{array}{lllllllll}\text { Not likely } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very likely }\end{array}$

How likely is this coffee to be your first-choice next time you order coffee?
$\begin{array}{lllllllll}\text { Not likely } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very likely }\end{array}$

How likely are you to exert a great deal of effort to purchase this coffee?

| Not likely | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very likely |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

How experienced are you with coffee?

| Not experienced | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very experienced |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Please consider the coffee and indicate to what extent you agree with the following statements.
Strongly
disagree
Somewhat
disagree
I had a sense of acting in the virtual
environment, rather than operating

something from outside | My experience in the virtual environment |
| :--- |
| seemed consistent with my experiences in |
| the real world |
| While I was in the virtual environment, I |
| had a sense of "being there" |
| I was completely captivated by the virtual |
| world |

How much more would you pay for the coffee that you just tasted relative to a usual cup of coffee (in NOK)?
$\qquad$ NOK

How often do you often drink coffee?
I don't drink coffee
A few times a month
A few times a week
Every day
Several cups a day

Do you usually add something to your coffee? If yes, what?
Milk
Cream

Sugar
Cinnamon
Salt
Alcohol
Other
I do not add anything

How old are you? (numbers only, no text)

Please indicate your gender
Male
Female
Non-binary
Prefer not to answer

### 1.2 Questionnaire for Experiment 2

## COFFEE TASTING

How flavourful do you expect a cup of coffee to be?
$\begin{array}{lllllllll}\text { Not flavourful at all } 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Really flavourful }\end{array}$

How sweet do you expect a cup of coffee to be?
Not sweet at all
1
2
3
4
5
$6 \quad 7$
7 Really sweet

How acidic do you expect a cup of coffee to be?
$\begin{array}{lllllllll}\text { Not acidic at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Really acidic }\end{array}$

How balanced do you expect a cup of coffee to be?
$\begin{array}{lllllllll}\text { Not balanced at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very much }\end{array}$ balanced

How warm do you expect a cup of coffee to be?

| Very cold | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very warm |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

How much would you enjoy tasting cup of coffee in a virtual reality environment?
$\begin{array}{lllllllll}\text { Not at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very much }\end{array}$

How much would you like the experience of tasting cup of coffee in a virtual reality environment?
$\begin{array}{lllllllll}\text { Not at all } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very much }\end{array}$

How likely is it that you would purchase a cup of coffee?
$\begin{array}{lllllllll}\text { Not likely } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very likely }\end{array}$

How likely is it that the cup of coffee will be your first-choice next time you order coffee?

| Not likely | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very likely |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

How likely are you to exert a great deal of effort to purchase a cup of coffee?

| Not likely | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very likely |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

How experienced are you with coffee?
$\begin{array}{lllllllll}\text { Not experienced } & 1 & 2 & 3 & 4 & 5 & 6 & 7 & \text { Very experienced }\end{array}$


How "much more" would you pay for the coffee that you just imagined to taste in a virtual reality environment relative to a usual cup of coffee (in EUR)?
$\qquad$ EUR

How often do you often drink coffee?
I don't drink coffee
A few times a month
A few times a week
Every day
Several cups a day

Do you usually add something to your coffee? If yes, what? You can choose multiple ingredients from the following.

Milk

## Cream

Sugar

## Cinnamon

Salt

Alcohol
Other
I do not add anything

How old are you? (numbers only, no text)

Please indicate your gender
Male
Female
Non-binary
Prefer not to answer

## 2. APPENDIX 2: Tables Experiment 1

### 2.1 Mann- Whitney U-test

| Measure | Median |  | U-value | z-value | p-value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Instructions | No |  |  |  |  |
|  | instructions |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Experience | 4.33 | 5.00 | 318.50 | -.360 | .719 |  |
| Frequency | 3.00 | 3.00 | 336.50 | -.028 | .977 |  |
| Gender | 2.00 | 2.00 | 329.50 | -.186 | .853 |  |
| Age | 23.00 | 23.00 | 300.50 | -.695 | .487 |  |
| Add to coffee | 1.00 | 1.50 | 312.50 | -.518 | .604 |  |

Note. The Mann-Whitney U test was not possible to execute for "alcohol".
2.2 Pairwise comparison between «immersion» score and the different attention levels.

| Measure | Attention | Attention | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| Immersion | No instructions | Instructions | $\mathbf{- . 7 3 8}$ | $\mathbf{. 0 1 7}$ |

Note: Significant vales are highlighted in bold.
2.3 Pairwise comparison between "flavourful"" score and the different coloured VR atmospheres.

| Measure | Environmental | Environmental | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| colour hue | colour hue |  |  |  |
| Flavourful | Red | Green | -.096 | $>.999$ |
|  | White | -.635 | .025 |  |
|  | Green | Red | .096 | $>.999$ |
|  | White | -.538 | .093 |  |
|  | Red | .635 | .025 |  |

[^0]2.4 Pairwise comparison between "flavourful", and "sweet" score and the different attention levels.

| Measure | Attention | Attention | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| Flavourful | Instruction | No instruction | $\mathbf{. 9 1 0}$ | $\mathbf{. 0 0 7}$ |
| Sweet | Instruction | No instruction | $\mathbf{. 7 9 5}$ | $\mathbf{. 0 1 4}$ |

Note: Significant vales are highlighted in bold.
2.5 Pairwise comparison between "balanced" score and attention for the green VR atmosphere.

| Measure | Attention | Attention | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| Balanced | Instruction | No instruction | $\mathbf{1 . 3 4 6}$ | $\mathbf{. 0 0 1}$ |

Note: Significant vales are highlighted in bold.
2.6 Pairwise comparison between "balanced" score and "drink experience likeability" score and the different coloured VR atmospheres for the group that was not instructed to pay attention.

| Measure | Environmental colour hue | Environmental colour hue | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| Balanced | Red | Green | . 615 | .432 |
|  |  | White | -. 423 | . 511 |
|  | Green | Red | -. 615 | . 432 |
|  |  | White | -1.038 | . 017 |
|  | White | Red | . 423 | . 511 |
|  |  | Green | 1.038 | . 017 |
| Drink |  | Green | . 269 | >.999 |
| experience | Red | White | -. 808 | . 119 |
| likeability | Green | Red | -. 269 | >. 999 |


|  | White | $\mathbf{- 1 . 0 7 7}$ | $\mathbf{. 0 2 1}$ |
| :---: | :---: | :---: | :---: |
| White | Red | .808 | .119 |
|  | Green | $\mathbf{1 . 0 7 7}$ | $\mathbf{. 0 2 1}$ |

Note: Significant vales are highlighted in bold.
2.7 Pairwise comparison between "balanced" score, "enjoyment of taste" score, and "drink experience likeability" score and the different coloured VR atmospheres for the group that was instructed to pay attention.

| Measure | Environmental colour hue | Environmental colour hue | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| Balanced | Red | Green | -. 731 | . 124 |
|  |  | White | -. 769 | . 061 |
|  | Green | Red | . 731 | . 124 |
|  |  | White | -. 038 | >. 999 |
|  | White | Red | . 769 | . 061 |
|  |  | Green | . 038 | >. 999 |
| Enjoyment of | Red | Green | -. 923 | . 050 |
| taste |  | White | -. 615 | . 389 |
|  | Green | Red | . 923 | . 050 |
|  |  | White | . 308 | >.999 |
|  | White | Red | . 615 | . 389 |
|  |  | Green | -. 308 | >.999 |
| Drink | Red | Green | -1.077 | . 031 |
| experience |  | White | -. 654 | . 383 |
| likeability | Green | Red | 1.077 | . 031 |
|  |  | White | . 423 | . 832 |
|  | White | Red | . 654 | . 383 |
|  |  | Green | -. 423 | . 832 |

Note: Significant vales are highlighted in bold.
2.8 Descriptive statistics for the dependent variables as a function of environmental colour hue and attention

| Measure | Attention | Mean | Std. deviation |
| :---: | :---: | :---: | :---: |
| Flavourful (red) | No instructions | 3.19 | 1.65 |
|  | Instructions | 3.85 | 1.76 |
|  | Total | 3.52 | 1.72 |
| Flavourful (green) | No instructions | 2.92 | 1.41 |
|  | Instructions | 4.31 | 1.32 |
|  | Total | 3.62 | 1.52 |
| Flavourful (white) | No instructions | 3.81 | 1.81 |
|  | Instructions | 4.50 | 1.18 |
|  | Total | 4.15 | 1.55 |
| Sweet (red) | No instructions | 2.08 | 1.23 |
|  | Instructions | 2.88 | 1.68 |
|  | Total | 2.48 | 1.52 |
| Sweet (green) | No instructions | 2.04 | 1.11 |
|  | Instructions | 3.00 | 1.74 |
|  | Total | 2.52 | 1.53 |
| Sweet (white) | No instructions | 2.19 | 1.44 |
|  | Instructions | 2.81 | 1.44 |
|  | Total | 2.50 | 1.46 |
| Acidic (red) | No instructions | 4.12 | 1.80 |
|  | Instructions | 3.96 | 1.43 |
|  | Total | 4.04 | 1.61 |
| Acidic (green) | No instructions | 3.69 | 1.79 |
|  | Instructions | 3.92 | 1.32 |
|  | Total | 3.81 | 1.56 |
| Acidic (white) | No instructions | 3.85 | 1.64 |
|  | Instructions | 3.88 | 1.31 |


|  | Total | 3.87 | 1.47 |
| :---: | :---: | :---: | :---: |
| Balanced (red) | No instructions | 3.46 | 2.04 |
|  | Instructions | 3.46 | 1.30 |
|  | Total | 3.46 | 1.70 |
| Balanced (green) | No instructions | 2.85 | 1.35 |
|  | Instructions | 4.19 | 1.27 |
|  | Total | 3.52 | 1.46 |
| Balanced (white) | No instructions | 3.88 | 1.56 |
|  | Instructions | 4.23 | 1.18 |
|  | Total | 4.06 | 1.38 |
| Warm (red) | No instructions | 6.00 | 1.20 |
|  | Instructions | 5.46 | 1.36 |
|  | Total | 5.73 | 1.30 |
| Warm (green) | No instructions | 6.08 | . 89 |
|  | Instructions | 5.77 | 1.28 |
|  | Total | 5.92 | 1.10 |
| Warm (white) | No instructions | 5.85 | 1.19 |
|  | Instructions | 6.04 | 1.15 |
|  | Total | 5.94 | 1.16 |
| Taste enjoyment <br> (red) | No instructions | 3.81 | 2.06 |
|  | Instructions | 3.35 | 1.74 |
|  | Total | 3.58 | 1.90 |
| Taste enjoyment (green) | No instructions | 3.38 | 1.58 |
|  | Instructions | 4.27 | 1.73 |
|  | Total | 3.83 | 1.70 |
| Taste enjoyment (white) | No instructions | 3.92 | 1.67 |
|  | Instructions | 3.96 | 1.54 |
|  | Total | 3.94 | 1.59 |
| Drink experience | No instructions | 4.04 | 1.87 |
| likeability (red) | Instructions | 3.65 | 1.67 |


|  | Total | 3.85 | 1.76 |
| :---: | :---: | :---: | :---: |
| Drink experience | No instructions | 3.77 | 1.90 |
| likeability (green) | Instructions | 4.73 | 1.61 |
|  | Total | 4.25 | 1.81 |
| Drink experience | No instructions | 4.85 | 1.46 |
| likeability (white) | Instructions | 4.31 | 1.78 |
|  | Total | 4.58 | 1.64 |
| Purchase intention | No instructions | 3.22 | 1.78 |
| (red) | Instructions | 2.76 | 1.36 |
|  | Total | 2.99 | 1.59 |
| Purchase intention | No instructions | 3.17 | 1.50 |
| (green) | Instructions | 3.46 | 1.80 |
|  | Total | 3.31 | 1.65 |
| Purchase intention | No instructions | 3.68 | 1.58 |
| (white) | Instructions | 3.35 | 1.37 |
|  | Total | 3.51 | 1.47 |
| Willingness to pay | No instructions | 20.23 | 13.40 |
| more (red) | Instructions | 18.00 | 25.77 |
|  | Total | 19.12 | 20.37 |
| Willingness to pay | No instructions | 18.00 | 10.84 |
| more (green) | Instructions | 21.08 | 22.60 |
|  | Total | 19.54 | 17.62 |
| Willingness to pay | No instructions | 20.65 | 13.46 |
| more (white) | Instructions | 21.46 | 23.82 |
|  | Total | 21.06 | 19.16 |




## 3. APPENDIX 3: Tables Experiment 2

### 3.1 Mann- Whitney U-test

| Measure | Median |  | U-value | z-value | p-value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Instructions | No |  |  |  |
|  | instructions |  |  |  |  |
|  |  |  |  |  |  |
| Experience | 5 | 6 | 1519.50 | -1.365 | .172 |
| Frequency | 4 | 4 | 1608.50 | -.891 | .373 |
| Gender | 2 | 2 | 1812.50 | .264 | .792 |
| Age | 31 | 30 | 1956.50 | .992 | .321 |
| Add: Milk | 1 | 1 | 1034.00 | $<.001$ | $>.999$ |
| Add: Cream | 1 | 1 | 42.00 | $<.001$ | $>.999$ |
| Add: Sugar | 1 | 1 | 299.00 | $<.001$ | $>.999$ |
| Add: Cinnamon | 1 | 1 | 7.50 | $<.001$ | $>.999$ |
| Add: Salt | 1 | 1 | .50 | $<.001$ | $>.999$ |
| Add: Other | 1 | 1 | 25.00 | $<.001$ | $>.999$ |
| Add : Nothing | 1 | 1 | 33.00 | $<.001$ | $>.999$ |

Note. The Mann-Whitney U test was not possible to execute for "alcohol".
3.2 Pairwise comparison between "warm" score and "drink experience likeability" score and the different coloured VR atmospheres.

| Measure | Environmental | Environmental | Mean difference | Sig. |
| :---: | :---: | :---: | :---: | :---: |
|  | colour hue | colour hue |  |  |
| Warm | Red | Green | .177 | .127 |
|  | Green | White | -.135 | .124 |
|  | White | Red | -.177 | .127 |
|  |  | White | -.312 | $<.001$ |
|  |  | Green | .135 | .124 |
|  | Red | Green | . $\mathbf{3 1 2}$ | $<.001$ |


| Drink | Green | Red | -.226 | .140 |
| :---: | :---: | :---: | :---: | :---: |
| experience |  | White | $\mathbf{- . 4 2 9}$ | $\mathbf{. 0 0 2}$ |
| likeability | White | Red | .203 | .103 |
|  |  | Green | $\mathbf{. 4 2 9}$ | $\mathbf{. 0 0 2}$ |

Note: Significant vales are highlighted in bold.

### 3.3 Descriptive statistics on willingness to pay more

| Measure | Minimum | Maximum | Std. <br> deviation | Total mean | Mean | Mean no |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| instructions |  |  |  |  |  |  |$\quad$ instructions

### 3.4 Descriptive statistics for the dependent variables as a function of environmental

 colour hue and attention| Measure | Attention | Mean | Std. deviation |
| :---: | :---: | :---: | :---: |
| Flavourful (red) | No instructions | 5.63 | 1.43 |
|  | Instructions | 5.60 | 1.42 |
|  | Total | 5.61 | 1.42 |
| Flavourful (green) | No instructions | 5.44 | 1.57 |
|  | Instructions | 5.48 | 1.33 |
|  | Total | 5.46 | 1.45 |
| Flavourful (white) | No instructions | 5.68 | 1.42 |
|  | Instructions | 5.65 | 1.25 |
|  | Total | 5.66 | 1.33 |
| Sweet (red) | No instructions | 3.76 | 1.90 |
|  | Instructions | 4.03 | 1.63 |
|  | Total | 3.90 | 1.76 |
| Sweet (green) | No instructions | 3.53 | 1.88 |
|  | Instructions | 4.02 | 1.76 |


|  | Total | 3.77 | 1.83 |
| :---: | :---: | :---: | :---: |
| Sweet (white) | No instructions | 3.81 | 1.87 |
|  | Instructions | 4.00 | 1.80 |
|  | Total | 3.91 | 1.83 |
| Acidic (red) | No instructions | 3.25 | 1.66 |
|  | Instructions | 2.97 | 1.62 |
|  | Total | 3.11 | 1.64 |
| Acidic (green) | No instructions | 3.15 | 1.81 |
|  | Instructions | 3.23 | 1.61 |
|  | Total | 3.19 | 1.70 |
| Acidic (white) | No instructions | 2.98 | 1.68 |
|  | Instructions | 3.00 | 1.66 |
|  | Total | 2.99 | 1.66 |
| Balanced (red) | No instructions | 5.25 | 1.23 |
|  | Instructions | 5.00 | 1.45 |
|  | Total | 5.13 | 1.34 |
| Balanced (green) | No instructions | 5.22 | 1.33 |
|  | Instructions | 4.90 | 1.31 |
|  | Total | 5.06 | 1.32 |
| Balanced (white) | No instructions | 5.31 | 1.37 |
|  | Instructions | 4.97 | 1.38 |
|  | Total | 5.13 | 1.38 |
| Warm (red) | No instructions | 5.88 | 1.37 |
|  | Instructions | 6.05 | 1.10 |
|  | Total | 5.97 | 1.24 |
| Warm (green) | No instructions | 5.68 | 1.55 |
|  | Instructions | 5.90 | 1.27 |
|  | Total | 5.79 | 1.41 |
| Warm (white) | No instructions | 6.07 | 1.30 |
|  | Instructions | 6.13 | 1.08 |


|  | Total | 6.10 | 1.19 |
| :---: | :---: | :---: | :---: |
| Taste enjoyment | No instructions | 4.19 | 2.06 |
| (red) | Instructions | 3.98 | 2.08 |
|  | Total | 4.08 | 2.07 |
| Taste enjoyment | No instructions | 4.10 | 2.15 |
| (green) | Instructions | 3.92 | 2.06 |
|  | Total | 4.01 | 2.10 |
| Taste enjoyment | No instructions | 4.17 | 2.21 |
| (white) | Instructions | 4.02 | 1.77 |
|  | Total | 4.09 | 1.99 |
| Drink experience | No instructions | 4.12 | 1.97 |
| likeability (red) | Instructions | 4.10 | 2.15 |
|  | Total | 4.11 | 2.05 |
| Drink experience | No instructions | 3.97 | 1.89 |
| likeability (green) | Instructions | 3.80 | 1.91 |
|  | Total | 3.88 | 1.90 |
| Drink experience | No instructions | 4.46 | 2.12 |
| likeability (white) | Instructions | 4.17 | 1.94 |
|  | Total | 4.31 | 2.03 |
| Purchase intention | No instructions | 4.37 | 1.68 |
| (red) | Instructions | 4.33 | 1.73 |
|  | Total | 4.35 | 1.70 |
| Purchase intention | No instructions | 4.35 | 1.74 |
| (green) | Instructions | 4.08 | 1.63 |
|  | Total | 4.21 | 1.68 |
| Purchase intention | No instructions | 4.55 | 1.64 |
| (white) | Instructions | 4.27 | 1.61 |
|  | Total | 4.41 | 1.62 |

Note: Significant vales are highlighted in bold.

3.6 Estimated marginal means of acidic




[^0]:    Note: Significant vales are highlighted in bold.

