# Appendix A – Questionnaire

|  |  |
| --- | --- |
| **Age:** |  |
| **Gender:** |  |

Answer the following questions by ticking the most applicable option.

|  |
| --- |
| **1. Did you feel discomfort during the experiment?**  **(If yes please specify what kind of discomfort, like nausea, dizziness, physical pain, trauma…etc)** |
| No  Yes, I felt \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **2. Is your education/career field related to fire safety?** |
| Yes No |
| **3. Have you ever used Virtual Reality before?** |
| This is my first-time trying a scenario with VR equipment.  I have tried VR 1-3 times before.  I have tried VR 4-10 times before.  I have tried VR more than 10 times.  More than 10 times, and experience VR on a regular basis. |
| **4. Do you play video games on any platforms (PC, consoles, mobile…etc.)?** |
| I don’t/rarely play video games.  I do, but usually less than 1 hour in a week.  I do, and usually 1-7 hours in a week.  I do, and usually more than 7 hours in a week. |
| **5. Have you experienced a similar or larger fire from a similar distance as in the simulation in real life?** |
| Yes  No/only a smaller fire/ a longer distance. |
| **6. Overall, the realism of the simulation was high.** |
| Strongly disagree Disagree Slightly disagree Slightly agree Agree Strongly agree |
| **7. I felt getting too close to the fire might be unsafe during the experiment.** |
| Strongly disagree Disagree Slightly disagree Slightly agree Agree Strongly agree |
| **8. I felt the heat from the fire during the experiment.** |
| Strongly disagree Disagree Slightly disagree Slightly agree Agree Strongly agree |
| **9. Select any factor that made you less willing to approach the fire during the experiment:** |
| The flames  The sound from the fire  The smoke  The heat from the fire  Other: \_\_\_\_\_\_\_ |
| **10. Other reflections if you have:** |

# Appendix B – Consent information

This document contains information about an experiment using Virtual Reality to be conducted as part of a thesis written at LTH, Lund University, Sweden.

## Background and purpose

Virtual Reality (VR) has been broadly used for entertainment, gaming and even educational and training purposes. In recent years VR have been applied as a research method of human behavior.

In this experiment participant will be exposed to a realistic scenario in VR. The purpose of the experiment is to investigate peoples experience and behavior in this virtual environment. The full scenario, purpose and objective will not be revealed beforehand, as this might affect the outcome of the experiment.

## Call for participants

You have been selected to participate in the experiment because you volunteered to take part in it. Your participation is completely voluntary, i.e. you only participate if you want to, and you can withdraw your participation at any point.

## How does it work?

You will be equipped with a VR helmet (head mounted display), which consists of two screens, one for each eye. When different images are shown on those screens, a slight offset between the images allows you to have a 3D view of the virtual surroundings. You will be able to move around in the virtual environment. This would allow you to experience the VR environment as if you were physically there. You will use hand controllers to interact with the environment. During the experiment, you are expected to interact, make decisions and behave as you would do in the real world.

A researcher will be with you during the whole experiment. You can stop the experiment immediately and at any point by signal the researcher if you would like to do so. The researcher will help you to remove the equipment right away.

After the experiment, you will fill in a questionnaire with background questions and questions about the experiment.

## What are the risks?

Since this experiment is about natural behavior, for experimental reasons it is not possible to disclose fully each aspect of the experiment until after you have participated. However, it is our duty to provide information about all reasonable risks you must be aware of before you decide to participate or not:

Some volunteers might feel anxious or stressed out for not knowing what exactly we are looking into. If you have any sort of mental disorder or physical condition that might be triggered by being anxious or affect you in some way during the experiment, you must notify the researcher about it before taking part in the experiment. The researcher might then refuse to take you as a participant. Examples of these disorders and conditions include, but are not restricted to: epilepsy, heart conditions, asthma, anxiety disorders, stress-related disorders and phobias.

The experiment will involve variations in the physical environment. These variations of the physical environment may not be the same for every participant. Variations can include differences in temperature, such as heating or cooling, or other physical stimuli such as wind or smell. In these cases, safety measures have been taken to make sure that these variations do not cause discomfort or risk of injury. There is a small risk of malfunction, for example technical issues with a heat source, which in this case could cause participants to be exposed to more heat than intended. The researcher in the room will interrupt the experiment if any malfunction is noticed. If you feel uncomfortable or threatened before or during the experiment, you will have the right to interrupt it at any point without giving any reasons, and you can also withdraw your participation after finishing it.

You will not be in contact with the heat source, but you could experience low levels of thermal radiation. These low levels can be similar to exposure to sunlight on a warm summer day. It is unlikely that exposure to these thermal radiation levels could lead to irritation of the skin or first-degree burns, especially since the exposure to them will not be longer than 10 minutes. If you feel uncomfortable or threatened before or during the experiment, you will have the right to interrupt it at any point without giving any reasons, and you can also withdraw your participation after finishing it.

There is a risk of feeling motion sickness or dizziness when you are in the virtual environment. If you feel dizzy, there is always a risk of losing balance and falling. Therefore, you should tell the researcher when you start feeling motion sickness or dizziness. The researcher will help you to remove the equipment and to get some water for you to drink if you would like some. Sometimes participants feel better when they close their eyes when sitting down to counteract the nausea.

The experimental room will have a designated area in which the experiment will be performed. You will be instructed stay in the designated area, but you are allowed to wave your hands, crouch, or turn around as you please. However, even though the experiment will be performed stationary there is a risk of losing balance and fall. As you will be standing on the floor, the fall cannot be especially dangerous.

## Are there any benefits?

Benefits relate to the possibility to experience Virtual Reality technology and understand the interaction that we can have with virtual environments.

## Handling the data

The data presented in the final report will be encoded, and it will not be possible to identify you in it. Your contact information will be saved for up to 6 months, but it will not be connected to the collected data in any way. The contact information is saved in case we need to contact you after the experiment to check on you if you experienced discomfort.

## How do I get information about the experiment results?

The result of the experiment will later be found at the final report of the thesis which the experiment is part of. Theses written at Lund’s University are published at: <https://lup.lub.lu.se/student-papers/search>.

## Voluntary participation

Participation in the experiment is fully voluntary. You can stop the participation at any point of the experiment. If you want to stop, you can remove the equipment by yourself or let the researcher know. You can also withdraw your participation after concluding the experiment. You do not need to give any reasons to do so, although you can help the researchers to avoiding uncomfortable experiments if you explain why.

## Who is responsible for the experiment?

The experiment is performed by researchers at the Department of Fire safety Engineering from Lund University. The responsible researcher is Jonathan Wahlqvist. You can reach Jonathan by phone +46 46 222 15 58). You are welcome to contact Jonathan if you have questions about the experiment.

# Appendix C – Individual test result

## Table of the cognitive safe distance data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Group** | **time** | **[X]** | **[Z]** | **[Y]** | **Scale** | **Distance** |
| 0 | 1 | 112.7436 | 3.264746 | 1.73244 | 0.006224 | Large | 3.264752 |
| 1 | 1 | 37.17506 | 1.354834 | 1.59937 | -0.02536 | Large | 1.355071 |
| 2 | 1 | 133.8495 | 1.204879 | 1.580761 | 0.022344 | Large | 1.205086 |
| 3 | 1 | 69.47638 | 1.659268 | 1.610474 | -0.04317 | Large | 1.65983 |
| 4 | 1 | 31.89677 | 1.823102 | 1.682547 | 0.192509 | Large | 1.833238 |
| 5 | 1 | 260.4853 | 2.3592 | 1.53648 | 0.149274 | Large | 2.363918 |
| 6 | 1 | 174.373 | 1.385504 | 1.66252 | -0.0803 | Large | 1.387829 |
| 7 | 1 | 84.46161 | 1.428964 | 1.644678 | 0.050609 | Large | 1.42986 |
| 8 | 1 | 110.2109 | 3.737326 | 1.845118 | -0.61325 | Large | 3.787305 |
| 9 | 1 | 139.7592 | 2.154939 | 1.540626 | 0.21316 | Large | 2.165456 |
| 10 | 1 | 67.15472 | 2.059769 | 1.612333 | 0.007601 | Large | 2.059783 |
| 11 | 2 | 202.655 | 1.398388 | 1.629201 | -0.1088 | Large | 1.402614 |
| 12 | 2 | 121.397 | 1.394278 | 1.713262 | -0.09039 | Large | 1.397205 |
| 13 | 2 | 92.90399 | 2.301346 | 1.493494 | 0.797131 | Large | 2.43549 |
| 14 | 2 | 74.11969 | 1.830299 | 1.450569 | -0.02499 | Large | 1.83047 |
| 15 | 2 | 24.50842 | 1.070796 | 1.527926 | 0.040768 | Large | 1.071572 |
| 16 | 2 | 48.36506 | 1.511552 | 1.43698 | -0.02573 | Large | 1.511771 |
| 17 | 2 | 59.76619 | 1.620237 | 1.535795 | 0.507502 | Large | 1.697859 |
| 18 | 2 | 96.91412 | 1.048072 | 1.462914 | -0.21967 | Large | 1.070846 |
| 19 | 2 | 61.87751 | 1.881968 | 1.725158 | -0.01665 | Large | 1.882042 |
| 20 | 2 | 70.10956 | 1.85016 | 1.484772 | 0.384163 | Large | 1.889622 |
| 21 | 2 | 143.5583 | 2.146262 | 1.564214 | 0.125729 | Large | 2.149941 |
| 22 | 2 | 64.62201 | 2.501874 | 1.532996 | 0.490119 | Large | 2.549429 |
| 23 | 1 | 74.11969 | 1.627314 | 1.58403 | -0.65661 | Large | 1.754789 |
| 24 | 2 | 213.2079 | 1.176529 | 1.466395 | -0.01193 | Large | 1.17659 |
| 25 | 1 | 117.3869 | 1.72893 | 1.64662 | 0.084451 | Large | 1.730991 |
| 26 | 1 | 47.73166 | 2.10332 | 1.628841 | -0.03646 | Large | 2.103636 |
| 27 | 2 | 24.71952 | 1.660592 | 1.713148 | 0.0327 | Large | 1.660914 |
| 28 | 2 | 16.48678 | 1.191125 | 1.56487 | -0.09421 | Large | 1.194845 |
| 29 | 1 | 40.97543 | 1.535606 | 1.587211 | 0.062864 | Large | 1.536892 |
| 30 | 2 | 226.5047 | 1.245981 | 1.670786 | 0.016303 | Large | 1.246088 |
| 31 | 2 | 126.8846 | 3.14284 | 1.683969 | 0.279466 | Large | 3.155241 |
| 32 | 1 | 59.76619 | 1.336412 | 1.539132 | 0.041044 | Large | 1.337042 |
| 0 | 1 | 91.00446 | 2.771625 | 1.727448 | 0.042254 | Medium | 2.771947 |
| 1 | 1 | 56.59921 | 1.067311 | 1.608521 | -0.01553 | Medium | 1.067424 |
| 2 | 1 | 184.926 | 0.86422 | 1.594627 | -0.05459 | Medium | 0.865942 |
| 3 | 1 | 96.492 | 1.35741 | 1.61884 | -0.00832 | Medium | 1.357435 |
| 4 | 1 | 49.63185 | 1.664523 | 1.737948 | -0.16598 | Medium | 1.672778 |
| 5 | 1 | 166.5638 | 1.583195 | 1.451315 | 0.087909 | Medium | 1.585634 |
| 6 | 1 | 151.1564 | 0.993251 | 1.520035 | -0.07998 | Medium | 0.996465 |
| 7 | 1 | 69.26532 | 1.053612 | 1.618977 | 0.032297 | Medium | 1.054107 |
| 8 | 1 | 72.22015 | 2.779804 | 1.85657 | -0.58004 | Medium | 2.839676 |
| 9 | 1 | 174.584 | 1.551387 | 1.533925 | 0.678428 | Medium | 1.693241 |
| 10 | 1 | 26.61938 | 1.524953 | 1.579857 | 0.004649 | Medium | 1.52496 |
| 11 | 2 | 118.8643 | 0.874058 | 1.575335 | -0.07808 | Medium | 0.877539 |
| 12 | 2 | 100.2911 | 1.213107 | 1.698969 | -0.11694 | Medium | 1.218731 |
| 13 | 2 | 125.6182 | 1.801228 | 1.516052 | -0.00199 | Medium | 1.801229 |
| 14 | 2 | 88.89386 | 1.630454 | 1.464474 | -0.07402 | Medium | 1.632133 |
| 15 | 2 | 59.97732 | 1.044308 | 1.556364 | -0.03317 | Medium | 1.044835 |
| 16 | 2 | 71.37592 | 1.34829 | 1.42047 | -0.01884 | Medium | 1.348422 |
| 17 | 2 | 96.492 | 1.238124 | 1.512421 | -0.44557 | Medium | 1.31586 |
| 18 | 2 | 68.63214 | 1.134593 | 1.464887 | 0.216872 | Medium | 1.155134 |
| 19 | 2 | 40.13091 | 1.329474 | 1.706802 | -0.07598 | Medium | 1.331643 |
| 20 | 2 | 83.82843 | 1.649463 | 1.4725 | 0.054062 | Medium | 1.650349 |
| 21 | 2 | 184.5038 | 1.94033 | 1.555415 | 0.108513 | Medium | 1.943362 |
| 22 | 2 | 162.1315 | 2.363572 | 1.519183 | 0.004545 | Medium | 2.363576 |
| 23 | 1 | 92.05975 | 1.503948 | 1.550583 | -0.04612 | Medium | 1.504655 |
| 24 | 2 | 292.7774 | 1.014947 | 1.441211 | 0.062667 | Medium | 1.01688 |
| 25 | 1 | 72.43121 | 1.741245 | 1.61682 | 0.342164 | Medium | 1.774545 |
| 26 | 1 | 31.89677 | 1.718865 | 1.60861 | 0.107495 | Medium | 1.722223 |
| 27 | 2 | 69.05426 | 1.070588 | 1.684549 | 0.066457 | Medium | 1.072649 |
| 28 | 2 | 64.62201 | 1.137965 | 1.671316 | -0.10428 | Medium | 1.142733 |
| 29 | 1 | 26.83047 | 1.217115 | 1.601286 | -0.09071 | Medium | 1.220491 |
| 30 | 2 | 175.4283 | 1.458011 | 1.684926 | -0.00114 | Medium | 1.458011 |
| 31 | 2 | 146.091 | 2.161174 | 1.692695 | -0.56682 | Medium | 2.23427 |
| 32 | 1 | 36.1194 | 1.297152 | 1.542455 | 0.043628 | Medium | 1.297885 |
| 0 | 1 | 67.99896 | 2.374884 | 1.734727 | -0.00278 | Small | 2.374886 |
| 1 | 1 | 69.47638 | 0.997444 | 1.58901 | -0.00153 | Small | 0.997445 |
| 2 | 1 | 164.4532 | 0.923675 | 1.591614 | 0.031615 | Small | 0.924215 |
| 3 | 1 | 111.2662 | 0.968334 | 1.583483 | 0.037068 | Small | 0.969043 |
| 4 | 1 | 62.93317 | 1.251855 | 1.671671 | 0.29376 | Small | 1.28586 |
| 5 | 1 | 223.5499 | 1.03601 | 1.446198 | 0.112172 | Small | 1.042065 |
| 6 | 1 | 105.5676 | 0.79654 | 1.535934 | -0.09083 | Small | 0.801702 |
| 7 | 1 | 98.18048 | 0.853861 | 1.613744 | 0.062965 | Small | 0.856179 |
| 8 | 1 | 29.78582 | 1.707423 | 1.826138 | 0.768911 | Small | 1.87257 |
| 9 | 1 | 107.8892 | 0.874283 | 1.51986 | 0.831432 | Small | 1.206504 |
| 10 | 1 | 50.26524 | 1.242381 | 1.575828 | 0.03605 | Small | 1.242904 |
| 11 | 2 | 176.2725 | 1.151148 | 1.687947 | 0.01852 | Small | 1.151297 |
| 12 | 2 | 62.29977 | 1.184055 | 1.696173 | -0.1036 | Small | 1.188579 |
| 13 | 2 | 109.3666 | 1.846835 | 1.5085 | 0.209992 | Small | 1.858735 |
| 14 | 2 | 57.44373 | 1.580695 | 1.438714 | -0.02354 | Small | 1.58087 |
| 15 | 2 | 42.45336 | 0.805975 | 1.493881 | -0.01889 | Small | 0.806196 |
| 16 | 2 | 87.20538 | 1.006802 | 1.431749 | -0.01784 | Small | 1.00696 |
| 17 | 2 | 78.55194 | 1.135661 | 1.475929 | 0.467951 | Small | 1.228293 |
| 18 | 2 | 119.7086 | 0.698315 | 1.427977 | 0.253292 | Small | 0.742832 |
| 19 | 2 | 79.8183 | 1.010859 | 1.709573 | -0.02192 | Small | 1.011097 |
| 20 | 2 | 48.78732 | 1.858707 | 1.462514 | 0.070639 | Small | 1.860049 |
| 21 | 2 | 218.2734 | 1.548726 | 1.543302 | 0.123274 | Small | 1.553624 |
| 22 | 2 | 126.0403 | 1.849851 | 1.442099 | -0.20157 | Small | 1.860801 |
| 23 | 1 | 53.43222 | 1.095827 | 1.535155 | 0.487363 | Small | 1.199316 |
| 24 | 2 | 261.7516 | 0.805318 | 1.435664 | -0.00177 | Small | 0.80532 |
| 25 | 1 | 96.06989 | 1.346174 | 1.687217 | 0.035945 | Small | 1.346654 |
| 26 | 1 | 64.41095 | 1.24285 | 1.602791 | -0.05063 | Small | 1.243881 |
| 27 | 2 | 51.10977 | 1.075533 | 1.676724 | 0.025906 | Small | 1.075845 |
| 28 | 2 | 38.86411 | 0.633029 | 1.533389 | 0.065903 | Small | 0.63645 |
| 29 | 1 | 61.24411 | 0.968703 | 1.610013 | 0.005875 | Small | 0.96872 |
| 30 | 2 | 203.9213 | 1.318758 | 1.681858 | 0.012942 | Small | 1.318822 |
| 31 | 2 | 97.75836 | 1.833229 | 1.633777 | 0.614224 | Small | 1.933391 |
| 32 | 1 | 76.6524 | 1.026612 | 1.533511 | -0.01797 | Small | 1.026769 |

\*The explanation to the title of each column:

No, the number of the subject.

Group, 1= Treatment group, 2= Control group.

Time, the time when the data was recorded during the experiment, the unit is second.

[X], the distance from the origin of the virtual fire (X, Y, Z) = (0, 0, 0) on the length of the space.

[Z], the height difference from the origin of the virtual fire (X, Y, Z) = (0, 0, 0).

[Y], the distance from the origin of the virtual fire (X, Y, Z) = (0, 0, 0) on the width of the space.

Scale, the scale of the virtual fire the subject met when the data was recorded.

Distance, the one-dimensional distance from the virtual fire. Its value equals to .

## Table of the front side questionnaire answer data

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Group** | **Ages** | **Gender** | **Discomfort** | **Fire**  **Background** | **VR** | **Game** | **Fire**  **Experience** |
| 0 | 1 | 23 | 2 | 0 | 0 | 2 | 1 | 0 |
| 1 | 1 | 23 | 1 | 0 | 1 | 1 | 4 | 0 |
| 2 | 1 | 28 | 1 | 0 | 0 | 3 | 3 | 0 |
| 3 | 1 | 27 | 1 | 0 | 1 | 2 | 2 | 1 |
| 4 | 1 | 23 | 1 | 0 | 1 | 1 | 3 | 1 |
| 5 | 1 | 34 | 2 | 0 | 1 | 3 | 1 | 0 |
| 6 | 1 | 24 | 1 | 0 | 1 | 1 | 1 | 1 |
| 7 | 1 | 27 | 1 | 0 | 1 | 2 | 4 | 1 |
| 8 | 1 | 24 | 2 | 0 | 0 | 5 | 3 | 1 |
| 9 | 1 | 38 | 1 | 0 | 0 | 3 | 1 | 0 |
| 10 | 1 | 21 | 2 | 0 | 0 | 1 | 3 | 0 |
| 11 | 2 | 32 | 2 | 0 | 1 | 2 | 2 | 1 |
| 12 | 2 | 21 | 2 | 0 | 1 | 1 | 2 | 1 |
| 13 | 2 | 31 | 1 | 0 | 0 | 5 | 3 | 1 |
| 14 | 2 | 23 | 1 | 0 | 1 | 1 | 1 | 1 |
| 15 | 2 | 28 | 2 | 0 | 0 | 2 | 2 | 0 |
| 16 | 2 | 26 | 2 | 0 | 1 | 1 | 1 | 1 |
| 17 | 2 | 23 | 1 | 0 | 1 | 3 | 3 | 1 |
| 18 | 2 | 26 | 2 | 0 | 1 | 1 | 1 | 1 |
| 19 | 2 | 31 | 1 | 0 | 1 | 1 | 1 | 0 |
| 20 | 2 | 30 | 1 | 1 | 1 | 1 | 2 | 1 |
| 21 | 2 | 20 | 1 | 0 | 0 | 2 | 4 | 1 |
| 22 | 2 | 28 | 1 | 0 | 1 | 1 | 4 | 1 |
| 23 | 1 | 23 | 1 | 0 | 1 | 3 | 3 | 1 |
| 24 | 2 | 26 | 2 | 0 | 0 | 3 | 2 | 1 |
| 25 | 1 | 24 | 1 | 0 | 0 | 2 | 3 | 1 |
| 26 | 1 | 24 | 1 | 0 | 1 | 2 | 1 | 1 |
| 27 | 2 | 25 | 1 | 0 | 0 | 3 | 4 | 0 |
| 28 | 2 | 24 | 2 | 0 | 0 | 2 | 1 | 1 |
| 29 | 1 | 26 | 1 | 0 | 0 | 2 | 1 | 1 |
| 30 | 2 | 23 | 1 | 0 | 1 | 2 | 3 | 1 |
| 31 | 2 | 27 | 2 | 0 | 0 | 2 | 2 | 1 |
| 32 | 1 | 26 | 1 | 0 | 1 | 2 | 4 | 1 |

\*The explanation to the title of each column:

No, the number of the subject.

Group, 1= Treatment group, 2= Control group.

Ages, the subject’s age.

Gender, the subject’s gender, 1= Male, 2= Female.

Discomfort, if the subject feel discomfort during the experiment, 0= No, 1= Yes.

Fire background, the answer to the second question regarding subject’s education/career background, 0= No, 1= Yes.

VR, the answer to the third question regarding subject’s VR experience, from 1= first time to 5= more than 10 times and on a regular bias.

Game, the answer to the fourth question regarding subject’s game experience, from 1= don’t/rarely play to 4= more than 7 hours per week.

Fire experience, the answer to the fifth question regarding subject’s experience of approaching a similar fire, 0= No, 1=Yes.

## Table of the back side questionnaire answer data

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Group** | **Realism** | **Unsafe** | **Heat** | **[Flames]** | **[Sound]** | **[Smoke]** | **[Heat]** |
| 0 | 1 | 5 | 5 | 4 | 1 | 0 | 0 | 1 |
| 1 | 1 | 5 | 4 | 2 | 1 | 1 | 1 | 0 |
| 2 | 1 | 4 | 5 | 2 | 1 | 1 | 0 | 0 |
| 3 | 1 | 2 | 5 | 4 | 1 | 1 | 0 | 1 |
| 4 | 1 | 2 | 3 | 4 | 1 | 1 | 0 | 0 |
| 5 | 1 | 6 | 4 | 3 | 1 | 0 | 1 | 0 |
| 6 | 1 | 5 | 1 | 2 | 1 | 0 | 0 | 0 |
| 7 | 1 | 3 | 2 | 3 | 1 | 0 | 1 | 0 |
| 8 | 1 | 5 | 6 | 4 | 1 | 1 | 1 | 1 |
| 9 | 1 | 3 | 2 | 1 | 1 | 0 | 0 | 0 |
| 10 | 1 | 6 | 5 | 4 | 1 | 1 | 0 | 0 |
| 11 | 2 | 6 | 4 | 2 | 1 | 1 | 1 | 0 |
| 12 | 2 | 4 | 1 | 1 | 1 | 0 | 0 | 1 |
| 13 | 2 | 4 | 4 | 1 | 1 | 0 | 0 | 0 |
| 14 | 2 | 4 | 4 | 3 | 1 | 0 | 1 | 0 |
| 15 | 2 | 3 | 1 | 1 | 0 | 1 | 0 | 0 |
| 16 | 2 | 5 | 5 | 5 | 1 | 1 | 0 | 0 |
| 17 | 2 | 3 | 1 | 1 | 1 | 0 | 0 | 0 |
| 18 | 2 | 4 | 4 | 2 | 1 | 1 | 0 | 0 |
| 19 | 2 | 2 | 4 | 2 | 1 | 1 | 1 | 0 |
| 20 | 2 | 5 | 1 | 5 | 0 | 0 | 0 | 1 |
| 21 | 2 | 1 | 5 | 5 | 1 | 1 | 0 | 1 |
| 22 | 2 | 4 | 2 | 1 | 1 | 0 | 1 | 0 |
| 23 | 1 | 5 | 4 | 4 | 1 | 1 | 0 | 0 |
| 24 | 2 | 4 | 3 | 2 | 1 | 1 | 1 | 0 |
| 25 | 1 | 5 | 2 | 2 | 1 | 0 | 1 | 0 |
| 26 | 1 | 5 | 6 | 4 | 1 | 1 | 1 | 0 |
| 27 | 2 | 4 | 4 | 1 | 1 | 0 | 0 | 0 |
| 28 | 2 | 5 | 4 | 2 | 1 | 0 | 1 | 0 |
| 29 | 1 | 4 | 2 | 2 | 1 | 1 | 0 | 0 |
| 30 | 2 | 2 | 5 | 1 | 1 | 0 | 0 | 0 |
| 31 | 2 | 5 | 2 | 1 | 0 | 0 | 0 | 0 |
| 32 | 1 | 6 | 1 | 2 | 1 | 0 | 1 | 0 |

\*The explanation to the title of each column:

No, the number of the subject.

Group, 1= Treatment group, 2= Control group.

Realism, the answer to the sixth question’s description regarding the realism of the VR experiment, from 1= Strongly disagree to 6= Strongly agree.

Unsafe, the answer to the seventh question’s description regarding the unsafe feeling as approaching the virtual fire, from 1= Strongly disagree to 6= Strongly agree.

Heat, the answer to the eighth question’s description regarding the heat feeling, from 1= Strongly disagree to 6= Strongly agree.

[Flames], the first factor in the ninth question, 0= No, 1= Yes.

[Sound], the second factor in the ninth question, 0= No, 1= Yes.

[Smoke], the third factor in the ninth question, 0= No, 1= Yes.

[Heat], the fourth factor in the ninth question, 0= No, 1= Yes.