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**Informed Consent Agreement**

**Please read this consent agreement carefully before you decide to participate in the study.**

**Purpose of the research study:** The purpose of the study is to test performance of 2D vs 3D visualization for different tasks related to spatio-temporal data.

**Research Project Title:** Comparative analysis of 2D versus 3D Interactive Visualization of Spatio-Temporal Movement Data

**Researchers:** Dr. Pourang Irani (irani@cs.umanitoba.ca), Fereshteh Amini (amini@cc.umanitoba.ca) and Zahid Hossain (zahid@cs.umanitoba.ca)

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Participation in this study is voluntary, and will take approximately one hour of your time. For this study you will be asked to perform several tasks in 2D and 3D visualizations. After you complete the tasks you will be asked to complete a questionnaire. You will receive $15 for your participation. All information you provide is considered completely confidential; your name will not be included or in any other way associated, with the data collected in the study. Data collected during this study will be used for academic research and publication purpose in anonymous form. In addition, data will be retained for a period of maximum of one year after publication of results in a locked office in the EITC building, University of Manitoba, to which only researchers associated with this study have access.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.

This research has been approved by the Joint-Faculty Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 474-7122. A copy of this consent form has been given to you to keep for your records and reference.

Participant’s Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

Researcher’s Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

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**Participant Information**

Participant Number: \_\_\_\_\_\_\_\_\_\_\_

Gender: Male / Female Age: 15-20 21-25 26-30 31-35 36-40

Experience with 3D games: 0 Years 1-3 Years 3-6 Years 6+ Years

Experience of interaction with 3D visualizations: 0 Years 1-3 Years 3-6 Years 6+ Years

What 3D tools (other than games) do you have experience with?

How frequently do you interact with 3D interfaces (gaming, etc.)? 1-5 hrs/week 6-10 hrs/week 11+ hours/week

**Questionnaire**

Rank each visualization technique based on your overall preference.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each visualization technique based on your preference for using it in the Simple Task (directly asking which, what, when)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each visualization technique based on your preference for using it in the Complex Task( related to meeting, speed, pattern).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each visualization technique based on your preference for using it in the Simple Task (directly asking which, what, when)

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| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each visualization technique based on your preference for using it in the Complex Task( related to meeting, speed, pattern).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each visualization technique based on your preference for using it in the Simple Task (directly asking which, what, when)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each visualization technique based on your preference for using it in the Complex Task( related to meeting, speed, pattern).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Not preferred) 1 | 2 | (Neutral) 3 | 4 | (Preferred) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Rank each technique based on how difficult the technique was to use overall.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | (Very difficult) 1 | 2 | (Neutral) 3 | 4 | (Very easy) 5 |
| 2D |  |  |  |  |  |
| 3D |  |  |  |  |  |

Do you have any comments or suggestions for any improvements?