

Simulated thoughts in virtual reality for negotiation training enhance self-efficacy and knowledge

Authors: Ding Ding, Willem-Paul Brinkman, and Mark A. Neerincx

Corresponding author: Ding Ding,

Contact Information: d.ding-1@tudelft.nl

Department of Intelligent Systems | Interactive Intelligence Group, Delft University of Technology

Van Mourik Broekmanweg 6

2628 XE Delft

The Netherlands

General Introduction

This dataset is the result of a study on the effects of providing simulated thoughts in virtual reality for negotiation training, conducted in Interactive Intelligence Group, Department of Intelligent Systems, Faculty of Electrical Engineering, Mathematics and Computer Science, TU Delft. It is being made public to act as supplementary data for the paper published in International Journal of Human-Computer Studies and in order for other researchers to use this data in their own work.

Purpose of the experiment

The experiment was conducted to study the effectiveness of the virtual reality negotiation training with virtual cognitions and the self-motivational statements included in virtual cognitions

Description of the dataset and the data in this dataset#####

Beside this readme file, this dataset included another three files: 1) The data file (the data collected in the study), 2) The R script for analysis the data, and 3) The output of the R analysis. The following is the introduction of each file.

1. The data file (the data collected in the study)

It is an empirical study approved by University Human Research Ethics Committee, conducted in TU Delft. The data-specific information is as follow,

Demographic data

File with Demographic data of all participants
Data originally obtained from DemographicData.csv
ID_mainpre: participants' ID
Gender: Male or Female
Age: participants' age
VRexperience: Yes, no or maybe

Data of Pre-measurement for all participants

File with pre-measurement data from all participants in wide format
Data originally obtained from Pre-measurement.csv

data fields

#1 ID_MainPre: ID number of all the participants

#2 SE: self-efficacy of all the participants
#3 Gender: gender of all the participants
#4 Age: age of all the participants
#5 VRexperience: the VR experience the participants have: Yes/Maybe/No
#6 NegoFrequenceType1_Pre
#7 NegoFrequenceType2_Pre
#8 NegoFrequenceType3_Pre
#9 NegoFrequenceType4_Pre
#10 Negotiationsuccess_Pre
#11 Negotiationwinwin_Pre
#12 Satisfaction_outcome_Pre
#13 Satisfaction_process_Pre
#14 Satisfaction_performance_Pre
#15 Satisfaction_relationship_Pre

Data of Post-measurement for Waitinglist group
File with post measurement data from waitinglist group in wide format
Data originally obtained from Post-measurement_Waitinglist.csv

data fields

#1 ID_MainPost: participant ID number
#2 SE: self-efficacy
#3 PostWLSUB: the self-efficacy data of the post-measurement for the Waitinglist group

Data of the first intermediate measurement
File with the first intermediate measurement data from all participates in wide format
Data originally obtained from Intermediate+measurement_I.csv

data fields

#1 ID_MainInterI: participant ID number
#2 SE: self-efficacy
#3 InterINEW: the self-efficacy data of the first intermediate measurement

Data of the second intermediate measurement
File with the second intermediate measurement data from all participates in wide format
Data originally obtained from Intermediate+measurement_II.csv

data fields

#1 ID_InterII: participant ID number
#2 SE2: self-efficacy data after the second training session
#3 SelfEfficacy_InterII: the self-efficacy data of the second intermediate measurement

Data of Post-measurement for all participants
File with the post measurement data from all participants in wide format
Data originally obtained from Post-measurement.csv

data fields

```
#
#1 ID: participant ID number
#2 SE: self-efficacy
#3 PostNEW: the self-efficacy data of the post-measurement for all participants
#3 PostEX: the self-efficacy data of the post-measurement for the participants who join the
experiment

##### Data of Follow-up measurement for all participants
# File with the follow-up measurement data from all the participants in wide format
# Data originally obtained from Follow-up+measurement.csv
#
# data fields
#
#1 ID: participant ID number
#2 SE: self-efficacy
#3 PostWLSub: the self-efficacy data of the follow-up measurement

##### Self-efficacy
# File with self-efficacy data of all participants of pre-measurement, the first intermediate
measurement, the second intermediate measurement, post-measurement, post-measurement
of waitinglist and follow-up measurement

### SE_intermediate measurement II.csv
# File with self-efficacy data of all participants after the first training session
# SE_SessionI: The self-efficacy data after the first training session in the sequence of ID

### SE_intermediate measurement II.csv
# File with self-efficacy data from all participants after the second training session
# SE_SessionII: The self-efficacy data after the second training session in the sequence of ID

### Post_waitinglist.csv
# File with post measurement self-efficacy data of waitinglist group participants
# SE_PostWL: post measurement self-efficacy data of waitinglist group participants in the
sequence of ID

### SE_Pre measurement.csv
# File with post-measurement self-efficacy data of all participants
# SE_Pre: pre-measurement self-efficacy data of all participants at the very beginning in the
sequence of ID
# SE_PreWL: pre-measurement self-efficacy data of the participants in waitinglist group
# SE_PreEX: pre-measurement self-efficacy data of the participants in experiment group
# SE_PreALL: pre-measurement self-efficacy data of all participants joined the experiment in
sequence

##### Negotiation Behaviour
# File with negotiation behaviour data from all participants
# NegoBehaviourReordered_Pre: The negotiation behaviour data before the training session
in the sequence of ID
# NegoBehaviourReordered_Post: The negotiation behaviour data after the training session in
the sequence of ID
```

NegoBehaviourReordered_follow: The negotiation behaviour data of follow-up measurement in the sequence of ID
NegoBehaviourReordered_PostWL: The negotiation behaviour data of waitingList group after the training session in the sequence of ID

Negotiation Knowledge

File with negotiation knowledge test scores of all participants before and after the training session
NegoKnowledgeReordered_Pre: The negotiation knowledge test scores before the training session in the sequence of ID
NegoKnowledgeReordered_Post: The negotiation knowledge test scores after the training session in the sequence of ID
NegoKnowledgeReordered_follow: The negotiation knowledge test scores of the follow-up measurement in the sequence of ID
NegoKnowledgeReordered_PostWL: The negotiation knowledge test scores of the waitlinglist group after the training session in the sequence of ID

Utility

File with utility data of all participants
Data originally obtained from Utility_post measurement.csv
UtilityReordered: The utility data of all participants after the training session in the sequence of ID

Self-esteem.csv

File with self-esteem data of all participants before the training session
ID: participants' ID
Q1-Q10: participants' self-esteem score for each item

2. The R script for analysis the data

The R script includes the R code of the analysis conducted for the paper for International Journal of Human-Computer Studies: Simulated thoughts in virtual reality for negotiation training enhance self-efficacy and knowledge

3. The output of the analysis

After running the script in R, all the analysis results have been stored in this file. Through this file, the reader should be able to find all the results of the analysis we done and the data we published in the paper.