

Appendices

Appendix 1. Online Experiment Task Description

MyResearchChallenge offers the following features:

- An introduction to the topic of home office
- A conversational agent assisting you to capture your challenge.

In order to fulfill your first task, please log in and perform the following actions:

- Explore the functionality of the system.
- Participate in the home office challenge by using the system.

When you are done, please return to this survey.

Afterward, as a second task, we will ask you to answer some questions about your experience with MyResearchChallenge.

Reminder: Please engage with the tool for at least 10 minutes.

Appendix 2. Baseline View

The screenshot displays the 'SUBMITTED CHALLENGES' section of the MyResearchChallenge interface. On the left, a 'Create a new challenge' form is visible, featuring a title input field and a larger description text area. The form includes a 'Cancel' button and a 'Save' button. The main content area on the right, titled 'SUBMITTED CHALLENGES', lists two challenges. The first challenge is 'A way to monitor workers', dated '09. Feb 2022', with 0 comments and 0 likes. The second challenge is 'Overeating while working at home.', also dated '09. Feb 2022', with 0 comments and 0 likes. Above the list, there is a quote: 'In times of Corona, home office is a possible means to reduce social contacts. Working and business for most of us. However, this situation presents many changes and unexpected problems. We invite you to describe the home office that you wish were investigated scientifically.'

Fig. 3: Online experiment baseline view.

Appendix 3. SWOT Analysis

Table 4 provides an overview of the identified categories in the SWOT analysis and the number of occurrences in the four open questions: strength, weakness, opportunity, and thread.

Category	Strengths	Weakness	Opportunity	Thread
Citizen input/problem articulation	11	1	18	
Community/communication	4	3	5	1
Ease of use/efficacy	18	2	2	
Expectation management		1		2
Guidance	8	3		
Look and feel	5	4		
Privacy				6
Real-world problem solving	5	3	13	
Trolls/platform abuse		3		10
Well-being	1		1	
Problem exploration and organization	5	8	1	1
Miscellaneous	6	11	5	4

Table 4: Summary of identified categories in SWOT analysis.

Appendix 4. Online Experiment Survey Items

Construct	Adapted Item	Scale	Source
Autonomy	I can select the type of features I use to participate in home office challenges on MyResearchChallenge.	5 pt. Likert	(Ahuja et al., 2007)
Autonomy	I have freedom to decide how I participate in home office challenges on MyResearchChallenge.	5 pt. Likert	(Ahuja et al., 2007)
Autonomy	I have freedom to decide how I participate in home office challenges on MyResearchChallenge.	5 pt. Likert	(Ahuja et al., 2007)
Autonomy	I have the authority to use any feature to participate in home office challenges on MyResearchChallenge.	5 pt. Likert	(Ahuja et al., 2007)
Relatedness	MyResearchChallenge helps me to form or sustain relationships that are fulfilling.	5 pt. Likert	(Peters et al., 2018)
Relatedness	MyResearchChallenge helps me to feel part of a larger community.	5 pt. Likert	(Peters et al., 2018)
Relatedness	MyResearchChallenge makes me feel connected to other people.	5 pt. Likert	(Peters et al., 2018)
Relatedness	I don't feel close to other users of MyResearchChallenge.	5 pt. Likert	(Peters et al., 2018)

Relatedness	MyResearchChallenge doesn't support meaningful connections to others.	5 pt. Likert	(Peters et al., 2018)
Attention check	Q: This study is about R1: Testing a tool for discussing political statements. R2: Testing a tool that helps you to capture challenges that you wish were investigated scientifically. R3: Testing a tool that helps you to rate restaurants.	Radio buttons	
Control	What is your age?	Text	
Control	What is your gender?	Dropdown	
Control	In which country do you currently reside?	Dropdown	
Control	What is your highest level of education?	Dropdown	
Control	In which faculty or department do you study?	Dropdown	
Control	What stage of study are you in?	Dropdown	
Control	What semester are you in (including bachelor's semester, if applicable)?	Text	
Control	Have you participated in a scientific research project in the past?	Checkbox	

Table 5: Questionnaire items.

Appendix 5. Online Experiment Sample Distribution

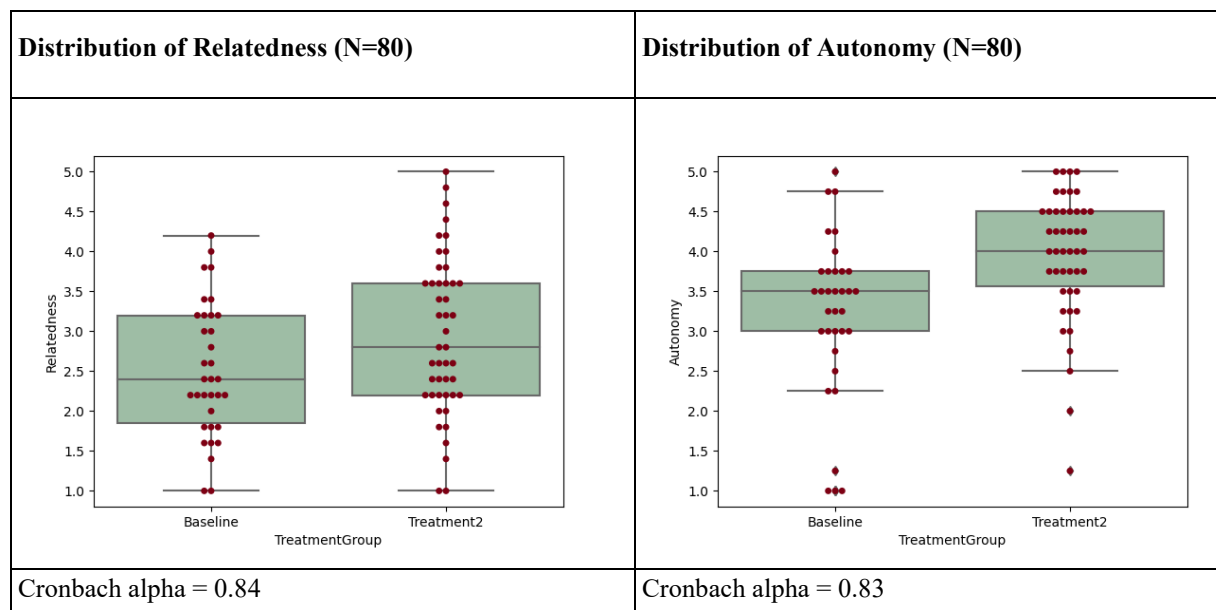


Table 6: Distribution of relatedness and autonomy responses in the online experiment.