IS ANY CONFLICT INHERENTLY A BAD THING? THE EFFECT OF TEAM CONFLICTS ON TEAM CREATIVE PERFORMANCE.

by

Anastasia Terletska

A thesis submitted in partial fulfillment of the requirements for the degree of

MA in Business and Financial Economics

Kyiv School of Economics

2025

Thesis Supervisor: _____Professor Serhiy Kandul

Approved by _____
Head of the KSE Defense Committee, Professor [Type surname, name]

_____

_____

_____

Date _____

ACKNOWLEDGMENTS

I would like to express gratitude to my thesis supervisor, Serhiy Kandul, for his guidance and valuable advice while preparing this thesis, and to the faculty for supporting the experiment. Also, I am thankful to my family and the Armed Forces of Ukraine.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1. INTRODUCTION

Employees are the primary asset of any company or business, and a company's priority is to maximise their productivity, which in turn translates into higher profits. Especially in a world driven by globalisation, where companies should look for ways to gain a competitive advantage, it becomes crucial. And one of the ways that could help a company get ahead of others is to create more innovative solutions. It can help make a product or service cheaper, quicker or more convenient, functional, reliable or durable, or perhaps better designed. Innovating can allow you to outperform your competitors and become the standout firm in your field (Lesser, 2022). It is no longer optional, it is a must, and moreover, firms should pursue not a one-time, but continuous innovation, creating a system in the organisation to sustain and nurture it. Different types of innovation should be distinguished: product, process and organisational (or management innovation, depending on terminology) (Boer, 2001). If we look specifically at management innovations, they have been shown to contribute to firms' performance as well as to leverage knowledge creation, research and development (R&D) initiatives, and technological innovations to be able to capitalise on the market (Heij et al., 2020; Walker et al., 2011; Černe et al., 2015).

Nowadays, employees rarely work on their own, which means that they need to create, discuss, and debate solutions in teams. Work teams can be considered as basic units of organisation (Anderson & West, 1998; Pearce & Ensley, 2004; Tjosvold et al., 2004). Therefore, we can conclude that teams are essential units for innovations in the organisation. Teamwork can foster the development of new ideas and further develop and implement them. Working in teams can be associated with conflicts and disagreements, as teams are composed of individuals who differ on various dimensions:

opinions, mindsets, professional background, etc. Contrary to conventional wisdom, conflict is not inherently a bad thing, it is an essential part of cooperation within teams.

In the literature, researchers differentiate between task conflict (productive conflict) and relationship conflict (destructive conflict) (De Dreu & Weingart, 2003; De Wit, Greer & Jehn, 2012; Jehn, 1995, 1997; Grant, 2021). Task conflict refers to disagreements or differences of opinion that arise between team members regarding the tasks they are working on. It is often referred to as clashes about ideas and opinions, constructive conflict that stimulates discussion and innovation (Grant, 2021). Imagine an R&D team working on a solution for innovative energy storage and discussing which electrolyte should provide better results in terms of efficiency. They are considering two different options: chloride ammonium or potassium chloride electrolyte. There are pros and cons of each, and as a result of the discussion, they arrive at an experiment design to test. They could have agreed with the one proposed by the team leader, however, they challenged the proposal and arrived at a better solution.. Another example could be from the IT area, where a team decides which infrastructure would be the best to build a solution, discussing pros and cons of two alternative options: monolithic vs microservice architecture. All team members feel heard during the discussion and build upon the ideas of others, challenging them and aiming to get to the best solution, exchanging their perspectives on how to accomplish the task. In both examples, instead of accepting the first idea that was suggested right away, teams have gone through the process of debating different options and finally arriving at the best solution, which wouldn't be possible without challenging ideas and discussing.

In contrast, relationship conflict is defined as such that includes affective components such as feeling tension and friction and involves personal issues, such as dislike among group members and feelings such as annoyance, frustration, and irritation. (Jehn &

Mannix, 2001) During the discussion of various ideas, some team members become frustrated by the fact that the others did not evaluate their suggestions positively. As a result of these affective reactions, they withdraw from further discussion. At the end, the team arrives at suboptimal solutions which could have been avoided in the absence of a relationship conflict.

According to De Dreu and Weingart (2003), relationship conflict is negatively associated with team performance, and it is logical as team members don't want to work collaboratively and exchange ideas, which leads to poor performance overall. It is also supported by other studies, which claim it affects group performance by limiting information processing ability and cognitive functioning of group members and antagonistic attributions of group members' behaviour (Amason, 1996; Baron, 1997; Jehn, 1995; Jehn et al., 1999; Wall & Nolan, 1986).

That is why managers are often interested in how to encourage productive conflict in a team without shifting into a personal area to improve performance. Managers should be actively involved in conflict management of their teams to direct them accordingly. The central aspect of constructive conflict management lies in its capacity to transform conflict dynamics that may lead to negative impacts into opportunities for substantial growth and innovation. (Tjosvold et al., 2014) I aim to research how to promote task conflict, so it could be beneficial for the teams to drive creativity and innovation, and at the same time, how to inhibit relationship conflict to remain on a constructive track. And definitely, this is not an easy job, as task conflict can easily shift into relationship conflict. So the motivation for this study is to show that the task conflict shouldn't be perceived as damaging and to discover factors behind it, which teams can take advantage of to improve their performance and generate more innovative solutions without moving into a counterproductive area.

In the literature on task conflict, I found mixed results regarding how it is interpreted. For example, papers by Jehn (1995) and Farh, Lee, & Farh (2010), De Dreu (2006) claim that task conflict is beneficial for the performance of teams, it improves their creativity, and in a study by De Dreu and Weingart (2003) authors show that it is not the case. Moreover, there are studies that outline the efficiency of task conflict for creative tasks specifically, routine tasks simply don't provide this level of challenge.

Some studies highlight specific factors, such as team composition, task complexity, etc., impacting conflict productivity (Jehn, Northcraft & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999). Moreover, an individual's personality traits are an important aspect of team diversity according to Lee & Park (2020). I have chosen the most widely accepted model of personality traits - the Big Five Trait model (John & Srivastava, 1999) for further analysis.

Jolic-Marjanovic et al. (2023) in their work researched precisely this model and how certain personality traits are connected with collaborative problem solving. So I would like to research deeper how and what personality traits exactly affect group performance and shift the conflict into a non-productive area.

The main goal of each manager in conflict moderation is to prevent its transition to relationship conflict. So I would like to understand these factors impacting the shift better. One promising way to help managers promote task conflict and avoid relationship conflict is to look deeper into personality traits of the team members, and specifically Conscientiousness and Agreeableness, which were found to have the largest positive effects on team creativity (Jolic-Marjanovic et al., 2023).

So, from this perspective, I would like to outline two main research questions:

1. How do different types of team conflict, task and relationship conflict, impact team creativity?

2. How do personality traits, i.e. Agreeableness and Consciousness, impact team conflicts and subsequently team creativity?

CHAPTER 2. RELATED STUDIES

2.1 Types of conflict: task vs. relationship conflict

The literature distinguishes between two major types of conflicts in teams: task and relationship conflict. Task conflict is more often labelled as "productive" and relationship conflict as "non-productive", meaning that first of the former helps the team perform better and the latter does not. However, empirical evidence on task conflict is controversial. For example, a study by De Dreu and Weingart (2003) suggests that both task conflict and relationship conflict generally harm group outcomes in routine tasks. In contrast, De Wit, Greer, and Jehn (2011) in their study concluded that task conflict can have a positive effect on performance, especially when relationship conflict is low. In the study of Greer, Caruso, & Jehn (2011), researchers establish the link between power, team conflict and performance. The results suggest that high-power teams perform worse than low-power teams, inflicting more task conflict. Greer, Jehn, & Mannix (2008) in their study introduced one more conflict type: process conflict and explored its link with task and relationship conflict. [1]

Further studies attempted to check what factors affect the shift from task conflict into relationship conflict. For example, Simons and Peterson (2000) in their study attempted to link trust and conflict to explain how it impacts people's interaction in top management teams exposed to strategic decisions. Amason (1996), in his study, further explores the link between the type of conflict and decision quality in corporate settings. A study by Yang & Mossholder (2004) focused on exploring the link between emotional team

[1] Process conflict is defined as conflict over task delegation and resource allocation (Jehn, 1997). According to research, it has a consistent negative impact on team performance due to its emotional aspect. (Behfar, Mannix, et al., 2008; Greer & Jehn, 2007; Vodosek, 2007). For example, a team member might receive a task which feels below his/her abilities according to their subjective point of view, contributing to the emotional nature of process conflict. Process conflict is beyond the scope of this thesis.

background and conflict. It concluded that for group members who have strong ties (meaning they had a long history of positive cooperation), task conflicts are less likely to escalate into relationship conflicts.

2.2 Types of tasks: creative vs non-creative

There were studied different types of tasks (routine and non-routine, which are considered creative): Jehn (1995), Farh, Lee, & Farh (2010), De Wit, Greer, & Jehn (2011). These studies support the idea that task conflict is beneficial, especially for creative, non-routine tasks, as they are challenging enough to allow for discussion and debate. Given that the results of studies are mixed and not consistent, I would like to check the following hypotheses:

H1a: teams experiencing higher task conflict will perform better on creative tasks than those experiencing lower task conflict.

H1b: teams experiencing higher relationship conflict will perform worse on creative tasks than those experiencing lower relationship conflict.

2.3 Factors impacting conflict and productivity in teams

I would like to continue exploring factors influencing conflict productivity further and specifically examining an individual's personality traits (openness, consciousness, etc.) as an important dimension of team diversity. For example, Lee & Park (2020) examined agreeableness in their study and its link to task conflict. Agreeableness is a measure of how easily people agree with others. They concluded that diversity in team members' agreeableness was positively associated with team task conflict experienced. According to a study of Jolic-Marjanovic et al. (2023), they further confirmed that the most robust and largest positive effects on team creativity were found for Conscientiousness and Agreeableness. So, I have chosen to concentrate on these two personality traits. I see potential in exploring the personal traits dimension further, so based on it, I formulated:

H2a: groups with high consciousness and agreeableness (chosen according to literature) personality traits scores will have an impact on perceived team conflict scores

H2b: groups with high consciousness and agreeableness (chosen according to literature) personality traits scores will have an impact on group creativity scores.

The second item I would like to discuss is how diversity and team composition impact the degree of experienced task conflict. Heterogeneous teams mean that they are diverse in knowledge, education, background, or experience, and such teams might encounter more task conflict. Jehn, Northcraft & Neale (1999) and Pelled, Eisenhardt, & Xin (1999) supported the hypothesis that such teams perform better on resolving complex tasks. For instance, Pelled, Eisenhardt, & Xin (1999) in their study found that teams with diversity in functional backgrounds had higher levels of task conflict. Further, they explored the link between task complexity and diversity: the interaction of task routineness and functional background diversity had a significant positive association with task conflict, suggesting that functional background differences were more likely to trigger task conflict when tasks were routine than when tasks were nonroutine. However, these studies do not explicitly examine the impact on creative performance..

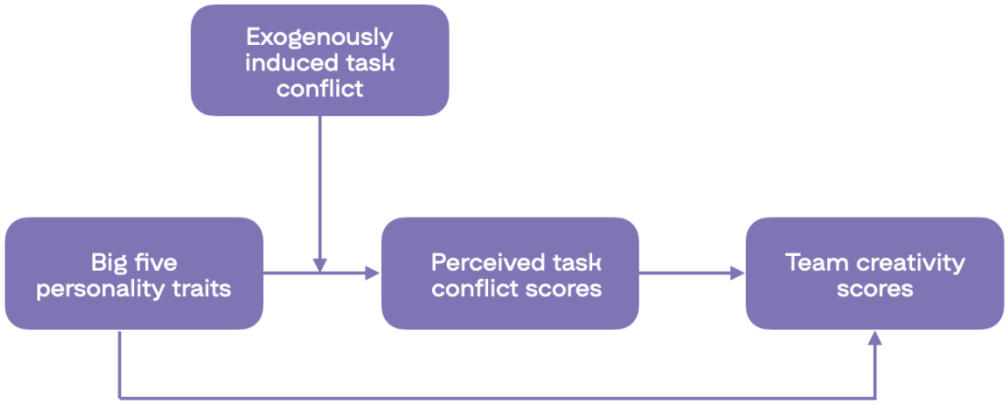
Previous studies have examined the role of task and relationship conflict on team performance and creativity (Farh et al., 2010; De Wit et al., 2012), and others focused on exploring how factors such as team diversity influence team performance (Jehn et al., 1999; Pelled, Eisenhardt, & Xin, 1999). However, most researchers have either studied the effect of the task and relationship conflict on team creativity or the effect of personality traits on the team performance for routine, non-creative tasks. There is no evidence on how the asymmetry of personality traits of the team members affects team performance in creative tasks. In my study, I would like to address these limitations.

2.4. Research conceptual framework

For better visualisation of links between different elements, I developed a conceptual framework (Figure 1). As an input, we have personality traits that are inherent to a specific person. The manager tries to induce the task conflict exogenously (like we do in our

experiment by asking participants to debate over ideas), and Big five personality traits affect the degree of task and relationship conflict people experience, and the perceived conflict finally affects team creativity.

Figure 1. Conceptual framework



Some studies confirm the link between Big five with creativity: Jolic Marjanovic et al. (2023) in their study mention that some Big five traits were positively correlated with team creativity. This notion is also supported by Robert & Cheung (2010), where researchers claim openness to experience is a strong predictor of creativity in teams, Baer et al. (2008) and Bolin&Neuman (2006). The link between task conflict with creativity was also confirmed in the studies of Farh et al. (2010) and De Wit et al. (2012). Link between Big five and task conflict: there are fewer studies that support this link.

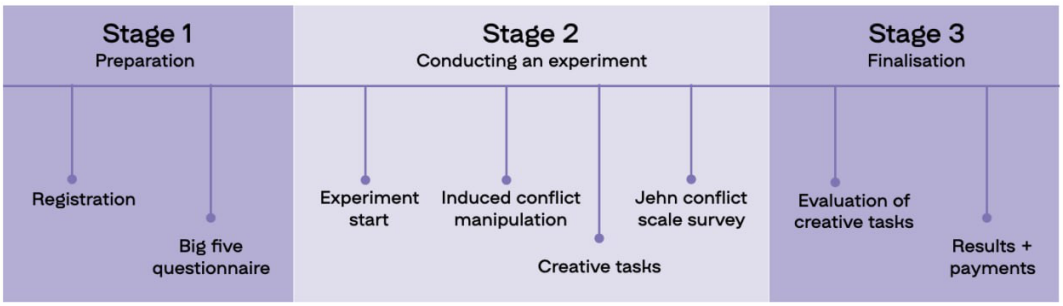
Most researchers have either studied the effect of the task conflict on team creativity or the effect of personality traits on creativity or task conflict. There is no evidence on how the asymmetry of personality traits of the team members affects both task conflict and creativity. In my study, I would like to address these limitations.

CHAPTER 3. METHODOLOGY

3.1 Experimental procedure:

I conducted a controlled online experiment study via Zoom, which had a within-subjects design, where participants were randomly assigned to groups with conflict manipulation. Below you can find a visualisation of the experiment structure:

Figure 2. Experimental structure



In general, the experiment had 2 main stages:

1. Pilot with KSE students, which proved successful and proved that the suggested conflict manipulation worked.
2. Main experiment, which included non-KSE students, non-students and real working teams of one company.

The primary goals of the pilot were:

- check if the conflict manipulation is working and if the experimental conditions need to be adjusted.
- link between Big five scores (Rammstedt, John, 2007) and perceived task conflict and define promising variables.
- run the experiment live and evaluate how clear the instructions are/ how much time is needed/understand the dropout rate to plan the main experiment better.

The first step was to prepare instructions for participants and invite them to take part in the pilot online experiment. The experiment itself was complex and multi-stage. First, the participants registered via the Registration form: I had three of them, one for employees of one company, which included specific questions relevant to this specific group of participants, for example: how long have you been working at this company/in this team/at this position? What department are you working in? The second registration form was intended for the remaining participant group, and the third one for independent reviewers (Please see Appendix A, B and C).

After the registration, I assigned each participant an ID and distributed via email the first brief 15-minute Big five questionnaire (Rammstedt, John, 2007) to assess their personality traits, for example, how easily they agree with others, do they tend to defend their ideas, are they cooperative etc. In this questionnaire, participants were asked to evaluate different statements on a scale from 1-5, where 1 -completely disagree and 5 - completely agree. Statement examples: "I get stressed out easily; I pay attention to details; I have difficulty understanding abstract ideas, etc. " After this phase was completed, I could move to the main experiment part.

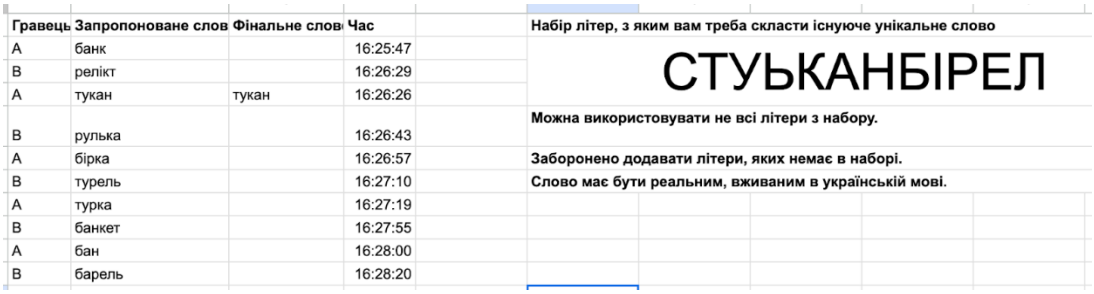
I created a meeting in Zoom, where participants joined at a chosen hour (participants could choose a preferred time to attend via a registration form). After everyone joined, I shared experimental instructions, adapted for participants, and they had 15 minutes to read them. Then I commented on the instructions, highlighted important things, and participants had the possibility to ask questions. After I distributed control questions to the participants to see if they understood the instructions correctly, and if they could proceed to further stages.

Participants were divided into groups of two in advance, and each group was assigned a unique ID. There were two types of tasks that participants in groups needed to work on:

a test task and a main creative task, the latter was evaluated by five independent reviewers after the experiment.

As a test task, participants were given a set of letters, which they needed to arrange them in a way to get the most original, but real word combined out of these letters. There were words visible at first glance, others required more thorough thinking and brainstorming. There were 5 rounds with 5 letter combinations, and participants needed to make at least 5 iterations in each round:

Figure 3. Example of the test task

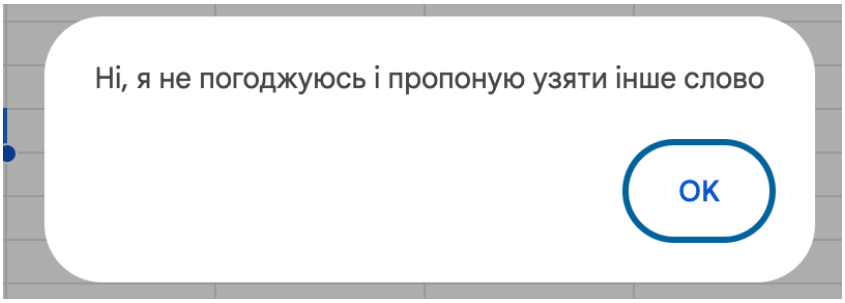


Гравець	Запропоноване слов	Фінальне слов	Час
A	банк		16:25:47
B	релікт		16:26:29
A	тукан	тукан	16:26:26
B	рулька		16:26:43
A	бірка		16:26:57
B	турель		16:27:10
A	турка		16:27:19
B	банкет		16:27:55
A	бан		16:28:00
B	барель		16:28:20

Note: On this screenshot answers of one of the groups can be observed

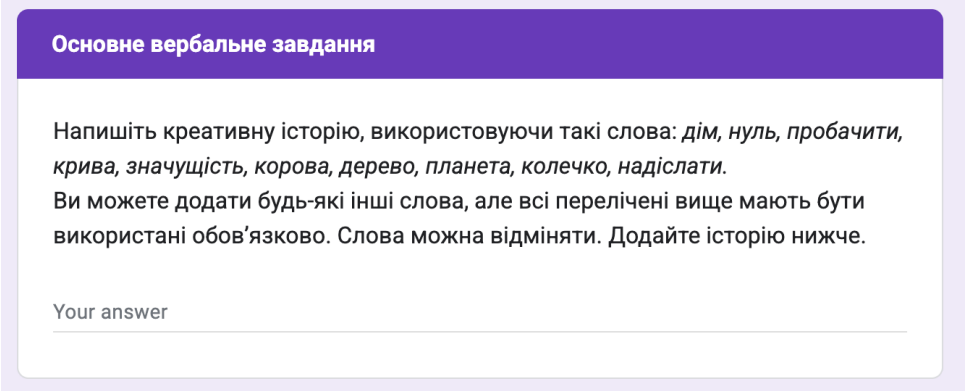
Participants needed to follow a pattern to disagree with their teammates and push them to suggest ideas, which was clarified in the instructions. I was able to implement this behaviour in the Google Sheets file using AppScript automation. (Please see Appendix E). Such messages appeared after any player of the group input the word into the file:

Figure 4. Example of a message participants received accomplishing a test task



Each group had a separate file they worked in and the time limit for this task was 25 minutes. The main task participants were working on during the experiment was a verbal one, where there was a set of words from which participants needed to create an original, creative story:

Figure 5. Creativity task for participants



The time limit for this task was 30 minutes. During this time participants worked collaboratively in the groups applying the same interaction approach they used in the test task previously. This task was further evaluated by independent reviewers.

After the final task, I distributed a Conflict scale survey to assess perceived task conflict intensity in each team. I measured both task conflict and relationship conflict using established scales (Intragroup conflict scale by Jehn, 1995). Here are the examples of questions in this form:

Figure 6. Examples of questions on Final survey №2

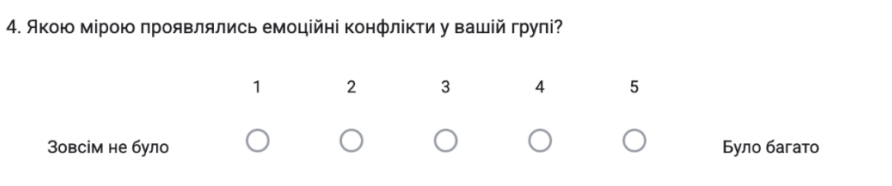
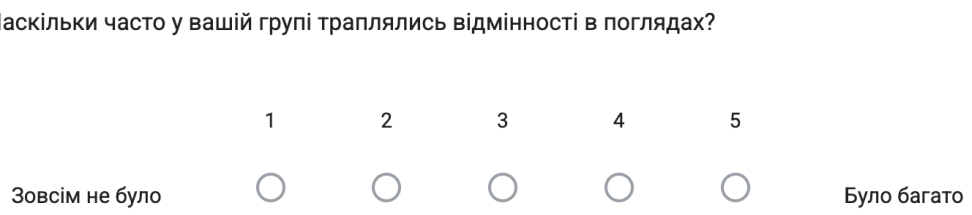


Figure 6. Examples of questions on Final survey №2 (continued)



After all forms with the created stories were submitted, they were evaluated by 5 independent reviewers, who evaluated each of the created texts on a scale from 1-10, where 1 was absolutely not creative and 10 - very creative, using their own understanding of creativity. Of course, I shared with them all the details of the task that participants had done in advance.

After I received scores from independent reviewers I composed them into the rating table for the participants and shared with them, based on it the payments to participants were made: group that took 1st place received 160 UAH each, 2nd - 120 UAH each, 3rd - 80 UAH each (first 3 places got bonuses), below 3rd place no bonuses were given, only plain participation fee of 40 UAH. Both rating tables and bonuses were intended as incentives for participants.

The detailed experimental instructions can be found in Appendix D, with the links to all Google Forms.

3.2 Creative task and conflict manipulation selection

I believe that two important steps were conflict manipulation and creative task selection. It was important to choose such tasks that had already proved their effectiveness earlier in order not to waste time testing my own ideas. For this purpose, I have researched a survey of creativity tasks by Attanasi (2021). One option I have considered was the "unusual uses" task adapted for group brainstorming. In this task, the

team is given a common object and is asked to come up with as many different uses for that object as possible within a time limit.

Then I explored the TTT (Target the two) card game - Attanasi et al. 2022, but after talking to the creators of this game, they pointed out that due to its mechanics, where participants followed specific strategies to solve the card puzzle, and due to the routinization of actions it produced little task conflict. So I dropped it.

In the literature, mostly closed-form tasks were explored, and I was interested in open-form tasks, which would encourage cooperation between team members to create space for task conflict to happen. I've also considered the Minecraft task from the study of Oehler (2020), where they used it as an example of a creative task. Minecraft is a creative game, where different puzzles, mazes, etc, can be built out of the blocks. But it was challenging to implement, so I've decided to choose the study of Charness and Grieco (2023) and follow the tasks, which were presented in this paper, to measure creativity. There were three types of tasks presented: mathematical, visual and verbal. I have chosen the verbal task because it had the biggest potential, due to its open form.

Afterwards, I looked at the most common conflict manipulations applied in other studies. One of the approaches that was widely used was devil's advocate (with confederate), where one of the participants is given an explicit instruction to challenge others on purpose, question their ideas, provoke discussion and debate. (Oehler, 2021) Another approach included framing of the roles, where, according to roles, participants received different instructions (Jehn et al.,2008). We used a subset of the latter method with using instructions, participants were informed via instructions how to behave:

"There are many possible ways to complete a task. Therefore, while working on it, it's important to actively suggest and discuss ideas. To generate as many interesting options as possible, you shouldn't immediately agree with your partner's proposal. On the

contrary, you should question it, actively critique it, and insistently offer alternative ideas. [...]

During the exchange of suggestions, one randomly selected team member, participant A, starts by proposing a word.

Participant A**:** "I propose the word XXX"

Next, participant B disagrees with this proposal and offers their own alternative: "No, this word doesn't fit. Instead, we should use the word YYY."

After that, participant A also disagrees with the partner's suggestion and provides another alternative: "No, this word doesn't fit. Instead, we should use the word ZZZ." "

I have chosen this approach because it appeared more ethical to me than the "devil's advocate" method, where the person should follow some deception strategy. Therefore, the approach selected by me can be easily replicated by managers, for example, they can provide their teams with guidelines in accomplishing some tasks, the same I did with providing instructions. In conclusion, it is a more natural and practical approach that can be transferred to real life.

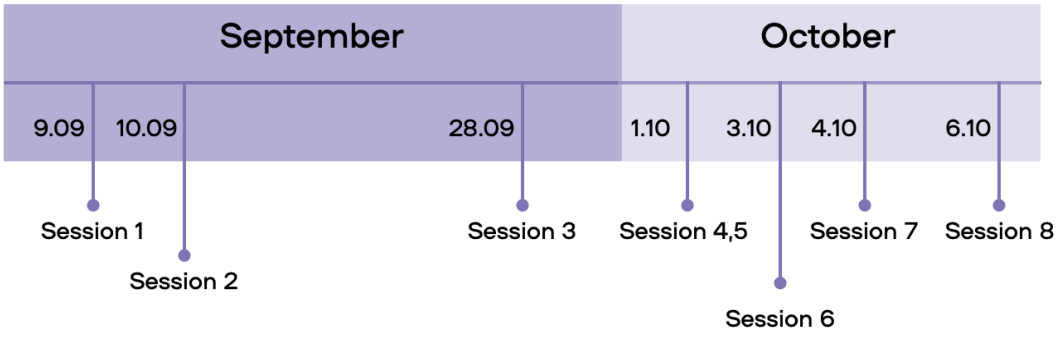
3.3 General highlights of the experiment

I conducted 8 sessions from September 9th to October 6th 2025, in total. In each session, on average, there were 6,8 participants whose performance was measured. Average session duration: 2 hours. Average payment per group - 80 UAH. Drop off rate ~ 23% due to no-show up reasons out of those who registered.

Experimental instructions clarity was rated 4,6 out of 5 by participants, which indicates that the majority of the participants found the instructions understandable and clear to follow.

Below you can find a timeline with the sequence of experiments. The experiments were conducted during a timeframe from September to October 2025.

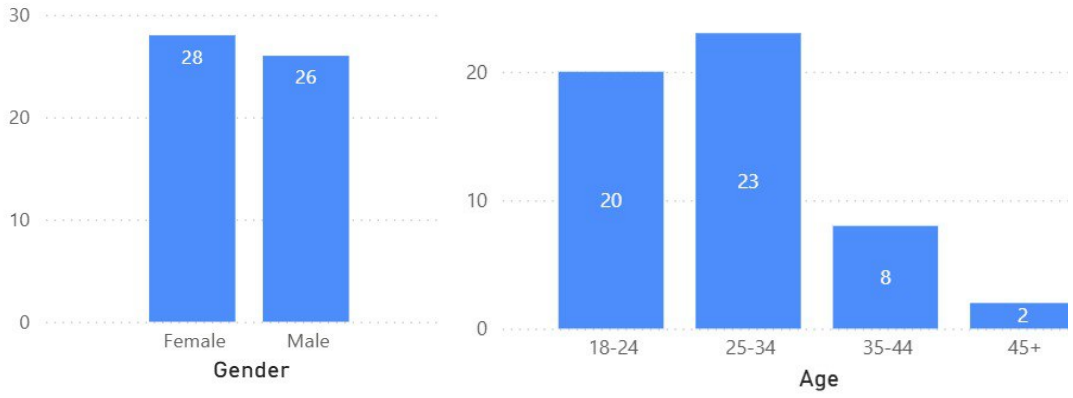
Figure 7. Timeline of experiments



CHAPTER 4. DATA

4.1 Sample description:

Figure 8. Gender and age distributions



In total, I involved 54 participants, 27 groups respectively. 28 participants of the total sample were female, and 26 were male. The majority, and namely 23 participants, were of 24-34 age group, 20 - 18-24 age group and 9 out of 35-44, with 2 out of 45+. (Figure 8)

In general, I had two main distinct groups: employees and non-employees (mainly KSE students, non-KSE students, employed and workers of an energy company). In terms of educational background, we had a variety of directions: psychology, economics, computer science, medicine, etc. And employees represented several departments, such as power electronics, electrochemistry, IT infrastructure, construction, and administration, with different roles, such as managers, engineers, researchers, etc. In terms of company tenure, 7 employees are more than 4 years with the company, 4 for 3-4 years, 5 for 1-3 years and 4 for less than a year. Team tenure matches company tenure. So, this indicates that specialists rarely change direction in the company.

The sample consists of four main groups of variables:

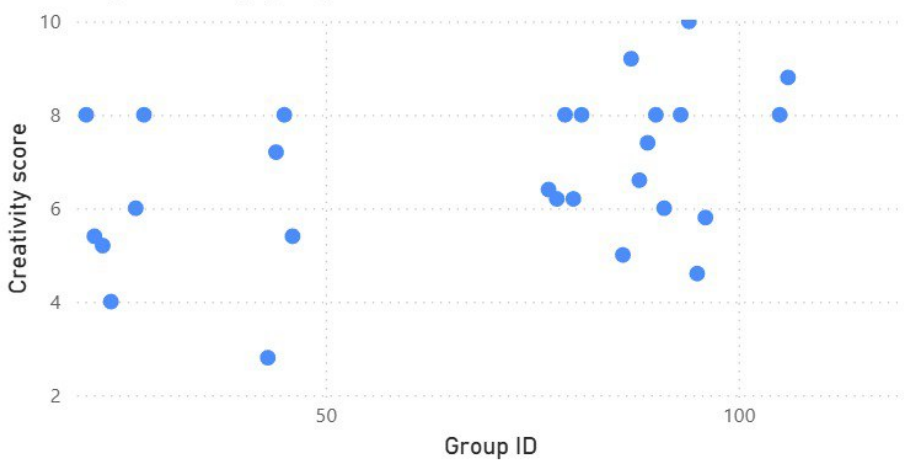
- socio-demographic data
- Big five questionnaire scores (personal traits evaluation)
- perceived conflict scores (both relationship and task conflict) on the scale from 1 to 5 - Jehn's scale
- creativity scores on the scale from 1 to 10 on the group level (calculated as average from 5 independent reviewers)

Table 1. Descriptive statistics of the data set

Variable	Obs	Mean	Std.Dev	Min	Max
Creativity score (group level)	27	6,75	1,68	2,8	10
Task conflict (individual level)	54	2,11	0,83	1	4,25
Relationship conflict (individual level)	54	1,43	0,52	1	3,75
Agreeableness (individual level)	54	28,28	6,33	14	39
Conscientiousness (individual level)	54	26,7	6,61	11	40

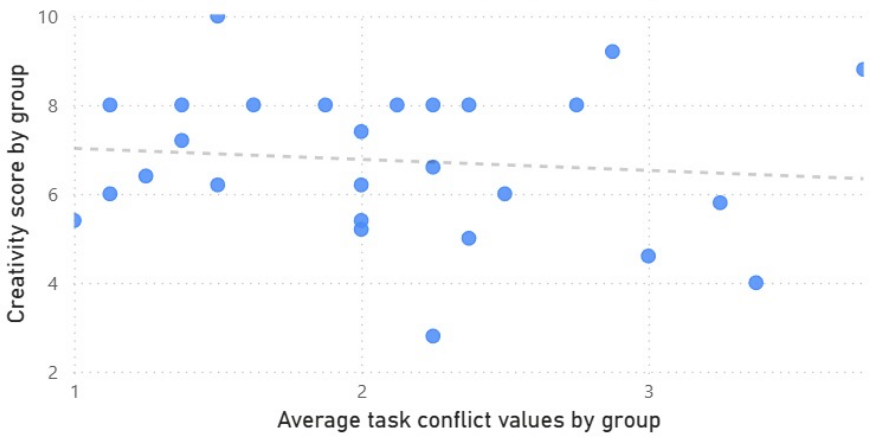
Creativity score is the only variable out of five represented at a group level, because independent reviewers evaluated the output of the group as a whole. Overall, we can observe that teams experienced a moderate level of task conflict (2,11), and the level of relationship conflict was lower compared to task conflict. This is consistent with experimental instructions, where my main goal was to produce effective conflict manipulation. Mean creativity score was 6,75 out of 10, ranging from 2,8 to 10, which shows a big variation in the evaluation of groups by independent reviewers. To better understand the variation of creativity scores across groups, I prepared the following visualization:

Figure 9. Creativity scores by group



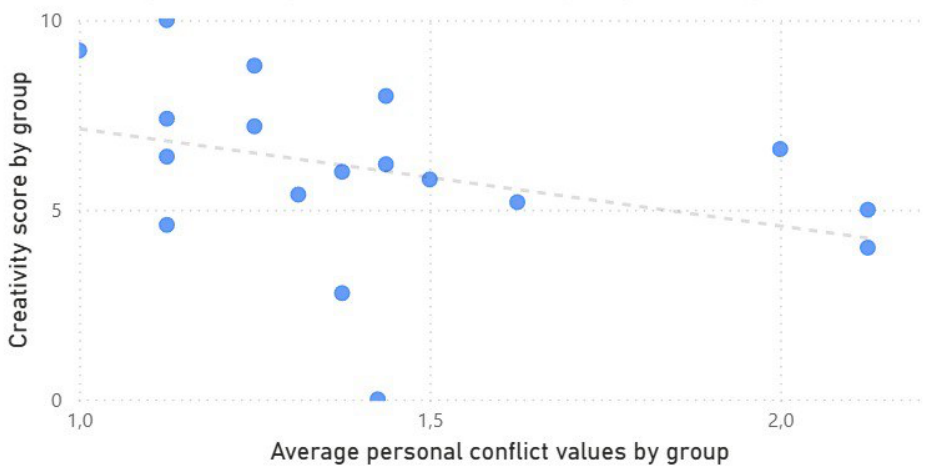
Most teams scored around mid and high range, with a few performing lower. In general, the spread of scores is highly variable concluding that teams differed from each other and produced unique outputs. Let's investigate the link between conflict types and creativity.

Figure 10. Relationship between task conflict and group creativity



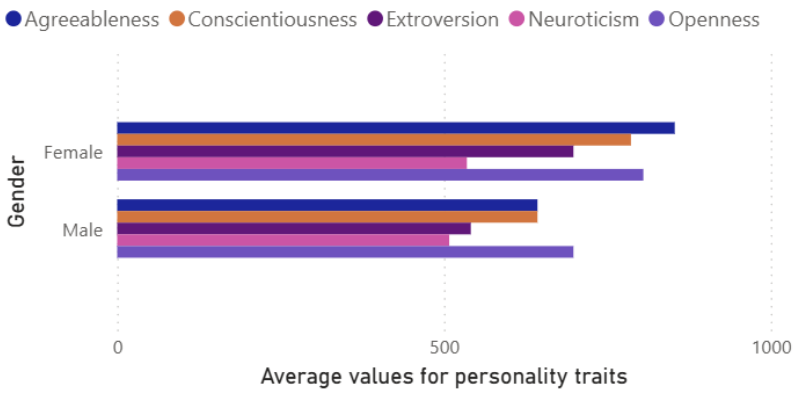
The scatterplot above visualizes the relationship between task conflict and team creativity. The trendline is showing a slight negative relationship between task conflict and creativity scores, but it is not significant.

Figure 11. Relationship between personal conflict and group creativity



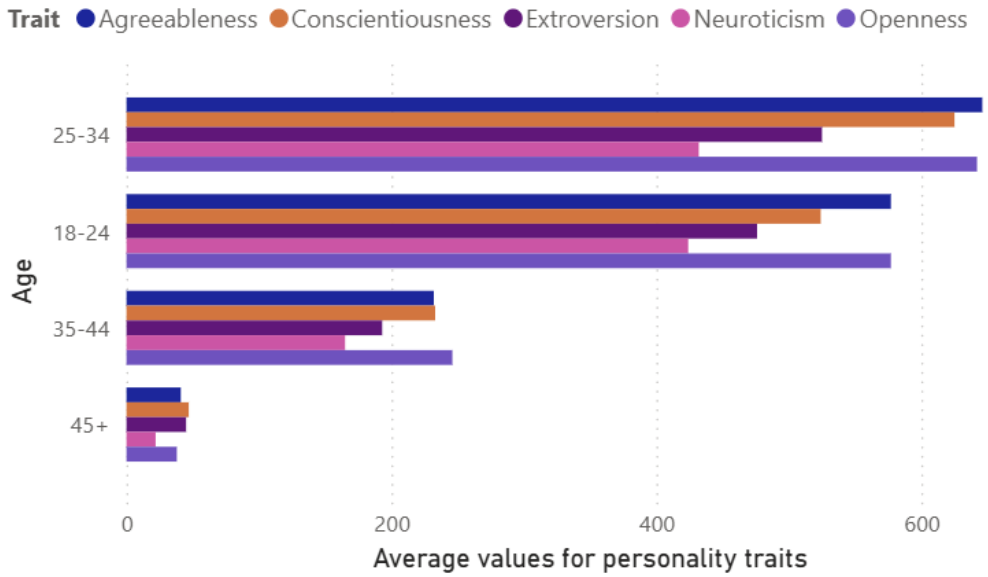
On the other hand, in Figure 11, we can see the trendline with a more recognisable negative slope, which may imply that the higher levels of relationship conflict are associated with lower creativity scores.

Figure 12. Average Big five scores by gender



In general, the results of both groups are balanced. Females show higher levels of Agreeableness and consciousness, along with openness. Males have average neuroticism levels a bit higher compared to females.

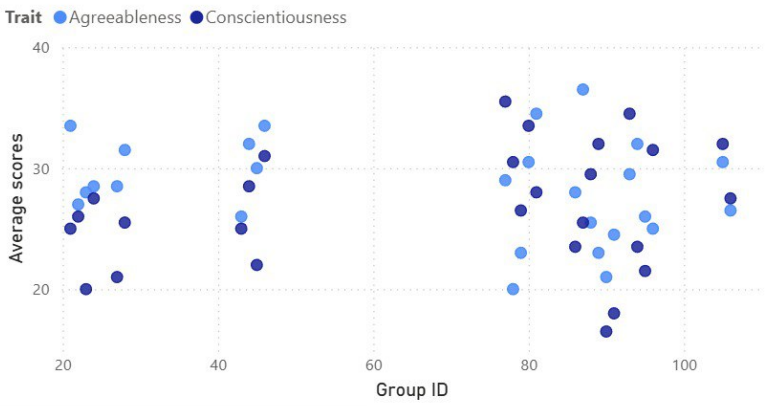
Figure 13. Average Big five scores by age



Scores of all groups are relatively similar. Openness and Agreeableness show high level in all groups except for group 45+, where these indicators are lower. Neuroticism also shows lower levels in older age groups, which may suggest that they are more emotionally stable, resilient and calm, with lower levels of anxiety, insecurity, and mood swings.

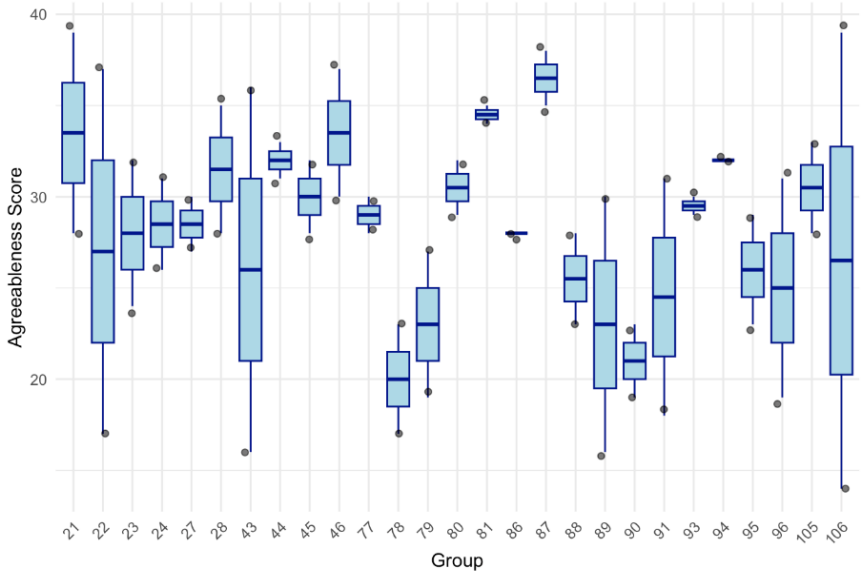
In the figure below, it is visible that trait scores of my variables of interest: Agreeableness and Conscientiousness are around middle ranges, with some variation in Agreeableness from 20 to 37 and in Conscientiousness from 17 to 36. These distributions suggest that participants included in my research tend to be quite cooperative and empathetic as well as responsible and systematic.

Figure 14. Average Agreeableness and Conscientiousness scores by groups



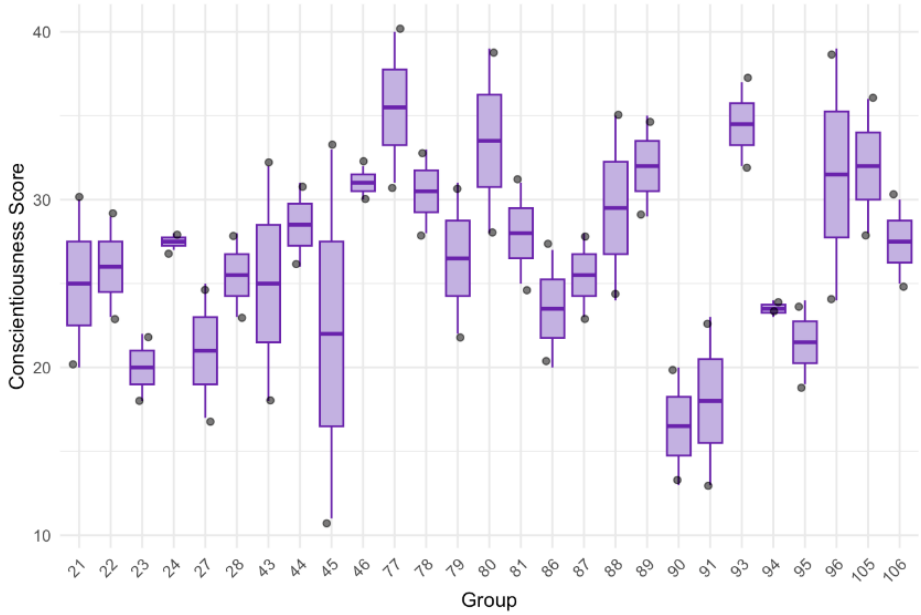
Also, I was interested in exploring the variation of these variables not across all groups but in each group separately, because we might face a situation where one participant has a low score and another high and on average, it is in the middle, so to capture those differences within groups, I built the following box plots:

Figure 15. Variation of Agreeableness scores across groups



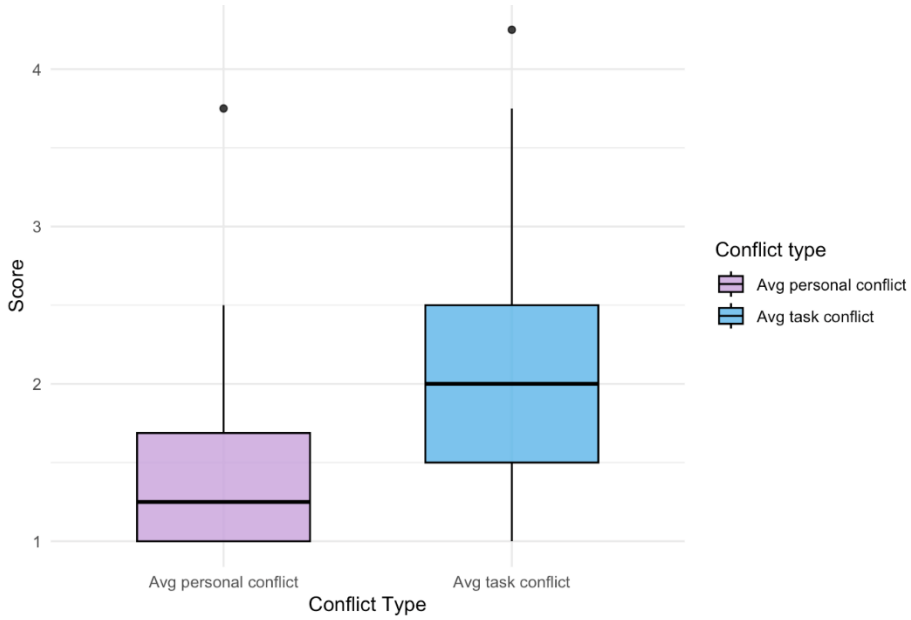
From Figure 15, I can conclude that there is great variation in Agreeableness scores. There are a few visible outliers: group 22, group 43, and specifically group 106. On the other hand, groups 86 and 94 seem to be very homogeneous.

Figure 16. Variation of Conscientiousness scores across groups



The figure above shows that mostly we have quite balanced groups, where participants have relatively close Conscientiousness scores.

Figure 17. Comparison of average task and relationship conflict scores



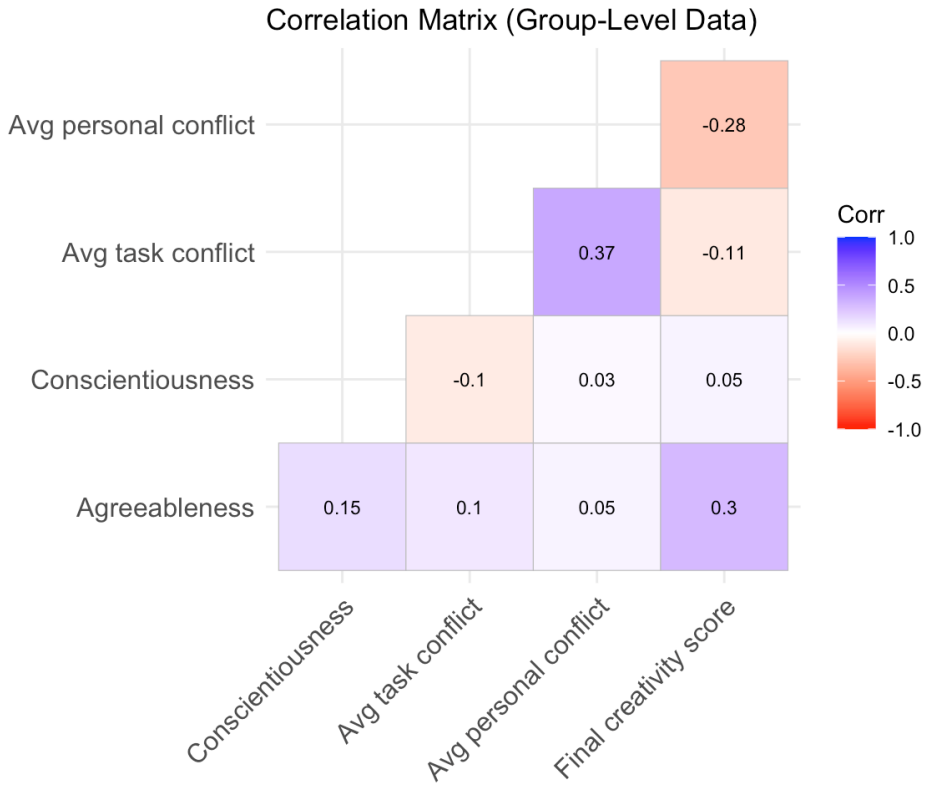
The task conflict was higher than the relationship conflict at the individual level. This is exactly what I aimed to achieve, and it shows that my conflict manipulation actually worked. My goal was to inhibit relationship conflict and promote task conflict.

For further analysis, I will aggregate the data on the group level, which seems to be logical, because both output and evaluation were performed on the group level. This group score is a simple average of the two individual scores of the two members in each team.

According to the correlation matrix below, for which I used group scores to match the aggregation level of creativity evaluation, we can see that both task and personal conflict have a negative effect on creativity: (-0.11) and (-0,28) respectively. Personal conflict is more negatively correlated with creativity, which may indicate that personal disagreements

and tensions do affect creativity in a negative way. Task conflict also harms creativity, but it is smaller in comparison with personal conflict. And there is a positive correlation between task and relationship conflict (0.37). Agreeableness seems to be positively correlated with creativity.

Figure 18. Correlation matrix



5.1 Hypothesis testing

In Hypothesis 1, I assumed that there is a relationship between both task and relationship conflict and creativity. And specifically that task conflict affects creativity in a positive way, and relationship – in a negative way.

Table 2. H1 joint model estimation results

Regression Results: Task and Relationship Conflict on Creativity (Group-Level)

	Dependent variable:			
	Final Creativity Score			
	(1)	(2)	(3)	(4)
Task Conflict	-0.011	-0.068	-0.001	-0.114
	(0.486)	(0.523)	(0.499)	(0.543)
Relationship Conflict	-1.207	-1.256	-2.697*	-2.718*
	(0.905)	(0.946)	(1.307)	(1.361)
Same Gender (=1)		-0.184		-0.434
		(0.746)		(0.744)
Same Age (=1)		0.320		0.108
		(0.771)		(0.776)
TaskConflictDelta			1.021	1.117
			(0.725)	(0.767)
RelConflictDelta			0.771	0.716
			(0.829)	(0.884)
Constant	8.492***	8.665***	9.640***	10.045***
	(1.360)	(1.559)	(1.507)	(1.748)
Observations	27	27	27	27
R^2	0.080	0.094	0.194	0.213
Adjusted R^2	0.003	-0.071	0.048	-0.023
Note:	* p < .10; ** p < .05; *** p < .01			

I've built 4 models to check assumptions in Hypotheses 1. First, I checked the impact of task and relationship conflict on creativity. Then I introduced two binary variables to serve as controls: if the participants were of the same age in the group, I labelled it "same age", if different, "mixed age". The same logic I applied to gender. And finally, I wanted to

explore the variation inside groups by creating two additional variables that calculate the absolute difference in the task and relationship conflict within the groups. And I added them as deltas to regression. Also, I did the same model with socio-demographic controls to check its reliability. In all four models, I used the OLS regression approach.

The joint model results indicate that task conflict is not a strong predictor of creativity, moreover, the coefficient is negative, suggesting that higher levels of task conflict might lower creativity scores. We observed the same effect previously in the correlation matrix above. So, this hypothesis is not confirmed. As for relationship conflict in the first two models, it also doesn't have a significant effect, however, when we capture variation inside groups, this negative effect on creativity becomes visible at the 10% level. So, I can conclude that Hypothesis 1b was confirmed. Also, I can confirm that accounting for variation did add some explanatory power to the model. This approach was introduced in the studies of Jolic-Marjanovic et al. (2023). I have also checked models for multicollinearity. From the table below, I can conclude that there is no multicollinearity problem present.

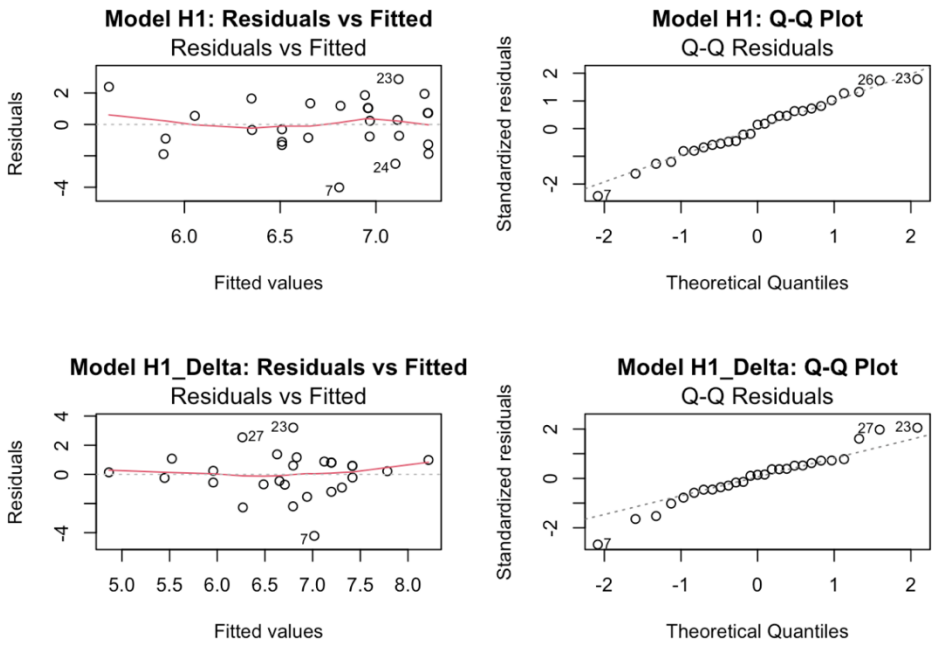
Table 3. VIFs by models

Summary of Variance Inflation Factors by Model

Model	Mean VIF	Max VIF	Min VIF
modelH1	1.15	1.15	1.15
modelH1_dem	1.21	1.24	1.17
modelH1_delta	1.82	2.52	1.28
modelH1_delta_dem	1.69	2.54	1.25

Also, I've run residual diagnostics checks for the models. Residuals are approximately normally distributed for both models, and they are mostly centred around zero. Overall, these plots indicate that, models represent a good fit.

Figure 19. Model diagnostics checks



One of the models that might fit my data structure could be a Linear mixed model, because I have observations both on the group level and on the individual level, so I could further explore the variation and relationship both between groups and inside of them. However, I couldn't apply it to the first hypothesis, because unfortunately, I don't have any variation of creativity scores in groups, my creativity is by design on the group level, and I can't populate it artificially to the individual level.

So, I decided to proceed with a Median split for task and relationship conflicts to further examine the robustness and get rid of the influence of potential outliers that might impact the results. For this purpose, I have used non non-parametric Wilcoxon test run on creativity scores across each conflict type data, which was attributed to high or low levels.

Table 4. Wicoxon rank sum test results

Wilcoxon Rank Sum Test Results for Creativity by Conflict Level

Variable	W	p-value
Task conflict (High vs Low)	83.5	0.7306
Relationship conflict (High vs Low)	52.5	0.0616

These results suggest that variation in task conflict don't systematically affect creativity unlike relationship conflict that is quite close to 0.05 value. Despite the fact, that this result can be considered as marginal it does support a trend and confirms my regression outcomes. Relationship conflict is the main factor impacting creativity.

As a conclusion, Hypotheses 1a is not confirmed, and 1b is confirmed. Let's proceed with Hypothesis 2 testing. In H2a, I assumed that personality traits and specifically Agreeableness and Conscientiousness, would have an impact on perceived team conflict scores. In H2b, I wanted to check if Agreeableness and Conscientiousness predict team creativity. I've built five models with and without socio-demographic controls, and the results of the models show that neither of them can be considered a strong predictor of creativity.

Table 5. H2 joint model estimation results

Hypothesis 2: Personality, Conflict, and Creativity

	Dependent variable:				
	Task Conflict	Relationship Conflict	Creativity		
	(1)	(2)	(3)	(4)	(5)
Agreeableness	0.020	0.004	0.123	0.130	0.134
	(0.036)	(0.020)	(0.081)	(0.080)	(0.084)
Conscientiousness	-0.017	0.002	0.003	0.004	-0.017
	(0.030)	(0.016)	(0.066)	(0.066)	(0.078)
Task Conflict				-0.074	-0.151
				(0.485)	(0.535)
Relationship Conflict				-1.235	-1.280
				(0.894)	(0.935)
Same Gender (=1)					-0.153
					(0.781)
Same Age (=1)					0.424
					(0.789)
Constant	1.978	1.248*	3.197	4.884	5.488
	(1.208)	(0.655)	(2.689)	(2.913)	(3.387)
Observations	27	27	27	27	27
R^2	0.022	0.003	0.091	0.180	0.196
Adjusted R^2	-0.059	-0.080	0.015	0.031	-0.045
Note:	* p < .10; ** p < .05; *** p < .01				

So, I decided to follow the same approach used for testing Hypotheses 1, and namely variation inside groups for Agreeableness and Conscientiousness as an absolute difference to the model. But as seen from the table below it doesn't improve the situation:

Table 6. H2 joint model estimation results with deltas

Hypothesis 2Delta: Personality Diversity, Conflict, and Creativity

	Dependent variable:				
	Task Conflict	Relationship Conflict	Creativity		
	(1)	(2)	(3)	(4)	(5)
Agreeableness	0.043	0.001	0.102	0.098	0.100
	(0.038)	(0.022)	(0.090)	(0.091)	(0.095)
Conscientiousness	-0.016	0.002	0.002	0.007	-0.017
	(0.029)	(0.017)	(0.069)	(0.069)	(0.082)
Agreeableness Delta	0.038	-0.009	-0.035	-0.052	-0.066
	(0.024)	(0.014)	(0.056)	(0.061)	(0.067)
Conscientiousness Delta	0.011	0.006	-0.010	-0.003	0.020
	(0.033)	(0.019)	(0.076)	(0.076)	(0.086)
Task Conflict				0.117	0.089
				(0.547)	(0.622)
Relationship Conflict				-1.464	-1.621
				(0.961)	(1.019)
Same Gender (=1)					0.006
					(0.860)
Same Age (=1)					0.710
					(0.874)
Constant	0.936	1.371*	4.143	6.041*	6.591*
	(1.364)	(0.777)	(3.193)	(3.369)	(3.685)
Observations	27	27	27	27	27
R^2	0.133	0.023	0.108	0.209	0.238
Adjusted R^2	-0.025	-0.154	-0.054	-0.028	-0.100
Note:	* p < .10; ** p < .05; *** p < .01				

Finally, I decided to run LMM models, which seems to fit here for task and relationship conflict, because unlike creativity they exhibit variation inside the groups and the model

can be run. Fixed effect part involves main predictors. I needed to standardize them due to different scale of variables included. This model could help me differentiate between individual and group level effects.

Table 7: LMM model

LMM: Personality Predicting Task vs. Relationship Conflict

	Dependent variable:	
	Task Conflict	Relationship Conflict
	(1)	(2)
Agreeableness (z)	0.049	0.030
	(0.089)	(0.072)
Conscientiousness (z)	-0.187*	-0.055
	(0.097)	(0.073)
Constant	2.106***	1.426***
	(0.145)	(0.080)
Observations	54	54
Log Likelihood	-63.523	-45.910
Akaike Inf. Crit.	137.045	101.819
Bayesian Inf. Crit.	146.990	111.764
Note:	* p < .10; ** p < .05; *** p < .01	

From the results above, I can conclude that Conscientiousness is the only significant predictor of task conflict, at a 10% level which means that the more conscientious participants constitute a group they might experience less task conflict.

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

In this thesis, I have investigated whether and how different types of team conflict influence team creative performance and role of personality traits in these relationships. Using a dataset, which was collected through an experimental approach and had 54 observations, I examined the effects of task conflict and relationship conflict on team creativity, as well as the role of agreeableness and conscientiousness as key personality traits on a group level, considering variation inside groups.

I observed that task conflict was not confirmed to increase creative performance, however, relationship conflict was observed to lower it significantly. Agreeableness and consciousness were not defined as strong predictors of creativity either. This supports previous studies (Jehn 1995; De Dreu & Weingart, 2003), which indicated that relationship conflict due to its affectionate component may negatively impact team creative output.

6.2 Limitations

There are several limitations that need to be addressed. First of all, it is a quite small sample size. Due to time-consuming preparation, drafting of participants and experiment run, I couldn't gather more observations. So definitely for further iterations number of participants should be increased. Second possible limitation is duration of the experiment, because in the literature there is a certain distinction between short- and long-term experiments with the notion that long-term experiments may help find some hidden effects, which are not visible in short-term experiments. So, if, for example, we conducted this during a year with constant influence on workers, we might find other results that were not clear before.

One more factor that needs to be taken into account is diversity and team composition. It would be great to expand the experiment and form heterogeneous and homogeneous groups based on the results of the initial Big five questionnaire. I would suggest building three types of pairs, low-low, high-high, and low-high, where "low" and "high" stand for "below the average" and "above the average" scores of the variable of interest from the previous experiment. And then put all types of groups into the condition with task conflict manipulation. Due to time constraints, I couldn't perform this.

One more factor to consider: prior research suggests that one of the important dimensions is team cohesion. Real workers in companies might experience higher team cohesion. Perceived task conflict will be lower among real worker groups than students due to higher team cohesion (they have a background of working together longer, and they also may have developed collaboration habits and ways of working). So, it would be great to compare these two distinct groups of real workers with the same experimental design.

Lastly, intervention can be planned to influence certain team personality traits and observe if there is an impact on creativity or task conflict types. For example, one of the interventions that I found in the literature is perspective taking for low-agreeableness individuals that helped them to learn to accept the ideas of others (Sessa,1996). It can be applied for low- low-agreeableness individuals and the effect of this intervention could be measured.

6.3 Recommendations

As a recommendation for managers, for whom the results of this research were intended to bring the biggest result, I would suggest monitoring the atmosphere during group discussions to spot any signs of affectionate components.

For example, if people are starting to talk aggressively and make some personality-related judgments, they should be stopped, and the discussion should continue ideally after some

time. The manager could think of some interventions, like looking retrospectively at what has happened, why the discussion shifted to a non-productive area and continue it after some pause. Also, some guideline for how to debate ideas affectively could help.

REFERENCES

Amason, A. C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving the paradox for top management teams. *Academy of Management Journal*, 39 (1), 123–148. https://doi.org/10.2307/256633

Amason, A. C., & Schweiger, D. M. (1994). Resolving the paradox of conflict, strategic decision making, and organizational performance. *International Journal of Conflict Management*, 5 (3), 239–253.

Anderson, N. R., & West, M. A. (1998). Measuring climate for work group innovation: Development and validation of the team climate inventory. *Journal of Organizational Behavior,* 19 (3), 235–258.

Attanasi, G., Bellet, R., Guérin, P., & Plott, C. (2021). *Creativity in Economics Experiments: A Literature Review* (GATE Working Paper 2021-09). Université de Lyon, CNRS, GATE Lyon St-Étienne.

Attanasi, G., Egidi, G., & Manzoni, E. (2022). Target-The-Two (TTT) game: Experimental evidence on routinization and creativity. *University of Lyon Working Paper*.

Baer, M., & Oldham, G. R. (2006). The curvilinear relation between experienced creative time pressure and creativity: Moderating effects of openness to experience and support for creativity. *Journal of Applied Psychology*, 91(4), 963–970.

Baer, M., Leenders, R. T. A. J., Oldham, G. R., & Vadera, A. K. (2008). Win or lose the battle for creativity: The power and perils of intergroup competition. *Academy of Management Journal*, 53(4), 827–845.

Behfar, K. J., Peterson, R. S., Mannix, E. A., & Trochim, W. M. (2008). The critical role of conflict resolution in teams: A close look at the links between conflict type, conflict management strategies, and team outcomes. *Journal of Applied Psychology, 93*(1), 170–188.

Boer, H. (2001). Managing technological innovation: How the human resource function can support technology management. *International Journal of Technology Management, 22* (7–8), 803–820.

Bolin, M., & Neuman, G. A. (2006). Personality, process, and performance in interactive brainstorming groups. *Journal of Business and Psychology, 20* (4), 565–585.

Charness, G., & Grieco, D. (2023). Creativity and corporate culture. *The Economic Journal, 133* (653), 1846–1870.

De Dreu, C. K. W. (2006). When too little or too much hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams. *Journal of Management, 32* (1), 83–107.

De Dreu, C. K. W., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology, 88* (4), 741–749.

De Wit, F. R. C., Greer, L. L., & Jehn, K. A. (2011). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology, 97* (2), 360–390.

Farh, J. L., Lee, C., & Farh, C. I. C. (2010). Task conflict and team creativity: A question of how much and when. *Journal of Applied Psychology, 95* (6), 1173–1180.

Grant, A. (2021). *Think Again: The Power of Knowing What You Don't Know*. Viking.

Greer, L. L., & Jehn, K. A. (2007). The pivotal role of negative affect in understanding the effects of process conflict on group performance. *Research on Managing Groups and Teams, 10*, 21–44.

Greer, L. L., Caruso, H. M., & Jehn, K. A. (2011). The bigger they are, the harder they fall: Linking team power, conflict, and performance. *Organizational Behavior and Human Decision Processes, 116* (1), 116–128.

Greer, L. L., Jehn, K. A., & Mannix, E. A. (2008). Conflict transformation: A longitudinal investigation of the relationships between different types of intragroup conflict and the moderating role of conflict resolution. *Small Group Research, 39* (3), 278–302.

Heij, C. V., Volberda, H. W., Van den Bosch, F. A. J., & Hollen, R. M. A. (2020). How to leverage the impact of R&D on product innovation? The moderating effect of management innovation. *R&D Management*, 50 (2), 277–294.

Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly, 40* (2), 256–282.

Jehn, K. A. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly, 42* (3), 530–557.

Jehn, K. A., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal, 44* (2), 238–251.

Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, 44 (4), 741–763.

Jolic-Marjanovic, Z., Zivkovic, S., & Petrovic, A. (2023). Big Five personality traits and collaborative problem solving: Evidence from team creativity research. *Personality and Individual Differences, 205* , 112123.

Lee, J., & Park, S. (2020). How team agreeableness diversity affects task and relationship conflict: Evidence from a team creativity lab experiment. *Personality and Individual Differences, 161*, 109981.

Lesser, R. (2022). The value of innovation in business. *Harvard Business Review Digital Articles*.

Oehler, A. (2021). Team conflict and creativity: An experimental study using Minecraft as a task environment. *Journal of Behavioral and Experimental Economics, 93*, 101701.

Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly, 44* (1), 1–28.

Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41* (1), 203–212.

Robert, C., & Cheung, Y. H. (2010). An examination of the relationship between conscientiousness and team performance. *Journal of Applied Psychology, 95* (5), 934–946.

Sessa, V. I. (1996). Using perspective taking to manage conflict and affect in teams. *Journal of Applied Behavioral Science, 32* (1), 101–115.

Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology, 85* (1), 102–111.

Tjosvold, D., Hui, C., Ding, D. Z., & Hu, J. (2004). Conflict values and team relationships: Conflict management, effectiveness, and productivity. *Journal of Organizational Behavior, 25* (5), 539–558.

Tjosvold, D., Sun, H. F., & Wan, P. (2014). Cooperative conflict management: Principles and practices. *Asia Pacific Journal of Management, 31* (3), 719–739.

Vodosek, M. (2007). Intragroup conflict as a mediator between cultural diversity and work group outcomes. *International Journal of Conflict Management, 18* (4), 345–373.

Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management innovation and organizational performance: The mediating effect of performance management. *Journal of Public Administration Research and Theory, 21* (2), 367–386.

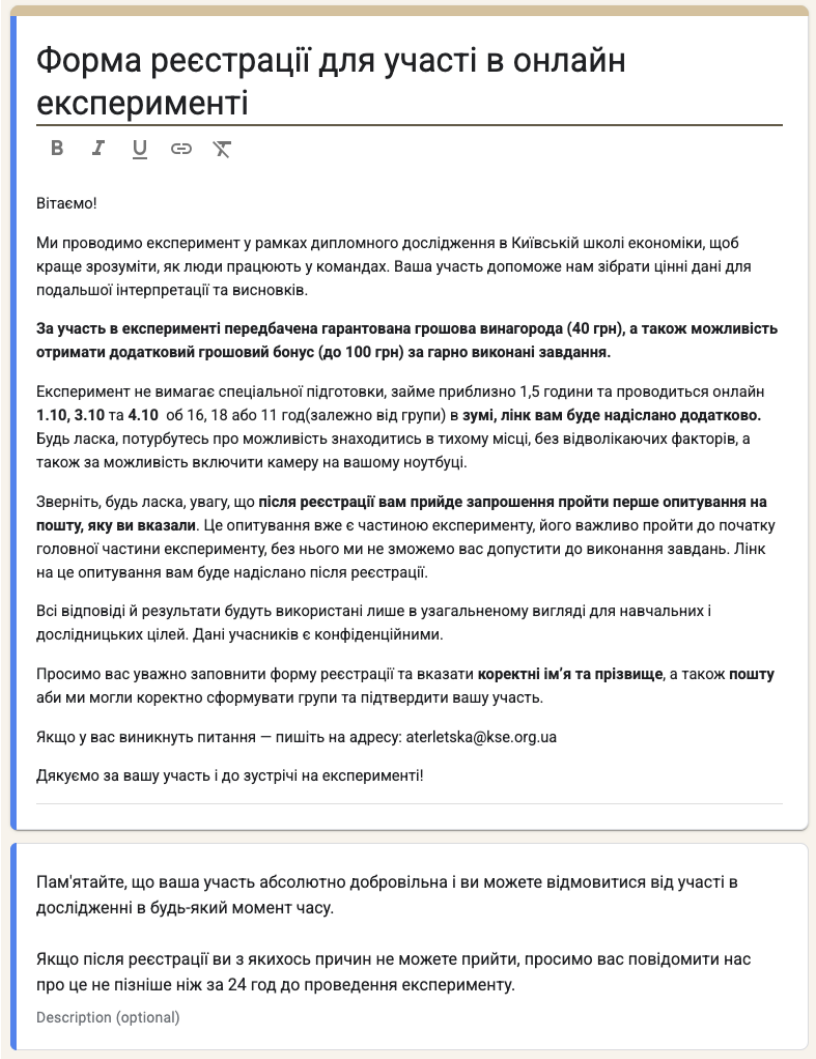
Yang, J., & Mossholder, K. W. (2004). Decoupling task and relationship conflict: The role of intragroup emotional processing. *Journal of Organizational Behavior, 25* (5), 589–605.

Černe, M., Jaklič, M., & Škerlavaj, M. (2015). Management innovation: Conceptualization, measurement, and relationship with innovation performance. *European Management Review, 12* (3), 113–126.

APPENDIX A:
REGISTRATION FORM FOR NON-EMPLOYEES

The link to the form. Below is the extract:

Figure 20. Abstract of registration form for non-employees



Форма реєстрації для участі в онлайн експерименті

Вітаємо!

Ми проводимо експеримент у рамках дипломного дослідження в Київській школі економіки, щоб краще зрозуміти, як люди працюють у командах. Ваша участь допоможе нам зібрати цінні дані для подальшої інтерпретації та висновків.

За участь в експерименті передбачена гарантована грошова винагорода (40 грн), а також можливість отримати додатковий грошовий бонус (до 100 грн) за гарно виконані завдання.

Експеримент не вимагає спеціальної підготовки, займе приблизно 1,5 години та проводиться онлайн **1.10, 3.10** та **4.10** об 16, 18 або 11 год(залежно від групи) в **зумі, лінк вам буде надіслано додатково.** Будь ласка, потурбуйтесь про можливість знаходитись в тихому місці, без відволікаючих факторів, а також за можливість включити камеру на вашому ноутбуці.

Зверніть, будь ласка, увагу, що **після реєстрації вам прийде запрошення пройти перше опитування на пошту, яку ви вказали**. Це опитування вже є частиною експерименту, його важливо пройти до початку головної частини експерименту, без нього ми не зможемо вас допустити до виконання завдань. Лінк на це опитування вам буде надіслано після реєстрації.

Всі відповіді й результати будуть використані лише в узагальненому вигляді для навчальних і дослідницьких цілей. Дані учасників є конфіденційними.

Просимо вас уважно заповнити форму реєстрації та вказати **коректні ім'я та прізвище**, а також **пошту** аби ми могли коректно сформувати групи та підтвердити вашу участь.

Якщо у вас виникнуть питання — пишіть на адресу: aterletska@kse.org.ua

Дякуємо за вашу участь і до зустрічі на експерименті!

Пам'ятайте, що ваша участь абсолютно добровільна і ви можете відмовитися від участі в дослідженні в будь-який момент часу.

Якщо після реєстрації ви з якихось причин не можете прийти, просимо вас повідомити нас про це не пізніше ніж за 24 год до проведення експерименту.

Description (optional)

APPENDIX B:
REGISTRATION FORM FOR EMPLOYEES

Registration form for employees of the energy firm can be found via the link. Below is the extract:

Figure 21. Abstract of registration form for employees

Форма реєстрації для участі в онлайн експерименті - працівники

Вітаємо!

Ми проводимо експеримент у рамках дипломного дослідження в Київській школі економіки, щоб краще зрозуміти, як люди працюють у командах. Ваша участь допоможе нам зібрати цінні дані для подальшої інтерпретації та висновків.

За участь в експерименті передбачена гарантована грошова винагорода (40 грн), а також можливість отримати додатковий грошовий бонус (до 100 грн) за гарно виконані завдання.

Експеримент не вимагає спеціальної підготовки, займе приблизно 1,5 години та проводиться онлайн **1.10** об 14 год або в інший день (залежно від групи) в **зумі, лінк вам буде надіслано додатково.** Будь ласка, потурбуйтесь про можливість знаходитись в тихому місці, без відволікаючих факторів, а також за можливість включити камеру на вашому ноутбуці.

Зверніть, будь ласка, увагу, що **після реєстрації вам прийде запрошення пройти перше опитування на пошту, яку ви вказали**. Це опитування вже є частиною експерименту, його важливо пройти до початку головної частини експерименту, без нього ми не зможемо вас допустити до виконання завдань. Лінк на це опитування вам буде надіслано після реєстрації.

Всі відповіді й результати будуть використані лише в узагальненому вигляді для навчальних і дослідницьких цілей. Дані учасників є конфіденційними.

Просимо вас уважно заповнити форму реєстрації та вказати **коректні ім'я та прізвище**, а також **пошту** аби ми могли коректно сформувати групи та підтвердити вашу участь.

Якщо у вас виникнуть питання — пишіть на адресу: aterletska@kse.org.ua

Дякуємо за вашу участь і до зустрічі на експерименті!

Пам'ятайте, що ваша участь абсолютно добровільна і ви можете відмовитися від участі в дослідженні в будь-який момент часу.

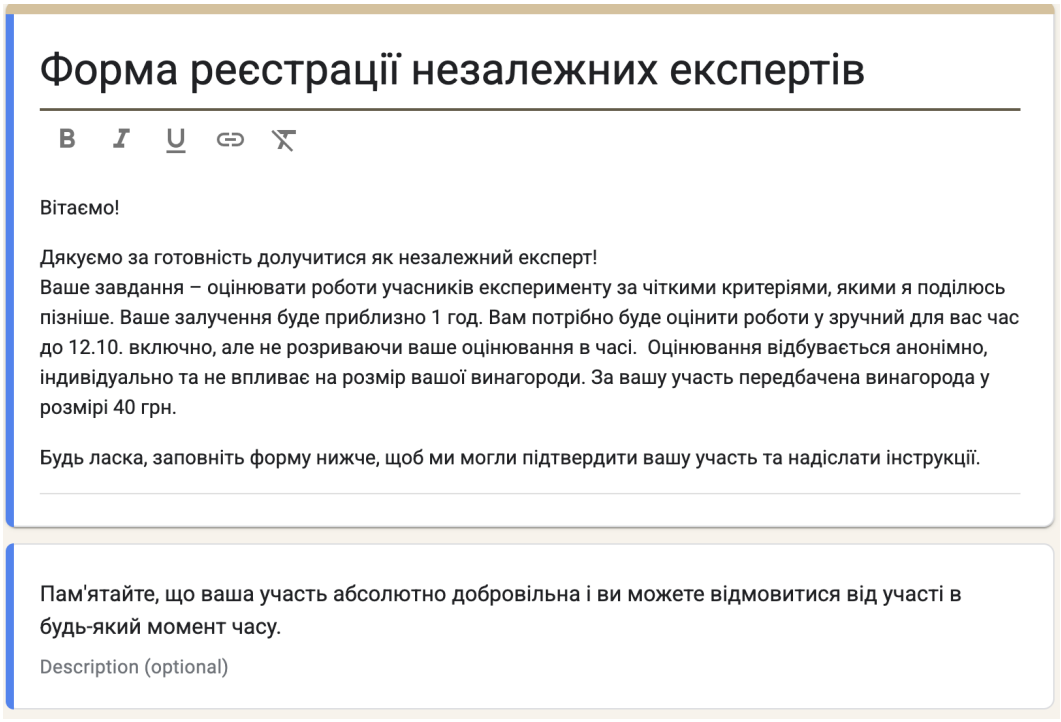
Якщо після реєстрації ви з якихось причин не можете прийти, просимо вас повідомити нас про це не пізніше ніж за 24 год до проведення експерименту.

Description (optional)

APPENDIX C:
REGISTRATION FORM FOR REVIEWERS

Registration form for independent reviewers can be found via the link. Below is the extract:

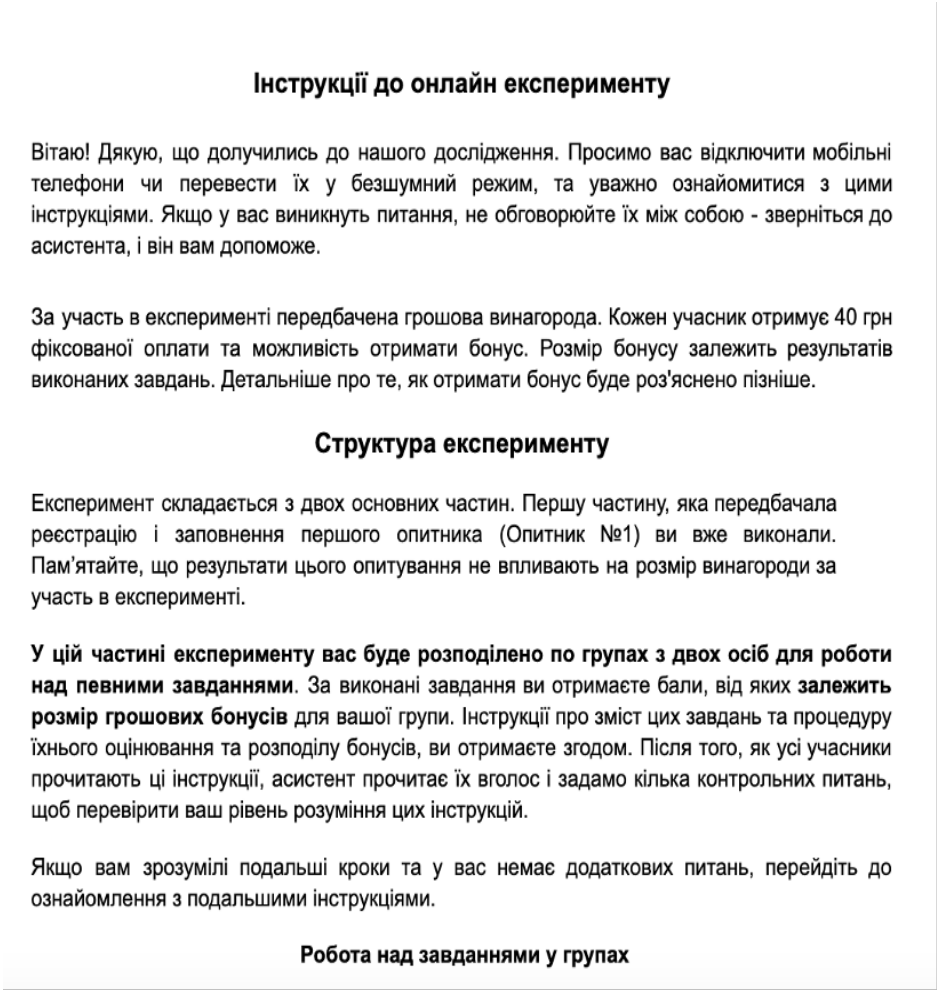
Figure 22. Abstract of registration form for independent reviewers



APPENDIX D:
EXPERIMENTAL INSTRUCTIONS

The whole text can be viewed via the link. Below is the extract.

Figure 22. Abstract of experimental instructions



Інструкції до онлайн експерименту

Вітаю! Дякую, що долучились до нашого дослідження. Просимо вас відключити мобільні телефони чи перевести їх у безшумний режим, та уважно ознайомитися з цими інструкціями. Якщо у вас виникнуть питання, не обговорюйте їх між собою - зверніться до асистента, і він вам допоможе.

За участь в експерименті передбачена грошова винагорода. Кожен учасник отримує 40 грн фіксованої оплати та можливість отримати бонус. Розмір бонусу залежить результатів виконаних завдань. Детальніше про те, як отримати бонус буде роз'яснено пізніше.

Структура експерименту

Експеримент складається з двох основних частин. Першу частину, яка передбачала реєстрацію і заповнення першого опитника (Опитник №1) ви вже виконали. Пам'ятайте, що результати цього опитування не впливають на розмір винагороди за участь в експерименті.

У цій частині експерименту вас буде розподілено по групах з двох осіб для роботи над певними завданнями. За виконані завдання ви отримаєте бали, від яких **залежить розмір грошових бонусів** для вашої групи. Інструкції про зміст цих завдань та процедуру їхнього оцінювання та розподілу бонусів, ви отримаєте згодом. Після того, як усі учасники прочитають ці інструкції, асистент прочитає їх вголос і задамо кілька контрольних питань, щоб перевірити ваш рівень розуміння цих інструкцій.

Якщо вам зрозумілі подальші кроки та у вас немає додаткових питань, перейдіть до ознайомлення з подальшими інструкціями.

Робота над завданнями у групах

APPENDIX E:
GOOGLE APPS AUTOMATION SCRIPT

Figure 23. Abstract of google apps automation script