

The importance of autonomy, co-worker support and hours of
remote work regarding job satisfaction and engagement.

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Executive Summary

The current research was designed based on past literature, which found that autonomy is not only positively related to job satisfaction but also to job engagement. Meaning that more autonomy is related to more job satisfaction and more job engagement. Autonomy is the freedom employees have with regard to their work schedule, method and criteria to perform their duty at work. Similarly, co-worker support, which is the assistance employees receive from their colleagues in their tasks when needed, also has been shown to be positively related to job satisfaction and job engagement. This again means that more co-worker support is related to more job satisfaction and job engagement. Finally, according to past research remote work is positively related to job satisfaction, but the relation towards job engagement remains questionable. Both a negative and a positive relation have been revealed in past research. Remote work describes the work performed by employees at another location than their supervisors or the company pays for. In the current research the percentage of work hours spent in remote work was used. The research aimed to find an answer to the question to what extent autonomy, co-worker support and remote work are related to job satisfaction and job engagement in employees of a huge production company.

To find an answer to that question, an online survey was created which included questionnaires about work autonomy, co-worker support, job satisfaction and job engagement. The job engagement scale consisted of 9 items which could be answered on a scale from from 1 = “Almost Never” to 6 = “Always”. The job satisfactions scale consisted of 3 items with a range from 1 = “Disagree very much” to 6 = “Agree very much”. The work autonomy scale included 9 items which could be answered on a scale from 1 = “Strongly Disagree” to 7 = “Strongly Agree”. The co-worker support scale consisted of 4 items with answers ranging from 1 = “not at all” to 5 = “completely”. Finally, percentage of remote work was measured by asking the participants how many hours they work in total, and how many of these total work hours are spent in remote work. The percentages were calculated from these two scores. The data was analysed after data collection was completed.

The results of the analysis indicated a positive relation between autonomy and job satisfaction and between autonomy and job engagement. No relation could be found for the remaining proposed relationships. It is important to mention that due to the design of the current research, no causal effect can be interpreted. This means it can't be said if autonomy has an effect on job satisfaction and job engagement. However, the results suggest that it might be beneficial for the job satisfaction and job engagement to invest into increasing and

maintaining autonomy in the employees. This in turn might be beneficial for the productivity of the company, turn-over rates and absenteeism in employees.

Abstract

The current research investigated the research question to what extent autonomy, co-worker support and remote work are related to job satisfaction and job engagement. It was hypothesised that remote work, autonomy and co-worker support will be significantly related to job satisfaction and job engagement. Participants were 74 employees of a production company working in Ireland and Germany. Data was collected with an online questionnaire, consisting of four questionnaires created with Qualtrics (RU license). The results showed a significant relationship between autonomy and job engagement and between autonomy and job engagement. No support for associations between remote work and job engagement nor for relations between remote work and job satisfaction, co-worker support and job engagement, and co-worker support and job satisfaction were found. These findings provide substantiate past research results and adds new insights into the presence of the relationships after the covid-19 outbreak.

Keywords: co-worker support, autonomy, job satisfaction, job engagement, remote work

Companies aim to keep their employees satisfied with and engaged in their job. *Job engagement*, a positive and work-related state of mind, which is characterized by dedication and absorption towards the job (Schaufeli et al., 2002), and *Job satisfaction*, defined as positive emotional state generated by an employee's subjective assessment of the work experience (Locke, 1973), are promising factors, as raising these two variables offers benefits such as decreased absenteeism, lower turnover rates and increased productivity, for the company and the employees (Alarcon & Edwards, 2011; Bowling et al., 2010; Judge et al., 2001; Latif et al., 2013; Rich et al., 2010; Scott & Taylor, 1985). Furthermore, job engagement and job satisfaction are strong determinants for the performance of companies (Alarcon & Edwards, 2011; Bowling et al., 2010; Judge et al., 2001; Latif et al., 2013; Rich et al., 2010; Scott & Taylor, 1985). Therefore, the planned study will investigate what determinants of job satisfaction and engagement are in a huge production company.

A useful model to investigate job satisfaction and engagement is the *job demands resource model*, JD-R in short (Nielsen et al., 2011; Urien et al., 2017; Xanthopoulou et al., 2007). The JD-R developed by Bakker and Demerouti (2007) states that organizational outcomes such as job satisfaction and job engagement are predicted by job demands and job resources (Bakker & Demerouti, 2007). Job demands are emotional, psychological and physical stressors, such as time pressure, role ambiguity and a heavy workload. Job demands increase strain and reduce motivation in employees which in turn negatively impacts organizational outcomes such as job satisfaction and engagement (Bakker & Demerouti, 2006). Job resources are organizational, social and physical factors that support the employee to achieve goals, reduce stress and strain and increase motivation which in turn improves job performance, job satisfaction and job engagement (Bakker & Demerouti, 2007; Nielsen et al., 2011; Urien et al., 2017; Xanthopoulou et al., 2007). Examples are autonomy and strong work relationships. For the planned study, job resources will be in the focus of attention, as according to the JD-R they can decrease the negative effect of the job demands and are therefore better in creating interventions (Bakker & Demerouti, 2007).

An important job resource is *autonomy* (Bakker & Demerouti, 2007; Gözükarar & Colakoglu, 2016; Taylor et al., 2003). Autonomy is defined as the freedom employees have with regard to their work schedule, method and criteria to perform their duty at work (Dodd & Ganster, 1996; Hackman & Oldham, 1976). Autonomy has been shown to be significantly related to job satisfaction (Gözükarar & Colakoglu, 2016; Nguyen et al., 2003). Higher levels of autonomy make the employees feel trusted in the organization which increases the job

satisfaction (Naqvi et al., 2013). Moreover, past research also revealed that autonomy increases job engagement (Bakker & Demerouti, 2007; Taipale et al., 2011).

Another important job resource is *co-worker support* (Bakker & Demerouti, 2007; Mokhtar et al., 2019; Rai & Chawla, 2022). It is defined as assistance employees receive from their colleagues in their tasks when needed, by sharing experience and knowledge, as well as, giving encouragement and support (George & Zhou, 2001). Research showed that higher levels of co-worker support go along with more job engagement (Mokhtar et al., 2019; Rai & Chawla, 2022). Moreover, co-worker support positively affects the job satisfaction (Bakker & Demerouti, 2007; Tang et al., 2014). Now taking the JD-R into account, the co-worker support decreases the strain from the work by receiving help from the colleagues and increases the motivation to work which in turn increases both job engagement and job satisfaction (Bakker & Demerouti, 2007).

A new job resource in recent research is the *remote work* of employees. Shamsi et al. (2021) showed that remote work should be investigated using the JD-R model. Remote work is a concept which gained a lot of attention during the Covid-19 pandemic starting in 2020 (Aymerich et al., 2022; Ibar et al., 2021; Shechter et al., 2020) and describes the work performed by employees at another location than their supervisors or the company pays for (Mokhtarian, 1991). The current study however will focus on the percentage spent in remote work and not on the number of hours spent in remote work. Past research showed that the hours spent in remote work have a positive influence on job satisfaction (Bellmann & Hübler, 2021), meaning that more hours spent in a remote work setting predicted a higher level of job satisfaction. While remote work has a positive relation with job satisfaction, both a positive and a negative relationship has been found between remote work and job engagement. Lindström and Flou (2021) and Sardeshmukh et al. (2012) revealed a negative influence on job engagement. Participants were less engaged in their job when they spent more time in remote work settings. However, Grant et al. (2013) showed the opposite direction, namely remote work having a positive influence on job engagement. Both directions can be explained with the JD-R. Working remotely can motivate the employees and increase their engagement into the job, while remote work can also increase the strain, mediated by the work-life balance (Ferreira & Gomes, 2023), and therefore decrease the engagement (Bakker & Demerouti, 2007; Grant et al., 2013; Lindström and Flou, 2021)

Based on the above, this study aims to answer the research question to what extent autonomy, co-worker support and remote work are related to job satisfaction and job engagement in employees of a huge production company. By answering this question, the

current study will add new knowledge to the variables at play in the work spaces. After the covid pandemic which went on from 2019 to 2022 there hasn't been a lot of studies on the proposed topic, therefore it remains questionable whether the above-mentioned effects are still present after the pandemic. The current research therefore also investigates whether the relationships are still there. Equally important, the current study investigates these relationships controlled for the other variables, showing the individual variances. New insights can be used to promote more co-worker support and autonomy in the work place and adapt company regulations with regard to the hours spent in remote work. By promoting autonomy and co-worker support, and adapting remote work policies, the company can increase the job satisfaction and job engagement, which significantly predicts organisational output, reduced absenteeism and turnover of employees (Alarcon & Edwards, 2011; Bowling et al., 2010; Judge et al., 2001; Latif et al., 2013; Rich et al., 2010; Scott & Taylor, 1985).

Consequently, the following are hypothesised:

- I. Autonomy will be positively related to job engagement
- II. Co-worker support will be positively related to job engagement
- III. Remote work will be positively related to job engagement
- IV. Autonomy will be positively related to job satisfaction
- V. Co-worker support will be positively related to job satisfaction
- VI. Remote work will be positively related to job satisfaction

An online survey was constructed, in order to find an answer to the research question. The survey included several questionnaires, measuring co-worker support, autonomy, the percentage of hours spent in remote work, job satisfaction and job engagement.

Methods

Participants

Recruitment took place by sharing a link to the survey via mail (see Attachment 1) and the company's intranet (see Attachment 2). In total, 103 participants provided active informed consent, which is a response rate of 14.71%. Of these data, 27 participants had to be excluded from the data pool, as they did not finish the survey, which was indicated as a way to withdraw their consent to participate in the study. Another 2 participants were identified as outliers and therefore excluded. Hence, the final data set consisted of 74 participants. The

participants (aged 18-72; 40 females, and 34 males) were German- (n = 44) and English-speaking (n = 30) employees of a production company. Of these participants, 44 Participants worked in Germany (59,5%), while the remaining 30 participants worked in Ireland (40,5%). No reimbursement was given to the participants for filling out the survey. Ethical approval was obtained by completing the checklist belonging to the Light Track as created by the Ethics Committee for Social Sciences (ECSS) from the Radboud University in Nijmegen. Approval was given under the reference number ECSW-LT-2023-5-22-6275.

Materials

Job engagement

Job engagement, got measured using the original English and German short versions of the Utrecht work engagement scale (see Attachment 3; Schaufeli & Bakker, 2004; Ulusoy et al., 2016). It consists of nine questions scored on a 6 points Likert scale ranging from 1 = “Almost Never” to 6 = “Always”. The Cronbach’s alpha reliability coefficient of the English version of this scale ranges from 0.85 to 0.96 and the reliability for the German version is 0.89 in earlier research (Schaufeli & Bakker, 2004; Ulusoy et al., 2016) The reliability score for the scale in the current research is 0.91 across both languages, .91 for the English and .92 for the German version separately. The scale has been used and validated frequently in past research (Demerouti et al., 2001; Duran et al., 2004) and measures the employee’s vigour, dedication and absorption which combines into job engagement (Schaufeli et al., 2006). The total score will be calculated by adding up the scores of all 9 items, thereby a higher score indicates more engagement in the job (Schaufeli & Bakker, 2004).

Job satisfaction

Job satisfaction, was measured by using the job satisfaction sub-scale of the Michigan Organizational Assessment Questionnaire (Cammann et al., 1979; see Attachment 4). It includes 3 questions measuring job satisfaction and can be answered on a 6 points Likert scale ranging from 1 = “Disagree very much” to 6 = “Agree very much”. The Cronbach’s alpha reliability coefficient of this scale is 0.90 (Bowling & Hammond, 2008), in the current research the reliability score of this scale is 0.71 across both languages. Furthermore, it is a face-valid measure of job satisfaction and has been used frequently in past research (e.g., Allen, 2001; Brasher & Chen, 1999; Fox & Spector, 1999). In order to calculate a total score, the scores on

item one “In general, I don’t like my job” will be recoded. Afterwards item scores of all 3 items will be added up, hence a higher score represents higher satisfaction with the job (Cammann et al., 1979). The scale was back translated into German (see Attachment 5), a principal component analysis (PCA) confirmed the single factor structure (see Attachment 6) and a reliability analysis yielded a reliability score of .46 for the German version and .85 for the English version.

Autonomy

Autonomy was measured using the work autonomy scale created by Breugh (1999), and used in past research (e.g., Lin & Ping, 2016; see Attachment 7). It includes three subscales of three items each, for method autonomy, scheduling autonomy, and criteria autonomy and results in a total score representing work autonomy (Breugh, 1999). Items can be answered on a 7 points Likert scale ranging from 1 = “Strongly Disagree” to 7 = “Strongly Agree”. The scale offers a strong reliability, the Cronbach’s alpha reliability coefficient of this scale in earlier research is 0.87, and a high validity (Breugh, 1999). In the current study the reliability score is 0.88. To calculate a total score the item scores of all 9 items will be added up (Breugh, 1999) a higher score thereby represents more perceived work autonomy. Back translation was used to gain the German version of the work autonomy scale (see Attachment 5). The reliability scores are .82 for the English and .90 for the German version of the scale, moreover, a PCA confirmed the single factor structure (see Attachment 6)

Co-Worker Support

Co-worker support got measured with the co-worker support scale created by Haynes et al. (1999; see Attachment 8). It consists of 4 questions and can be answered with a 5-point response scale ranging from 1 = “not at all” to 5 = “completely”. Its total score ranges from 4 to 20, which measures the extent to which employees receive support from their co-workers. The Cronbach’s alpha reliability coefficient of this scale ranges from is 0.90 to 0.92 (Haynes et al., 1999). In the current study the reliability coefficient is 0.88. The total score will be calculated by adding up the scores of all 4 items, higher scores therefore indicate more perceived support from co-workers (by Haynes et al., 1999). Likewise, to the above-mentioned materials, back translation was used in order to translate the co-worker support scale into German (see Attachment 5). Relatability scores are .81 for the English and .92 for the German version. A PCA confirmed the single factor structure (see Attachment 6)

Percentage Remote Work

The percentage of hours employees spent in remote work were measured by two questions (see Attachment 9). First, participants were asked how many hours they work on average per week. Second, the question “How many of these hours do you work in a remote setting?” The answers on these two questions were used to calculate the percentage of remote work of the beforehand mentioned working hours per week. This method was inspired by the research of Niebuhr et al. (2022), who asked the participants to indicate the percentage of hours spent in remote work. In the current study the percentage was calculated by dividing the office work hours from the remote work hours and multiplying it by 100. The two questions were back translated into German (see Attachment 5).

Confounding variable working country and demographics

Finally, the country employees worked in was measured by the question “In what country are you working?” to which participants could answer by choosing either “Ireland” or “Germany” (see Attachment 10). The scores obtained by this question was dummy coded into 0 and 1, meaning that participants work in Ireland or Germany, respectively.

The demographics were measured with one item each. Age was measured with the question “How old are you?” which could be answered with 6 different categories, e.g. 18 to 28, which were scored from 1 = “18 – 28” to 6 = “73 <” (see Attachment 11). Furthermore, the gender of the participants was measured by asking “What is your gender?”. Answer possibilities were 1 = “Male”, 2 = “Female”, 3 = “Other”, and 4 = “I prefer not to say” (see Attachment 12).

Procedure

An online survey was created using Qualtrics (RU license), including a total of 51 questions. The Participants received an E-Mail via their company mail address in which they were provided with an URL, which redirected them to the online survey (see Attachment 1). During the data collection period, other recruitment methods were used in order to increase the response rate (see Attachment 13). When following this link, participants were presented with an information letter, which informed them about the nature of the study as well as the requirements, goals of the research and tasks they will perform (see Attachment 14 and 15). Furthermore, a consent form was presented in which the participants had to give their informed consent in order to participate in the research (see Attachment 16 and 17). Participants could

switch between the two languages of the survey via a button on the top right corner of the webpage. Now participants had to fill in the first questions about their demographics, in which they were instructed to indicate their age-group and gender from a drop-down menu. This was followed by questions regarding their working hours. For this question participants were instructed to type in their office work hours and remote work hours in a text box. Next, participants had to fill in the questionnaire about autonomy, co-worker support, job satisfaction and job engagement. Each questionnaire began with an instruction to carefully read each statement and indicate to what degree they agree or disagree with the presented answer possibilities. Finally, participants were thanked for their participation and received a mail-address for concerns and questions about the research (see Attachment 18 and 19). It took the participants approximately 66 minutes (Mean =66.15, SD = 317.59) to completely fill out the survey.

Data Analysis

The data set was checked for outliers by investigating the standardized values of the variables. The cut-off score to identify an outlier was 3.29 SD. The data of the identified outliers was excluded from further analyses (Tabachnick & Fidell, 2013).

Before performing the main analyses, the assumptions for a multiple regression analysis were checked and a preliminary analysis was performed in order to investigate the descriptives and correlations. The normality assumption was checked by investigating the normal P-P Plot of the regression standardized residuals and the scatter plot was used to check the homoscedasticity assumption. Furthermore, correlation coefficients and the variance inflation factor were used to check for multicollinearity. This was repeated for the second multiple regression analysis. No assumption was violated for both models.

A hierarchical multiple regression analysis was performed with working country (Germany/Ireland) as confounding variable in step 1 and autonomy (10 – 63), co-worker support (6 – 20), and the percentage of remote work (0% – 100%) as predictor in step 2 and job satisfaction (4 – 18) as outcome variables. Furthermore, a second hierarchical multiple regression analysis was performed with the same predictors as the first analysis, but with job engagement (quantitative, 18 – 45) as the outcome variable. In the context of both analyses, the confounding variable working country is a between-subjects factor. A Bonferroni correction for multiple testing was implemented by adjusting the significance level to $\alpha = .025$, meaning that the hypotheses are only retained if the p-value is below 0.025 (Dunn,

1961). Finally, a sensitivity analysis was performed with $\alpha = .025$, $1 - \beta = 0.8$, $n = 74$ and 4 predictors. This sensitivity analysis resulted in an effect size of $f^2 = .21$.

Results

Preliminary analyses

For the preliminary analyses descriptives and correlations (Pearson) were calculated (see Table 1). Job engagement is significantly correlated with autonomy, indicating that more autonomy is related to more job engagement. Job satisfaction is significantly correlated to autonomy and co-worker support. Results indicate that more autonomy and co-worker support are related to more job satisfaction.

Table 1. Descriptive statistics and Pearson correlations of all study variables.

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max	1	2	3	4	5	6
1. Job Engagement	74	33.80	8.28	18.00	54.00	-					
2. Job Satisfaction	74	14.78	2.81	6.00	18.00	-	-				
3. Autonomy	74	48.31	7.87	31.00	63.00	.37**	.36**	-			
4. Co-Worker Support	74	15.89	2.95	7.00	20.00	.25*	.28**	.38**	-		
5. Percentage Remote Work	74	42.72	24.73	0	100	-.05	-.05	.27*	.00	-	
6. Working Country	74	-	-	0	1	-.07	-.19	-.24*	-	.13	-
									.20		

* $p < .05$. ** $p < .01$.

Main analyses

A hierarchical multiple regression analysis was conducted with job engagement as outcome. In step one of this regression the confounder working country was entered into the regression equation. In step 2 the scores of autonomy, and co-worker support, as well as, the percentile scores of remote work. The results of this hierarchical multiple regression analysis are presented in Table 2. The results of the first block, with working country as predictor,

revealed that model 1 is non-significant, $R^2 = .005$, $F(1, 72) = 0.39$, $p = .54$. Block 2, where the predictors autonomy, co-worker support and percentage of remote work were added, revealed a significant result. This means that the predictor power significantly increases from model 1 to model 2. The ΔR^2 of model 2 is .19, meaning that adding autonomy, co-worker support and percentage remote work accounts for 19% additional variation in job engagement when compared to model 1. The test of model 2 revealed that the combination of autonomy, co-worker support, percentage remote work and working country explained 19.4% of the variance in job engagement, $R^2 = .194$, $F(3,69) = 4.15$, $p = .005$.

The predictor variable of autonomy was moderately positive related to job engagement, $\beta = .42$, $t(73) = 3.33$, $p = .001$. This means that more autonomy is related to more job engagement. Co-worker support was not a significant predictor of job engagement, $\beta = .11$, $t(73) = 0.90$, $p = .371$, nor was the percentage of remote work $\beta = -.06$, $t(73) = -1.45$, $p = .152$. The working country was not a significant predictor of job engagement, $\beta = 1.12$, $t(73) = 0.59$, $p = .559$.

Table 2. Results of the multiple regression analyses.

Variable	Job Engagement						Job Satisfaction							
	B	95% CI for B		SE B	β	R^2	ΔR^2	B	95% CI for B		SE B	β	R^2	ΔR^2
		LL	UL						LL	UL				
Step 1					.01	.01						.04	.04	
Working Country	-1.23	-5.16	2.70	1.97	-.07			-1.09	-2.41	0.22	0.66	-.19		
Step 2					.19	.19**						.18	.14**	
Working Country	1.12	-2.69	4.94	1.91	.07			-0.40	-1.70	0.91	0.66	-.07		
Autonomy	0.44**	0.18	0.70	0.13	.42**			0.12*	0.03	0.21	0.05	.33*		
Co-Worker Support	0.30	-0.36	0.96	0.33	.11			0.14	-0.09	0.37	0.11	.15		
Percentage Remote Work	-0.06	-0.13	0.02	0.04	-.17			-0.02	-0.04	0.01	0.01	-.13		

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

* $p < .05$. ** $p < .01$. *** $p < .001$.

A second hierarchical multiple regression analysis was conducted with job satisfaction as outcome. In step one of this regression the confounder working country was entered into the regression equation. In step 2 the scores of autonomy, and co-worker support, as well as, the percentile scores of remote work. The results of this hierarchical multiple regression analysis are also presented in Table 2. The results of the first block, with working country as predictor, revealed that model 1 is non-significant, $R^2 = .037$, $F(1, 72) = 2.77$, $p = .100$. Block 2, where the predictors autonomy, co-worker support and percentage of remote work were added, revealed a significant result. This means that the predictor power significantly increases from model 1 to model 2. The ΔR^2 of model 2 is .14, meaning that adding autonomy, co-worker support and percentage remote work accounts for 14% additional variation in job satisfaction when compared to model 1. The test of model 2 revealed that the combination of autonomy, co-worker support, percentage remote work and working country explained 18% of the variance in job satisfaction, $R^2 = .180$, $F(3,69) = 3.79$, $p = .008$.

The predictor variable of autonomy was moderately positive related to job satisfaction, $\beta = .33$, $t(73) = 2.59$, $p = .012$. This means that more autonomy is related to more job satisfaction. Co-worker support was not a significant predictor of job satisfaction, $\beta = .15$, $t(73) = 1.23$, $p = .225$, nor was the percentage of remote work was not a significant predictor $\beta = -.13$, $t(73) = -1.15$, $p = .255$. Working country was not a significant predictor of job satisfaction, $\beta = -.07$, $t(73) = -0.61$, $p = .547$.

Discussion

The current research investigated the research question to what extent autonomy, co-worker support and remote work are related to job satisfaction and job engagement. The study results showed that autonomy is positively related to job engagement and job satisfaction. No support for the relation between co-worker support and job engagement, as well as, job satisfaction was found. Likewise, no support for the relation between percentage of remote work and job engagement, as well as, job satisfaction was found. The confounder working country did not show any relation with job engagement and job satisfaction. Therefore, the answer to the research question is that autonomy is related to job engagement and job satisfaction, while no relation could be found in co-worker support, remote work and working country.

The finding of a significant positive relation between autonomy and job engagement is in line with the hypothesis (H1), the theory of the JD-R model and past research (Bakker & Demerouti, 2007; Taipale et al, 2011). This means that, for instance, an employee working in the company that experiences a lot of autonomy, also experiences an increased job engagement (Bakker & Demerouti, 2007). The current study adds to this knowledge and shows that the relationship is still present after the covid-19 outbreak. Furthermore, contrary to the research by Taipale et al. (2011) the current research only looked at a single production company instead of a several different companies across different industry sectors. Therefore, the information given by the results are more tailored to the production section in German and Ireland.

Likewise, the results of the current study also support the hypotheses (H4) that autonomy is positively related to job satisfaction. This is in line with the research by Gözükarar & Colakoglu (2016) and Nguyen et al. (2003), who also showed a significant relation between autonomy and job satisfaction. The current research however differs from the design of Nguyen et al. (2003), as the current study used a quantitative design for work autonomy instead of categorical design. Furthermore, the current research design controlled for co-worker support, remote work, and the working country.

However, regarding the remaining hypotheses, no support was found for the relationship between co-worker support and job engagement (H2). This result is contrary to the results of Rai and Chawla (2022), as well as, Mokhtar et al. (2019), who showed a significant relation between co-worker support and job engagement. An explanation for this difference might be that Mokhtar et al. (2019) focused on bank employees instead of employees of a production company. Furthermore, both Mokhtar et al. (2019) and Rai and Chawla (2022) collected their data in Asian countries (India and Malaysia), while the current research focused on European countries (Ireland and Germany).

Likewise, contrary to the research of Tang et al. (2014) no support was found for the relationship between co-worker support and job satisfaction (H5). This contrast might be explained by the research design. Tang et al. (2014) used a mediation design in which the co-worker support relates to work to family enrichment, which in turn had an effect on job satisfaction. The main focus of Tang et al. (2014) was on the work to family enrichment not on the direct effect of co-worker support on job satisfaction. Furthermore, this research

investigated the relationship between co-worker support and job satisfaction in German and Irish sample, while Tang et al. (2014) investigated said relationship in the Chinese population.

What is more, the research results offered no support for the hypothesis that remote work is positively related to job engagement (H3). This is another contradicting finding when compared to past research, such as Grant et al. (2013), who showed a positive relation between both variables. What makes the current findings surprising is that Lindström and Flou (2021) and Sardeshmukh et al. (2012) found a negative relation between remote work and job engagement. The current research however found no relation, neither positive nor negative. An explanation for this might be that the current study had a bigger sample size compared to Grant et al. (2013) who had 11 participants. Furthermore, Grant et al. (2013) used a semi-structured interview in which they investigated categorical values of remote work, such as e-working practices and e-work life, while the current research looked at the percentage employees spent their work time in remote work. Additionally, Sardeshmukh et al. (2012) used a sample of 1100 telecommuters from an American supply chain management company. This limits the department to supply chain only, while the current research design included participants from different departments, such as supply chain, finances and customer service. The contrast to the research by Lindström and Flou (2021), however, might be explained by the time the research was done. As mentioned in the introduction of this paper, the current research is one of the view studies investigating the relationship between remote work and job engagement after the covid-19 outbreak. The research by Lindström and Flou (2021) was done during the outbreak.

Finally, no support was given for the relationship between remote work and job satisfaction (H6). The results are contradicting to the results obtained by Bellmann and Hübler (2021) who found a significant positive relation between remote work and job satisfaction. As discussed before, the current research was performed after the covid-19 outbreak. The study by Bellmann and Hübler (2021) was done during the covid-19 outbreak. Another explanation might be how remote work as a variable was operationalized. While the current design used the actual working hours and proportional remote work hours, which were then used to calculate the percentage of remote work, the research by Bellmann and Hübler (2021) operationalized remote work qualitative as either doing remote work or not doing remote work.

Limitations

Of course, the current research is not without limitations. While goal was to include all departments of the internship company, the production employees did not participate in the research, because they either did not want to or had no time to do so. Furthermore, the reliability for the German version of the job satisfaction scale was only .46, which can be considered a low reliability and might limit the research design (Taber, 2018). Speaking more generally, another limitation is that there is no standardized way how to measure remote work. This might lead to different results across several studies, as discussed above (Bellmann & Hübler, 2021; Grant et al., 2013; Lindström and Flou, 2021)

Future research

Future research should advance the current research design and implement a reliable job satisfaction scale for German employees. Furthermore, future research should investigate the effect need for autonomy has on the relationship autonomy has with job engagement and job satisfaction. Need for autonomy has been shown to be an interesting variable in light of the JD-R (Demerouti & Bakker, 2011; Olafsen & Halvari, 2017)

Practical implications

The current research showed that autonomy is significantly positive related to job satisfaction and job engagement. While the current research design does not allow for causal interpretations, it might be of value for the internship company to promote autonomy, as it might be beneficial for the job satisfaction and job engagement of the employees.

Conclusion

Summarizing, the current research investigated the research question to what extent autonomy, co-worker support and remote work are related to job satisfaction and job engagement. The present study results indicated a positive relationship between autonomy and job engagement and between autonomy and job satisfaction.

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Attachment 1

Hello together,

My name is Justin Eltz. I am a Master's student for the "Work, Organization and Health" Psychology track of the Radboud University in Nijmegen. Currently, I am doing my internship at [company name] in Germany.

Part of the internship is to perform research in work, organization and health area. Hence, I am writing you and humbly ask you to fill out the following survey to help me finish this research. Finishing this research will give a unique opportunity to not only answer my research question but also to give advice to the company. This advice might lead to an increased performance of [company name] and a higher satisfaction and an increased engagement among the employees.

The questionnaire will take approximately 10 minutes to be completed. Participation is completely voluntary and anonymous. You can participate simply by clicking the following link. This will guide you to the questionnaire.

https://psychru.qualtrics.com/jfe/form/SV_78V9oJMKQLzX9zM

Kind regards

Justin Eltz

Hallo Zusammen,

mein Name ist Justin Eltz. Ich bin Masterstudent des Psychologiestudiengangs „Work, Organization and Health“ an der Radboud-Universität in Nijmegen. Derzeit absolviere ich mein Praktikum bei Ornua in Deutschland.

Teil des Praktikums ist die Durchführung von Forschungsarbeiten im Arbeits-, Organisations- und Gesundheitsbereich. Daher schreibe ich euch und bitte euch freundlich darum, die folgende Umfrage auszufüllen, um mir beim Abschluss dieser Forschung zu helfen. Der Abschluss dieser Forschung bietet die einmalige Gelegenheit, nicht nur meine Forschungsfrage zu beantworten, sondern auch dem Unternehmen Ratschläge zu geben. Diese

Beratung könnte zu einer höheren Zufriedenheit und einem gesteigerten Engagement der Mitarbeiter von Ornuva führen.

Das Ausfüllen des Fragebogens dauert etwa 20 Minuten. Die Teilnahme ist völlig freiwillig und anonym. Mitmachen könnt ihr ganz einfach, indem ihr auf den folgenden Link klickt. Dadurch gelangt ihr zum Fragebogen.

https://psychru.qualtrics.com/jfe/form/SV_78V9oJMKQLzX9zM

Gruß

Justin

Attachment 2

Hello,

My name is Justin Eltz, a master's student for the "Work, Organization and Health" psychology track of the Radboud University in Nijmegen. Currently, I am doing my internship at Ornu in Germany.

Part of the internship is to perform research in the area of work, organization, and health. I ask you to fill out the following survey to help me complete my research, which will support improved employee engagement across our business.

The questionnaire takes approximately 10 minutes to complete and is anonymous.

If you can please complete by 17th June I would be very grateful – you can do so by clicking on the link below. The survey is available in English and German – you can switch the language by choosing English in the top right corner.

https://psychru.qualtrics.com/jfe/form/SV_78V9oJMKQLzX9zM

Kind regards

Justin Eltz

Attachment 3

Please read each statement carefully and decide if you ever feel this way about your job.

Almost Never 1	Rarely 2	Sometimes 3	Oftentimes 4	Very Often 5	Always 6
-------------------------------	---------------------	------------------------	-------------------------	-------------------------	---------------------

1. At my work, I feel bursting with energy.
 2. At my job, I feel strong and vigorous.
 3. I am enthusiastic about my job.
 4. My job inspires me.
 5. When I get up in the morning, I feel like going to work.
 6. I feel happy when I am working intensely.
 7. I am proud of the work that I do.
 8. I am immersed in my work.
 9. I get carried away when I am working.
-

Bitte lesen Sie jede Aussage sorgfältig durch und entscheiden Sie, ob Sie jemals so über Ihren Job denken.

Fast nie 1	Ab und zu 2	Regelmäßig 3	Häufig 4	Sehr Häufig 5	Immer 6
-----------------------	------------------------	-------------------------	---------------------	--------------------------	--------------------

1. Bei der Arbeit strotze ich vor Energie.
 2. Bei meiner Arbeit fühle ich mich stark und lebhaft.
 3. Ich bin begeistert von meiner Arbeit.
 4. Meine Arbeit ist für mich anregend und inspirierend.
 5. Wenn ich morgens aufstehe, habe ich Lust zur Arbeit zu gehen.
 6. Ich fühle mich glücklich, wenn ich viel arbeite.
 7. Ich bin stolz auf die Arbeit, die ich mache.
 8. Ich bin in meine Arbeit vertieft.
 9. Wenn ich arbeite, werde ich völlig mitgerissen.
-

Attachment 4

How do you feel about your job?

Disagree Very Much	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Very Much
1	2	3	4	5	6

1. In general, I don't like my job.^a
2. All in all, I am satisfied with my job.
3. In general, I like working here.

^aRecoded item

Wie fühlen Sie sich in Ihrer Arbeit?

Lehne voll und ganz ab	Lehne ab	Lehne ein wenig ab	Stimme ein wenig zu	Stimme zu	Stimme voll und ganz zu
1	2	3	4	5	6

1. Generell mag ich meinen Job nicht.^a
2. Alles in allem bin ich mit meiner Arbeit zufrieden.
3. Generell arbeite ich gerne hier.

^aRecoded item

Attachment 5

Backtranslation English-German

In order to back translate the scales used in the research, I first translated each statement of the scales into German. I then created a separate document with only the translated statements and sent it to my friends.

I explicitly told them to be as accurate as possible when translating the statements, but to have it make sense and adhere to the grammatic (in order to not have a word-by-word translation).

After my friends finished their translation, I checked whether each statement in both original English and back translated English versions have the same meaning and do not differ in what the sentence says. In case of a discrepancy, I adhered to my friends again to find a better suiting translation to make it more consistent. The results can be seen below:

Work Autonomy Scale

Original	To what extent do you agree with the following statements?
Translated Ger.	Inwieweit stimmen Sie den folgenden Aussagen zu?
Back translated	To what extent do you agree with the following statements?
How its solved	
Final Statement	Inwieweit stimmen Sie den folgenden Aussagen zu?

Original	Translated Ger.	Back translated	How its solved	Final Statement
Strongly Disagree	Lehne voll und ganz ab	Totally refuse		Lehne voll und ganz ab
Disagree	Lehne ab	Refuse	Widerspreche	Widerspreche
Slightly Disagree	Lehne ein wenig ab	Refuse a little	Widerspreche ein wenig	Widerspreche ein wenig
Neither Agree Nor Disagree	Stimme weder zu noch lehne ich ab	Weder zustimmen noch abstreiten	Stimme weder zu noch widerspreche ich	Stimme weder zu noch widerspreche ich

Slightly Agree	Stimme ein wenig zu	Agree a little		Stimme ein wenig zu
Agree	Stimme zu	agree		Stimme zu
Strongly Agree	Stimme voll und ganz zu	Totally agree		Stimme voll und ganz zu

Original	Translated Ger.	Back translated	How its solved	Final Statement
I am allowed to decide how to go about getting my job done (the methods to use)	Ich darf entscheiden, wie ich meine Arbeit erledige (die anzuwendenden Methoden)	I can decide how to carry out my work. (The methods to be applied)	Ich habe die Erlaubnis zu entscheiden, wie ich meine Arbeit erledige (die zu nutzenden Methoden)	Ich habe die Erlaubnis zu entscheiden, wie ich meine Arbeit erledige (die zu nutzenden Methoden)
I am able to choose the way to go about my job (the procedure to utilize).	Ich bin in der Lage, die Art und Weise zu wählen, wie ich meine Arbeit erledigen möchte (das anzuwendende Verfahren)	I am able to choose the method I want to use to do my work (the process to be used)		Ich bin in der Lage, die Art und Weise zu wählen, wie ich meine Arbeit erledigen möchte (das anzuwendende Verfahren)
I am free to choose the method(s) to use in carrying out my work	Ich bin frei in der Wahl der Methode(n), die ich bei der Ausführung meiner Arbeit anwende	I am free to choose the method(s) I use in performing my work.		Ich bin frei in der Wahl der Methode(n), die ich bei der Ausführung meiner Arbeit anwende
I have control over the scheduling of my work	Ich habe die Kontrolle über die Planung meiner Arbeit	I have control over the planning of my work.		Ich habe die Kontrolle über die Planung meiner Arbeit
I have some control over the sequencing of my work activities (when I do what).	Ich habe eine gewisse Kontrolle über die Abfolge meiner Arbeitsaktivitäten (wann ich was tue).	I have a degree of control over the sequence of my work activities (when I do what).		Ich habe eine gewisse Kontrolle über die Abfolge meiner Arbeitsaktivitäten (wann ich was tue).

My job is such that I can decide when to do particular work activities	Meine Arbeit ist so, dass ich entscheiden kann, wann ich bestimmte Arbeitsaktivitäten erledige.	My work is designed to allow me decide when to do certain work activities.		Meine Arbeit ist so, dass ich entscheiden kann, wann ich bestimmte Arbeitsaktivitäten erledige.
My job allows me to modify the normal way we are evaluated so that I can emphasize some aspects of my job and play down others.	Meine Arbeit erlaubt es mir, die normale Art und Weise, wie wir bewertet werden, zu ändern, sodass ich einige Aspekte meiner Arbeit hervorheben und andere herunterspielen kann.	My work allows me to change the normal way we are evaluated so that I can highlight some aspects of my work and downplay others.		Meine Arbeit erlaubt es mir, die normale Art und Weise, wie wir bewertet werden, zu ändern, sodass ich einige Aspekte meiner Arbeit hervorheben und andere herunterspielen kann.
I am able to modify what my job objectives are (what I am supposed to accomplish).	Ich bin in der Lage, meine beruflichen Ziele zu ändern (was ich erreichen soll).	I am able to change my professional goals (what I am supposed to achieve).	Ich bin in der Lage, meine beruflichen Aufgaben zu ändern (was ich erreichen soll).	Ich bin in der Lage, meine beruflichen Aufgaben zu ändern (was ich erreichen soll).
I have some control over what I am supposed to accomplish (what my supervisor sees as my job objectives)	Ich habe eine gewisse Kontrolle darüber, was ich erreichen soll (was mein Vorgesetzter als meine beruflichen Ziele ansieht)	I have some control over what I am supposed to accomplish (what my supervisor considers my professional goals)	Ich habe eine gewisse Kontrolle darüber, was ich erreichen soll (was mein Vorgesetzter als meine beruflichen Aufgaben ansieht)	Ich habe eine gewisse Kontrolle darüber, was ich erreichen soll (was mein Vorgesetzter als meine beruflichen Aufgaben ansieht)

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Co-Worker Support scale

Original	To what extent can you:
Translated Ger.	Inwieweit können sie:
Back translated	To what extent can they:
How its solved	
Final Statement	Inwieweit können sie:

Original	Translated Ger.	Back Translated	How its solved	Final Statement
Not at all	Ganz und gar nicht	Not at all		Ganz und gar nicht
To a small extent	In geringem Umfang	To a small extent		In geringem Umfang
Neither great nor small extent	Weder im großen noch im kleinen Umfang	Neither on a large nor on a small scale		Weder im großen noch im kleinen Umfang
To a great extent	Im großen Umfang	on a large scale		Im großen Umfang
Completely	Vollständig	Complete		Vollständig

Original	Translated Ger.	Back translated	How its solved	Final Statement
Count on your colleagues to listen to you when you need to talk about problems at work?	Verlassen Sie sich darauf, dass Ihre Kollegen Ihnen zuhören, wenn Sie über Probleme bei der Arbeit sprechen müssen?	Can you count on your colleagues that they will listen at what you are saying, when you need to talk about problems at work?	Sich darauf verlassen, dass Ihre Kollegen Ihnen zuhören, wenn Sie über Probleme bei der Arbeit sprechen müssen?	Sich darauf verlassen, dass Ihre Kollegen Ihnen zuhören, wenn Sie über Probleme bei der Arbeit sprechen müssen?
Count on your colleagues to back you up at work?	Verlassen Sie sich darauf, dass Ihre Kollegen Sie bei der Arbeit unterstützen?	Do you count on your colleague that they will support you at your work?	Sich darauf verlassen, dass Ihre Kollegen Sie bei der Arbeit unterstützen?	Sich darauf verlassen, dass Ihre Kollegen Sie bei der Arbeit unterstützen?

Count on your colleagues to help you with a difficult task at work?	Verlassen Sie sich darauf, dass Ihre Kollegen Ihnen bei einer schwierigen Aufgabe bei der Arbeit helfen?	Do you count on your colleagues that they will help you with a difficult task at work?	Sich darauf verlassen, dass Ihre Kollegen Ihnen bei einer schwierigen Aufgabe bei der Arbeit helfen?	Sich darauf verlassen, dass Ihre Kollegen Ihnen bei einer schwierigen Aufgabe bei der Arbeit helfen?
Really count on your colleagues to help you in crisis situation at work, even though they would have to go out of their way to do so?	Verlassen Sie sich wirklich darauf, dass Ihre Kollegen Ihnen in Krisensituationen am Arbeitsplatz helfen, obwohl sie sich dafür sehr viel Mühe geben müssten?	Do you really rely on your colleagues to help you in crisis situations at work, even though they would have to go to a lot of effort to do so?	Sich wirklich darauf verlassen, dass Ihre Kollegen Ihnen in Krisensituationen am Arbeitsplatz helfen, obwohl sie sich dafür sehr viel Mühe geben müssten?	Sich wirklich darauf verlassen, dass Ihre Kollegen Ihnen in Krisensituationen am Arbeitsplatz helfen, obwohl sie sich dafür sehr viel Mühe geben müssten?

Remote Work questions

Original	Please think about a usual work week of yourself in your current work place. Answer the following questions as accurate as possible.
Translated Ger.	Bitte denken Sie an Ihre normale Arbeitswoche an Ihrem derzeitigen Arbeitsplatz. Beantworten Sie die folgenden Fragen so genau wie möglich.
Back translated	Please think about your normal work week at your current work place. Answer the coming questions as accurate as possible
How its solved	
Final Statement	Bitte denken Sie an Ihre normale Arbeitswoche an Ihrem derzeitigen Arbeitsplatz. Beantworten Sie die folgenden Fragen so genau wie möglich.

Original	Translated Ger.	Back translated	How its solved	Final Statement
On average, how many hours do you work per week? (This includes overtime)	Wie viele Stunden arbeiten Sie durchschnittlich pro Woche? (Dies schließt Überstunden ein)	How many hours do you work averagely per week? (Including overtime)		Wie viele Stunden arbeiten Sie durchschnittlich pro Woche? (Dies schließt Überstunden ein)

How many of these working hours do you work are in a remote setting? (e.g.: home office)	Wie viele dieser Arbeitsstunden arbeiten Sie in einer Remote-Umgebung? (zB: Homeoffice)	How many of those work hours do you work in a remote environment (e.g. home office)		Wie viele dieser Arbeitsstunden arbeiten Sie in einer Remote-Umgebung? (zB: Homeoffice)
--	---	---	--	---

Job Satisfaction

Original	How do you feel about your job?
Translated Ger.	Wie fühlen Sie sich in Ihrer Arbeit?
Back translated	How do you feel in your work?
How its solved	
Final Statement	Wie fühlen Sie sich in Ihrer Arbeit?

Original	Translated Ger.	Back Translated	How its solved	Final Statement
Disagree very much	Lehne voll und ganz ab	Totally refuse		Lehne voll und ganz ab
Disagree moderately	Lehne ab	Refuse	Widerspreche	Widerspreche
Disagree slightly	Lehne ein wenig ab	Refuse a little	Widerspreche etwas	Widerspreche etwas
Agree slightly	Stimme ein wenig zu	Agree a little		Stimme ein wenig zu
Agree moderately	Stimme zu	agree		Stimme zu
Agree very much	Stimme voll und ganz zu	Totally agree		Stimme voll und ganz zu

Original	Translated Ger.	Back translated	How its solved	Final Statement
In general, I don't like my job.	Generell mag ich meinen Job nicht.	Generally, I don't like my job.		Generell mag ich meinen Job nicht.
All in all, I am satisfied with my job.	Alles in allem bin ich mit meiner Arbeit zufrieden.	All in all, I am satisfied with my work.		Alles in allem bin ich mit meiner Arbeit zufrieden.
In general, I like working here.	Generell arbeite ich gerne hier.	In general, I enjoy working here.		Generell arbeite ich gerne hier.

Attachment 6

Results from a factor analysis of the back translated job satisfaction scale

Job satisfaction scale	Factor loading	
	1	
3. Generell arbeite ich gerne hier.	.85	
2. Alles in allem bin ich mit meiner Arbeit zufrieden.	.80	
1. Generell mag ich meinen Job nicht. (R)	.48	

Note. $N = 74$. The Factor loadings above .30 are in bold. Revers-scored items are denoted with (R).

Results from a factor analysis of the back translated work autonomy scale

Work autonomy scale	Factor loading	
	1	2
4. Ich habe die Kontrolle über die Planung meiner Arbeit.	.98	-.17
6. Meine Arbeit ist so, dass ich entscheiden kann, wann ich bestimmte Arbeitsaktivitäten erledige.	.90	-.10
5. Ich habe eine gewisse Kontrolle über die Abfolge meiner Arbeitsaktivitäten (wann ich was tue).	.75	.00
2. Ich bin in der Lage, die Art und Weise zu wählen, wie ich meine Arbeit erledigen möchte (das anzuwendende Verfahren).	.58	.31
3. Ich bin frei in der Wahl der Methode(n), die ich bei der Ausführung meiner Arbeit anwende.	.51	.42
1. Ich habe die Erlaubnis zu entscheiden, wie ich meine Arbeit erledige (die zu nutzenden Methoden).	.42	.42
8. Ich bin in der Lage, meine beruflichen Aufgaben zu ändern (was ich erreichen soll).	-.16	1.01
7. Meine Arbeit erlaubt es mir, die normale Art und Weise, wie wir bewertet werden, zu ändern, sodass ich einige Aspekte meiner Arbeit hervorheben und andere herunterspielen kann.	-.12	.92
9. Ich habe eine gewisse Kontrolle darüber, was ich erreichen soll (was mein Vorgesetzter als meine beruflichen Aufgaben ansieht).	.25	.60

Note. $N = 74$. The extraction method was principal axis factoring with an oblique (promax with Kaiser normalization) rotation. The Factor loadings above .30 are in bold. Adapted from "Individual Differences in Activation of the Parental Care Motivational System: Assessment,

Prediction, and Implications,” by E. E. Buckels, A. T. Beall, M. K. Hofer, E. Y. Lin, Z. Zhou, and M. Schaller, 2015, *Journal of Personality and Social Psychology*, 108(3), p. 501 (<https://doi.org/10.1037/pspp0000023>). Copyright 2015 by the American Psychological Association.

Results from a factor analysis of the back translated co-worker support scale

Co-worker support scale	Factor loading
	1
3. Sich darauf verlassen, dass Ihre Kollegen Ihnen bei einer schwierigen Aufgabe bei der Arbeit helfen?	.94
2. Sich darauf verlassen, dass Ihre Kollegen Sie bei der Arbeit unterstützen?	.91
4. Sich wirklich darauf verlassen, dass Ihre Kollegen Ihnen in Krisensituationen am Arbeitsplatz helfen, obwohl sie sich dafür sehr viel Mühe geben müssten?	.89
1. Sich darauf verlassen, dass Ihre Kollegen Ihnen zuhören, wenn Sie über Probleme bei der Arbeit sprechen müssen?	.87

Note. $N = 74$. The Factor loadings above .30 are in bold.

Attachment 7

To what extent do you agree with the following statements?

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
1. I am allowed to decide how to go about getting my job done (the methods to use)						
2. I am able to choose the way to go about my job (the procedure to utilize).						
3. I am free to choose the method(s) to use in carrying out my work						
4. I have control over the scheduling of my work						
5. I have some control over the sequencing of my work activities (when I do what).						
6. My job is such that I can decide when to do particular work activities						
7. My job allows me to modify the normal way we are evaluated so that I can emphasize some aspects of my job and play down others.						
8. I am able to modify what my job objectives are (what I am supposed to accomplish).						
9. I have some control over what I am supposed to accomplish (what my supervisor sees as my job objectives)						

Inwieweit stimmen Sie den folgenden Aussagen zu?

Lehne voll und ganz ab 1	Lehne ab 2	Lehne ein wenig ab 3	Stimme weder zu noch lehne ich ab 4	Stimme ein wenig zu 5	Stimme zu 6	Stimme voll und ganz zu 7
1. Ich habe die Erlaubnis zu entscheiden, wie ich meine Arbeit erledige (die zu nutzenden Methoden).						
2. Ich bin in der Lage, die Art und Weise zu wählen, wie ich meine Arbeit erledigen möchte (das anzuwendende Verfahren).						
3. Ich bin frei in der Wahl der Methode(n), die ich bei der Ausführung meiner Arbeit anwende.						

4. Ich habe die Kontrolle über die Planung meiner Arbeit.
 5. Ich habe eine gewisse Kontrolle über die Abfolge meiner Arbeitsaktivitäten (wann ich was tue).
 6. Meine Arbeit ist so, dass ich entscheiden kann, wann ich bestimmte Arbeitsaktivitäten erledige.
 7. Meine Arbeit erlaubt es mir, die normale Art und Weise, wie wir bewertet werden, zu ändern, sodass ich einige Aspekte meiner Arbeit hervorheben und andere herunterspielen kann.
 8. Ich bin in der Lage, meine beruflichen Aufgaben zu ändern (was ich erreichen soll).
 9. Ich habe eine gewisse Kontrolle darüber, was ich erreichen soll (was mein Vorgesetzter als meine beruflichen Aufgaben ansieht).
-

Attachment 8

To what extent can you:

Not At All	To A Small	Neither Great	To A Great	Completely
1	Extent	nor Small	Extent	5
	2	Extent	4	
		3		

1. Count on your colleagues to listen to you when you need to talk about problems at work?
2. Count on your colleagues to back you up at work?
3. Count on your colleagues to help you with a difficult task at work?
4. Really count on your colleagues to help you in crisis situation at work, even though they would have to go out of their way to do so?

Inwieweit können sie:

Ganz und gar	In geringem	Weder im	Im großen	Vollständig
nicht	Umfang	Großen noch	Umfang	5
1	2	im kleinen	4	
		Umfang		
		3		

1. Sich darauf verlassen, dass Ihre Kollegen Ihnen zuhören, wenn Sie über Probleme bei der Arbeit sprechen müssen?
2. Sich darauf verlassen, dass Ihre Kollegen Sie bei der Arbeit unterstützen?
3. Sich darauf verlassen, dass Ihre Kollegen Ihnen bei einer schwierigen Aufgabe bei der Arbeit helfen?
4. Sich wirklich darauf verlassen, dass Ihre Kollegen Ihnen in Krisensituationen am Arbeitsplatz helfen, obwohl sie sich dafür sehr viel Mühe geben müssten?

Attachment 9

For the next part you will get some questions on your working hours per week. While filling these out think of your job at [company name] and try to answer the questions as accurate as possible.

On average, how many hours do you work per week? (This includes overtime)

How many of these hours do you work are in a remote setting? (e.g.: home office)

Für den nächsten Teil erhalten Sie einige Fragen zu Ihren wöchentlichen Arbeitszeiten. Denken Sie beim Ausfüllen an Ihre Arbeit bei [company name] und versuchen Sie, die Fragen so genau wie möglich zu beantworten.

Wie viele Stunden arbeiten Sie durchschnittlich pro Woche? (Dies schließt Überstunden ein)

Wie viele dieser Stunden arbeiten Sie in einer Remote-Umgebung? (zB: Homeoffice)

Attachment 10

In what country are you working?

- Ireland
- Germany

In welchem Land arbeiten Sie?

- Irland
- Deutschland

Attachment 11

How old are you?

- 18 - 28
- 29 - 39
- 40 - 50
- 51 - 61
- 62 - 72
- 73 <

Wie alt sind sie?

- 18 - 28
- 29 - 39
- 40 - 50
- 51 - 61
- 62 - 72
- 73 <

Attachment 12

What is your gender?

- Male
- Female
- Other
- I prefer not to say

Was ist ihr Geschlecht?

- Männlich
- Weiblich
- Divers
- Ich sage es lieber nicht

Attachment 13

In order to gain more participants, several recruitment-methods were used to increase the response rate. Below you can see the different methods and a small explanation on what this method entailed and whether it worked or not, based on the daily response rate.

Method	Explanation	Effectiveness
Going from Bureau to Bureau	The name explains what was done. I went from bureau to bureau in order to talk to my colleagues of other departments and to explain them the reason for the research and what it entails. I answered questions regarding the research and hence motivated co-workers to participate in the study	This was by far the most effective method used. After visiting a bureau, the response rate increased (biggest increase was 20 participant on one day, which was also the biggest office). Many colleagues were glad to be able to help me after I they got a face to the email they received.
Asking Production employees in the canteen	For this I went to the company's canteen to talk to the production employees as they don't have a laptop for their work. I talked to them, discussed different questions. Finally, I had a laptop with me on which they could fill in the questionnaire if they wanted to participate	Sadly, most of the production employees had no interest in participating. Those who were interested generally had no time to do so.
Writing reminders for the participation deadline	After 2 weeks of data collection, which was half-way to the collection deadline, a reminder was sent per Mail to all employees of the German company branch. The mail can be seen below this table.	There was a huge increase in responses after sending the mail. Colleagues told me that they forgot to participate after my initial mail and that seeing the deadline lead to an immediate participation.
Posting a reminder on the company's intranet	Similar to the reminder mail, this was a way to remind the Irish branch of the company about the deadline. Again, the post can be seen below the table.	The effect of this method is similar to the reminder mail. However, I only have scarce feedback on why this increase occurred. It is plausible that sharing the deadline again made the Irish colleagues realize the urgency of their participation.

Hallo Zusammen,

Ich möchte diese E-Mail nutzen, um euch an meine Studie zu erinnern.

Die Datensammelphase geht noch bis kommenden Samstag, den 17.06.23, und ich bitte jeden der die Studie noch nicht ausgefüllt hat, dies noch zu tun, wenn er daran teilnehmen möchte.

Anbei nochmal der Link der euch direkt zu meiner Studie führt.

https://psychru.qualtrics.com/jfe/form/SV_78V9oJMKQLzX9zM

Ein großes Dankeschön schonmal an jeden der bis jetzt den Fragebogen ausgefüllt hat und den Fragebogen noch ausfüllen wird.

Gruß

Justin Eltz

Please assist our colleague, Justin Eltz, currently interning at Ornuia Deutschland, by completing a brief "Work, Organization and Health" at Ornuia survey to support his studies in Radboud University – see note from Justin below.

Hello,

My name is Justin Eltz, a master's student for the "Work, Organization and Health" psychology track of the Radboud University in Nijmegen. Currently, I am doing my internship at Ornuia in Germany.

Part of the internship is to perform research in the area of work, organization, and health. I ask you to fill out the following survey to help me complete my research, which will support improved employee engagement across our business.

The questionnaire takes approximately 10 minutes to complete and is anonymous.

If you can please complete by 17th June I would be very grateful – you can do so by clicking on the link below. The survey is available in English and German – you can switch the language by choosing English in the top right corner.

https://psychru.qualtrics.com/jfe/form/SV_78V9oJMKQLzX9zM

Kind regards

Justin Eltz

Attachment 14

Information Letter

For participation in scientific research:

The importance of autonomy, co-worker support and hours of remote work regarding job satisfaction and engagement.

Dear Participant,

I am glad that you are interested in participating in this scientific research!

This questionnaire is part of the master thesis project in order to complete the Master's track "Work, Organization and Health psychology" of the Radboud University in Nijmegen. The research investigates the percentage hours working from home (remote work), positive emotional states generated by employee's subjective assessment of the work experience (job satisfaction), work-related states of mind with dedication and absorption towards the job (job engagement), the assistance received from colleagues in work tasks when needed (co-worker support) and autonomy of employees in an Irish and German dairy company. It aims to answer the research question whether the amount of remote work, autonomy and co-worker support are related to job engagement and job satisfaction. With an answer to this question, I want to give advice to adapt policies improving the satisfaction and engagement of the company.

It will take approximately 10 minutes to complete this questionnaire. You will be asked to fill out a total of 30 questions. All these answers will be multiple choice, with no right or wrong answers. For each question, choose the answer that best fits your opinion. There is one exemption in which you have to answer two questions by filling in a number into a text box. These are the questions on your working hours and remote working hours.

You will not receive any compensation for participating in the survey. The research has a minimal risk and complies with the ethical frameworks of the "Light Track" as drawn up by the Ethics Committee for Social Sciences (ECSS) of the Radboud University. The researcher has established this by completing the checklist belonging to the Light Track.

To conduct the research, it is necessary that your personal data are collected, used and stored. Personal data refers to information with which you can be identified directly (age, gender, country you work in, preferred language) or indirectly (Hours of (remote) work) as a person.

This research serves 5 purposes. Below is indicated which categories of personal data we collect per purpose:

- To find out the effects of the percentage of remote work hours on job satisfaction and job engagement: the number of hours you work (in a remote setting).
- To find out the effects of the autonomy and co-worker support on job engagement and job satisfaction.
- To describe the group of participants (for example mean age or distribution male/female/other, participants working in Germany or Ireland).
- To test the translations of the questionnaires used in this survey: Differences in the language of the survey.
- To check for confounding variables in the analysis: whether the country you work in affects the research model.

In the consent form you are asked to give explicit permission for the collection, use and storage of the above-mentioned personal data. If you do not agree, you cannot participate in the research study.

The information you provide for the current research purposes is treated with the utmost care and is accessible to authorized staff only. Personal data collected about you will remain confidential throughout the research. In order to safeguard your privacy, your personal data will be processed anonymously, which means that the results cannot be traced back to you. No parties involved in the research shall receive any data that can be traced back to you. Only anonymized research data are to be used in reports and publications regarding the research.

Therefore, it is impossible to contact you in order to inform you about your personal results, after the research has been finished. However, it is possible to inform you about the results of the research. Please inform me via mail, if you want to be informed about the results of this research. The mail-address can be found below.

You can cancel your participation at any time during study participation or withdraw your

consent by not submitting your answers or leaving questions open. Due to the fact that data is collected anonymous withdrawing your data is possible till the end of the survey by not finishing the survey or leaving questions open. Incomplete data will be deleted. Withdrawing data or canceling participation has no consequences for you.

Access to the data is given to the student-researcher who conducts this study only. In addition, the research data are accessible to the teacher(s) of this student and the examiners of the course for which this study is conducted. The research data that are collected in this study will be saved by the student-researcher for the course in which this study is conducted. To fulfil this course, the student-researcher has to submit the research data to the program Psychology of the Radboud University during the course. The program Psychology of the Radboud University keeps the research data for education purposes (for example, appraisal, verification and audits). The data will be kept by the student researcher until the project has been evaluated and graded, and will be deleted 1 month after receiving the thesis grade at the latest. At the Radboud University, the consent form signed by you will be kept for 10 years upon completion of the research. Your anonymized research data will be stored for 10 years after the research has been completed.

Some persons and organizations must have access to your personal and research data. This is necessary in order to test whether the research has been carried out properly and reliably. These persons and supervisory authorities inspecting your data for verification include: authorized persons within Radboud University (for example a dean, director or data officer) and (inter) national supervisory authorities (for example the Dutch Data Protection Authority and the Netherlands Board on Research Integrity). They are held to inspecting your data on a strictly confidential basis. You will be asked to grant permission for this access. If you refuse to do so, you cannot participate in the study.

Radboud University is responsible for compliance with the General Data Protection Regulation (GDPR) when processing your personal data. The researcher ensures that your privacy and the conditions attached to it are safeguarded and he/she adheres to the Dutch code of conduct for scientific integrity and university policy regarding the storage and management of personal and research data when conducting this research. You have the right to withdraw your consent for the processing of your personal data at any time. Your personal data will then be deleted. You can find the Radboud University Privacy Statement

at: <https://www.ru.nl/english/vaste-onderdelen/privacy-statement-radboud-university/>. If you have any questions about your privacy, please contact the Local Privacy Officer Faculty of Social Sciences (enna.lujinovic@ru.nl). For general questions, please contact the office of the Data Protection Officer of Radboud University via privacy@ru.nl. More information about your rights in the processing of your personal data can be found at <https://www.ru.nl/privacy/english/protection-personal-data/data-subjects-rights/> and on the website of the Dutch Data Protection Authority (<https://autoriteitpersoonsgegevens.nl/en>).

The research data obtained will not be viewed from a medical and/or clinical perspective. Therefore, your participation in the study cannot be considered a medical/clinical test. Since the current study is completely anonymous, any scores that are worrying and/or that may be of personal clinical significance cannot be related back to you. If you are concerned about your health as a result of the questions, I advise you to contact your general practitioner.

Your participation in this study is entirely voluntary. If you decide not to participate, there will be no consequences. If, during the course of the research, you wish to withdraw your consent and terminate your participation, you have every right to do so at all times during filling out the survey. Again, there will be no adverse consequences for you.

If you have any questions, comments or concerns about this study, please contact the researcher responsible: Justin Eltz (justin.eltz@ru.nl). If you have questions, remarks or concerns that you rather not share with the researcher in charge, you can contact the coordinator of the Master thesis and internship project of the master Work, Organization and Health psychology” of the Radboud University in Nijmegen Dr. Brigitte Claessens (Brigitte.claessens@ru.nl).

With kind regards,

Justin Eltz

Justin.eltz@ru.nl

Intern Demand Planning

Attachment 15

Informationsschreiben

Für die Teilnahme an wissenschaftlicher Forschung:

"The importance of autonomy, co-worker support and hours of remote work regarding job satisfaction and engagement."

Lieber Teilnehmer, liebe Teilnehmerin,

Ich freue mich über Ihr Interesse, an dieser wissenschaftlichen Forschung mitzuwirken!

Dieser Fragebogen ist Teil einer Meisterarbeit zum Abschluss des Masterstudiengangs „Work, Organization and Health Psychology“ der Radboud Universität in Nijmegen. Die Forschung untersucht den Prozentsatz der Stunden, die von zu Hause aus gearbeitet werden (Remote-Arbeit), positive emotionale Zustände, die durch die subjektive Bewertung der Arbeitserfahrung durch die Mitarbeiter erzeugt werden (Arbeitszufriedenheit), arbeitsbezogene Geisteszustände mit Hingabe und Aufnahme in den Job (Arbeitsengagement), die Unterstützung durch Kollegen bei Arbeitsaufgaben bei Bedarf (Mitarbeiterunterstützung) und Autonomie der Mitarbeiter in einem irischen und deutschen Molkereiunternehmen. Die Studie zielt darauf ab, die Forschungsfrage zu beantworten, ob das Ausmaß an Fernarbeit, Autonomie und Unterstützung durch die Mitarbeiter mit dem Arbeitsengagement und der Arbeitszufriedenheit zusammenhängt. Mit einer Antwort auf diese Frage möchte ich Ratschläge zur Anpassung von Richtlinien geben, die die Zufriedenheit und das Engagement des Unternehmens verbessern.

Das Ausfüllen dieses Fragebogens dauert ungefähr 10 Minuten. Sie werden gebeten, insgesamt 30 Fragen auszufüllen. Alle diese Antworten sind Multiple-Choice-Antworten ohne richtige oder falsche Antworten. Wählen Sie für jede Frage die Antwort aus, die Ihrer Meinung am besten entspricht. Es gibt eine Ausnahme, bei der Sie zwei Fragen beantworten müssen, indem Sie eine Zahl in ein Textfeld eingeben. Das sind die Fragen zu Ihren Arbeitszeiten und Home-Office-zeiten.

Für die Teilnahme an der Umfrage erhalten Sie keine Vergütung. Die Forschung hat ein

minimales Risiko und entspricht den ethischen Rahmenbedingungen des „Light Track“, wie sie von der Ethikkommission für Sozialwissenschaften (ECSS) der Radboud-Universität erstellt wurden. Gewährleistet wurde dies, indem die zum „Light Track“ gehörende Checkliste ausgefüllt wurde.

Zur Durchführung der Forschung ist es erforderlich, dass Ihre personenbezogenen Daten erhoben, genutzt und gespeichert werden. Personenbezogene Daten sind Informationen, mit denen Sie direkt (Alter, Geschlecht, Land, in dem Sie arbeiten, Ihre bevorzugte Sprache) oder indirekt (Stunden der Fernarbeit) als Person identifiziert werden können.

Diese Forschung dient zwei Zwecken. Nachfolgend ist angegeben, welche Kategorien personenbezogener Daten wir zu welchem Zweck erheben:

- Um die Auswirkungen des Prozentsatzes der Remote-Arbeitsstunden auf die Arbeitszufriedenheit und das Arbeitsengagement herauszufinden: die Anzahl der Stunden, die Sie (in einer Remote-Umgebung) arbeiten.
- Um herauszufinden, welche Auswirkungen die Autonomie und die Unterstützung der Kollegen auf das Arbeitsengagement und die Arbeitszufriedenheit haben.
- Zur Beschreibung der Teilnehmergruppe (z. B. mittleres Alter oder Verteilung männlich/weiblich/andere, Teilnehmer, die in Deutschland oder Irland arbeiten).
- Um die Übersetzungen der in dieser Umfrage verwendeten Fragebögen zu testen: Unterschiede in der Sprache der Umfrage.
- Um die Analyse auf Störvariablen zu prüfen: ob das Land, in dem Sie arbeiten, das Forschungsmodell beeinflusst.

In der Einwilligungserklärung werden Sie gebeten, der Erhebung, Nutzung und Speicherung der oben genannten personenbezogenen Daten ausdrücklich zuzustimmen. Wenn Sie nicht einverstanden sind, können Sie nicht an der Forschungsstudie teilnehmen.

Die von Ihnen für die aktuellen Forschungszwecke bereitgestellten Informationen werden mit größter Sorgfalt behandelt und sind nur autorisierten Mitarbeitern zugänglich. Über Sie erhobene personenbezogene Daten werden während der gesamten Recherche vertraulich behandelt. Zum Schutz Ihrer Privatsphäre werden Ihre personenbezogenen Daten anonym verarbeitet, das heißt, die Ergebnisse können nicht zu Ihnen zurückverfolgt werden. Keine an der Forschung beteiligten Parteien erhalten Daten, die auf Sie zurückgeführt werden können.

In Berichten und Veröffentlichungen zur Forschung dürfen nur anonymisierte Forschungsdaten verwendet werden

Daher ist es unmöglich, Sie zu kontaktieren, um Sie nach Abschluss der Recherche über Ihre persönlichen Ergebnisse zu informieren. Es ist jedoch möglich, Sie über die Ergebnisse der Untersuchung zu informieren. Bitte informieren Sie mich per Mail, wenn Sie über die Ergebnisse dieser Forschung informiert werden möchten. Die Mail-Adresse finden Sie unten.

Sie können Ihre Teilnahme während der Studienteilnahme jederzeit kündigen oder Ihre Einwilligung widerrufen, indem Sie Ihre Antworten nicht abgeben oder Fragen offenlassen. Da die Daten anonym erhoben werden, ist ein Widerruf Ihrer Daten bis zum Ende der Umfrage möglich, indem Sie die Umfrage nicht beenden oder Fragen offenlassen. Unvollständige Daten werden gelöscht. Der Widerruf Ihrer Daten oder die Absage der Teilnahme hat für Sie keine Konsequenzen.

Zugang zu den Daten erhält nur der studentische Forscher, der diese Studie durchführt. Darüber hinaus sind die Forschungsdaten dem/der Lehrer/in dieses Studierenden und den Prüfern des Studiengangs zugänglich, für den diese Studie durchgeführt wird. Die in dieser Studie erhobenen Forschungsdaten werden von dem studentischen Forscher für den Studiengang gespeichert, in dem diese Studie durchgeführt wird. Um diesen Kurs zu absolvieren, muss der studentische Forscher die Forschungsdaten während des Kurses beim Programm "Psychology" der Radboud-Universität einreichen. Das Programm Psychologie der Radboud-Universität bewahrt die Forschungsdaten für Bildungszwecke auf (z. B. Bewertung, Überprüfung und Audits). Die Daten werden bis zur Auswertung und Benotung des Projektes vom Studenten aufbewahrt und spätestens 1 Monat nach Erhalt der Note der Abschlussarbeit gelöscht. An der Radboud Universität wird die von Ihnen unterschriebene Einverständniserklärung nach Abschluss der Forschung 10 Jahre lang aufbewahrt. Ihre anonymisierten Forschungsdaten werden für 10 Jahre nach Abschluss der Forschung gespeichert.

Einige Personen und Organisationen müssen Zugriff auf Ihre persönlichen Daten und Forschungsdaten haben. Dies ist notwendig, um zu prüfen, ob die Recherche ordnungsgemäß und zuverlässig durchgeführt wurde. Zu diesen Personen und Aufsichtsbehörden, die Ihre Daten zur Überprüfung prüfen, gehören: autorisierte Personen innerhalb der Radboud

University (z. B. ein Dekan, Direktor oder Datenbeauftragter) und (inter)nationale Aufsichtsbehörden (z. B. die niederländische Datenschutzbehörde und das niederländische Board on Research Integrity). Ihre Daten werden, bei Einsichtnahme der oben genannten Personen, streng vertraulich behandelt. Sie werden am Ende dieser Seite dazu aufgefordert, die Erlaubnis für diesen Zugriff zu erteilen. Wenn Sie dies ablehnen, können Sie nicht an der Studie teilnehmen.

Die Radboud University ist für die Einhaltung der Datenschutz-Grundverordnung (DSGVO) bei der Verarbeitung Ihrer personenbezogenen Daten verantwortlich. Der Forscher stellt sicher, dass Ihre Privatsphäre und die damit verbundenen Bedingungen gewahrt bleiben, und hält sich bei der Durchführung dieser Forschung an den niederländischen Verhaltenskodex für wissenschaftliche Integrität und die Universitätsrichtlinie bezüglich der Speicherung und Verwaltung von persönlichen Daten und Forschungsdaten. Sie haben das Recht, Ihre Einwilligung zur Verarbeitung Ihrer personenbezogenen Daten jederzeit zu widerrufen. Ihre personenbezogenen Daten werden dann gelöscht. Die Datenschutzerklärung der Radboud University finden Sie unter: <https://www.ru.nl/english/vaste-onderdelen/privacy-statement-radboud-university/>. Wenn Sie Fragen zum Datenschutz haben, wenden Sie sich bitte an den lokalen Datenschutzbeauftragten der Fakultät für Sozialwissenschaften (enna.lujinovic@ru.nl). Bei allgemeinen Fragen wenden Sie sich bitte an das Büro des Datenschutzbeauftragten der Radboud University unter privacy@ru.nl. Weitere Informationen zu Ihren Rechten bei der Verarbeitung Ihrer personenbezogenen Daten finden Sie unter: <https://www.ru.nl/privacy/english/protection-personal-data/data-subjects-rights/> und auf der Website der niederländischen Datenschutzbehörde: <https://autoriteitpersoonsgegevens.nl/en>

Die gewonnenen Forschungsdaten werden nicht aus medizinischer und/oder klinischer Sicht betrachtet. Daher kann Ihre Teilnahme an der Studie nicht als medizinischer/klinischer Test angesehen werden. Da die aktuelle Studie völlig anonym ist, können Ihnen besorgniserregende und/oder von persönlicher klinischer Bedeutung seiende Ergebnisse nicht zugeordnet werden. Wenn Sie sich aufgrund der Fragen Sorgen um Ihre Gesundheit machen, wird Ihnen geraten, sich an Ihren Hausarzt zu wenden.

Ihre Teilnahme an dieser Studie ist vollkommen freiwillig. Wenn Sie sich entscheiden, nicht teilzunehmen, hat dies keine Konsequenzen. Wenn Sie im Laufe der Umfrage Ihre Einwilligung widerrufen und Ihre Teilnahme beenden möchten, haben Sie jederzeit das Recht,

dies während des Ausfüllens der Umfrage zu tun. Auch hier wird es keine nachteiligen Folgen für Sie geben.

Wenn Sie Fragen, Kommentare oder Bedenken zu dieser Studie haben, wenden Sie sich bitte an den verantwortlichen Forscher: Justin Eltz (justin.eltz@ru.nl). Wenn Sie Fragen, Anmerkungen oder Bedenken haben, die Sie lieber nicht mit dem zuständigen Forscher teilen möchten, können Sie sich an die Koordinatorin des Masterarbeits- und Praktikumsprojekts des Masters " der Radboud-Universität in Nijmegen Dr. Brigitte Claessens (Brigitte.claessens@ru.nl).

Mit freundlichen Grüßen

Justin Eltz

justin.eltz@ru.nl

Praktikant/Werkstudent Demand Planning

Attachment 16

CONSENT FORM

for participation in scientific research:

The importance of autonomy, co-worker support and hours of remote work regarding job satisfaction and engagement.

I herewith confirm that:

- I have been satisfactorily informed of the study in writing;
- I have read the written information;
- I have been given the opportunity to ask questions about the study;
- my questions have been answered satisfactorily;
- I have been given ample opportunity to think carefully about participating in the study;
- I participate in the study entirely on a voluntary basis.

I understand that:

- I have the right to withdraw my consent at any time during filling out the questionnaire without having to state reasons and without fear of adverse consequences;
- I have the right to have my research data deleted up until the last page of the survey by not completing all questions;
- I have the right to withdraw my consent for the (further) processing of my (specific) personal data until the last page of the survey by not completing all questions; my personal data are processed in accordance with the applicable European privacy regulations;
- my personal data are processed in accordance with the privacy statement of Radboud University (<https://www.ru.nl/english/vaste-onderdelen/privacy-statement-radboud-university/>);

I agree that:

- *my personal and/or research data within this research will be obtained for scientific purposes and will be available for verification, reuse and replication for 10 years;*
- the signed consent form with my personal data is kept for 10 years;

- supervisory authorities may inspect my personal and research data for the purpose of auditing the research.

Please indicate your preference below.

Yes, I agree to participate in this study (proceed with the study)

No, I do not want to participate in this study

Attachment 17

EINVERSTÄNDNISERKLÄRUNG

für die Teilnahme an wissenschaftlicher Forschung:

"The importance of autonomy, co-worker support and hours of remote work regarding job satisfaction and engagement."

Hiermit bestätige ich:

- Ich wurde zufriedenstellend schriftlich über die Studie informiert;
- Ich habe die schriftlichen Informationen gelesen;
- Mir wurde Gelegenheit gegeben, Fragen zur Studie zu stellen;
- meine Fragen wurden zufriedenstellend beantwortet;
- Mir wurde ausreichend Gelegenheit gegeben, sorgfältig über eine Teilnahme an der Studie nachzudenken;
- Ich nehme auf freiwilliger Basis an der Studie teil.

Ich verstehe das:

- Ich habe das Recht, meine Einwilligung während des Ausfüllens des Fragebogens jederzeit ohne Angabe von Gründen und ohne Angst vor nachteiligen Folgen zu widerrufen;
- Ich habe das Recht, meine Forschungsdaten bis zur letzten Seite der Umfrage löschen zu lassen indem Ich nicht alle Fragen beantworte;
- Ich habe das Recht, meine Einwilligung zur (weiteren) Verarbeitung meiner (bestimmten) personenbezogenen Daten bis zur letzten Seite der Umfrage zu widerrufen indem Ich nicht alle Fragen beantworte; meine personenbezogenen Daten werden in Übereinstimmung mit den geltenden europäischen Datenschutzbestimmungen verarbeitet;
- Meine personenbezogenen Daten werden gemäß der Datenschutzerklärung der Radboud University (<https://www.ru.nl/english/vaste-onderdelen/privacy-statement-radboud-university/>) verarbeitet;

Ich stimme zu:

- Meine personenbezogenen und/oder Forschungsdaten im Rahmen dieser Forschung werden für wissenschaftliche Zwecke erhoben und stehen für die Verifizierung, Wiederverwendung und Replikation für 10 Jahre zur Verfügung;
- Die unterschriebene Einwilligungserklärung mit meinen personenbezogenen Daten wird 10 Jahre lang aufbewahrt;
- Aufsichtsbehörden dürfen meine Personen- und Forschungsdaten zum Zwecke der Prüfung der Forschung einsehen.

Bitte geben Sie unten Ihre Präferenz an.

Ja, ich stimme der Teilnahme an dieser Studie zu (mit der Studie fortfahren)

Nein, ich möchte nicht an dieser Studie teilnehmen

Attachment 18

Closure and written debriefing

Dear Participant!

Thank you very much for your participation! With your participation you help to find out more about the relationship between the job resources: work autonomy, co-worker support and remote work, and the outcome variables: job engagement and satisfaction.

I would like to ask you not to share the information about this study with others, to ensure that new participants are not familiar with the purpose of this study.

You have reached the end of this questionnaire. If you wish to be informed about the results of this study, and/or have questions, remarks or concerns about this study, please send an e-mail to Justin Eltz (justin.eltz@ru.nl).

Please click on the bottom right arrow – only then will the questionnaire be finished and your answers saved.

I'd like to thank you again for your time and your effort! With kind regards, Justin Eltz
Justin.eltz@ru.nl Intern Demand Planning

With kind regards,

Justin Eltz

Justin.eltz@ru.nl

Intern Demand Planning

Attachment 19

Abschluss und schriftliche Nachbesprechung

Sehr geehrter Teilnehmer, sehr geehrte Teilnehmerin!

Vielen Dank für ihre Teilnahme! Mit ihrer Teilnahme helfen sie uns mehr über die Beziehungen zwischen Arbeitsressourcen: Arbeitsautonomie, Unterstützung von Kollegen und Fernarbeit, und die Ergebnisvariablen: Arbeitsengagement und Zufriedenheit.

Ich möchte sie darum bitten, die Informationen über diese Studie nicht an andere weiterzugeben, um sicher zu gehen, dass neue Teilnehmer*innen nicht mit dem Zweck dieser Studie vertraut sind.

Sie haben nun das Ende dieses Fragebogens erreicht. Wenn sie über die Ergebnisse dieser Studie informiert werden möchten und/oder Fragen, Anmerkungen oder Bedenken zu dieser Studie haben, senden sie bitte eine E-Mail an Justin Eltz (justin.eltz@ru.nl).

Bitte klicken sie auf den Pfeil unten rechts – erst dann wird der Fragebogen fertig gestellt und Ihre Antworten gespeichert.

Ich möchte mich nochmals für ihre Zeit und ihre Mühe bedanken!

Mit freundlichen Grüßen

Justin Eltz

justin.eltz@ru.nl

Praktikant/Werkstudent Demand Planning