Leisure at Work, Recovery, and Work Engagement: The Moderating Role of Playfulness Trait

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Abstract

Leisure engagement is a way to replenish personal resources that can facilitate work engagement. Accordingly, previous research repeatedly showed that leisure engaged during off-job times can increase work engagement through experiences of recovery. However, due to technological advancement and vanishing boundaries between work and nonwork times a new type of leisure has emerged which is leisure engaged at work. Thus, the current study examined whether leisure engaged at work can also replenish resources that can increase work engagement through recovery experiences and whether the playfulness trait can moderate these aforementioned relationships. Based on the resource view of work engagement, I propose that leisure at work engagement is positively related with work engagement. Regarding COR theory and ER model, this positive relationship is hypothesized to mediated by recovery experiences. Further high levels of playfulness were previously found to obtain more personal resources from engaging leisure activities. Thus, playfulness trait is hypothesized to strengthen the positive relationships between leisure at work participation and work engagement, as well as leisure at work participation and recovery experiences. I conducted a cross-sectional study (N = 113) with using an online questionnaire. Results have showed that leisure at work participation was insignificantly and negatively related to work engagement. Nevertheless, this negative relationship was buffered by the playfulness trait. Further, leisure at work participation was found to be positively related with experiences of recovery. Overall, while engaging leisure at work could be detrimental to work engagement, it is nevertheless crucial for employees due to its beneficial effects on recovery.

Keywords: leisure at work, recovery, work engagement, playfulness trait

Leisure at Work, Recovery, and Work Engagement: The Moderating Role of Playfulness Trait

Work engagement (WE) refers to a positive work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Work engagement has long been a concern for organizational researchers and organizations itself, as it is associated with a diverse array of work-related outcomes (e.g., performance; organizational commitment; employee satisfaction, creativity, and innovation; Bakker & Albrecht, 2018; Bakker et al., 2007; Cho et al., 2006; Crawford et al., 2014; Harter et al.,2002) as well as well-being (Narainsamy & Westhuizen, 2013; Tesi et al.,2018). Previously, research stated that resources were required to maintain work engagement (Bakker et al., 2007). *Recovery* happened during leisure time is associated with the availability of personal resources (psychological aspects of the self, Xanthopoulou et al., 2007) which can be used for work engagement (Sonnentag, 2012).

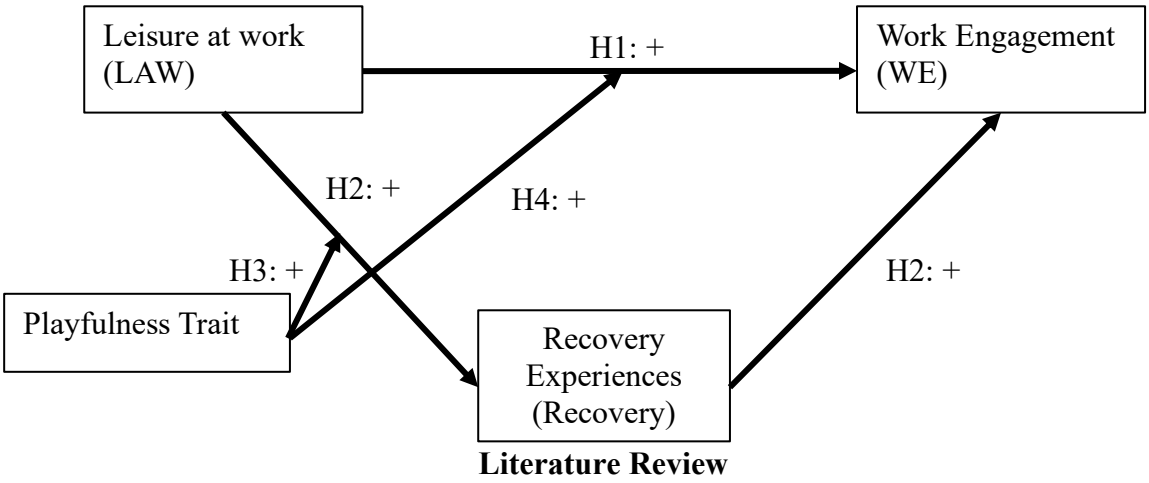
Nowadays, technology's advancement as well as the vanishing boundaries between work and nonwork triggered a new type of leisure—engaging in leisure activities at the workplace (LAW, Duerden et al., 2017; Lacanienta et al., 2018). Many organizations are becoming increasingly interested in promoting recreational activities in the workplace, a well-known example could be Google, which introduced basketball courts for employees (Duerden et al., 2017). However, research in such kind of leisure engagement (i.e., LAW) still remains at the anecdotical level (Lacanienta et al., 2018). Particularly, it remained unclear whether LAW also produces and replenishes personal resources in terms of recovery and increase work engagement. Thus, this research aimed to contribute to the scholarly understanding of LAW through investigating the relationship between recovery and work engagement in the LAW context.

Further, individual factors, such as playfulness trait (Barnett, 2007), might influence the likelihood of engaging in play at the workplace as well as obtaining different outcomes from leisure (Mannell & Kleiber, 2015; Petelczyc et al., 2018). Playfulness trait is defined as ‘‘the predisposition to frame a situation in such a way as to provide oneself and others with amusement, humor, and/or entertainment (Barnett, 2007; p. 955)”. Past research on playfulness trait revealed that, the more individuals are playful, the more likely they engage in recreational activities at the workplace (Petelczyc et al., 2018) as well as obtain more benefits from them in terms of acquiring more resources (Fredrickson, 1998). Therefore, playfulness trait was incorporated to the research model as a moderator variable.

In all, this current study aimed to understand the relationship between LAW, recovery experiences, and work engagement. Recovery was conceptualized as recovery experiences in this study because psychological experiences while engaging in leisure activities are more crucial for recovery than specific types of leisure (Sonnentag & Fritz, 2007). As aforementioned, playfulness trait was included in the model as a moderator. Thus, the research question for this paper was: “How does participating LAW activities predict WE through recovery experiences, and how does the playfulness trait moderate this aforementioned relationship?” (See Figure 1 for the conceptual framework). Examining this research question contributes to current research by clarifying the relationship between recovery and work engagement in the leisure at work context. In practical sense, this study might help managers to better understand the benefits of leisure engaged at the workplace.

Figure 1

The Conceptual Framework



Work Engagement: Job Demands-Resources Model

Work engagement (WE) is defined as a positive work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Vigor is characterized by the willingness to invest effort towards work, mental resilience, and persistence even in the presence of difficulties (Schaufeli et al., 2002). Dedication is characterized as a sense of identification with the job, as well as feelings of inspiration and energy towards one's job (Bakker & Demerouti, 2017; Kanungo, 1982; Lawler & Hall, 1970 Schaufeli et al., 2002). Absorption is characterized by being fully concentrated on one's work and having difficulties with detaching oneself from work (Schaufeli et al., 2002). Specifically, engaged individuals perceived their work as more stimulating and motivating for which they want to put time and effort into (vigor), more meaningful and significant to pursue (dedication), and more interesting to concentrate on (Absorption; Bakker et al., 2012; Othman & Nasurdin, 2019). In the organizational context, work engagement was regarded as an important concept because it was positively related with different work-related outcomes (e.g., Bakker & Albrecht, 2018). Thus, most of the research on work engagement included the benefits of work engagement in the organizational context, for instance, work

engagement was positively related to financial incomes (Xanthopoulou et al., 2009), both individual and team-level job performance (Christian et al., 2011; Costa et al., 2015), job satisfaction (Yakın & Erdil, 2012; Yeh, 2013), and organizational health and well-being (Guest, 2013; Schaufeli & Salanova, 2010; Tesi et al., 2018). Since work engagement had a wide range of effects on employees, teams, and organizations, investigating facilitators and factors that maintain it has become crucial for researchers (Bakker & Albrecht, 2018).

A relevant model for examining the predictors of work engagement was the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007a). It argues that the occurrence of job stress and work engagement depends on the imbalance between individual's job demands and resources (Bakker & Demerouti, 2007a; Schaufeli & Taris, 2014; Xanthopoulou et al., 2007). Specifically, the theory defined job demands as the characteristics of a job that are related to various physiological or psychological costs, which were regarded as detrimental to work engagement (Bakker & Demerouti, 2007a; Xanthopoulou et al., 2007). Some examples of job demands include long working hours, workload, and time pressure (Bakker et al., 2003; Bakker & Demerouti, 2007a).

Differently, the JD-R model argued that the strongest predictors of work engagement are job and personal resources (i.e., resource-based view of work engagement; Bakker & Demerouti, 2007a; Schaufeli & Bakker, 2004; Schaufeli & Salanova, 2007; Xanthopoulou et al., 2007). Specifically, job resources are referred to as those physical, psychological, or social characteristics of the job that reduce work demands, provide personal growth, and are functional to achieve work goals (Bakker & Demerouti, 2007a). Examples could be performance feedback, skill variety, and resourceful work environments which were found to be positively related to work engagement (Bakker & Demerouti, 2007b; Bakker et al., 2007; Bakker & Albrecht, 2018; Hakanen et al., 2006; Rothmann & Jordaan, 2006). Lately, personal resources—additional to job resources— were integrated into the JD-R model

because psychological approaches assume that both environmental factors, (job demands and resources), and personal factors (personal resources), were needed to explain human behavior, in this case, engaging one's work (Schaufeli & Taris, 2014). Personal resources could be defined as any psychological characteristic of the self that reduces perceived work demands, for instance, self-efficacy, optimism, and self-esteem (Mäkikangas et al., 2013; Schaufeli & Taris, 2014; Xanthopoulou et al., 2007). In line with the JD-R model, previous studies have found a positive relationship between specific personal resources such as self-efficacy (Laguna et al., 2017; Libano et al. 2012; Yakın & Erdil, 2012; Xanthopoulou et al., 2007), optimism (Mache et al., 2014; Mäkikangas et al., 2013; Stander et al., 2015), resilience (Cao & Chen, 2019; Moon et al., 2013), self-esteem (Bakker, 2011; Mauno et al., 2007), mindfulness (Liu et al., 2020; Malinowski & Lim, 2015) and work engagement. Therefore, past research as well as JD-R model (Bakker & Demerouti, 2007a) supported the view that both personal and job resources are positively, and job demands are negatively related to work engagement.

Recent studies have started to focus on distal predictors of work engagement– through that many predicted job and personal resources, and then indirectly influenced work engagement (Bakker & Albrecht, 2018). Several studies have focused on human resource practices (HRMs) such as job redesign, job crafting, and employee training which were positively related to work engagement notably by enhancing job and personal resources (Albrecht et al., 2015; Alfes et al., 2013; Alzyoud, 2018; Bakker & Albrecht, 2018; Holman & Axtell, 2016; Tims & Bakker, 2010). Other studies have focused on the positive relationship between transformational leadership and employee work engagement which was also related with increasing job and personal resources of employees (Breevaart et al., 2014; Tims et al., 2011; Tuckey et al., 2012). Thus, most of the research on facilitating work engagement focused on the practices that increase job and personal resources. However,

existing research on leisure time activities (especially leisure at work; LAW; Duerden et al., 2017) and work engagement were still limited (Duerden et al., 2017) even though leisure activities were regarded as a way to obtain personal resources (Oerlemans & Bakker, 2014; Oerlemans et al., 2014; Rook & Zijlstra, 2006; Sonnentag, 2001).

Leisure at Work and Work Engagement

In this study, *leisure at work* (LAW) *activities* are conceptualized as low-effort, social, and physical activities engaged in during the worktime and work break (Duerden et al., 2017; Sonnentag, 2001). First, low-effort activities are defined as passive, below-baseline, and effortless activities such as relaxing on the sofa, browsing through a newspaper, and lunch and coffee breaks (Kleiber et al., 1986; Sonnentag, 2001; Sonnentag & Jelden, 2009). Second, social activities include activities that require social interaction, such as meeting with friends, having lunch with colleagues and social media usage (Palmore & Luikart, 1972; Sonnentag, 2001). Third, physical activities include various activities that require physical engagement, such as exercise, sport, and walking (Sonnentag, 2001). The definition of LAW activities was influenced by Sonnentag's (2001) prior concept of off-job activities. Specifically, Sonnentag (2001) defined off-job activities as physical, social, low-effort, household, and childcare activities that engaged outside the workplace. However, low-effort, physical and social activities are chosen for this study because they are less obligatory, more common, and relevant in the traditional workplace compared to household, and childcare activities that previously mentioned in off-job activities (Sonnentag, 2001; Sonnentag & Friz, 2007).

Previous research on off-job leisure activities were repeatedly found to be an opportunity to gain personal resources because individuals were experiencing more autonomy and intrinsic motivation during their leisure time (Hobfoll, 2002; Mannell & Kleiber, 1997; Oerlemans & Bakker, 2014; Rook & Zijlstra, 2006; Sonnentag, 2001; Seibel

et al., 2020). Correspondently, Sonnentag (2001) and Demerouti et al. (2009) observed that low-effort, social, and physical activities that engaged in off-job times were a way to obtain personal resources in terms of providing psychological (e.g., offering fewer demands), social (e.g., providing social support), and physiological resources (e.g., improving physiological mechanisms), respectively. As explained earlier, the resource-based view of work engagement supported that personal resources are required for work engagement (Xanthopoulou et al., 2007; Xanthopoulou et al., 2009). Since off-job leisure activities in terms of social, physical, and low-effort activities are a way to obtain personal resources (e.g., Demerouti et al., 2009; Seibel et al., 2020), past research repeatedly found that participating in these off-job activities were positively related to work engagement (e.g., Bakker, 2014; Breevaart et al., 2020; McManus et al., 2011; Sonnentag et al., 2008). Due to the same reasoning, I argue that the same activities that are engaged in the workplace (LAW; Duerden et al., 2017) may also provide these resources which can facilitate work engagement.

Accordingly, previous studies have found that *self-initiated* short breaks at work (e.g., coffee breaks; Fritz et al., 2011; Zacher et al., 2014), was positively related to the work engagement of employees (Kühnel et al., 2017; Metiu & Rothbard, 2013; Rothbard & Patil, 2011). Besides examining work breaks, several studies have focused on specific types of leisure activities during the worktime, namely, workplace fun activities, physical activities, and social media usage at work. Specifically, participating workplace fun activities (low-effort and social activities at work that provides enjoyment; Fluegge-Woolf, 2008, p. 15) were found to be positively related to the work engagement of employees working in the hospitality, tourism, and finance sectors (Becker & Tews, 2016; Sakr et al., 2019; Tsaur et al., 2019). Similarly, weekly participation in workplace physical exercise programs (e.g., yoga; Jindo et al., 2020; Nishi et al., 2017) and non-work social media usage at work (e.g.,

online shopping; Syrek et al., 2017) were found to be positively related to work engagement of employees. Since aforementioned studies captured the three types of activities that specified in LAW activities (i.e., low-effort, physical, and social activities during work breaks and worktime), these studies could support that engaging in leisure activities at work (LAW; Duerden et al., 2017) can be an opportunity to obtain personal resources and thus, increase work engagement. Therefore, I propose:

Hypothesis 1: Participating in leisure at work (LAW) activities is positively related to work engagement (WE).

Leisure at Work, Recovery, and Work Engagement

Recovery is defined as a process that which individuals' functional systems used in a stressful experience return to its pre-stressor level (Meijman & Mulder, 1998). Recovery resulted from the restoration of resources, energy, and action prerequisites, as well as declines in psychological strain (Sonnentag & Friz 2007; Sonnentag et al., 2012; Zijlstra & Sonnentag, 2006). In this current research, recovery is operationalized as recovery experiences to define psychological (e.g., subjective) experiences while engaging in leisure activities (Sonnentag & Fritz, 2007). Recovery experiences as a measure of recovery was widely used in the leisure context because the psychological experiences were more crucial for recovery rather than the specific type of leisure (De Bloom et al., 2017; Mojza et al., 2010; Sonnentag & Friz 2007; Sonnentag et al., 2008; Steed et al., 2019; Wendsche & Lohmann-Haislah, 2017). In line with the resource-based view of work engagement (e.g., Xanthopoulou et al., 2009), recovering during the leisure time was associated with available resources (Meijman & Mulder, 1998; Sonnentag & Friz 2007; Sonnentag et al., 2012) that could enhance work engagement (Kühnel et al., 2012; Sonnentag et al., 2012; Sonnentag, 2003). Therefore, experiences of recovery during the leisure time should increase the work

engagement of employees (e.g., Shimazu et al., 2016; Sonnentag et al., 2012; Tuisku et al., 2016).

Two recovery theories were crucial in explaining resource replenishment during the leisure time and recovery experiences, namely, Effort-Recovery model (ER; Meijman & Mulder, 1998) and Conservation of Resources theory (COR; Hobfoll, 1998). Particularly, Effort-Recovery model (Meijman & Mulder, 1998) has stated that individuals invest personal resources and energy to engage in their work which results with resource depletion. According to ER model, replenishment of resources in terms of recovery only occurs if these resources were not used. Instead, engagement in low psychological and physical leisure activities during off-job times could help one to regain their resources, which is closely related with two recovery experiences namely, relaxation and detachment from work (Sonnentag & Fritz, 2007). Specifically, relaxation is characterized as a state of low activation and positive affect (Stone et al., 1995), which occurred when one deliberately chooses to engage activities that relax one's body and mind. Detachment from work defined as mentally disengagement from work, for instance, not thinking about job-related problems. Thus, ER theory proposed that resource replenishment that leads recovery was only occur by engaging low psychological and physical activities which was not depleting resources that previously depleted.

However, recovery could also occur with a more active process that proposed by the Conservation of Resources (COR) theory (Hobfoll, 1998). Specifically, COR theory posits that individuals are strived to protect and retain their resources as well as obtain new resources when needed (Hobfoll, 1998). Job stress is happened when these available resources are depleted. To recover from such stress, individuals should actively engage in off-job leisure activities that restore and replenish their resources or invest in new resources (Kim et al., 2016; Sonnentag & Fritz, 2007). Thus, COR theory argued that recovery occurs

when depleted resources are replenished through active participation in off-job leisure activities (Sonnentag & Fritz, 2007). Accordingly, COR theory linked to two unique recovery experiences, namely, mastery experiences and control of leisure time (Sonnentag & Fritz, 2007; Sonnentag et al., 2012). Mastery experiences are a way to distract one from the job by offering challenging experiences and learning possibilities in different fields that build new skills and capabilities (Hobfoll, 1998; Sonnentag & Fritz, 2007). Control of leisure time can be described as one's ability to decide on which leisure activities that one will engage as well as how these activities will be engaged (Sonnentag & Fritz, 2007).

In sum, both theories argued that replenishment of resources in off-job leisure times leads individuals to experience various types of recovery experiences (COR theory, Sonnentag & Fritz, 2007; ER model, Meijman & Mulder, 1998). Further, these available resources in terms of recovery could facilitate work engagement according to the resource-based view of work engagement (Sonnentag et al., 2012; Xanthopoulou et al., 2007). Previously, it was argued and supported by the research that LAW activities can also regarded as a way to obtain resources (e.g., self-initiated short breaks, Kühnel et al., 2017). Thus, when people engage in leisure activities at the workplace (LAW; Duerden et al., 2017), I propose that they also experience recovery. Then these available resources in terms of recovery facilitate individuals' work engagement (e.g., JD-R model; resource-based view of WE, Xanthopoulou et al., 2007).

Accordingly previous studies revealed that employees engaging in leisure activities in their work breaks (e.g., coffee breaks) were more likely to experience recovery, which in turn, increased their work engagement (Bakker et al., 2008; Kühnel et al., 2009). These studies could support the mediation role of recovery experiences on the relationship between LAW participation and work engagement. Nevertheless, literature on off-job activities was providing more crucial and direct support since these studies has focused on the activities that

in line with the conceptualization of LAW activities. Specifically, ten Brummelhuis and Bakker (2012) and Tuisku et al. (2016) revealed that participating in low-effort, physical and social off-job activities were positively related with work engagement through experiencing recovery. Overall, these studies reasoned that participating in leisure activities were positively related to experiencing recovery because these activities replenish personal resources that needed for recovery experiences (e.g., ten Brummelhuis & Bakker, 2012). Then, recovery in terms of available resources, was positively related to work engagement (e.g., ten Brummelhuis & Bakker, 2012). Since participating in leisure activities during off-job times was a way to obtain personal resources, I argue that when employees engage in same leisure activities at the workplace (LAW), they also obtain personal resources that increases recovery experiences. Then, experiencing recovery, in terms of available resources, can facilitate work engagement. Therefore, I propose:

Hypothesis 2: Recovery experiences mediates the positive relationship between participating in LAW activities and WE.

Playfulness Trait as a Moderator

In the current study, I included playfulness trait as a moderator in the proposed model (Figure 1). This is because, individual factors, such as playfulness trait, influence the likelihood of engaging play or leisure activities at the workplace as well as obtaining different outcomes from leisure (Fredrickson, 1998; Mannell & Kleiber, 2015; Petelczyc et al., 2018). *Playfulness trai*t was defined as a stable tendency to frame or reframe a situation so that it is perceived as more entertaining, amusing, and humorous by oneself and others (Barnett, 2007; p. 955; Magnuson & Barnett, 2013; Proyer, 2017). Individuals who are high in the playfulness trait were typically perceived as more funny, cheerful, sociable, and active (Barnett, 2007). Moreover, playful individuals perceive low levels of stress (Magnuson & Barnett, 2013), and use more adaptive coping strategies (e.g., positive reframing, active

coping, effective planning, and using social support) in demanding situations (Magnuson & Barnett, 2013; Tidman, 2021). Previously, individuals who are playful were found to be more likely engage in leisure and enjoyable activities (Mannell, 1984; Proyer, 2013), and less likely bored from these activities (Barnett, 2011) as well as had more benefits from participating in leisure activities (Fredrickson, 1998).

An insightful theory that specifically focuses on playfulness was pointed out by Fredrickson (1998) named as broaden-and-build theory, which suggests that positive emotions broaden one's mind that build personal (e.g., psychological) resources (Fredrickson, 1998, 2001; Proyer & Wagner, 2015). However, individuals experienced these positive emotions only when they engaged in non-threatening and non-demanding activities (Proyer & Wagner, 2015), in this case, leisure activities. More importantly, previous studies regarding the broaden-and-build theory suggested that individuals with high level of playfulness trait are more likely to experience positive emotions when in play, in this case, LAW (Proyer & Ruch, 2011; Yarnal & Qian, 2011); over time, this builds personal resources (Fredrickson, 1998, 2001, 2004; Proyer et al., 2019). As support, previous research has found that high level of playfulness was more likely to obtain personal resources in leisure context, namely, optimism (Chang et al., 2016; Mitas et al., 2011; Yarnal & Mitas, 2008), self-efficacy (Clifford et al., 2022), intrinsic motivation, (Bateson et al., 2013; Petelczyc et al., 2018), and self-esteem (Youell, 2008) compared to low level of playfulness. Therefore, I assume that playful individuals were more likely obtain personal resources when they engage in leisure activities, which are needed for recovery as well as work engagement compared to less playful individuals.

I propose that the relationship between LAW and recovery is moderated by playfulness trait. Specifically, broaden-and-build theory proposed that playful individuals acquire more resources than less playful individuals when they engage in play activities. Since obtaining

resources was a way to increase recovery experiences (e.g., Sonnentag & Fritz, 2007), individuals high in playfulness should be more likely to recover when they engage in leisure activities compared to individuals low in playfulness. Two research has supported this relationship with measuring a similar concept, namely, resilience that defined as a process of repeatedly recovering (Chang et al., 2016). Specifically, Chang et al. (2016) and Chang (2013) has found that that, individuals high in playfulness experienced more resilience when they participated in leisure activities compared to less playful individuals. Therefore, I propose that playful individuals were more likely to obtain resources when they engage in leisure activities, which can increase their recovery compared to less playful individuals. Therefore, I propose that:

> **Hypothesis 3**: Playfulness trait moderates the relationship between participating in LAW activities and recovery experiences, which is stronger for individuals with high rather than low playfulness trait.

Similarly, the relationship between participation in LAW activities and WE can be moderated by the playfulness trait as well, which can also be explained by the broaden-and-build theory. As mentioned, Fredrickson (2001) argued that playful individuals are more likely to acquire personal resources when they engage in play, compared with individuals low in playfulness. Since personal resources increase work engagement (Bakker, 2014; Bakker & Demerouti, 2007a), in the leisure context, playful individuals obtain more resources (e.g., intrinsic motivation, Bateson, 2014; Petelczyc et al., 2018) that increase their work engagement, compared to less playful individuals. Thus, I propose:

> **Hypothesis 4**: Playfulness trait moderates the relationship between participating in LAW activities and WE, which is stronger for individuals with high rather than low playfulness trait.

Method

Participants

Data was collected from 127 employees recruited through the network in collaboration with Jonas Tacke. Every participant fulfilled our requirement of working at least 20 hours per week. However, fourteen participants were excluded from the data set due to incomplete questionnaire. The final sample consist of 113 employees with a mean age of 40 (SD = 13.2). The sample included 39.5% (45) females, 55.2% (62) males, 0.9% (1) non-binary participant. The majority of the participants were from Germany (38.6%), Turkey (17.5%) and Netherlands (15.8%). Overall, 50.9% percent of participants had a master's or equivalent degree, and they were mostly classified as upper-level white collar workers (53.5%). Further, participants were employed in a variety of industries, with the highest proportion working in Information Technology (IT). Moreover, participants were working in their current job on average 10 years (SD = 9.5) and on average worked 39 hours (SD = 9.6) per week. Lastly, participants were working remotely 48 percent of the time.

Research Design and Procedure

A cross-sectional study was conducted in the form of an online questionnaire. In the first part of the questionnaire, participants were informed about the study and required to fill out an informed consent form. Those who provided their informed consent then proceeded to the second part of the questionnaire, which includes scales for LAW activities, work engagement, recovery experiences, and playfulness trait (see Appendix A, for scales). Then, participants were asked to complete several questions about demographic information, for instance, type of employment, percentage of teleworking and current job title as well as gender and age information were gathered to describe the sample population. Lastly, a seriousness check question was asked participants to check whether they provided honest answers. After the completion of the survey, participants debriefed, thanked, and provided with an email for further questions. All materials were in English and approximately 15

minutes required to complete the questionnaire. This study was approved by the Ethical Committee, University of Groningen with the study code PSY-2122-S-0045.

Measures

Leisure at Work (LAW) Activities

Since there is no specific questionnaire was available to measure LAW activities, this study measured these activities by three questions to assess whether and how frequently participants engaged in LAW activities. First question was: "Do you engage in leisure activities at work (in the work breaks and during the work time)?" which was assessed by a dichotomous scale (1 = *yes,* 0 = *no*). Second question was: On a scale of 0-10, how frequent (per day) you are engaging in the above-mentioned leisure activities in the work breaks and during the work time?" which was assessed by 11-point scale (0 = *not at all*, 10 = *very frequent*). The last item was an open-ended question which was "Specifically, what kind of leisure activities are you most engaging in the work breaks and during your work time?" Before the questions, participants were informed about the definition of LAW activities. For the analysis the frequency of engaging LAW activities was used.

Work Engagement (WE)

For the assessment of work engagement, the Utrecht Work Engagement Questionnaire by Schaufeli et al. (2002) was used. This questionnaire included 17 items of which six were measuring vigor ($\alpha = 0.85$), six were measuring absorption ($\alpha = 0.81$), and five were measuring dedication ($\alpha = 0.82$). The total scale reliability was 0.95. The vigor related items included items such as: "At my work, I feel that I am bursting with energy.". The absorption related items included items such as "Time flies when I'm working". Lastly, dedication related items included such as "My job inspires me." Participants were asked to indicate the likelihood of these statements applying to their feelings about their work on a 7-point scale (0 = *never,* 6 = *always*).

Recovery Experiences

Recover Experiences Questionnaire by Sonnentag and Fritz (2007) was used to measure recovery experiences during the leisure time. This questionnaire contained 16 items. Specifically, the questionnaire included 4 items for psychological detachment (α = 0.84), 4 items for relaxation (α = 0.85), 4 items for mastery (α = 0.81) and 4 items for control (α = 0.84). The total scale reliability was 0.90. The psychological detachment related items included items such as "I get a break from the demands of work". The relaxation related items included items such as "I used the time to relax". The mastery related items included items such as "I do things that challenge me". The control related items included items such as "I decide my own schedule". Participants were asked to indicate the likelihood of experiencing recovery during the LAW activities that they engage on a 5-point scale (1 = *totally disagree,* 5 = *totally agree*).

Playfulness Trait

To assess adult playfulness trait, the Short Measure for Adult Playfulness (SMAP) by Proyer (2012) was used. This questionnaire included five items that measures playfulness trait. Participants were asked to indicate the likelihood of each statement applying to them on a 4-point scale (1 = *strongly disagree*, 4 = *strongly agree*). The reliability of the whole scale was 0.86. Example item could be "It does not take much for me to change from a serious to a playful frame of mind".

Results

Data Analysis Procedure

Data analysis was done using SPSS version 28 (Hayes, 2018). First, I calculated means, standard deviations and bivariate correlations between all variables used in the analysis as can be seen in Table 1 below. Then the assumptions of normality, linearity,

multicollinearity, and homoscedasticity was checked, and no violation was found. Lastly, I used PROCESS macro model 1 and model 4 to test the research hypotheses (Hayes, 2018).

Descriptive Analysis

Regarding the Table 1, data sample generally have a moderate levels of work engagement (M = 4.90, SD = 0.87) and recovery experiences (M = 3.25, SD = 0.63). There was a moderate level of correlation (r = 0.35, $p < .01$; Cohen, 1988) between experiencing recovery and playfulness trait. Importantly, engaging LAW activities very weakly and negatively correlated with work engagement (r = -0.12; Cohen, 1988).

Table 1

Means, Standard Deviations and Correlations Among Variables in the Study.

Variable	Mean (SD)	1	2	3	4
1.Work Engagement (WE)	4.90 (0.87)	1	0.293**	0.255**	-0.124
2.Recovery Experiences (RE)	3.25 (0.63)		1	0.355**	0.305**
3.Playfulness Trait	2.78 (0.62)			1	0.163
4.Liesure at Work (LAW) Activities	4.83 (2.55)				1

Note. Work Engagement is measured with using 7-point scale, 1 = *never,* 7 = *always*. Recovery Experiences is measured with using 5-point scale, 1 = *totally disagree,* 5 = *totally agree*. Playfulness Trait is measured with using 4-point scale, 1 = *strongly disagree*, 4 = *strongly agree*, LAW activities measured with using 11-point scale, 0 = *not at all*, 10 = *very frequent*.

*$p < .05$ (two-tailed); **$p < .01$ (two-tailed)

Hypothesis Testing

To test the positive relationship between participating in LAW activities and work engagement (Hypothesis 1) and the mediation effect of recovery experiences (Hypothesis 2),

I ran a PROCESS macro model number 4 by using participating LAW activities as an independent variable, recovery experiences as a mediator variable in predicting work engagement. The total effect of LAW participation of work engagement accounted an insignificant variance, R^2 = 0.01, F(1, 111) = 1.74, p = .19 (see Table 2B). Results indicated that LAW is negatively and insignificantly related with work engagement, without including the mediator variable in the analysis (path c; b = -.06, t(111) = -1.32, p = .18, *95% CI* = -.159, .031; see Table 3B), thus hypothesis 1 is not supported. Given that the relationship between LAW participation and work engagement is insignificant, the mediation analysis cannot be operated and thus hypothesis 2 is not supported. This is because the results do not meet the required precondition that there should be a significant relationship between independent variable and dependent variable to test the mediation effect (e.g., Baron & Kenny, 1986). Several studies also supported this view and concluded that mediation analysis cannot be operated (e.g., Amhalhal & Anchorb, 2015). In conclusion, Hypotheses 1 and 2 is not supported by the data.

To test the moderation effect of playfulness trait on the positive relationship between participating in LAW activities and recovery experiences (Hypothesis 3), I ran a PROCESS macro model 1 analysis by using participating LAW activities as an independent variable, playfulness trait as a moderator in predicting recovery experiences. Results showed that these variables accounted for a significant amount of variance in recovery experiences, R^2= .21, F(3, 109) = 10, p < .05 (See Table 4B). Results indicated that participating in LAW activities, controlling the playfulness trait, is positively and significantly related with recovery experiences, (b = .12, t(109) = 2.83, p < .05*, *95% CI* = .03, .20; see Table 5B). Basically, individuals who are more inclined to engage in LAW activities are more likely to experience recovery. Moreover, playfulness trait, controlling the participating in LAW activities, was positively and significantly related to recovery experiences (b = .27, t(109) =

3.85, $p < .05$*, *95% CI* = .13, .41; see Table 5B). Thus, playful individuals more likely to experience recovery from the leisure activities that they engaged. However, the interaction effect of participating leisure activities and playfulness trait was positive but insignificant when predicting recovery experiences ($b = .10$, $t(109) = 1.94$, $p = .06$, *95% CI* = -.00, .21; see Table 5B). Thus, I couldn't find a support that playfulness trait significantly moderates the positive relationship between participating in LAW activities and recovery experiences, consequently no support was found for Hypothesis 3. In conclusion, even though playfulness trait and participating in LAW activities are positively and significantly related with experiencing recovery, the interaction effect was insignificant.

To test the moderation effect of playfulness trait on the relationship between participating in LAW activities and work engagement (Hypothesis 4), I ran a PROCESS macro model 1 analysis by using participating LAW activities as an independent variable, work engagement as a dependent variable, and playfulness trait as a moderator. The model explained a significant variance in work engagement, $R^2 = .13$, $F(3, 109) = 5.41$, $p < .05$* (see Table 6B). Results revealed that participating in LAW activities was significantly and negatively related to work engagement ($b = -.09$, $t(109) = -2.01$, $p < .05$*, *95% CI* = -.18, -.00; see Table 7B). Thus, the more one participates in LAW activities, the less one is engaged in work. Moreover, playfulness trait was significantly and positively related to work engagement when controlling for LAW activities ($b = .26$, $t(109) = 3.35$, $p < .05$*, *95% CI* = .10, .41; see Table 7B). Further, the interaction effect between participating in LAW activities and playfulness trait was significantly and positively predicted work engagement ($b = .12$, $t(109) = 2.14$, $p < .05$*, *95% CI* = .01, .24; see Table 7B).

Examination of the interaction plot (see, Figure 2B) shows that, playfulness trait has a buffering effect on the negative relationship between participating in LAW activities and work engagement. Specifically, reading the conditional effect table (see Table 8B), it seems

that it is the low (β = -.19, *t*(109) = -2.84, *p* < .05*, *95% CI* = -0.32, -0.06) and moderate (β = -.09, *t*(109) = -2.01, *p* < .05*, *95% CI* = -.18, -.00) levels of playfulness trait have the significant interaction with LAW to work engagement but not high level of playfulness trait (β = .00, *t*(109) = .05, *p* = .96, *95% CI* = -12, -.13). In conclusion, hypothesis 4 is not supported since there is no support for the positive relationship between participating in LAW activities and WE. Thus, there is no support that playfulness trait can moderate this hypothesized positive relationship. Nevertheless, the playfulness trait has found to have a buffering moderation (i.e., more positive) effect on the negative relationship between LAW participation and work engagement.

Discussion

This was the first study that investigated the LAW concept in the context of recovery and work engagement. Additionally, this was the first study that incorporated the playfulness trait in the context of leisure activities and work engagement. Accordingly, I hypothesized that participation in LAW activities were positively related to work engagement (Hypothesis 1), and this positive relationship was mediated by recovery experiences (Hypothesis 2). Playfulness trait was hypothesized to strengthen the positive relationships between LAW participation and recovery experiences (Hypothesis 3), as well as LAW participation and work engagement (Hypothesis 4). However, none of the hypotheses were supported by the data.

Theoretical Implications

The current study had several theoretical implications. First, the insignificant relationship between LAW and work engagement differs from current leisure research on off-job leisure activities and work engagement (e.g., Becker & Tews, 2016; Sonnentag et al., 2008), as well as mediation effect of recovery experiences (e.g., ten Brummelhuis & Bakker, 2012). Thus, even though leisure at work and off-job leisure times included the same types of

activities, they should be considered separately in the literature due to their differential effects on work-related outcomes. For instance, compared to off-job leisure activities, leisure engaged at the workplace may not related with work engagement, because it may regard as a distraction from work and, in turn, employees cannot fully obtain the benefits of leisure (e.g., Methot et al., 2021). Therefore, this insignificant finding contributes to the literature that not all types of leisure activities (i.e., LAW and off-job leisure activities) are beneficial for recovery and work engagement link. Instead, the context that leisure happened may be a key concept whether it will be beneficial for recovery and work engagement.

The insignificant finding in the current study might be due to the additional challenges that LAW activities may present compared to off-job leisure activities, such as, individuals might have low perceived autonomy to engage in leisure activities at work, which was an important factor in determining whether one obtains resources from leisure activities (e.g., Mannell & Kleiber, 1997; Oerlemans & Bakker, 2014; Sintas et al., 2015). Aside from the insignificant finding, the result was in the opposite direction (i.e., negative) of what was hypothesized. Thus, there is a possibility of a negative association between participating in LAW activities and work engagement. Accordingly, some studies have supported that leisure activities at work can be considered as a distraction from work, and thus can be detrimental to work engagement (e.g., Methot et al., 2021; Seibel et al., 2020).

Further, results revealed that participation in LAW activities was positively related with recovery experiences, however, this relationship was not significantly moderated by playfulness trait, thus hypothesis 3 is not supported. The results were consistent with the past research, as well as, COR theory (Hobfoll, 1998) and ER model (Meijman & Mulder, 1998), that leisure engagement is positively related with experiencing recovery (e.g., Sonnentag & Fritz, 2007). Thus, this study extended the aforementioned theories (COR theory, Sonnentag & Fritz, 2007; ER model, Meijman & Mulder, 1998) to the leisure at work context by

revealing that engaging leisure at work activities was also regarded as a way to obtain and replenish resources that needed for recovery. This result contributed to the leisure literature that not just off-job leisure activities, but also leisure activities that engaged during work time and work breaks were beneficial for experiencing recovery.

Even though the interaction effect of the playfulness trait and LAW participation was in the expected direction (i.e., positive) and had a p-value close to significance level, it was not significant. Previously it was found that playful individuals were incorporating playfulness not only in their leisure time but also in their work tasks, for instance, using more playful work designs and crafting their jobs in a more playful way (Bakker et al., 2020; Scharp et al., 2022; Song et al., 2022). So it may be that they do not need a specific leisure time to recover. Instead, they may already obtain the needed resources for recovery from these playful work designs that they have created. Thus, this could be a possible reason why playfulness trait may not significantly moderate the relationship between participating in LAW activities and experiencing recovery.

Lastly, results did not support hypothesis 4, that playfulness trait strengthens the positive relationship between participating in LAW activities and work engagement. Surprisingly, results revealed that the playfulness trait buffered the negative effect of participating in LAW activities on work engagement. Even though results were not consistent with the hypothesis, being moderately playful reduced the negative effect (i.e., making the effect more positive) of participating in leisure activities on work engagement. Thus, this finding can still support that it may be more beneficial for somewhat playful individuals to engage in leisure activities at work compared to less or not playful individuals (e.g., Broaden-and-build theory, Fredrickson, 1998). This is because moderately playful employees are more likely to engage at work compared to less playful employees in the same levels of LAW participation.

Another explanation could be that moderately playful individuals were more likely using adaptive coping strategies (e.g., positive reframing, active coping) in demanding situations compared to less playful individuals (Magnuson & Barnett, 2013; Tidman, 2021). Previous studies have shown that managing leisure activities at work and work engagement can be regarded as difficult and demanding situation for employees, because leisure activities might distract one from engaging at work (e.g., Methot et al., 2021; Plester & Hutchison, 2016). Hence, it may be that moderately playful individuals more likely use adaptive strategies to cope (e.g., effective planning; Magnuson & Barnett, 2013) with this difficult situation compared to less playful individuals. Thus, they are less likely affected by this negative relationship. Further, the aforementioned result has some theoretical implications. For instance, this is the first study that extends the broaden-and-build theory to the LAW context. Specifically, this finding contributes to the broaden-build theory (Fredrickson, 1998) and positive psychology by indicating that playful individuals may obtain more resources that can buffer the negative relationship between LAW participation and work engagement. Moreover, this result can contribute to the play at work literature by showing that being slightly playful can be an advantage in the workplace in terms of buffering the negative effect of leisure participation on work-related outcomes.

Practical Implications

This study has practical implications. Firstly, knowing that there's positive relationship between LAW participation and recovery, employers should provide opportunities for employees to engage in leisure activities. This implication is applicable because previous research showed that employers cares about their employees' psychological health and investing in their well-being (e.g., Attridge, 2007; McLellan, 2017). Since moderately playful individuals are more likely to compensate the negative effect of participating in LAW activities on work engagement, they may benefit more from possible

leisure at the work activities that provided for them. Accordingly, employers can stimulate employees' playfulness to some extent by designing interventions that increase playfulness at the workplace, for instance, designing a playful work design (Lu et al., 2016). Further, employers and researchers can understand what strategies (e.g., adaptive coping strategies; Magnuson & Barnett, 2013) that moderately playful employees used to compensate for this negative effect. Then, employers can develop interventions or workshops for employees to benefit from these strategies to reduce the negative effect of participating in LAW activities on possible work-related outcomes.

Strengths, Limitations, and Future Directions

The study has several strengths. Firstly, the study recruited working adults as participants instead of students which revealed more realistic responses. Additionally, participants in this study were employed in different sectors which can be beneficial for sample randomization in terms of employee sector variations, as well as the generalizability of the findings. Secondly, the scales that used in this study had moderate to high reliabilities.

However, there are several limitations to the current study. Firstly, this current study had a small sample size. Thus, there was a probability of making type II error. For instance, the relationship between leisure at work participation and work engagement had contradicting results. Specifically, the main effect was found to be insignificant but, later in the moderation analysis it was significant. Thus, future research should test the proposed hypotheses with larger sample size or use a panel data. Secondly, this current study is a non-experimental cross-sectional study which made it unlikely to infer causality. Further research could adopt a longitudinal or experimental design. Thirdly, current literature did not have any available measurement scale for LAW activities (Duerden et al., 2017), so it was assessed by only two items that were created for this study. Thus, the validity and reliability of both items are not tested. Moreover, it may be that not the frequency of the participation as measured in this

study, but the perceived quality of the leisure activities (e.g., amount of enjoyment) can be beneficial for work engagement (e.g., ten Brummelhuis & Bakker, 2012). Therefore, further research could develop a scale for LAW participation to have a more reliable and valid measure.

Another method related limitation was this study used self-report for data collection which can increase the tendency of socially desirable responses (Razavi, 2001). Future research might consider collecting peer or supervisory ratings for work engagement and LAW participation, as well as spouse ratings for playfulness trait and recovery experiences (e.g., Sonnentag, 2003). Lastly, additional moderators or covariates should be investigated in further research to clarify the discrepancy between earlier studies on leisure participation and work engagement. A possible moderator or covariate could be perceived freedom of engaging in leisure activities at work, which was found to be a crucial factor to engage LAW activities and obtain more benefits from these activities (e.g., Sintas et al., 2015).

Conclusion

Taken together, these results revealed that engagement of LAW activities tend to be negatively related to work engagement. Nevertheless, moderately playful individuals were less likely affected from this negative effect. Thus, somewhat playful employees were more likely engage in their work even though they participate leisure activities more frequently compared to less playful individuals. However, this negative tendency does not mean that LAW is completely detrimental to employees, because current study also revealed that engaging LAW activities was beneficial for employee well-being in terms of recovering from work demands. In sum, even though participating LAW activities seems to be detrimental to work engagement, it is still crucial to engaging in these activities at the workplace because of their positive effect on recovery. As Martineau (1837) said “Leisure, some degree of it, is necessary to the health of every man's spirit” (p. 180).

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Appendix A

Work Engagement

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the '0' (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

1) At my work, I feel bursting with energy

2) I find the work that I do full of meaning and purpose

3) Time flies when I'm working

4) At my job, I feel strong and vigorous

5) I am enthusiastic about my job

6) When I am working, I forget everything else around me

7) My job inspires me

8) When I get up in the morning, I feel like going to work

9) I feel happy when I am working intensely

10) I am proud on the work that I do

11) I am immersed in my work

12) I can continue working for very long periods at a time

13) To me, my job is challenging

14) I get carried away when I'm working

15) At my job, I am very resilient, mentally

16) It is difficult to detach myself from my job

17) At my work I always persevere, even when things do not go well

- ⇨ The items were assessed on a 7-point scale (0 = *never,* 6 = *always*).

Leisure at work Activities

Leisure at work is defined in terms of (i) low-effort activities, for example, watching news, relaxing, browsing through a magazine/phone, (ii) social activities, for example, meeting with friends, having lunch with colleagues, texting on the phone, coffee breaks, and (iii) physical activities, for example, exercising, walking and cycling engaged **in the work break and during the work time.**

According to this description;

1) Do you engage in leisure activities at work (in the work breaks and during the work time)?

2) On a scale of 0-10, how frequent (per day) you are engaging in the above-mentioned leisure activities in the work breaks and during the work time?

3) Specifically, what kind of leisure activities are you most engaging in the work breaks and during your work time?

- ⇨ The first item assessed on a dichotomous scale (1 = *yes,* 0 = *no*). The second item assessed on a 11- point scale (0 = *not at all*, 10 = *very frequent*). The third item is an open- ended question.

Recovery experiences

In social, physical and low-effort leisure activities that I engage in the work breaks and during the work time;

1) I forgot about work

2) I didn't think about work at all

3) I distanced myself from my work

4) I got a break from the demands of work

5) I kicked back and relaxed

6) I did relaxing things

7) I used the time to relax

8) I took time for leisure

9)I learned new things

10) I sought out intellectual challenges

11) I did things that challenged me

12) I did something to broaden my horizons

13) I felt like I could decide for myself what to do

14) I decided my own schedule

15) I determined for myself how I spent my time

16) I took care of things the way that I want them done

- ⇨ The items were assessed on a 5-point scale (1 = *totally disagree,* 5 = *totally agree*).

Playfulness trait

Please answer the following statements about how you feel in general:

1) I am a playful person.

2) Good friends would describe me as a playful person.

3) I frequently do playful things in my daily life.

4) It does not take much for me to change from a serious to a playful frame of mind.

5) Sometimes, I completely forget about the time and am absorbed in a playful activity.

- ⇨ The items were assessed on a 4-point scale (1 = *strongly disagree*, 4 = *strongly agree*).

Appendix B

Table 2B

Model summary table of LAW predicting work engagement[b]

Model	R	R-square	MSE	F	df1	df2	p
4	.124[a]	.015	.418	1.745	1	111	.189

a. Predictors:(Constant), Leisure at Work Activities

b. Dependent variable: Work Engagement

Table 3B

Coefficients table of LAW activities predicting work engagement[a]

		Unstandardized coefficients				95% CI	
Model		b	SE	t	p	LLCI	ULCI
4	(Constant)	3.669	.131	28.004	.000	3.409	3.929
	Leisure at Work Activities	-.063	.048	-1.321	.189	-.158	.031

a. Dependent Variable: Work Engagement

Table 4B

Model Summary table of LAW and playfulness predicting recovery experiences[b]

Model	R	R-square	MSE	F	df1	df2	p
1	.464[a]	.215	.322	10.003	3	109	.000

a. Predictors:(Constant), Leisure at Work Activities, Playfulness Trait, Leisure at Work Activities x Playfulness Trait

b. Dependent variable: Recovery Experiences

Table 5B

Coefficients table of LAW activities and playfulness trait predicting recovery experiences[a]

Model		Unstandardized coefficients		t	p	95% CI	
		b	SE			LLCI	ULCI
1	(Constant)	3.243	.054	59.971	.000	3.136	3.350
	LAW activities	.121	.042	2.827	.005	.036	.205
	Playfulness Trait	.273	.070	3.854	.000	.132	.414
	LAW x Playfulness trait	.104	.053	1.938	.055	-.002	.211

a. Dependent Variable: Recovery Experiences

Table 6B

Model Summary table of LAW and playfulness predicting work engagement[b]

Model	R	R-square	MSE	F	df1	df2	p
1	.359[a]	.129	.377	5.408	3	109	.001

a. Predictors:(Constant), Leisure at Work activities, Playfulness Trait, Leisure at Work activities x Playfulness Trait

b. Dependent variable: Work Engagement

Table 7B

Coefficients table of LAW activities and playfulness trait predicting work engagement[a]

Model		Unstandardized coefficients		t	p	95% CI	
		b	SE			LLCI	ULCI
1	(Constant)	3.496	.058	59.784	.000	3.381	3.612
	LAW activities	-.093	.046	-2.011	.046	-.184	-.001
	Playfulness Trait	.256	.076	3.349	.001	.104	.409
	LAW x Playfulness trait	.124	.058	2.138	.034	.009	.239

a. Dependent Variable: Work Engagement

Table 8B

Conditional effects of LAW activities on work engagement at the different levels of playfulness trait

Levels of Playfulness Trait	Effect	SE	t	p	LLCI	ULCI
Low Levels of Playfulness Trait	-.189	.066	-2.844	.005*	-.321	-.057
Moderate Levels of Playfulness Trait	-.093	.046	-2.011	.046*	-.185	-.001
High Levels of Playfulness Trait	.003	.062	.048	.961	-.121	.126

Note. *p < .05 (two-tailed)

Figure 2B

Plot of the relationship between LAW activities and work engagement in different levels of playfulness trait