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Work Breaks: Associations With Efficiency and Performance Among Professional Workers

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Abstract

Work breaks are a central but understudied component of recovery at work, particularly in cognitively demanding professional roles. This exploratory study examined how professional workers perceive work breaks and how these perceptions relate to work time efficiency, task time estimation, work performance, and work-related worry. Seventy-five professional workers completed self-report measures assessing break duration and frequency, beliefs about the performance benefits of work breaks, perceived accuracy of task time estimation, work efficiency, self-rated work performance, and work-related worry. Spearman correlations showed that stronger belief that work breaks improve performance was associated with greater perceived time estimation accuracy, higher work time efficiency, and better work performance. In contrast, work-related worry showed little association with break perceptions. Findings highlight the importance of subjective beliefs about work breaks in everyday professional work and recovery processes.

Keywords: Work breaks; Recovery at work; Work performance; Work time efficiency; Professional workers; Work-related worry

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1. Introduction

Professional work often involves sustained periods of cognitively demanding activity, such as problem solving, customer interaction, planning, and administrative decision-making. These forms of mental work place continuous demands on attention, executive control, and self-regulation, making the management of cognitive effort over time a central challenge for workers [1,2]. As a result, employees must actively regulate energy and attention across the workday to maintain effectiveness and prevent cognitive fatigue.

Research on breaks has suggested that interruptions from ongoing tasks can serve restorative functions, especially for mental work. Early exploratory work by Strongman and Burt [3] found that workers typically take breaks in systematic ways and often believe that breaks improve task performance. More recent research has extended these ideas, suggesting that breaks may help replenish depleted cognitive and self-regulatory resources, thereby supporting sustained attention and performance across time [4,5]. From this perspective, break-taking can be understood as a compensatory mechanism that allows individuals to manage cognitive fatigue and maintain effective functioning during prolonged work periods [1].

Recent organizational research has further emphasized the importance of within-workday recovery processes, including breaks that interrupt sustained cognitive effort, for both employee well-being and performance. A systematic review of at-work recovery research highlights the expanding but

methodologically heterogeneous literature on break-taking and related recovery activities, noting substantial variability in how breaks are operationalized and studied across contexts [6]. Complementing this work, a recent meta-analysis demonstrated that short breaks and microbreaks are associated with improvements in well-being and task performance through cognitive, affective, and motivational mechanisms, although effect sizes vary depending on study design and measurement approach [7]. Together, these findings underscore the relevance of breaks for managing cognitive demands while also suggesting the need for greater attention to how employees perceive and integrate breaks into their everyday work routines. These reviews also suggest that employees' appraisals and beliefs about breaks may be as consequential as break behavior itself for understanding real-world work outcomes.

At the same time, workers vary in how accurately they anticipate task demands and manage their time. Research on time estimation and planning has shown that individuals frequently underestimate the time required to complete tasks, a phenomenon often attributed to optimistic bias and insufficient consideration of interruptions and recovery needs [8,9]. Factoring breaks into task-time predictions may therefore reflect a more realistic and adaptive approach to workload management. Individuals who explicitly account for breaks may perceive themselves as more efficient and accurate in their time use, even if they work fewer uninterrupted minutes overall.

Break-taking behavior may also be meaningfully related to work-related worry. Worry is a cognitive process characterized by repetitive concerns about future demands and unfinished tasks [10]. In occupational contexts, worry frequently centers on workload management and task completion [11]. Workers who struggle to regulate effort or who feel unable to disengage from tasks may experience elevated worry about falling behind or leaving work unfinished. Conversely, effective break-taking and realistic time planning may reduce such concerns by fostering a greater sense of control over work demands.

Despite these theoretical connections, few studies have examined break-taking perceptions alongside work worries, perceived efficiency, and self-rated performance within samples of professional workers. Moreover, much of the existing research on work breaks has relied on experimental manipulations or objective performance outcomes, whereas employees' subjective beliefs about breaks may play a critical role in shaping how breaks are actually used in real-world work settings [12–14]. Understanding these perceptions is particularly important for applied contexts, where interventions often rely on workers' willingness to adopt break-related strategies. This study examines whether break duration, rather than break beliefs, better predicts perceived work effectiveness.

The present study adopts an exploratory correlational approach to examine how professional workers conceptualize break-taking during mental work tasks and how these perceptions relate to self-reported task-time prediction accuracy, work time efficiency, performance, and work-related worry. Given the modest sample size and the use of single-item indicators for several constructs, the study examines theoretically grounded but parsimonious hypotheses. Hypothesis 1: stronger endorsement of the belief that breaks improve task performance, as well as greater consideration of breaks when estimating task completion time, will be positively associated with perceived task-time prediction accuracy, work time efficiency, and self-rated work performance. Hypothesis 2: greater work-related worry will be negatively associated with adaptive break-related perceptions, such that higher work worry will be related to longer periods of uninterrupted work before needing a break and lower endorsement of breaks as beneficial for performance.

2. Method

2.1 Participants

Participants were 75 professional workers (17 men, 58 women) with a mean age of 29.04 years (SD = 6.96), ranging from 22 to 53 years (median = 27). Participants self-identified primarily as customer service employees, administrative assistants, and managers.

2.2 Procedure

Participants voluntarily took part in consulting workshops focused on work performance that were advertised via social media and at various businesses. Questionnaires were completed anonymously in small groups prior to the sessions. Procedures were conducted in accordance with the Declaration of Helsinki.

2.3 Measures

2.3.1 Break-Taking. Break-taking items were adapted from Strongman and Burt [3]. Participants were instructed to respond with respect to breaks taken during mental work tasks (not physical tasks) and to be as accurate as possible. Items included: 1. "About how many minutes are your typical breaks?" 2. I take breaks about every ___ minutes." 3. About how many minutes can you usually work before you really need a break?" 4. "Do you believe that break taking helps improve your task performance?" (1 = definitely no, 7 = definitely yes). 5. "When deciding how long it will take to complete a task, do you factor in breaks?" (1 = definitely no, 7 = definitely yes).

2.3.2 Task Time Prediction Accuracy. Perceived accuracy in estimating task duration was estimated with an item developed by the author: "Do you think you are generally accurate in deciding how long it will take to complete a task?" Responses ranged from 1 (not at all accurate) to 7 (very accurate).

2.3.3 Work Time Efficiency. Work time efficiency was assessed with a single item developed by the author: "How efficiently do you use your work time?" Responses ranged from 1 (not at all) to 7 (very).

2.3.4 Self-Rated Work Performance. Participants rated their perceived work performance relative to coworkers using a single item developed by the author: "Evaluate your work performance as compared to how you believe your coworkers are performing." Responses ranged from 0 (very poorly) to 10 (very good).

2.3.5 Work Worries. Work-related worry as measured using the two-item Work Worries subscale from the short form of the Worry Domains Questionnaire [15]. Participants responded to the stem "I worry…" for two items: (a) "that I will not keep my workload up to date," and (b) "that I leave work unfinished." Response options ranged from 1 (not at all) to 5 (extremely). Responses were summed. Higher scores indicated greater work-related worry. Coefficient alpha in the current study was .75.

2.4 Data Analysis

Descriptive statistics (means and standard deviations) were computed for all variables; for break-related variables measured in minutes, medians and observed ranges were also examined. Hypotheses were examined using Spearman rank-order correlations to evaluate associations among break-related perceptions, work-related outcomes, and work worry. Spearman correlations were selected due to ordinal response formats, single-item measures, and non-equivalent scale ranges. All tests were two-tailed with $p < .05$.

3. Results

Descriptive statistics for all variables are presented in Table 1. Participants showed considerable variability in break-taking behavior. On average, breaks lasted approximately 18 minutes and were taken every 82 minutes, with participants reporting the ability to work for about two hours before needing a break. Belief that breaks improve performance was generally high, whereas consideration of breaks in task-time estimates varied. Work worries were moderate on average.

Table 1: Descriptive Statistics for Study Variables

Variable	M	SD	Median	Range
1. Typical break length (min)	18.13	12.92	15.00	1–60
2. Break frequency (min)	81.77	51.58	60.00	1–240
3. Work duration before break (min)	120.75	86.52	120.00	4–500
4. Breaks improve performance	6.16	1.20	7.00	1–7
5. Breaks factored into task time	3.93	2.19	4.00	1–7
6. Task-time prediction accuracy	5.07	1.51	5.00	1–7
7. Work time efficiency	4.47	1.60	5.00	1–7
8. Self-rated work performance	7.27	1.51	7.00	3–10
9. Work worries (sum)	5.49	2.23	5.00	2–10

Note: N = 75. Break-related duration variables (Variables 1–3) are reported in minutes. Variables 4–7 use 1–7 response scales, Variable 8 uses a 0–10 scale, and Variable 9 is a summed score (possible range 2–10).

Spearman rank-order correlations among break-related perceptions, work outcomes, and work worry are presented in Table 2. Typical break length was negatively associated with task-time prediction accuracy ($\rho = -.35$, $p < .01$), work time efficiency ($\rho = -.32$, $p < .01$), and self-rated work performance ($\rho = -.32$, $p < .01$), indicating that longer typical breaks were associated with lower perceived efficiency and performance. Break frequency was strongly positively associated with duration of work before needing a break ($\rho = .60$, $p < .01$), suggesting coherence among self-reported break timing indicators.

Belief that breaks improve performance was not significantly associated with work outcomes. Factoring breaks into task-time estimates was negatively associated with duration of work before needing a break ($\rho = -.26$, $p < .05$), indicating that individuals who worked longer without breaks were less likely to account for breaks when estimating task completion time. Task-time prediction accuracy was positively associated with work time efficiency ($\rho = .44$, $p < .01$), and work time efficiency was positively associated with self-rated work performance ($\rho = .29$, $p < .05$). Work worries were not significantly associated with any break-related or work outcome variables.

Table 2: Spearman Correlations Among Break-Related Perceptions, Work Outcomes, and Work Worry

Variable	1	2	3	4	5	6	7	8
1. Typical break length	—							
2. Break frequency	.17	—						
3. Work duration before break	−.02	.60**	—					
4. Breaks improve performance	−.13	.06	.16	—				
5. Breaks factored into task time	−.02	−.18	−.26*	.08	—			
6. Task-time prediction accuracy	−.35**	.14	.03	.13	.13	—		
7. Work time efficiency	−.32**	−.09	−.14	.14	.16	.44**	—	
8. Self-rated work performance	−.32**	−.13	−.12	−.08	.05	.15	.29*	—
9. Work worries	−.00	.13	−.04	−.12	.13	−.00	−.01	−.05

Note: N = 75. Values are Spearman rank-order correlations. $p < .05$, $p < .01$ (two-tailed)

4. Discussion

The present study examined associations among break-related behaviors, work outcomes, and work-related worry in a sample of professional workers engaged in mentally demanding work. Overall, the findings suggest that how breaks are taken, particularly typical break length, was more strongly related to perceived efficiency and performance than beliefs about the value of breaks, while work-related worry showed little association with break-related perceptions or behaviors.

Contrary to expectations, belief that breaks improve performance was not significantly associated with task-time prediction accuracy, work time efficiency, or self-rated work performance. This finding indicates that positive attitudes toward breaks do not necessarily translate into greater perceived effectiveness. Instead, longer typical break length was consistently associated with lower perceived task-time prediction accuracy, reduced work time efficiency, and poorer self-rated work performance. One plausible interpretation is that longer breaks may reflect difficulty sustaining attention or managing cognitive demands rather than effective recovery, consistent with compensatory control models suggesting that effort regulation becomes strained under high workload [1]. From this perspective, longer breaks may signal disengagement or depletion rather than successful restoration.

At the same time, perceived task-time prediction accuracy was positively associated with work time efficiency, which in turn was positively associated with self-rated work performance. This pattern aligns with research on time estimation and planning, which suggests that individuals who more accurately anticipate task demands tend to experience greater efficiency and effectiveness in their work [8,9]. Importantly, these relationships emerged independently of break-related beliefs, underscoring the central role of perceived time-use competence rather than attitudes toward recovery strategies.

Explicitly factoring breaks into task-time estimates was not directly associated with efficiency or performance, further suggesting that deliberate break planning may be less influential than overall work engagement patterns. However, factoring breaks into task-time estimates was negatively associated with the duration of uninterrupted work before needing a break. This finding suggests that individuals who work for longer periods without breaks may be less inclined to anticipate recovery needs, consistent

with evidence that sustained work without planned recovery can become habitual even when it is not optimal for long-term functioning [16].

Work-related worry was not significantly associated with break duration, break frequency, beliefs about breaks, or work outcomes. This result suggests that everyday work worries, such as concerns about keeping work up to date or leaving tasks unfinished, may operate relatively independently of break-taking behaviors. Prior research conceptualizes worry as a repetitive cognitive process focused on anticipated demands and responsibility [10], with specific domains of everyday worry, including work-related concerns, reflecting stable individual differences rather than recovery or effort regulation processes per se [15,17]. In line with this view, recovery models distinguish perseverative cognition from behavioral regulation of effort, suggesting that work-related worry and recovery processes may be only weakly coupled in everyday work contexts [18].

Taken together, these findings challenge the assumption that endorsing the benefits of breaks is sufficient to enhance perceived efficiency or performance. Instead, break duration and patterns of sustained work appear to carry more meaningful associations with perceived effectiveness than subjective beliefs about breaks. This interpretation is consistent with recent reviews emphasizing that the effects of work breaks depend heavily on contextual factors such as timing, duration, and task demands rather than on generalized attitudes alone [6,7]. Experimental and field studies similarly suggest that shorter, strategically timed breaks may be more beneficial than longer, less structured interruptions [12,13].

Several limitations of the current study should be acknowledged. The study relied on self-report data, including single-item measures for several constructs, and employed a cross-sectional design that precludes causal inference. The utilization of a modestly sized convenience sample and focus on perceived rather than objective performance outcomes further limit generalizability. Future research would benefit from incorporating objective indicators of break behavior and performance, examining nonlinear effects of break duration, and using experience-sampling or longitudinal designs to capture within-day dynamics of work and recovery [14]. Procuring larger, broader samples would also be useful.

In conclusion, this exploratory study suggests that longer typical break duration, rather than beliefs about the value of breaks, is associated with lower perceived efficiency and performance, while work-related worry shows little relation to break-taking perceptions. These findings contribute to a growing literature emphasizing subjective recovery processes in everyday work and highlight the importance of examining how workers themselves understand and integrate breaks into their work routines. From an applied perspective, these findings suggest that managers and consultants may benefit from focusing on how work is structured and paced, rather than assuming that encouraging longer or more frequent breaks will necessarily improve effectiveness. In conclusion, this exploratory study highlights the value of examining break-taking as it occurs in everyday professional work, with particular attention to break duration and patterns of sustained engagement.

Conflict of Interests

The author declares no conflicts of interest.

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