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Designing for Focus Work

Employers need open and interactive spaces to encourage collaboration, and such spaces can introduce distractions. Distractions, however, sabotage focus, and focus work is a necessary part of collaborative efforts. How can we solve this conflict? Approach workplace design so that it encourages both collaboration and focus work: Offer employees a variety of workspace options, choice over where, how, and when to best work, and control over workspace features and furnishings. Make the workplace legible and clutter-free so employees won't waste effort navigating the workplace. Lastly, include "recharge" spaces; focus work takes intense effort, and it requires breaks.

Distractions from email notifications, buzzing smartphones, and pop-up alerts—just to name a few—constantly bombard office workers. They interrupt tasks and leave people paralyzed by the amount of information demanding their attention. On average, office workers lose 28 percent of their productive time due to interruptions and distractions.[1] In response, people often get to the office early, or stay late, or set out on a vigilant hunt for a quiet corner. They want to tackle specific work—the kind that requires focus and concentration—and they want their environment to support them.

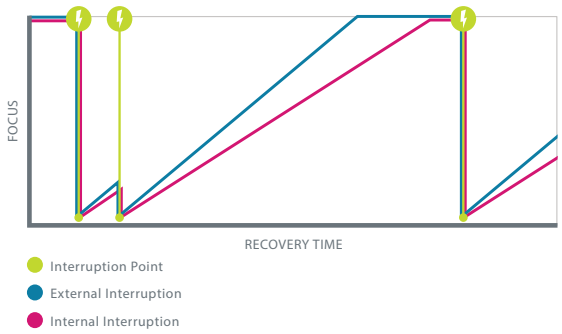
Office workers lose 28% of their productive time due to interruptions and distractions.

This challenge isn't new. Office workers have desired places to focus for decades. Global human capital trends identify the "overwhelmed employee" as a top concern; overwhelmed by information overload and hyper-connectivity, employees may have less opportunity to spend time thinking and solving problems, and more than half of respondents to a global survey believe their employers are not doing a good job of helping them manage overload.[2] It seems focus work is the least effectively supported activity within our office environments.[3] Why is this happening?

Employers desperate for lower real estate costs and increased innovation emphasize collaboration with open workspaces that encourage group efforts. While open workspaces can support communication among team members,[4] more recent research indicates that the costs to individual employee performance in open workspaces can outweigh any benefit of collaborative group work.[5] As it turns out, successful collaboration requires both group efforts and individual focused work. Switching between these modes of work is really what makes collaboration meaningful and productive.[6] Unfortunately, collaboration fails to achieve its promise when focus work is compromised in pursuit of group efforts.[7] Thus, workplaces should be designed to accommodate both modes of work. To understand how to do this, let's better understand how "focus" works.

Managing Distractions: Attention and Interruptions

Attention can be thought of as choosing to be aware of and to concentrate on something specific, while ignoring other information. The problem is, interruptions occur, pulling attention away and distracting us from focused work. Interruptions often come in the form of internal and external distractions, which divides attention between tasks. Once an interruption occurs, it takes time to resume a task. One study of workers (information technology and accounting services) found that it took, on average, 25 minutes for workers to get back to their original task once interrupted, and workers focused on at least two other tasks before resuming the original task. Interestingly, it took people longer to resume a task if interruptions occurred from internal distractions, nearly 30 minutes, as opposed to external interruptions, roughly 23 minutes.[11]



Internal distractions are usually personal concerns or thoughts not related to the current task, such as making mental notes of the things to complete that day, or wondering what to eat for lunch. Managing internal distractions requires intentional cognitive effort to direct thoughts toward the desired goal of the current task.[12] This means unwanted external distractions should be minimized to reduce unnecessary cognitive effort needed to manage both kinds of distraction. External distractions, on the other hand, may be people walking past the line of sight, visual clutter on a worksurface, overheard conversations, or ringing phones. Some of these external inputs may help with focus; for example, "office buzz" may create enough white noise to assist concentration.[13] Unfortunately, during focused work, many external distractions are unwanted, making it difficult to keep attention from being divided. Particularly, irrelevant speech consistently ranks as the most distracting element in the office environment.[14]

The Conflict:

Despite the obvious need for focus, the emphasis in space design remains on work collaboration. Companies desperate to innovate are implementing open workplaces driven by the need to collaborate more and are justified by real estate cost savings. This continues despite research that points out office workers, on average, lose 28 percent of their productive time per day due to interruptions and distractions in open offices.[8] And while open workspaces can support communication among team members,[9] more recent research indicates that the cost to individual employee performance in open workspaces can outweigh any benefit of collaborative group work.[10]

1 Spira and Feintuch, 2005.
2 Deloitte and Bersin, 2014.
3 Andreou et al., 2012.
4 Brand and Smith, 2005.
5 Kim and de Dear, 2013.
6 Heerwagen et al., 2004.
7 Gensler, 2013.
8 Spira and Feintuch, 2005.
9 Brand and Smith, 2005.
10 Kim and de Dear, 2013.
11 Mark, Gonzalez, and Harris, 2005.
12 Csikszentmihalyi, 1990.
13 Liebl et al., 2012.
14 Jensen and Arens 2005; Hongisto, Haapakangas, and Haka 2008; Liebl et al. 2012; Volkmann, 2014.

"Perhaps because sound is not visible, we tend to underestimate its importance. For instance, if water were leaking into a space rather than distracting sound, the building manager would be 'on it' immediately! Sound leaks can be just as damaging to workplace function, but we are expected to dismiss them much more readily than a soggy carpet! We dismiss acoustic distraction at the expense of worker effectiveness…."

– GSA Public Buildings Service, 2012

Hearing, dubbed the "sentinel of senses,"[15] detects and receives information at all times and from all directions. The brain tunes in when speech is recognized; it then diverts attention away from the current task and toward the task of figuring out what is being said.[16] Unfortunately, unlike vision, hearing cannot be turned off—it will sense everything, relevant or irrelevant—and can slow work performance. Tuning out irrelevant, recognizable speech helps people to get and stay focused.

Debunking the Multitasking Myth

"Multitasking," intentionally attempting to perform two or more tasks simultaneously, is just another form of distraction since attention must be divided among the multiple tasks. Information processing for humans is unlike how a computer processes information, which may run multiple processes simultaneously, or in parallel. Humans, on the other hand, cannot do this. For us, processing occurs in sequence rather than in parallel. Even though it may seem like we are accomplishing many things at the same time, in truth, we task-switch and devote shorter segments of time to a single task. The more frequently we task-switch, the longer it takes to complete all of the tasks, the more mistakes we make, and the more distracted we become.[17] Put simply, higher multitasking equals lower effectiveness. Focusing on a single task is much more productive, especially if it's in "flow."

Multitasking in the Kitchen

How do you fill several glasses with one bottle of water? You can't fill them at the same time, and it is a whole lot more effective to fill them one after the other (doing one task at a time), than alternating the filling little by little.

The more glasses you try to fill or the more you alternate, the slower this process gets, and probably the more mess you will end up making!

- Dr. Gabor Nagy

Focusing for "Flow" and Situational Awareness

Flow, a concept studied to better understand psychological flourishing, is a term that describes a mental state that occurs when we are fully immersed in an activity.

When in flow, people are wholly focused on a single task, fully involved and energized, internally motivated, and often lose sense of time; its outcomes are highly productive and creative.

Signs of Achieving Flow

- Confronting achievable challenging tasks with clear goals
- Deep—yet effortless—involvement and unwavering concentration
- Lack of self-awareness
- Intrinsic reward
- Transformation of time

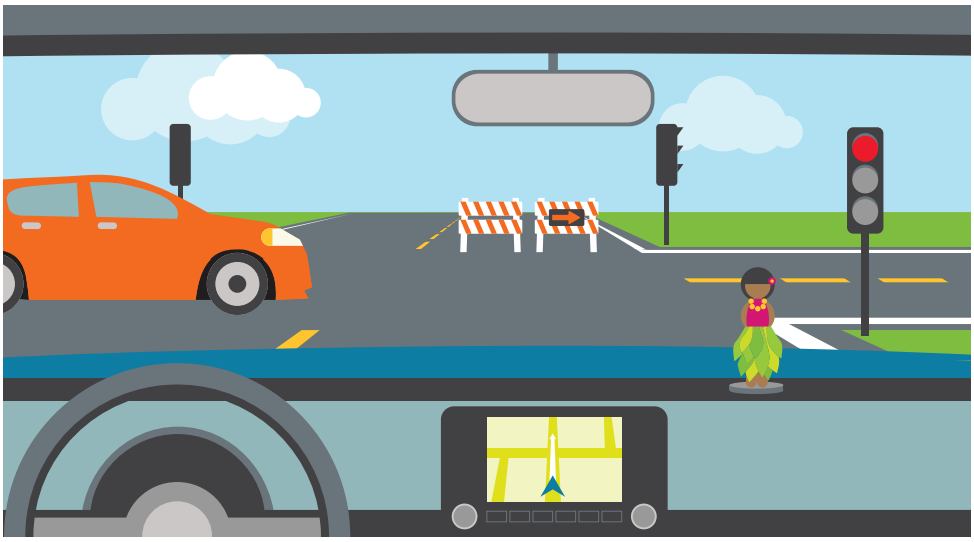
While distractions can be problematic when focusing attention, external events that occur during flow have little impact on it because those events aren't interpreted as distractions.[18] For example, background music can be interpreted as a noisy distraction by one individual and dismissed or barely noticed by another individual, even though both may be doing "focused work." The individual that doesn't notice the background music is in flow while the other may be attempting to get into flow and is being distracted by the external "situation."

15 Banbury et al., 2001.

16 Escera and Corral, 2007.

17 Ophir, Nass, and Wagner, 2009.

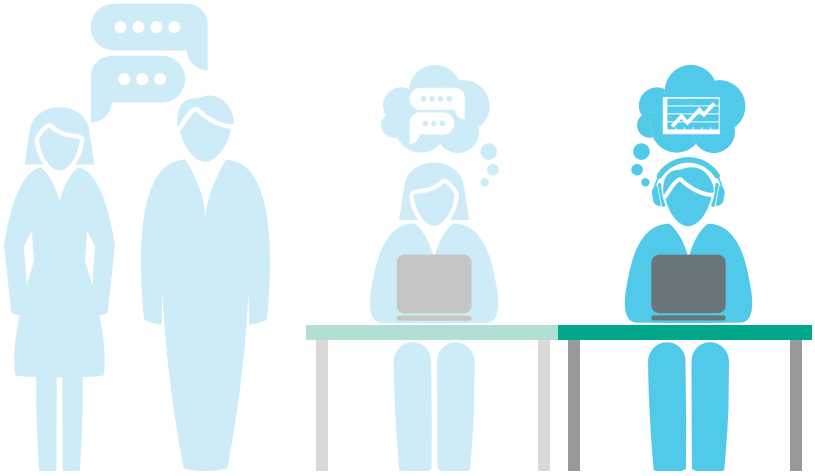
18 Csikszentmihalyi, 1990.



A driver's focus requires attending to the whole surrounding environment: the road, traffic lights, street signs, oncoming traffic, etc. The driver is "situationally aware" of the environment and its bearing on the current task: driving.[19]

However, external stimuli may not always be a distraction; rather it's useful for the task at hand. At times, one needs to be situationally aware and should also attend to the broader situation and environment. Such situational awareness is important for certain tasks, such as driving.

Work that occurs in an office environment requires both situational awareness and flow. Unfortunately, the two cannot be achieved simultaneously. Given the circumstances, the presence of internal and external influences, and the current task, one often needs to alternate between these two states.



The physical work environment should support *both* situational awareness and flow states of focus.

Workplace Design Challenges for Focus

Workspaces designed for focus work traditionally stress managing external visual and auditory distractions, which is not aligned with the current trend of open shared spaces for collaboration. Previous research indicates spaces for focus work should have a high degree of enclosure—preferably a private office,[20] low density with adequate distance from disruptive noise[21] and high-circulation areas,[22] and a high level of acoustical treatments (sound absorbing ceilings and walls, sound masking systems, and sound rated walls).[23] However, these traditional solutions require increased space and are inflexible with rapidly changing organizational needs.

Today, designing for focus work requires a different approach: a planning model that supports the necessary focus work for both individual work and successful collaboration efforts.

Effective Design for Focus and Collaboration

Distractions will exist, but our work environments must support focus work instead of creating more barriers to achieving flow. People's needs will vary throughout the day, for instance, starting with answering emails, making some phone calls, preparing for a meeting, brainstorming with others, and writing a proposal. How can these spaces support both collaboration and focus? With a holistic design approach.

19 Endsley, 2000.

20 Heerwagen et al, 2004.

21 Heerwagen et al, 2004; Fried et al, 2001.

22 Heerwagen et al, 2004.

23 GSA Public Buildings Service, 2012.

A **holistic approach** can meet the various needs for both kinds of work by incorporating variety, choice, control, legibility, and recharging.

VARIETY
Drop the "either/or" approach. Successful organizations provide both private and open workspaces, and put systems in place for people to choose what meets their needs. Focus work can be done in all sorts of spaces: Some people want to be in the "office buzz" while others may need a remote location. The key is to provide a variety of settings. Chances are, not everyone will want a private office.

CHOICE
Empower employees with choices. Let them choose where, how, and when they work. Organizations that successfully deploy alternative workplace strategies argue that, if given the choice, workers will find the best place, the best way, and the best time to do focus work productively. "Free address" offices provide the choice of where—workers can choose where to sit and they are free to move if environmental conditions become undesirable. Activity-based work environments provide both where and how—workers can choose desirable locations and spaces that fit the activity needed. Holistic mobility programs provide all three choices—workers can select a location that fits both the kind of attention and activity needed for work and a time of day that works best.

CONTROL
Give people control. As counterintuitive as it may seem, trying to control distractions (e.g., complex acoustical solutions) is not only expensive and inflexible, but it can also have adverse effects. For example, overheard conversations can be perceived as distracting noise for focus or useful information for collaboration; so isolating workers may jeopardize collaboration.[24] Instead, let people control how to organize and personalize their workspaces, when to interact socially with coworkers, and manage their own lighting, ambient temperature, and work processes. Just knowing they have some control over their work environment can counteract the negative effects of distractions on their performance.[25]

Designing for Focus: Five Themes

Provide a great **variety** of work settings

Give people the **choice** over where, how, and when they work

Give employees **control** over their work environment

Create a **legible** and clutter-free work environment

Provide appropriate space for **recharging**

LEGIBILITY
Getting from A to B to C in the workplace should be easy. Simple and legible layouts that people can easily read allow them to smoothly navigate the space and avoid frustrating and confusing experiences.[26] Legible design allows workers to quickly form a mental map of the overall workplace, easily see and find colleagues, and determine the intended use for each workspace. Along these lines, ample storage keeps clutter at bay and is less distracting[27] both for navigation and work. Being legible and clutter-free makes it easier for employees to spend their efforts on work itself, not trying to find a way to work.

RECHARGING
Give employees time and spaces for breaks. After doing intense focus work, everyone needs to recharge. A workplace culture that encourages energy boosts provides appropriate spaces nearby. One way to enable recharging is by simply providing views to the outdoors for workers to gaze at as they periodically pause in their focus work.[28] Another way is to have mini-breaks throughout the day that consist of caring for physical needs (healthy snacks and clean, comfortable restrooms) and social needs (opportunities to chat with coworkers in lounge areas). One or two larger breaks during the day, like hitting the gym or going for a walk, can invigorate people for a longer stretch of work. Access to all is essential for employees to be well recharged and ready to focus again.

Design Can Support Focus, Collaboration, and High Performance

Interruptions at work aren't going away. Organizations need open and interactive spaces to encourage collaboration, and such spaces can introduce distractions. Distractions, however, sabotage focus and focus work is a necessary part of collaboration. How can we solve this conflict? It is clear that the use of traditional private offices as the sole option for focus work is no longer practical. We suggest an approach to workplace design that addresses both collaboration and focus work. It includes providing employees with a variety of space types and work locations, choice over where, how, and when to best work, control over environmental elements to manage distractions, a legible and clutter-free work environment, and spaces for people to get away and recharge. Focus and collaborative work don't have to compete. In fact, they should complement each other.[29] The workspace can be designed to support both.

24 Gensler, 2013.

25 Lee and Brand, 2010.

26 Werner and Schindler, 2004.

27 McMains and Kastner, 2011.

28 Hartig, Mang, and Evans, 1991.

29 Heerwagen et al, 2004.

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Haworth research investigates links between workspace design and human behavior, health and performance, and the quality of the user experience. We share and apply what we learn to inform product development and help our customers shape their work environments. To learn more about this topic or other research resources Haworth can provide, visit www.haworth.com.