Task-Space-Strengths Fit – An Approach to Positive Physical Work Environment Design

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Master of Applied Positive Psychology Program, University of Pennsylvania

MAPP 800: Capstone Project

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July 15, 2023
Abstract

The physical environment is ubiquitous in our human experience. Research indicates it can be used to positively influence its inhabitants’ behavior, cognition, and emotions to foster well-being. This paper suggests a strengths-based approach to space design with a focus on physical work environments (PWE). PWEs encompass the tangible elements of the workspace that integrate with the work experience. The use of character strengths, or the capacities that enable individuals to thrive, allows for optimal functioning and performance. A task-space-strengths fit, or the match between PWEs intentionally designed to facilitate strengths use and the strengths needed to perform the task at hand, can enhance individual flourishing at work and increase organizational performance. A list of concrete design interventions provides guidance for organizations willing to take a strengths-based approach to designing their PWEs.

*Keywords*: positive psychology, character strengths, strengths-based approach, workplace design, physical work environment, space interventions
Acknowledgments

To Jackie Gaffaney: My fantastic advisor. Thank you for your guidance, support, and kindness. I truly enjoyed your company along my capstone journey and wish you all the best for your dissertation!

To Declan McCabe: Thank you for enriching this capstone with your design expertise. I love the floorplans you created and truly enjoyed collaborating with you! Seeing my academic paper come to life with your drawings still stuns me.

To Jon Rosenberg: My fellow Honorarprofessorenlampenschirmstudent, we have built a unique and invaluable friendship! I am in awe and endlessly grateful for your love and commitment to not just me but so many more MAPPsters, your full-hearted support on topics from all walks of life, and your humor that kept me awake during the night hours of MAPP on-sites.

To James Pawelski: I still remember listening to your message on my voicemail when I got accepted into MAPP and UPENN. Your compassion and estimation are unparalleled. Thank you for every effort, tear, and humor you put into our class. You made my MAPP experience truly special!

To my North Carolina Beach Crew, Dana Emanuel, Jon Rosenberg, and Noelle Ybarra: Dana, I am so fortunate to have spent a few days with you in person. You are such a beautiful soul that deserves the most wonderful life with loads of Hobbs cuddles, many more awe-inspiring Brandi Carlile concert moments, and magical forest walks & talks rich in relational value. Jon, you were our ocean-loving hero at the beach who would drop the pen as soon as we needed a sounding board to talk through something capstone-related. Noelle, thank you for sharing your passionate self with us – I loved seeing your locomotion unfold, leading to a
brave yet perfect switch in the topic. Thank you for showing up when I was unsure if this beach
trip would become a reality. Thank you for ensuring a constant watermelon supply and coaching
us in CrossFit. You rock!

To my Roomies Group, Laura Garrison-Brook, Kerry O’Neill, Jon Rosemburg, and
Roberta Saffels: Laura, Kerry, Jon, and Roberta, I could not be more grateful for our safe space
WhatsApp group that carried me throughout the whole program. All of you have warm hearts;
you are great listeners, great cheerleaders, and never short of valuable advice. I cannot wait to
see what the future holds for you!

To my Ampersand cohort Dana Emanuel, Carter Jernigan, Ann Parthemore, and
Nicole Perez: Dana, Carter, Ann, and Nicole, I could not be prouder of our teamwork, including
the process of working with you and the outcome of our efforts. This was the best team
experience I ever had. Thank you for making it so special!

To my parents Petra & Michael Reichel: Danke, dass ihr mich in einer Weise geprägt
habt, die mich ermutigt hat, mich für dieses Studium zu bewerben und ein solches Zeit-
Commitment auf mich zu nehmen. Ich bereue meine Entscheidung keine Sekunde, weil ich
sicher sein konnte, dass ihr mich bei allen Aspekten der MAPP Erfahrung voll unterstützt.
Danke, dass ihr mit nach Philadelphia gekommen seid und gemeinsam mit mir dieses ganz
besondere Jahr zelebriert habt!

To Benedikt Fella: Bene, you never fail to cheer me on and believe in me and my ability
to succeed in the many different endeavors I decide to engage in. Thank you for the many
messages and phone calls motivating me these past few months!

To Carolin Feldges: Best gym buddy falls short of what you mean to me. CrossFit
connected us, and I am grateful for every workout I do with you – it is incredibly fun and
motivating to train with you. However, our friendship goes beyond the CF box. You were the one that showed up when I had Covid in the summer and delivered some Ben & Jerry’s. You were the one that picked me up when I got stranded at a train station in the middle of the night, and you were the one that beautified my home with the most vibrant-colored tulips. Thank you!

**To Daniela Frietinger:** Dani, you displayed the most gracious patience and compassion for all the invitations I had to decline this year because of my master’s studies. You gave me the feeling that there is no doubt our friendship can withstand the little time I could share with you this past year. Thank you for being my friend for 20 years.


**To Noemi Nedelcev:** Just thinking of you elicits a big smile. Every year I have known you, the loving friendship has grown. You might not have realized it, but I always feel you are there for me when I need you. Friends that nap together stay together!

**To Kinga Pakucs:** Thank you for being the first to sense my emerging passion for the Science of Happiness. I am grateful for your encouragement to hold the well-being workshop at the Cluj leadership retreat in 2021. I am unsure if I would have found my path to this master’s program without you. Thank you for seeing it before I did!

**To the Mädls group and my friends:** I could not be more thankful for your compassion towards me prioritizing this dream of a lifetime. You did not give up on me despite my not attending many events, activities, and other celebrations. Thank you for being fantastic and understanding friends!
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### Introduction to a Strengths-Based Approach to Physical Work Environment Design

In 1981, Franklin Becker described the *physical work environment* (PWE) as a socially constructed system that functions as a support and communication medium. He criticized that organizations miss the opportunity to tap into the physical space as a strategic resource (Becker, 1981) and instead focus on developing culture and optimizing processes. Between then and today, little has changed: Physical environments still facilitate and constrain a significant portion of organizational action. Everything from efficient manufacturing to customer experience during a site visit and even working from home is affected by the design, arrangement, and stimuli of the PWE. And yet, the physical *affordances*, or the possibilities for (inter)action, of the workspace are often overlooked in organizational scholarship (Pratt, 2020).

The PWE constitutes the second largest financial overhead (after human resources) for most organizations (McCoy, 2005), making it all the more important to research and understand the underlying mechanisms for successfully designing and constructing these extraordinary investments. This paper aims to leverage the full potential of PWE, connecting it to core concepts from *Positive Psychology* (the research field concerned with positive experiences, positive traits, and positive institutions) and underpinning it with findings from the fields of management science, neuroscience, medicine, sociology, design, and architecture. Specifically, within *Positive Organizational Scholarship* (a research field concerned with the study of positive outcomes, processes, and attributes of organizations and their members [Cameron et al., 2003]), the use of *character strengths* leads to thriving at work. Character strengths are trait-like positive capacities to think, feel, and behave (Peterson & Seligman, 2004). This paper introduces the task-space-strengths fit, a new evidence-based approach to enhancing human flourishing and performance. It argues that increased performance and well-being can be achieved by matching a
work task that requires a particular set of strengths with a PWE intentionally designed to facilitate using these strengths.

By the end of this paper – and with the help of the task-space-strengths fit model – the author hopes to paint a convincing picture of why a strengths-based PWE design is an effective lever to enhance human flourishing and organizational performance and provide a collection of design elements and design strategies on how to implement a strengths-based PWE for creative tasks at your organization.

Introduction to Positive Psychology and Character Strengths

Human flourishing is at the core of Positive Psychology, a young research field that emerged at the turn of the past millennium. This field’s origins and core concepts form the foundation for the task-space-strengths fit model.

The Nascence of a New Field

Since time immemorial, individuals, scholars, communities, and societies have sought to find answers to the questions: What does it mean to be happy? How do we create well-being? Why do we strive for a life well lived? Theorists and researchers agree that the “good life” is a complex topic and that the scientific process offers unique ways to advance our understanding. More than 2,300 years ago, Aristotle (1999) explored well-being in Nicomachean Ethics, giving rise to an ever-growing body of knowledge. Aristotle distinguishes between two approaches: Hedonia, happiness in pleasure attainment and pain avoidance, and eudaimonia, the unleashing of human potential and the pursuit of optimal functioning, sometimes referred to as “the good life” (Ryan & Deci, 2001). The doctrine of hedonism was first articulated by Aristippus, who advocated immediate sensory gratification (Watson, 1895). In contrast, Aristotle’s eudaimonic aspiration is to be true to one’s inner self (daimon) (Peterson, 2006).
While psychologists explored facets of well-being with research on self-efficacy (Bandura, 1986), intelligence (Gardner, 1983), and positive emotions (Fredrickson, 1998), it was not until the early 2000s that the study of human flourishing became prominent and started attracting a plethora of scholars. Preceding this emergence in 1998, Sir John Marks Templeton from the John Templeton Foundation, who would later become one of the major funders of well-being research projects, stated: “I value hope, optimism, gratitude, loving-kindness, and forgiveness […]. I want science to take these seriously. I want solid empirical science on these topics, and there is no such science now” (Seligman, 2019, p. 232). Soon after, Martin Seligman and his colleagues initiated the field of positive psychology. In an issue of *American Psychologist*, along with Mihalyi Csikszentmihalyi (2000), he officially introduced the scientific study of “positive subjective experience, positive individual traits, and positive institutions” (p. 5), which marked the beginning of a new era of psychology that continues to attract scholars and students today (Kim et al., 2018).

In contrast to predominant psychology, which is preoccupied with a pathological view of the world, positive psychology looks to enhance the positive. In his presidential address to the American Psychological Association, Seligman (1999) called on the research community to focus more on developing frameworks and interventions that maximize human potential. He envisioned a psychology that would guide parenting that results in the healthiest children, implement social policies that result in flourishing societies, and design work environments that support thriving among workers (Seligman, 1999). He asserted that psychology after World War II was mainly concerned with healing mental illnesses, which he acknowledged was an important endeavor with considerable success. Nevertheless, he criticized that the larger mission of improving people’s lives cannot be accomplished solely by focusing on overcoming
psychological suffering (Seligman, 1999). Seligman proposed that psychology misplaced the original mandate to make life better for all people – not just the mentally ill – and is obligated to recollect its roots (Seligman, 1999) and move beyond the disease model (Maddux, 2002). Seligman (1999) encouraged his colleagues to engage in a new social and behavioral science that seeks to nurture human strengths, ultimately leading to human flourishing.

The Best Qualities in Human Beings

Positive Psychology unifies Aristotle’s two approaches by focusing on positive experiences (the hedonic approach) and positive character (the eudaimonic approach). Seligman declared positive individual traits as the backbone of this new field, leading him to embark on a multi-year-long journey to understand the best human qualities (Niemiec, 2018). In 2001, 55 noted scholars set out to define character and to identify characteristics of good character valid across history and cultures (Niemiec, 2018). They set out to understand whether character exists in degrees, its stability over time, and if it could be learned or developed. In 2004, the scholars presented their work in a groundbreaking publication entitled Character Strengths and Virtues: A Handbook and Classification (Peterson & Seligman, 2004). The handbook entails a systemic classification and strategies for measuring what is right in adults and youth and constitutes the intellectual foundation for the Virtues in Action (VIA) Classification of 24 character strengths (Niemiec, 2018). This list of 24 character strengths is viewed as a consensual nomenclature to describe the best qualities in human beings (Niemiec, 2018) and leads the way to six great virtues (see Figure 1 for an overview of all virtues and strengths) (Peterson & Seligman, 2004). The classification epitomizes a positive response to the Diagnostic and Statistical Manual of Mental Disorders (DSM from APA) and the International Classification of Diseases (ICD from WHO), both concerned with the negative side of the human condition.
Figure 1

VIA Classification of Character Strengths

![VIA Classification of Character Strengths](image)


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**The Task-Space-Strengths Fit as an Opportunity for Thriving at Work**

At the core of the task-space-strengths fit model is human strengths. Rather than trying to compensate for the weaknesses of employees, this model aims to leverage their existing set of character strengths to improve thriving at work and ultimately increase organizational performance.
Description of the Task-Space-Strengths Fit Model

The task-space-strengths fit model consists of three elements: work task, physical space, and character strengths (see Figure 2). When an employee works in an environment intentionally designed for their work task, the environmental cues have the capacity to foster strengths use, which in turn energizes the employee and can lead to increased well-being and better job performance.

Figure 2

*The Task-Space-Strengths Fit Model*

Note. Space refers to the Physical Work Environment (PWE).

The Importance of Well-Being at Work

The task-space-strengths fit model can lead to increased well-being and enhanced job performance. This paper argues that the pursuit of employee well-being has individual and organizational benefits. These originate in the sense of vigor that an individual experiences when tapping into their strengths at work and lead to better job performance. As illustrated in the next
paragraph, well-being can take many forms. For this paper, the term will be operationalized into job satisfaction and thriving, which allows us to test the model in the future.

**Well-Being and Life Satisfaction**

Different individual preferences, perspectives, and definitions of well-being make it hard to describe a life well-lived objectively. The term *quality of life* is widely used among researchers (Diener, 1984) and encompasses all experiences, emotions, appraisals, expectations, and achievements that factor into a good life (Peterson, 2006). A more recently introduced term is *subjective well-being* (SWB), or “people’s cognitive and affective evaluations of their lives” (Diener, 2000, p. 34). High SWB is generally operationalized as “relatively high levels of positive affect, relatively low levels of negative affect, and the overall judgment that one’s life is good” (Peterson, 2006, p. 84). The latter component is often identified as life satisfaction. All three components of SWB can be empirically measured with the Satisfaction with Life scale (SWL; Diener et al., 1985).

**Job Satisfaction**

Life satisfaction is integral to individual well-being and essential for living a “good life.” Contentment with work is imperative therein. *Job satisfaction* is defined as the “related constellation of attitudes about various aspects or facets of the job” (Spector, 1997, p. 2). Given that work occupies a significant portion of people's weekly schedules (Schor, 1992), it is no surprise that research consistently suggests the significant impact of job satisfaction on overall life satisfaction. A meta-analysis found a considerably large .4 weighted correlation between life and job satisfaction (Bowling et al., 2010), indicating the importance of satisfaction at work for the employee’s well-being.
**Thriving**

Only 1 in 5 employees are fully engaged and motivated at work (Gallup, 2022). The widespread use of a deficit model (Hodges & Clifton, 2004; Van Woerkom et al., 2016) that focuses on remediating employee deficits and falls short of delivering an invigorated and dedicated workforce underscores the need for an approach that fosters thriving in employees by energizing them.

With the expansion of positive psychology, the literature on human functioning diverged, and a lack of consensus on many key concepts, including *thriving*, emerged (Brown et al., 2017). Thriving enables humans to unlock their inner potential, cultivate resilience in the face of challenges, and create a life rich with joy, success, and contentment (cf. Kleine et al., 2019). Despite some scholarly debate about the term, a generally agreed-upon description of thriving is the “joint experience of development and success” (Brown et al., 2017, p. 168). For this paper, *thriving* is referred to as defined in business-related academic literature, or the joint experience of vitality and learning (Porath et al., 2012; Spreitzer et al., 2005). *Vitality* is understood as feeling energized and alive, and *learning* is understood as continually improving (Porath et al., 2012). On an individual level, thriving at work is associated with enhanced health, well-being, and job performance (Pfeffer, 2010) and functions as a buffer against burnout (Maslach, 2003), benefiting the organization through reduced healthcare costs and increased performance (Porath et al., 2012).

Individuals possessing a sense of vitality are less prone to experiencing worry, depression, or distress and are more likely to exhibit mental well-being (Keyes, 2002). Positive experiences, such as vitality, equip individuals with greater physiological resilience to cope with stressful situations (Tugade et al., 2004). Moreover, apart from vitality, a sense of learning
contributes to positive physical health and mental well-being. Researchers discovered that employees who reported greater learning at work were more inclined to report positive impacts of work on their mental and physical health (Ettner & Grzywacz, 2001). A study even demonstrated a higher probability of hospitalization for heart attacks among employees with limited learning opportunities (Alfredsson et al., 1985). It is reasonable to expect that individuals experiencing thriving at work will enjoy improved health (Porath et al., 2012).

**The Physical Work Environment as an Effective Lever to Achieve a Thriving Workforce**

The task-space-strengths fit model introduces the PWE as an effective lever to boost thriving at work. The positive influence of the PWE on employees is an understudied and yet promising aspect of organizational thriving.

**Defining Physical Work Environment**

The term physical work environment (PWE) (Ashkanasy et al., 2014) encompasses the tangible elements of the workspace that integrate with the work experience (Elsbach & Pratt, 2007; Oldham & Rotchford, 1983), which include the material objects, their arrangement in the space, and the stimuli that they provide (Carnevale, 1992; Davis, 1984). The combination of intent, function, and form paints a picture of organizational life (Spreitzer et al., 2020, p. 237). It reflects the organizational reality in its aesthetic (visual and tactical appeal), symbolic, and instrumental (i.e., focus, creativity) value (Elsbach & Bechky, 2007). Finally, PWE is distinguishable from other environments, such as social or natural environments.

**Theories Supporting the Impact of the Workspace on Flourishing**

According to the socially embedded model of thriving at work, the contextual features of work facilitate *agentic behaviors* (Spreitzer et al., 2005), which are an individuals' proactive and assertive approach to taking control of their actions, making decisions, and influencing their
environment to achieve desired outcomes (Bandura, 1986). These contextual features can take on different forms, such as company culture, leadership style, or the physical environment. Still, they all have one thing in common: they impact the behavior of employees. Thriving is an outcome that emerges through an individual’s actions and decisions toward the production of resources (Spreitzer et al., 2005).

The notion that architecture “can act upon the world” rather than “exists to be acted upon” endows physical space with a sort of agency (Pratt, 2020, xix). Currently, most organizations take a protection-driven approach to PWE to fulfill the workforce’s safety needs. This approach is motivated by laws and official regulations (Arbeitsstättenverordnung [Workplace Regulations], 2004; Occupational Safety and Health Administration, n.d.) and falls short of displaying agency. By contrast, when physical environments are designed to support, stimulate, invite, and challenge people to use their strengths, space becomes a tool to fulfill psychological needs (Stevens et al., 2019). Recently, researchers have extrapolated the concepts of Positive Psychology to the field of architecture and are beginning to provide the theoretical basis for designing physical environments that foster human flourishing (Spreitzer et al., 2020; Stevens et al., 2019). Previously, the research on the impact of the PWE on employees’ attitudes, feelings, and emotions has been largely neglected in the organizational behavior literature (Ashkanasy et al., 2014), even though studies found that physical variables in the workplace, such as noise, temperature, illumination, and density, have a powerful impact on employees’ mood (Harter et al., 2003; Staw et al., 1994).

Two theories provide a deeper understanding of the agency of physical space. The affordance theory and nudge theory explain how the physical environment influences the human experience.
**The Affordance Theory**

The PWE offers the possibilities for interaction with the space and action via its tangible attributes (Spreitzer et al., 2020). This relationship between the physical environment and human experience is captured by the concept of *affordances*, defined initially as possibilities for action provided to an animal by the environment (Gibson, 1986). It has since been applied to the human experience within a physical space.

In architecture and space design, affordances have taken a *eudaimonic turn*, which is a re-framing of a concept toward a focus on what constitutes a good life (Pawelski & Moores, 2012). Affordances are now understood as the environments’ capacities to invite, incite, and enthuse users to undertake skillful and beneficial activities (Rietveld & Kiverstein, 2014).

Applied to the PWE, this may mean that intentionally designed PWEs could provide their users with a compelling opportunity to use their character strengths. Thus, the concept of affordances allows us to see the task-space-strengths fit as a mechanism that leads to thriving.

The process of experiencing an environment with spatial flourishing affordances can unfold intentionally or unconsciously. The intentional process involves four active steps (Stevens et al., 2019). In the essential first step, the user recognizes the affordances or action possibilities in the tangible features of the built environment. In the second step, the user evaluates the action possibilities on the backdrop of their personal psychological needs and decides whether to actualize the affordance. The cost-and-reward system takes over and determines whether the user will engage. In the third step, the user interacts with the physical environment to fulfill their psychological needs, creating a path toward flourishing. As a result – this constitutes the fourth step – the user builds up skills that enable them to adjust long-term goals concerning those newly acquired resources (Stevens et al., 2019). For example, if a physical space offers a nook hidden
from high-traffic zones in the office, it allows the user to withdraw from a busy work environment. When the user sees the nook, they will evaluate whether they desire a break to relax. They may think about the benefits of retreating from the busy work environment to reduce their social anxiety and decide to go in there. Eventually, the user will have learned that the space offers them pathways to fulfill their psychological needs and empowers them to control their social anxiety. This example fanned out what is often an unconscious process. Nudge Theory further undergirds how the physical environment influences the human experience.

**The Nudge Theory**

Nudge theory originated from Richard H. Thaler, a distinguished behavioral scientist and professor at the University of Chicago. He was awarded the Nobel Prize in Economics for his research on *nudges*, the systematically placed elements that prompt people into desired behavior (Nobel Prize Organisation, 2017). Nudge theory is based on the unconscious choice-making that takes place via the *automatic system*, a human cognitive system encompassing instinctive behaviors that are innately programmed (Evans, 2003), and the capacity of the physical context to influence human behavior (Dolan et al., 2012). Nudges predictably alter people’s behaviors without limiting their choices or using coercion (Thaler & Sunstein, 2008). A feeling of being manipulated could cause a backlash against the intended actions; therefore, it is important that individuals retain their autonomy and can opt out of the nudges if they choose.

The concept of nudging has expanded its reach into the realm of design, where environmental cues are embedded in the physical environments to prompt individuals into behaviors beneficial to their personal and the collective health and well-being (Lee Duff & Tan, 2020). In workplaces, for instance, various nudges can be employed to promote positive actions, such as active design elements like using footprints to entice individuals to forgo the elevator and
instead choose the stairs, thereby encouraging exercise and fostering casual and collaborative conversations (Van Der Meiden et al., 2019).

By some estimates, up to 40% of an individual’s well-being can be attributed to the activities they undertake (Lyubomirsky, 2008; Lyubomirsky et al., 2005), illustrating the importance of being nudged into action instead of forced into action.

The affordance theory sheds light on the possibilities for action that the physical environment provides, and nudge theory highlights the power of steering users’ behaviors for the better without them noticing. The task-space-strengths fit model aims at nudging individuals into using their strengths more. It encourages organizations to provide more possibilities for their employees to act in ways that tap into strengths and suggests using intentional physical space design to achieve this.

**Character Strengths as an Entry-Point for Designing Physical Work Environments**

Activity-based working is the current gold standard for ways of working (Engelen et al., 2019). It has emerged as a style of working that allows employees to perform activities in an environment tailored to the task at hand and to support work activities optimally (Engelen et al., 2019). Offices designed for activity-based working take a non-territorial approach that entails a large mix of different unassigned room settings shared among the users (Engelen et al., 2019). While it has been shown to offer many benefits, e.g., increasing social interaction, satisfaction with the workspace, sense of control over time and space (Engelen et al., 2019; Gonsalves, 2023), this approach falls short of two main points: It lacks guidance for work environments outside of an office such as production facilities, construction sites, kindergartens, or beauty salons, and it leaves some of the power of thriving at work untapped by not leveraging compelling findings from Positive Psychology.
This paper identifies character strengths as a compelling entry-point for designing PWE due to their capacity to be malleable and dependent on the context (Biswas-Diener et al., 2011), hereby introducing a strengths-based design approach.

**Character Strengths and Their Role in Flourishing**

The character strengths approach is one of the essential pillars of Positive Psychology and is seen as a pathway to thriving (Peterson & Seligman, 2004). According to this approach, everyone possesses a unique profile of strengths. Investing in exploration, training, and use of these strengths can foster positive psychological outcomes, such as well-being, performance, optimal functioning, and fulfillment (Dubreuil et al., 2014; Forest et al., 2012; Linley & Harrington, 2006; Peterson & Seligman, 2004). Among the methods for assessing character strengths are the two most common tools, the VIA Survey from the VIA Institute on Character and the CliftonStrengths assessment from the Gallup Organization (Hickman & Evans, 2018; Niemiec, 2019b). While similar in their core focus on positive qualities in the individual, they differ in the domain: The focal point of CliftonStrengths is the workplace, while the VIA is applied widely to any situation in which human beings are present (Niemiec, 2019b). For this paper, the VIA character strengths were chosen due to its scientific scrutiny and the large number of peer-reviewed interventions based on the VIA.

**Defining Character Strengths**

*Character strengths* are capacities expressed in thoughts, feelings, and behaviors that enable individuals, organizations, and societies to thrive (Park et al., 2004; Peterson & Seligman, 2004). They reflect “our basic identity and produce positive outcomes for ourselves and others” (Niemiec, 2018, p. 2). There are 24 positive, trait-like personality characteristics (see Figure 1) that find expression in thoughts, feelings, and behaviors (Park et al., 2004) and allow optimal
functioning and performance (Linley & Harrington, 2006). In practical terms, we can think gratefully and hopefully, we can feel loved and zesty, and we can act in ways that are humble, brave, and curious (see Appendix A for an explanation of each character strength).

**Unique Characteristics of Character Strengths**

There are five unique characteristics of character strengths: positive, malleable, plural, actionable, and dimensional.

**Positive.** To consider a trait a character strength, it must contribute to the good life and the greater community while not diminishing other people (Park et al., 2004). The VIA character strengths are universally valued across religion, politics, and culture (Littman-Ovadia et al., 2017; Park et al., 2004).

**Malleable.** Character strengths are reasonably stable over time and across situations and yet malleable in exceptional life circumstances or through training (Bakker et al., 2019; Gander et al., 2020). For instance, in a study of atypical life events in the United States, kindness, leadership, teamwork, love, hope, spirituality, and gratitude increased two months after the 9/11 attack on the World Trade Center in New York City (Peterson & Seligman, 2003). These changes in character strengths were still detectable ten months later, however, to a lesser degree (Peterson & Seligman, 2003). Another study, a randomized placebo-controlled long-term trial among 632 adults in Switzerland, indicated that humor could be actively trained with a humor-based intervention positively affecting happiness (Wellenzohn et al., 2016).

**Plural.** Each individual has a unique character strengths profile that includes all 24 strengths. All of them matter as they are all part of being human. However, how they matter varies by person and situation (Niemiec & Pearce, 2021), informing the rich mosaic of an
individual’s character (Niemiec & Pearce, 2021). Character strengths are often expressed in combinations or constellations (Biswas-Diener et al., 2011; Niemiec, 2018; Peterson, 2006).

**Actionable.** Character strengths do not only reflect our basic identity (“being”) (Seligman et al., 2005) but they can be put into action when they are expressed in behavior (“doing”) (Gander et al., 2013).

**Dimensional.** Character is viewed in degrees and expressed (and measured) on a continuum (Miller, 2013). Character strengths are most valuable when used within the golden mean zone, the optimal dose of character strengths use, or else they can be overused and underused, which negatively impacts oneself or others (Niemiec, 2019a). For example, when a person overuses their strength of zest, they exert hyperactivity, indicating that they fell into a modus operandi that fails to signal when to quit (Niemiec, 2013). Expressing character strengths in varying degrees leads to several sub-sets of strengths.

**Signature Strengths**

Strengths expressed with a higher degree are considered signature strengths. They are the most frequently exercised positive traits. They feel authentic and invaluable to the individual (Niemiec, 2018) while energizing and invigorating the individual (Peterson & Seligman, 2004). Conversely, undeveloped, unrealized, or unused (Niemiec, 2018) strengths are considered lower strengths. Despite the designation, through practice and habit formation, it is possible to develop and leverage them (Bakker et al., 2019).

**Phasic Strengths**

Strengths that rise on occasion are known as phasic strengths. If a situation requires specific strengths outside of a person’s signature strengths, phasic strengths can be employed
vigorously for the time being (Niemiec, 2018). Phasic strengths emerge under certain circumstances and result from an external trigger (Arbenz et al., 2023).

The task-space-strengths fit model leverages the strengths characteristics of malleability, plurality, and dimensionality by attributing workspaces the capacity to nudge the users into capitalizing on their signature and phasic strengths.

**Character Strengths Use as a Pathway to Thriving at Work**

When individuals engage their strengths, they experience vigor, positive affect, harmonious passion, and elevated sustainable well-being (Dubreuil et al., 2014; Peterson & Seligman, 2004; Schutte & Malouff, 2019; Wood et al., 2011) while repairing weaknesses, a common approach in people development, can be demoralizing and demeaning (Hodges & Clifton, 2004).

**The Aware-Explore-Apply Model to Foster Strength Use**

To use character strengths effectively, individuals can follow a three-step approach that involves awareness, appreciation, and active use of strengths (Peterson & Seligman, 2004). The aware-explore-apply model (Niemiec, 2018) is a widely used, effective, and practical intervention to foster well-being through character strengths use (Dubreuil et al., 2016; Schutte & Malouff, 2019; Van Zyl et al., 2020). It invites individuals to become aware of their character strengths (e.g., by taking the VIA character strength test (VIA-IS) [McGrath, 2019]), then explore and familiarize themselves with them before identifying situations and areas of life where they can be applied. Wood et al. (2011) investigated this link in an English community. They found that strengths use was related to higher self-esteem, positive affect, and vitality – even six months later (Wood et al., 2011). Hone et al. (2015) further validate these findings through a nationally representative study in New Zealand. Their research showed that people
aware of their strengths are nine times more likely to flourish than those unaware, and people who use them are 18 times more likely to flourish than those who do not (Hone et al., 2015). The evidence on the relationship between character strengths use and flourishing makes envisioning a PWE that builds upon these character strengths principles worthwhile.

**The Positive Effects of Strengths Use on Individuals**

There are at least four positive effects resulting from strengths use. These include enhanced well-being, higher job satisfaction, better ability to cope with stress, and experience of harmonious passion. All of them underpin the positive outcome of a task-space-strengths fit.

**Well-being.** Various studies suggest that specific character strengths are positively tied to SWB and psychological well-being (Hausler et al., 2017; Wagner et al., 2020), life satisfaction (Buschor et al., 2013; Park et al., 2004), and strengths use correlates with physical health (Gander et al., 2013, 2020), and thriving (Bakker & Van Woerkom, 2018; Harzer, 2020; Moore et al., 2022; Park & Peterson, 2009). Benefitting from the dimensionality of character strengths, positive interventions focused on character strengths consistently show a link between their use and increases in well-being (Green, 2022; Proyer et al., 2014; Seligman et al., 2005). Specific character strengths are robust predictors of work-related well-being. For instance, research among 122 German-speaking working adults found that the character strengths of teamwork and creativity predicted well-being (Harzer et al., 2017). The character strengths of zest and bravery followed the list of strong predictors for well-being, increasing the chance to experience positive emotions and representing important qualities for team success and high engagement (Harzer et al., 2017). Positive relationships, as fostered by teamwork, a feeling of engagement and accomplishment, as induced by creativity and bravery, and positive emotions, as elicited by zest, are known as building blocks for well-being (Seligman, 2011, 2018).
Job satisfaction. Satisfaction at work plays an essential role in thriving at work. Using specific character strengths is a pathway to well-being, mediated by job satisfaction. For instance, a study among 887 adult women and similar studies (Peterson et al., 2009) suggest that zest, hope, curiosity, gratitude, and spirituality are significantly related to overall job satisfaction (Gander et al., 2012). A recently conducted study among nearly 13,000 participants assessed job satisfaction (via the SAZ; Fischer & Lück, 1972) and character strengths (via the VIA-IS; Peterson et al., 2005) revealed love as an additional character strength for the list of strengths related to job satisfaction (Heintz & Ruch, 2020).

Coping with stress. Fostering well-being and job satisfaction are just as desirable as avoiding ill-being. In a business context, it is vital to be able to cope with stress and adversity. A study with nurses and a mixed sample of workers revealed that intellectual, emotional, and interpersonal strengths elevated the capacity to cope with work-related stress (Harzer & Ruch, 2015). There is a positive relationship between character strengths and positive coping strategies, such as control, defense, and distraction (Harzer & Ruch, 2015). Intellectual strengths, such as love of learning, judgment, curiosity, and creativity, mediated the negative effect of work-related stress on job satisfaction and highlighted their importance for the above-listed coping behaviors (Harzer & Ruch, 2015). This systematic relationship between character strengths and coping mechanisms for work-related stress provides beneficial outcomes for the individual’s well-being just as much as it does for organizations, for example, by decreasing health care costs of stress-related sick leave.

Harmonious passion. Beyond the correlation between character strength possession and individual well-being, there is a more agentic perspective on the beneficial role of character strengths. Becoming aware of one’s strengths and applying them more often has been found to
correlate with feelings of fulfillment, accomplishment, and meaning but also heightened engagement, job satisfaction, and positive affect at work (Dubreuil et al., 2016; Harzer et al., 2017; Harzer & Ruch, 2012, 2013; Littman-Ovadia et al., 2017; Peterson & Seligman, 2004; Seligman, 2011). An intervention study among university students, for instance, demonstrated that strengths awareness and strength use cause an increase in well-being and harmonious passion, a positive and intrinsically-motivated psychological state characterized by a solid and enduring interest in an activity or pursuit (Forest et al., 2012). These findings (for an overview, see Bakker & Van Woerkom, 2018) suggest that using character strengths at work may prove valuable for employees and their organizations.

**The Positive Effects of Strengths Use on Organizations**

Employees are the driver of organizational performance and should thus be seen as a valuable asset worth investing in (Zhenjing et al., 2022). More robust job performance (Christian et al., 2011; Lyubomirsky, King, et al., 2005) and greater work engagement (Botha & Mostert, 2014; Crabb, 2011) are the benefits of a strengths-based approach.

**Job performance.** Instead of focusing on employees’ weaknesses, several studies highlight that organizations are better advised to choose a strengths-based approach (Avey et al., 2012; Harzer et al., 2017; Harzer & Ruch, 2014). For instance, a study among 122 workers in various occupations found that specific character strengths (e.g., perspective, curiosity, love of learning, perseverance, teamwork) explained a significant variance in job performance (Harzer et al., 2017). Higher scores in character strengths are associated with three dimensions of job performance (Avey et al., 2012; Harzer et al., 2021). Studies indicate a positive relation to in-role behavior (also known as task performance), extra-role behavior (also known as contextual performance), and creative performance (Avey et al., 2012; Harzer & Ruch, 2014; Kalyar &
Kalyar, 2018). Whereby zest, teamwork, and social intelligence represented the most noteworthy predictors of the former two dimensions (Harzer, 2020), the virtues of wisdom (creativity, curiosity, judgment, love of learning, and perspective) up creative performance (Avey et al., 2012). Therefore, for the design of PWE, it is helpful to remember that different character strengths matter in different contexts.

**Work engagement.** Engagement at work, or the “positive, fulfilling, affective-motivational state of work-related well-being” (Bakker et al., 2008, p. 187), is another critical factor for organizational success as it impacts employee retention, morale, and productivity (Clack, 2020). Research shows that character strengths are one of the strongest drivers of work engagement (Crabb, 2011). A study in South Africa indicates a positive association between strengths use and work engagement (Botha & Mostert, 2014). The authors explain that when workers do what they are naturally best at, it leads to feelings of autonomy, competence, and confidence. Mayerson (2015) describes the successful alignment of talents, strengths, interests, and resources as the “power zone,” an area of optimal functioning or flourishing. However, not all strengths have the same effect on engagement. Applying an individual’s signature strengths is more strongly related to engagement at work and other positive experiences (i.e., job satisfaction and enjoyment) than applying their lesser strengths (Harzer & Ruch, 2013). Thus, work environments and tasks that provide employees with opportunities to use their higher-ranked strengths elicit the best outcomes. The task-space-strengths fit model is most robust when the strengths an individual uses overlap with his or her signature strengths.

**Theories Supporting an Environment-Activity Fit Mediated by Character Strengths**

The Person-Environment (PE) Fit Theory (Caplan, 1987; French et al., 1974; Kristof-Brown et al., 2023) and the Job Demands-Resources (JD-R) Theory (Bakker & Demerouti, 2001).
2017) posit that job satisfaction and work engagement are being shaped by a person-environment fit and a person-job fit (Agho et al., 1993; Büssing et al., 1999; Kristof-Brown et al., 2005) further underpinning the triangular relationship between an individual (and his or her strengths), their job (work task), and the work environment.

**Person-Environment (PE) Fit Theory**

The Person-Environment (PE) Fit Theory encompasses the congruence between an individual's attributes, such as strengths, talents, interests, and values, and the characteristics of their environment, including job tasks, organizational culture, and physical space (Caplan, 1987; French et al., 1974). According to this theory, the greater the alignment between the person and the environment, the greater the benefits for the employee and the likelihood of the employee thriving. One specific facet of PE Fit Theory, the complementary person-job fit, is particularly relevant for designing PWEs. It examines the extent to which individuals and organizations provide what the other requires (Harzer, 2020; Kristof, 1996) and underpin the notion that PWEs must serve the needs of their inhabitants.

The scope of the environment in PE Fit Theory varies in its broadness, ranging from person-person fit (such as employee-supervisor fit) to person-job fit, person-organization fit, and person-vocation fit (Edwards & Shipp, 2007). This expansive view recognizes the multiple dimensions through which an individual's attributes can align with various aspects of their environment (Harzer et al., 2017). It allows the hypothesis of a triangular fit between a person, their job, and the physical space they are in.

Research suggests that the benefits of character strengths in the workplace are maximized when congruence exists between the individual's specific strengths and the demands of their occupational setting (Van Vianen, 2018). This perspective aligns with the core principles of
Positive Psychology, which emphasize the importance of individuals utilizing their highest character strengths regularly to achieve optimal outcomes (Peterson & Seligman, 2004). Accordingly, individuals are encouraged to seek occupations that require and allow the display of their specific set of strengths. Van Vianen’s (2018) findings further suggest that people have an innate need to seek out environments that match their characteristics. This opens the way for ascribing physical environments the capacity to play a role in facilitating character strengths use.

While PE Fit Theory and its associated theories have faced criticism (Edwards, 2008), it is important to acknowledge that they still hold a crucial position within organizational behavior research (Gander et al., 2020). The PE Fit Theory provides a valuable framework for understanding the interaction between individuals and their environments, shedding light on the factors contributing to employee thriving and overall organizational success.

**The Job-Demands Resources (JD-R) Theory**

The importance of the job environment for well-being at work has also been highlighted in the Job Demands-Resources (JD-R) Theory (Bakker & Demerouti, 2017). The JD-R Theory is a flexible model explaining how job characteristics affect employee well-being and performance. According to the theory, all job characteristics can be placed into two categories (Bakker & Demerouti, 2017): demands and resources. Job demands are aspects of the work that require sustained physical, cognitive, or emotional effort, such as workload or time pressure (Demerouti et al., 2001). On the other hand, job resources refer to the physical, psychological, social, or organizational factors that can help individuals achieve their work goals (Bakker & Demerouti, 2007), such as support from colleagues, autonomy, personal growth, or the PWE. The theory suggests that high job demands can lead to strain and burnout, while job resources can buffer these adverse effects and enhance motivation and engagement (Bakker & Demerouti, 2017).
Applying character strengths is a job resource (cf. Harzer, 2020). Within this framework, one might argue that an intentionally positive-designed PWE qualifies as a job resource.

**The Role of Organizations in Fostering Strength Use**

Individuals have some control over focusing on and developing their strengths, but organizations must provide sufficient opportunity and motivation for strengths use (Botha & Mostert, 2014). Researchers found that when organizations provide support for strengths use, employees are better equipped to handle high job demands and experience improved work engagement and proactive behaviors, such as continuous learning and self-improvement (Bakker et al., 2019; Moore et al., 2022; Van Woerkom et al., 2016). Additionally, organizational strengths use is associated with positive outcomes such as affective commitment, organizational performance, subjective health, job attitudes, and task and creative performance (Kleine et al., 2019; Walumbwa et al., 2018).

Organizational support theory (Eisenberger et al., 1986) posits that employees develop a belief about how much the organization values their contributions and cares about their well-being. An essential aspect of this belief is considering and supporting employees’ strengths through formal and informal policies, practices, and procedures (Keenan & Mostert, 2013). This notion, known as perceived organizational support for strengths use, is positively associated with employee strengths utilization (Ding et al., 2020).

These research findings support the importance of organizational investment in interventions that foster employee strengths and strengthen the argument for an intentional workspace design.
General Implementation Steps for Strengths-Based Workspace Design

A successfully implemented strengths-based PWE requires comprehensive work and collaboration between researchers, workplace designers, and organizations. This includes a classification of work tasks that will support organizations in identifying and categorizing the work tasks present in their workforce. As some character strengths are better suited to perform well (or excel) in certain tasks, this paper also suggests which character strengths benefit which task. And lastly, the transfer to concrete and actionable recommendations has to be made. Due to the scope of this paper, the following will only include a list of design elements for one category of work tasks: creative tasks. Future research may build on this initial work to create a set of evidence-based design elements for all task categories.

The approach to implementing a strengths-based PWE loosely follows the Aware-Explore-Apply framework (cf. Niemiec, 2018), which in this case, gets applied by the workplace designer in collaboration with the organization. A task-space-strengths fit requires awareness of the tasks at hand, matching them with character strengths, exploring the design elements relevant to boost the selected character strengths per task category, and applying these design elements to a floorplan.

**Step 1+2: Define Tasks and Match Character Strengths**

Step 1 is to define the everyday tasks in the organization’s setting. To help designers explore the array of tasks for which PWEs could enable optimal conditions, this paper classifies typical work tasks into seven categories, including administrative tasks, analytical tasks, creative tasks, customer service, routine tasks, strategic tasks, and collaborative tasks. This categorization was created following the *MECE principle* (a selection scheme that offers mutually-exclusive and collectively exhaustive categories [Rasiel, 1999]), whereby the seven categories cover a
comprehensive range of work tasks, regardless of the occupation. The O*NET OnLine platform (National Center for O*NET Development, 2023), developed for the U.S. Department of Labor, served as the starting point for these categories.

Step 2 is to identify strengths that will energize individuals to perform these tasks better. Thus, the list of tasks is complemented by a selection of character strengths that may benefit the task performance. Associating character strengths to tasks aligns with research that hints at differences between occupations regarding prototypical character strengths profiles (Gander et al., 2020; Peterson et al., 2009).

**Administrative tasks** involve managing and organizing information, documents, schedules, and resources. These tasks are essential for smooth operations and include activities such as scheduling meetings, responding to emails, and maintaining records. Administrative tasks may benefit from character strengths such as perseverance, fairness, self-regulation, and prudence to effectively manage information, schedules, and resources while ensuring equitable treatment.

**Analytical tasks** involve examining and interpreting data, conducting research, and drawing conclusions based on information and evidence. These tasks require logical thinking and data analysis skills and often involve making informed decisions. Analytical tasks include conducting market research, analyzing financial data, or evaluating performance metrics. Analytical tasks may tap into character strengths such as curiosity, love of learning, perspective, judgment, perseverance, beauty & excellence, and fairness to effectively analyze data, seek knowledge, and make informed decisions.

**Creative tasks** involve generating original ideas, designing solutions, and producing artistic or innovative work. These tasks often require imagination, critical thinking, and problem-
solving skills. Creative tasks call for character strengths like creativity, curiosity, love of learning, bravery, and perspective to generate original ideas, explore new possibilities, and offer fresh insights.

*Customer service* involves interacting with customers, clients, or patients, addressing their inquiries or concerns, and providing assistance or support. These tasks require strong interpersonal skills, patience, and the ability to handle customer needs effectively. Customer service tasks may benefit from character strengths such as kindness, self-regulation, humor, and social intelligence (Moradi et al., 2014) to effectively understand and address customer, client, or patient needs, ensuring a positive experience.

*Routine tasks* are repetitive and often involve standard operating procedures or established protocols. These tasks are typically predictable and do not require significant decision-making or problem-solving. Examples of routine tasks include data entry, filing documents, or performing regular maintenance checks. Routine tasks may be supported by character strengths like self-regulation, perseverance, and humility to maintain consistency, overcome challenges, and approach them with a positive mindset. Research has demonstrated that creativity can be beneficial, too, due to its power to playfully re-design the task resulting in enhanced job performance and satisfaction (Scharp et al., 2021).

*Strategic tasks* involve long-term planning, setting goals, and developing strategies to achieve desired outcomes. These tasks require a big-picture perspective and may involve analyzing market trends, formulating business strategies, or developing organizational objectives. Strategic tasks call for character strengths such as perspective, judgment, leadership, social intelligence, and prudence to devise long-term plans, consider diverse viewpoints, and make wise decisions (Gander et al., 2020; Peterson et al., 2009).
Collaborative tasks fall outside the MECE principles and represent a cross-sectional category that can be added to any of the above categories. Collaborative tasks involve working with others to achieve a common goal. These tasks may require effective communication, teamwork, and coordination. Collaborative tasks include brainstorming sessions, project meetings, or working on a group presentation. Collaborative work thrives on character strengths like teamwork, honesty (Scott, 2017), zest, social intelligence, and leadership to foster effective communication, cooperation, and collective achievements.

**Step 3: Design Space for a Specific Work Task and Add Environmental Cues**

The third step involves designing the space for a specific work task and adding environmental cues that will energize the individual to perform these tasks better. Table 1 shows some example combinations of tasks, design elements, and character strengths. These examples are based on practical experience rather than a specific study.

**Table 1**

*Examples of Task-Space-Strengths Fit*

<table>
<thead>
<tr>
<th>Task</th>
<th>Design Element in the Space</th>
<th>Fostered Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term planning</td>
<td>Whiteboard, landscape view</td>
<td>Perspective</td>
</tr>
<tr>
<td>Prioritizing meeting requests</td>
<td>Mosaic pattern</td>
<td>Fairness</td>
</tr>
<tr>
<td>Conducting market research</td>
<td>Awe-inspiring artwork</td>
<td>Curiosity</td>
</tr>
<tr>
<td>Welcoming guests</td>
<td>Plants, natural colors</td>
<td>Self-regulation</td>
</tr>
</tbody>
</table>

The intentional use of design elements that support strengths use can be considered a character strengths-based intervention (CSBI) (Ruch et al., 2020). CSBIs encourage people to apply their strengths daily to benefit themselves, others, and/or society. Many CSBIs are well-validated and highly effective in positively impacting SWB (e.g., Schutte & Malouff, 2019). In contrast, CSBIs are a novelty in physical space design. Thus, the chain of effects of the task-space-strengths fit model has yet to be empirically validated and forms an extensive agenda of
future research directions. A literature review is a great starting point to identify design elements that support phasic and signature strengths. Due to the novelty of this model, the review will cover a wide range of fields to build a list of effective design elements. Similar to the list of design elements for creative tasks which was conducted through an extensive literature review spanning various fields.

This paper suggests using a six-component categorization to organize the types of design elements within the task-space-strengths fit model. According to McCoy (2005), the PWE compromises five distinct yet interconnected categorical components: spatial organization, architectonic details, views, resources, and ambient conditions. Due to the ambiguity of whether furniture pieces should go into the architectonic details or resources category, the author expanded the classification by one additional component: furnishing (for other classification systems, see Ceylan et al., 2008; Meinel et al., 2017; Thoring et al., 2019). Approaching the list of design elements by categories (see Table 2) ensures a broad range of spatial interventions targeting different aspects of the human experience.
Table 2

Spatial Components of the Physical Work Environment

<table>
<thead>
<tr>
<th>Spatial Components</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial organization</td>
<td>Space size, shape, allocation, and division, including furniture arrangement, pathways, and high-traffic zones (McCoy, 2005)</td>
</tr>
<tr>
<td>Furnishing</td>
<td>Number, characteristics, and features of the furniture pieces.</td>
</tr>
<tr>
<td>Architectonic details</td>
<td>A place’s fixed and stationary aesthetic, including ornaments, surface materials, the treatment of boundaries, signage, colors, and artwork (McCoy, 2005).</td>
</tr>
<tr>
<td>Views</td>
<td>Evaluated based on scale and content and include the observable features visible within or from the work area (McCoy, 2005).</td>
</tr>
<tr>
<td>Resources</td>
<td>The accessibility to equipment and services that support the occupants’ use of their PWE (McCoy, 2005).</td>
</tr>
<tr>
<td>Ambient conditions</td>
<td>Illumination, acoustics, thermal climate, air quality, scent, and other sensory factors impacting the physiological well-being of space occupants (McCoy, 2005).</td>
</tr>
</tbody>
</table>

Cheat Sheet for Strength-Based Physical Work Environment Design

In summary, an invigorating fit is a combination of elements from each of the three building blocks of the task-space-strengths model (see Table 3).

Table 3

Constituting Elements of the Task-Space-Strengths Fit Model

<table>
<thead>
<tr>
<th>Seven Task Categories</th>
<th>Six Spatial Components</th>
<th>24 Character Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Administrative tasks</td>
<td>• Spatial organization</td>
<td>• Creativity, curiosity, love of learning, judgment, perspective</td>
</tr>
<tr>
<td>• Analytical tasks</td>
<td>• Furnishing</td>
<td>• Bravery, perseverance, honesty, zest</td>
</tr>
<tr>
<td>• Creative tasks</td>
<td>• Architectonic details</td>
<td>• Social intelligence, love, kindness</td>
</tr>
<tr>
<td>• Customer service</td>
<td>• Views</td>
<td>• Teamwork, fairness, leadership</td>
</tr>
<tr>
<td>• Routine tasks</td>
<td>• Resources</td>
<td>• Forgiveness, humility, prudence, self-regulation</td>
</tr>
<tr>
<td>• Strategic tasks</td>
<td>• Ambient conditions</td>
<td>• Spirituality, humor, hope, gratitude, appreciation of beauty &amp; excellence</td>
</tr>
<tr>
<td>• Collaborative tasks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Practical Advice for Implementing Design Elements

Suppose design elements can positively influence strength use within a physical space; two questions arise: How many design elements are needed before seeing a positive effect on strength use? Which design elements are the most impactful? The guiding principles should be the size of the considered space, suggesting that the number of design elements increases with the size of the space and whether the space is generally occupied by one person solely focusing on the task or if multiple people collaboratively work on a task. Future research can explore which elements have the most significant impact to provide organizations with even better guidance.

Moreover, the author recommends consulting a workplace designer to translate the design elements into concrete products that the procurement team can negotiate and purchase. The level of abstraction in the design elements list leaves enough room for creativity (pun intended) to specify them within corporate design guidelines, safety protocols, framework contracts, or other formalities that need to be followed. After all, designing a PWE requires professional expertise for the best outcomes.

Once the elements are specified, ordered, and installed, the physical context of work has changed, but people and processes rarely change automatically. The author’s experience in workplace transformation projects has shown that an onboarding workshop a week after moving in helps the employees to adjust to the space and unleash its full potential. Some of the essential elements that should be covered in this workshop are the categorization of work tasks (see Step 1) and introducing the strengths-based spaces as a resource to be more energized (Bakker & Van Woerkom, 2018; Harzer, 2020), more engaged (Crabb, 2011), more satisfied (Buschor et al., 2013; Park et al., 2004), better able to cope with stress (Harzer & Ruch, 2015), and better
performing (Harzer et al., 2017). When employees have access to different physical space settings, signage indicating which task these settings are best suited for can help guide the employees to the suitable spaces and unleash the power of the task-strength-space fit.

**Example of the Task-Space-Strengths Fit Model: Workspace Design for Creative Tasks**

In an ideal world, a work environment would offer a different space setting for each type of task that employees are expected to perform. The ultimate goal is to create a comprehensive list of potential design elements that would enable each task category to increase thriving at work. This would provide clear guidance on progressing toward a task-related and strengths-based workplace design. However, this comprehensive list is beyond the scope of this paper. As a starting point, this section covers one of the seven task categories by providing an example of a PWE designed for creative tasks. The spatial design elements were drawn from organizational scholarship and architecture literature and placed on a sample floorplan. The author hopes the floorplan will inspire organizations to apply the task-fit-strengths model.

**The Importance of Creativity**

Creativity has been a driving force and remarkable differentiator in many business success stories ranging from Michael Jordan to Steve Wozniak (Amabile, 1997) and has consistently been ranked a top quality at work (e.g., Brodherson et al., 2017; Pelino et al., 2010). To wit: The World Economic Forum states that by 2025, the top five skills employers will seek include innovation, complex problem-solving, critical thinking, creativity, and originality (Whiting, 2020). Our volatile, uncertain, complex, and ambiguous world constantly requires creativity to identify and develop solutions for emerging challenges (Johansen & Euchner, 2013). Tapping into the character strengths of creativity, curiosity, perspective, and love of learning may support overcoming these challenges faster and with more vigor. Creativity and its related
skills are considered essential for organizational performance and not something that is easily replaceable by large language models or artificial intelligence.

**Growing Interest in Creative Environments**

Recently, there has been a growing public interest surrounding creative environments. This can be observed through the abundance of “coffee table books” showcasing creative office spaces (Borges et al., 2013; Grieco et al., 2018; Rattner, 2019; Vadakan et al., 2019). However, it is important to note that these publications primarily present collections of visually captivating case studies of unique creative spaces. They often lack theoretical context and explanations regarding the potential impact of spatial designs, and they are rarely organized systematically.

At the same time, various corporations conducted research on creative workspaces, providing novel insights on practice-related topics. (Thoring et al., 2019). Gensler, an American architecture and design firm based in San Francisco, regularly publishes the *Gensler Workplace Survey*, presenting global survey results. In their 2016 survey, Gensler studied over 4,000 randomly selected U.S. office workers across 11 industries, aiming to understand the impact of design on employee performance and innovation (Gensler, 2016). They found that great workplace design drives creativity and innovation. Steelcase, an American furniture manufacturer, researches topics like well-being, workplace privacy, and active learning spaces. Their findings are published in their internal magazine 360°, with recent issues focusing on creativity and innovation in the workplace (Steelcase, 2017, 2018). They explore scientific insights, such as the effects of posture on the brain and the impact of social interaction on creativity, and juxtapose these with Steelcase's furniture concepts (Steelcase, 2017, 2018).
These examples might not be peer-reviewed, but they serve as evidence of the growing interest from both the public and corporate sectors in exploring creative working environments, thus warranting further investigation.

**Evidence-Based Design Elements Fostering Creativity**

Several researchers are investigating which design elements within a physical workspace enhance creativity (Ceylan et al., 2008; McCoy, 2005; Meinel et al., 2017; Samani et al., 2014; Thoring et al., 2019). To classify the richness of design elements, this paper uses a six-components-categorization. Within these six categories (spatial organization, furnishing, architectonic details, views, resources, and ambient conditions) are physical structures and elements at different scales that are beneficial for creative work and have been empirically validated (e.g., Thoring et al., 2019).

**Spatial Organization**

The spatial organization encompasses space size, shape, allocation, and division, including furniture arrangement, pathways, and high-traffic zones (McCoy, 2005). The various studies of dozens of different organizations conducted by the Buffalo Organization for Social and Technical Innovation (BOSTI) indicate that spaces that provide affordances for collaboration and communication, both essential elements of creativity, are set up as a team’s playground (McCoy, 2005), where ideas can be shared, prototyped, tested, and approved or substituted with a different idea. This includes access to multiple forms of representation (such as whiteboards, monitors, physical models, flipcharts) and communication (e.g., brainstorming, pitches, feedback rounds) and a broad selection of different space settings that allow for serendipitous interactions, impromptu discussions, and planned meetings (McCoy, 2005). Informal settings (e.g., lounge sofas) are a spatial element that supports creativity (Thoring et al., 2019). A non-enclosed space
allows drop-ins or by-passers to easily access the space and spontaneously interact with the ideas (Thoring et al., 2018). Further studies indicate that easy access to the space for both users and supplies should always be given (Thoring et al., 2019). Yet, research also elevates the need for personal withdrawal, which booths or small room-in-room solutions can provide (Thoring et al., 2019).

In fact, the two ends of the continuum of creativity (Runco, 2007) – convergent and divergent thinking – ask for contrary space designs. Divergent thinking, or the generation of a variety of ideas and alternative solutions to problems (Guilford, 1968), is best supported by cue-rich environments (Csikszentmihalyi, 1996; McCoy, 2005), while convergent thinking, or the connection of disparate pieces of information in attempting to solve a particular problem (Guilford, 1968), is best done in low-key spaces with little distractions and a more clean visual appearance such as booths or small rooms (Ceylan et al., 2008; Csikszentmihalyi, 1996; Martens, 2011; Thoring et al., 2018). This implies that PWE should offer at least two types of spaces for creative tasks.

**Furnishing**

McCoy (2005) recommends providing ergonomic comfort to heighten an individual's motivation and endurance, which are considered the two most valuable assets of a creative person (Csikszentmihalyi, 1996). Besides ergonomics, movement is also integral to physical well-being at work. Researchers found that activation furniture, such as high chairs or swivel chairs, enforces movement and fosters creativity (Thoring et al., 2019). Moreover, furniture that promotes social interaction (linking to the informal areas mentioned under spatial organization) was found to be more beneficial for creative tasks than focus workstations (McCoy & Evans, 2002). Unusual furniture (e.g., hammocks and beanbags) is another form of informal furniture
that supports creative work by providing a space for casual (cognitive) breaks (Thoring et al., 2019).

**Architectonic details**

Architectonic details are often overlooked despite their ability to encourage a sense of identity and purpose (Becker & Steele, 1995). Cue-rich environments can entail culture-related ornaments and artwork, have complex shapes with a high level of detail and texture (McCoy & Evans, 2002), or have aspects of unconventional architecture (e.g., asymmetry, curved walls, dead spaces) (Thoring et al., 2019), all of which are associated with creativity. Several studies pointed out that materiality plays a role, too. Natural materials, like wood or stone, are associated with creativity-inducing spaces (Ceylan et al., 2008; McCoy & Evans, 2002). Moreover, old story-rich furniture and rough materials instigate experimentation and are thus related to enhanced creativity (Thoring et al., 2019). Access to fresh air and outdoor space (e.g., rooftop garden, planted courtyard, or large meadow) benefits creativity (Thoring et al., 2019). Outdoor spaces can also provide spaciousness that provides limitless space for thought (Thoring et al., 2019).

When it comes to colors, findings diverge. Red is stimulating yet distracting, while cooler colors (blues and greens) were associated with creativity in a study among managers engaging in creative tasks (Ceylan et al., 2008). However, other studies found that yellows, oranges, pinks, and reds provide an inspirational experience beneficial to creative work (Samani et al., 2014), and cool colors are negatively correlated with creativity potential (McCoy & Evans, 2002). A closer look at the manager study (Ceylan et al., 2008) reveals that these managers engaged in creative tasks in their single offices by themselves, implying that these tasks fall into convergent thinking.
This underpins once more that more than one environmental setting is required to accommodate
the different components of creative tasks.

Lastly, semi-transparent spaces are favorable for creative tasks because they provide a
minimum level of privacy and allow passers-by to peek into the space as an additional stimulus
during the creative process (Thoring et al., 2019). Visual privacy (in contrast to acoustic
privacy), instilled by curtains or glass partitions, provides such semi-transparency (McCoy &
Evans, 2002; Thoring et al., 2019). Creative work is often associated with flow, a state of
optimal experience characterized by complete absorption and enjoyment of an activity
(Csikszentmihalyi, 1990). Several authors suggest that the environment should be low on
distractions to increase the chances of getting into and remaining in flow (Csikszentmihalyi,
1996; Martens, 2011).

**Views**

Views may be natural, built, busy, calm, intimate, or panoramic (McCoy, 2005). Open
views of nature, the sky, and the outdoors enormously benefit creative tasks (McCoy & Evans,
2002). Busy views characterized by an aliveness and buzz are positively related to creative tasks
(Thoring et al., 2019), indicating that this primarily supports divergent thinking processes. View
variations, for example, in the form of windows arranged in various sizes, angles, or positions,
can enhance creativity, too (Thoring et al., 2018).

**Resources**

For creative spaces, it is important to support occupants with accessibility to equipment
(Martens, 2011), such as pen & paper, clay for model building, whiteboard markers, etc.,
information (e.g., ab book library or digital sources) (Ceylan et al., 2008), a suitably technical
infrastructure (including WIFI, 3D printers for rapid prototyping, interactive screens for
electronic or hybrid brainstorming, etc.) (Thoring et al., 2019), nourishment, the possibility to be physically active, and toys and games for inspiration and to distraction (McCoy, 2005). Research suggests that all materials and tools are visible and ready to use (Amabile, 1988). A visual inventory of the tools indicating which are available and instructions on using them helps express creative ideas. An interim showcase can function as a storage and exhibition space for models and similar tangible artifacts of the project work (Thoring et al., 2019). Basic human needs such as physical activity and food are crucial for enhanced creative flow. Hunger, for instance, is negatively correlated with creative thinking (Wyon, 1996), while walking is associated with increased creative activity (Csikszentmihalyi, 1996).

**Ambient Conditions**

The sensory experience has been notoriously neglected in the organization management field (Heaphy & Dutton, 2008). However, more and more voices point to the potentially critical role in organizational studies (Elsbach & Pratt, 2007). So far, research indicates that natural lighting (Shibata & Suzuki, 2004) and bright and warm lighting (Ceylan et al., 2008) are favorable illumination conditions for creative work. Distractive sounds and noise were found to negatively correlate with creativity (Wyon, 1996), while positive sounds (e.g., music, silence) demonstrated a positive correlation (Stokols et al., 2002). Regarding thermal climate and indoor ventilation, user control is critical and is an important determinant of creativity (Ceylan et al., 2008; Gerlach, 1974; Wyon, 1999). Research indicates that there are even gender differences regarding the optimal temperatures for comfort and work performance (Hu et al., 2022; Nakano et al., 2002).

Much research suggests that nature-like ambient conditions are associated with creativity. This could be implemented by incorporating indoor plants, nature-like wallpapers (Ceylan et al.,...
2008), but also natural scents (e.g., mild aroma of cotton flower) (Baron, 1990). Nature-like work surroundings lead to positive mood states and arousal (Baron, 1994) that may start a positive spiral of building new resources and unlock even more opportunities for positive affect (see the broaden-and-built theory; Fredrickson, 2001). However, nature-like surroundings can also be distracting when they provide a salient contrast to the tedious phase of the creative process (Stone & English, 1998). Therefore, workspace designers should avoid photo-realistic wallpaper depicting a compelling alternative to the current PWE and instead use nature-inspired elements (e.g., wallpaper patterns, natural surface materials) or indoor plants.

**Inspirational Floorplan: Room Settings That Allow for More Creativity Use**

In collaboration with the talented workplace designer Declan McCabe, a sample floorplan was augmented with strengths-based room settings and design elements. Using the dimensions of a typical floorplan of a German office building, we illustrated how six distinct spaces could be designed to foster strengths-use and to better enable task performance (see Figure 3). The goal was to incorporate spatial design elements that invigorate workers when engaging in a creative task on a standard floorplan. See Appendix B for the briefing document given to the workplace designer.
Figure 3

*The Sample Floorplan for Creative Tasks*

![Sample Floorplan for Creative Tasks](image)

*Note:* This floorplan was a collaborative effort between the workplace designer Declan McCabe and the author Bernadette Reichel.

Figures 4-9 show annotated renderings of the created areas. The selected design elements align with the briefing document given to the workplace designer. All of them qualify as either evidence-based or research-informed design interventions. The multitude of different areas is intended to show organizations various possibilities to include a strengths-based setting into their floorplans.

For an in-depth exploration of the design elements and environmental cues that support creative tasks, a detailed and complete list of these elements can be found in Appendix B.
Figure 4

The Annotated Playground

Note. An ample creative workshop space named *playground* serves as a space for collaborative creative work.

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cue-rich environment (full shelves)</td>
<td>Curiosity, creativity</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>2. Spacious workbench</td>
<td>Creativity</td>
<td>Collaborative prototyping</td>
</tr>
<tr>
<td>3. Landscape window views</td>
<td>Perspective, curiosity</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>4. Signage on the floor indicating walkways</td>
<td>Perspective</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>5. Movable furniture to stay active</td>
<td>Perspective, creativity</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>6. Analog and digital screens to share ideas</td>
<td>Curiosity, love of learning</td>
<td>Presenting and developing</td>
</tr>
<tr>
<td>7. Organza curtains providing control over transparency</td>
<td>Curiosity</td>
<td>Focus</td>
</tr>
<tr>
<td>8. Biophilic elements, e.g., plants, wallpaper</td>
<td>Curiosity</td>
<td>Divergent thinking</td>
</tr>
</tbody>
</table>
Figure 5

*The Playground’s Annotated Outdoor Space*

*Note.* The adjacent outdoor space provides access to fresh air and allows for a change of perspective.

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Views into nature and the office building</td>
<td>Perspective, curiosity</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>2. Signage on the floor indicating a walkway</td>
<td>Perspective</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>3. Screens to share ideas</td>
<td>Curiosity, love of learning</td>
<td>Presenting and developing</td>
</tr>
<tr>
<td>4. Plants</td>
<td>Curiosity</td>
<td>Divergent thinking</td>
</tr>
</tbody>
</table>
Figure 6

The Annotated Community Space

Note. A welcoming community space was placed adjacent to the playground to spur interaction between the group working on a creative challenge and other colleagues on the floor. Social connection and interaction inspire more creative ideas (Thoring et al., 2019).

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Informal seating and lounges</td>
<td>Curiosity, perspective, love of learning</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>2. Phone booths to withdraw or take a break</td>
<td>Perspective</td>
<td>Convergent thinking, flow</td>
</tr>
<tr>
<td>3. Warm and inspiring colors</td>
<td>Creativity</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>4. Cool colors in the booths</td>
<td>Creativity</td>
<td>Convergent thinking, flow</td>
</tr>
</tbody>
</table>
The Annotated Stage

*Note.* The *stage* gives room to pitch ideas to larger groups. These two ideas are seen as elements that enhance creativity (Thoring et al., 2018) and support the love of learning.

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Popcorn machine to avoid feelings of hunger</td>
<td>Creativity</td>
<td>Listening and discussing</td>
</tr>
<tr>
<td>2. Analog and digital screens to share ideas</td>
<td>Curiosity, perspective</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>3. Movable furniture to stay active</td>
<td>Perspective</td>
<td>Discussing ideas</td>
</tr>
<tr>
<td>4. Stands to invite an audience</td>
<td>Curiosity, perspective</td>
<td>Sharing and receiving feedback</td>
</tr>
</tbody>
</table>
Figure 8

*The Annotated Exhibition*

Note. The *exhibition* allows the presentation of prototypes and other artifacts and invites passers to provide feedback.

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Signage leading the way to the exhibition</td>
<td>Curiosity, love of learning</td>
<td>Getting inspired, giving feedback</td>
</tr>
<tr>
<td>2. Pillars displaying artifacts and prototypes</td>
<td>Perspective, love of learning</td>
<td>Discussing ideas, receiving user feedback</td>
</tr>
<tr>
<td>3. Plant wall</td>
<td>Creativity</td>
<td>Getting inspired</td>
</tr>
</tbody>
</table>
Figure 9

The Annotated Thinking Machine

Note. The thinking machine is a one-person space designed for convergent thinking. This low-stimulation room is designed explicitly for hyper-focus and to facilitate getting into flow (Csikszentmihalyi, 1990).

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Views into the far distance</td>
<td>Perspective, creativity</td>
<td>Divergent thinking</td>
</tr>
<tr>
<td>2. Milky glass to mute distraction</td>
<td>Creativity</td>
<td>Convergent thinking, flow</td>
</tr>
<tr>
<td>3. Writable surfaces to develop ideas</td>
<td>Creativity</td>
<td>Convergent thinking</td>
</tr>
<tr>
<td>4. Height-adjustable desk and task chair for ergonomic comfort</td>
<td>Creativity</td>
<td>All</td>
</tr>
<tr>
<td>5. Cool colors (blues)</td>
<td>Creativity</td>
<td>Convergent thinking, flow</td>
</tr>
</tbody>
</table>
Note. The retreat capsule is a multi-use sensory room that provides visual and acoustic respite for those who need to withdraw from the cue-rich and potentially overstimulating playground to find peace and calmness. It is located in a low-traffic area to alleviate social anxiety and can be used by anyone wanting to rest and recharge.

<table>
<thead>
<tr>
<th>Spatial Design Element</th>
<th>Fostered Strength</th>
<th>Invigorated Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lounge seating and ambient lighting</td>
<td>Creativity</td>
<td>Divergent thinking, decompressing</td>
</tr>
<tr>
<td>2. Biophilic wallpaper</td>
<td>Creativity</td>
<td>Rejuvenating</td>
</tr>
<tr>
<td>3. Curtain to control level of transparency</td>
<td>Creativity</td>
<td>Convergent thinking</td>
</tr>
<tr>
<td>4. Diffusor emitting a natural scent</td>
<td>Creativity</td>
<td>Divergent thinking or taking a break</td>
</tr>
</tbody>
</table>
Limitations and Future Directions

There are several limitations concerning the theoretical model and the physical design elements that drive an increased character strength use at work. First, it must be clear that the task-space-strengths fit model solely focuses on the physical environment, even though the PWE constitutes only one factor impacting psychological well-being at work. It is yet to be empirically investigated how much of the variance in job satisfaction and thriving can be attributed to the physical environment and how much is driven by other factors. Though, research indicates that the impact of physical space is significant enough to spur further investigations of its effect mechanisms (e.g., Spreitzer et al., 2020). If the task-strength-space fit model does withstand its empirical investigation, organizations will have gained an instrument to enhance psychological well-being and thriving at work.

Additionally, the strengths approach is not a universal remedy for boosting well-being within a workforce. For example, good corporate citizenship or career mentoring is also essential for thriving at work (Kleine et al., 2019). Job satisfaction, for instance, is also driven by positive relationships at work, the nature of the tasks, or how employees are treated by their leadership (Spector, 1997). Nevertheless, a character strengths-based approach can form an essential piece of measures implemented to increase thriving at work. Furthermore, it is important to note that there is a golden mean of strength use (Linley, 2008), pointing toward a healthy balance of using strengths. To avoid overplaying or underplaying strengths, dosing them meaningfully is critical in any given situation (Harzer, 2020).

The starting point of the task-space-strengths model is work tasks. These were then matched with character strengths that provide a sense of vigor while completing the task, ultimately leading to greater well-being and job performance. However, the selection of
character strengths for each category was based on assumptions with limited research evidence, which creates an opportunity for further literature and/or empirical research. Research that found that some personalities profit more from strength use than others (Bakker et al., 2019) might further complicate the model’s generalizability.

The limited scope of this paper on creative tasks leads to an opportunity to conduct further research to identify evidence-based or research-informed design elements in the remaining task categories and empirically test the beneficial effects of the developed design interventions.

Even though a strength-related person-job fit greatly benefits employee well-being and job performance (Harzer et al., 2017), numerous organizations still fail to tap into person-job fit. If the task-space-strengths model were implemented in such an organization, it would fall short of unleashing its full potential because it would only tap into phasic strengths. However, suppose the person-job fit is common practice within an organization; the additional space-job fit (or the space-task fit) can amplify the advantages that follow the use of signature strengths. Nevertheless, phasic strengths (in contrast to signature strengths) are an excellent entry point to tap into the energy that comes with a strengths-based approach.

Lastly, there is an array of space-related limitations. Investing in the re-design of PWE is expensive, and not every organization has the financial means. However, the list of design elements created for creative tasks offers many possible interventions, some relatively quick, inexpensive, and easy to implement. The pandemic also shifted the focus away from an office-dominating approach and expanded the work environment to home offices and third places (e.g., cafés, coworking spaces). Future research should include an investigation of which type of physical environment is suited best for each task and whether some of the design elements can be...
implemented in home offices, too. Furthermore, organizations should consider culturally appropriate, inclusive design choices. This includes designing accessible spaces and environments that accommodate physical disabilities and neurodiversity. Specialized architecture firms or consultancies help organizations avoid unwary mistakes. Experts might be helpful because they can support navigating through the sometimes-paradoxical choices involved in planning a workspace (Elshbach & Pratt, 2007). The appended floorplan inspires a workspace design accommodating neurodiverse and accessibility needs. Affordances are informed by the design, the social context, and the individual perception of the physical environment (Fayard & Weeks, 2014; Maier et al., 2009; Norman, 1988), leading to the question of whether different cultures relate to the physical environment in fundamentally different ways. How might the ideas of feng shui, a traditional Chinese architecture-based art and theory that encompasses a harmonious living with the natural environment (Chang & Lii, 2010), or the Māori Fonofale Model of Health, a model that promotes a holistic view of health symbolizing the wholeness of a Pasifika person (Puloto-Endemann, 2009), relate to Western notions of workspace design? These questions inform further research and may provide enriching insights that further evolve the design of work environments.

**Strengths and Conclusion**

This paper suggests an evolution to today’s gold standard of workplace design. The newly developed task-space-strengths fit model provides theoretical and empirical grounding for the advantages of a strengths-based design over the widespread activity-based working model.

Ensuring a fit between the task at hand and a PWE that nudges the individual to use their strengths represents an innovative idea for organizations to support their employees in thriving at work, increasing job satisfaction. Strengths-based environmental cues are affordances that
support work activities by providing a sense of vigor and engagement. The organization benefits from the better job performance of employees who feel satisfied, invigorated, and engaged. The model focuses on the positive effects of an intentional design of environments on workers’ psychological well-being. One of the biggest strengths of this model is its applicability beyond the office. The task-space-strengths fit model is inclusive of various work environments, including construction sites and production facilities.

The paper gives directive guidance to organizations and workplace designers on implementing a strengths-based PWE. It starts by categorizing work into seven task categories and matches these with supportive character strengths. It then explains how to identify positive environmental cues that can nudge employees into strength use. To illustrate what such a floorplan would look like, this paper provides a list of concrete design elements for one of the task categories: creative tasks. The suggestions for creative tasks were then put into a sample floorplan to inspire organizations to design strengths-based PWE for their employees.

The research on character strengths of the past two decades showed again and again how compelling and beneficial a strengths-based approach can be. This paper asks: Why not apply this approach to PWEs? The task-space-strengths fit model offers a pathway to thriving and implemented in the right way, it can increase employee well-being and job performance. The author hopes to inspire organizations to realize the strategic potential of PWE design and further tap into this resource.


References


Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-

https://doi.org/10.1037/0021-9010.86.3.499


https://doi.org/10.1207/s15327752jpa4901_13


over a 6-month period at a call center. *Frontiers in Psychology, 5*(497).

https://doi.org/10.3389/fpsyg.2014.00497


https://doi.org/10.1016/S0378-7788(02)00012-9


https://doi.org/10.1080/09515070.2019.1617674


https://doi.org/10.3389/fpsyg.2020.590220


Spreitzer, G., Bacevice, P., & Garrett, L. (2020). Workplace design, the physical environment, and human thriving at work. In O. B. Ayoko & N. M. Ashkanasy (Eds.), *Organizational
behaviour and the physical environment (pp. 235–250). Routledge Taylor & Francis Group.


Whiting, K. (2020, October 21). *These are the top 10 job skills of tomorrow – and how long it takes to learn them*. World Economic Forum.

https://www.weforum.org/agenda/2020/10/top-10-job-skills-of-tomorrow-how-long-it-takes-to-learn-them/


https://doi.org/10.3389/fpubh.2022.890400
Appendix A

Figure A1. Detailed List of VIA Character Strengths (Niemiec, 2018, back of the book cover)

<table>
<thead>
<tr>
<th>Wisdom and Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity: Original, adaptive, ingenuity, seeing and doing things in different ways</td>
</tr>
<tr>
<td>Curiosity: Interest, novelty-seeking, exploration, openness to experience</td>
</tr>
<tr>
<td>Judgment: Critical thinking, thinking through all sides, not jumping to conclusions</td>
</tr>
<tr>
<td>Love of Learning: Mastering new skills &amp; topics, systematically adding to knowledge</td>
</tr>
<tr>
<td>Perspective: Wisdom, providing wise counsel, taking the big picture view</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bravery: Valor, not shrinking from threat or challenge, facing fears, speaking up for what is right</td>
</tr>
<tr>
<td>Perseverance: Persistence, industry, finishing what one starts, overcoming obstacles</td>
</tr>
<tr>
<td>Honesty: Authenticity, being true to oneself, sincerity without pretense, integrity</td>
</tr>
<tr>
<td>Zest: Vitality, enthusiasm for life, vigor, energy, not doing things half-heartedly</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Love: Both loving and being loved, valuing close relations with others, genuine warmth</td>
</tr>
<tr>
<td>Kindness: Generosity, nurturance, care, compassion, altruism, doing for others</td>
</tr>
<tr>
<td>Social Intelligence: Emotional intelligence, aware of the motives/feelings of self/others, knowing what makes other people tick</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork: Citizenship, social responsibility, loyalty, contributing to a group effort</td>
</tr>
<tr>
<td>Fairness: Adhering to principles of justice, not letting feelings bias decisions, equal opportunity for all</td>
</tr>
<tr>
<td>Leadership: Organizing group activities to get things done, positively influencing others</td>
</tr>
</tbody>
</table>
Forgiveness: Mercy, accepting others’ shortcomings, giving people a second chance, letting go of hurt when wronged

Humility: Modesty, letting one’s accomplishments speak for themselves

Prudence: Careful about one’s choices, cautious, not taking undue risks

Self-Regulation: Self-control, disciplined, managing impulses, emotions, and vices

Appreciation of Beauty and Excellence: Awe and wonder for beauty, admiration for skill/excellence, elevation for moral beauty

Gratitude: Thankful for the good, expressing thanks, feeling blessed

Hope: Optimism, positive future-mindedness, expecting the best & working to achieve it

Humor: Playfulness, bringing smiles to others, lighthearted – seeing the lighter side

Spirituality: Connecting with the sacred, purpose, meaning, faith, religiousness
Appendix B

Detailed List of Design Elements and Environmental Cues That Support Creative Tasks

The following served as a briefing document for the workplace designer. It encompasses an overview of research-informed and evidence-based design elements that support creative tasks and the strengths use of creativity, perspective, curiosity, and love of learning.

Generally speaking:

a. Attractive place (Martens, 2011) → trendy colors (terracotta and eucalyptus)

b. Cue-rich environment (“toys and other stimuli”) (McCoy, 2005) → library-style shelves

(1) Spatial organization

a. “Playground” (McCoy, 2005) → hopscotch or gym floor lines

b. Multiple forms of representation and communication (whiteboards, screens, physical models, drawings) (McCoy, 2005) → digital screens, whiteboard wall with whiteboard camera, exhibition pillars, stage area with stands

c. Spectrum of formal and informal environments (McCoy, 2005) → lounges and traditional work desks

d. Easy access to team space (open, collaborative setting) (McCoy, 2005)

e. Field access for users and supplies (Thoring et al., 2019)

f. Informal lounge area: sofas, hallway seating (Thoring et al., 2019) → include community space

g. Cozy capsule: booths, small room-in-room for personal withdrawal (Thoring et al., 2019) → create nooks
(2) Furnishing

a. Ergonomic and physiological comfort heightens motivation and endurance (McCoy, 2005) → Thinking machine:
   height-adjustable desk and high-performance task chair
b. Furniture that promotes social interaction (McCoy & Evans, 2002) → Community table, round table, Work café, etc.
c. Unusual furniture: hammock, beanbag, swing for casual breaks (Thoring et al., 2019) → hanging char
d. Activation furniture: high-chairs or swivel chairs enforce bodily movement (Thoring et al., 2019) → Perch stool

(3) Architectonic details

a. Complex shapes: high level of visual detail and texture (McCoy & Evans, 2002) → colorful wallpaper, carpet, curtains
b. Unconventional architecture: asymmetry, curved walls, dead spaces (Thoring et al., 2019) → Season squiggly sofa
c. No association between size or rectilinearity of shape with potential creativity (McCoy & Evans, 2002)
d. Materiality: Natural rather than manufactured (Ceylan et al., 2008; McCoy & Evans, 2002): wood or stone → wooden
   stands, workbench table top made out of cork
e. Outdoor space: nature, surrounding garden, access to fresh air (Thoring et al., 2019) → outdoor jungle with Solar
   seating, Perch stool, Flex whiteboards, stand, and team cart
f. Spaciousness: ample space provides space for thought (Thoring et al., 2019) → natural landscape, removable furniture
g. Semi-transparency: visual privacy, curtains, protection with peeks (Thoring et al., 2019), glass (McCoy & Evans,
   2002), accessing flow only without distractions → organza curtains, awnings
h. Gallery: observe others without disturbing (Thoring et al., 2019)  glass partition and organza curtains
i. DIY style: old furniture and rough materials instigate experimentation (Thoring et al., 2019)  cork table top, greenhouse, E&S Grid sofa
j. Colors: red stimulating and distracting, blue calming color (Ceylan et al., 2008), colors that provide an inspiring experience (yellow, orange, pink, red) (Samani et al., 2014), cool colors for convergent thinking among managers (Ceylan et al., 2008), cool colors negatively correlated with creativity potential (McCoy & Evans, 2002)  thinking machine = blues and greens, playground = pinks, yellows, neon, oranges

(4) Views
a. Buzz: busy atmosphere, chaos, aliveness (Thoring et al., 2019)  Flex Active Frame shelf system
b. Open views: windows to nature, sky, and outdoors (McCoy & Evans, 2002)  lots of windows
c. View variations: windows arranged in various sizes, angles, and positions (Thoring et al., 2018)  SKIP

(5) Resources
a. Equipment (Martens, 2011)  facilitator’s toolbox, post-its, pen & paper, LEGO serious play to build a prototype, mobile power
b. Information access: book library or access to digital sources (Ceylan et al., 2008)  Flex Active Frame shelves
c. Technical infrastructure: Wi-Fi, rapid prototyping, printing, electronic brainstorming (Thoring et al., 2019)  whiteboard camera, media cart
d. Access to equipment: materials and tools are visible and ready to use (Amabile, 1988) → add accessories

e. Visual inventory of tools: indicate which tools are available and how to use them → labeling baskets

f. Toys and Games for inspiration and distraction (McCoy, 2005) → hopscotch on the floor, games on the shelves

g. Physical activity: taking a walk (Csikszentmihalyi, 1996) → lines on the floor (two walking tracks within and one around the floorplan)

h. Interim showcase: exhibition of project work or models (Thoring et al., 2019) → exhibition pillars

i. Food: hunger negatively correlated with creative thinking (Wyon, 1996) → bowl of fruit, popcorn cart

(6) Ambient conditions

a. Illumination: natural lighting (Shibata & Suzuki, 2004), bright and warm lighting (Ceylan et al., 2008) → large windows with lots of light coming in, atmospheric/homey lights

b. Thermal climate and ventilation: preference for variable temperatures (Gerlach, 1974; Wyon, 1999) and variable lighting level → touch screen with temperature showing

c. Acoustics/sounds: negative sounds/noise (Wyon, 1996), positive sounds (e.g., music, silence) (Stokols et al., 2002) → speakers

d. Aroma: natural scent (Baron, 1990) → diffuser on window sill

e. Greenery/biophilia: indoor plants, green areas, nature-like wallpaper (Ceylan et al., 2008) → Work Better wallpaper