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## Increasing Employee Engagement and Satisfaction Through Positive Interventions for Human Flourishing

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# Increasing Employee Engagement and Satisfaction Through Positive Interventions for Human Flourishing

## Abstract

Approximately four out of five employees globally are either disengaged or actively disengaged at work. Recent data shows a rapid drop in engagement in the leadership and management sector of organizations. This literature review explores the efficacy of Positive Psychology Interventions (PPIs) designed to increase the state-like constructs of Positive Emotions and Psychological Capital (PsyCap), a construct combining Hope, Efficacy, Resilience, and Optimism). Results from multiple studies show small to medium effect sizes for Positive Emotion and PsyCap Interventions for increasing employee engagement, productivity, job satisfaction, commitment to the organization, organizational citizenship behavior and reductions in stress, absenteeism, and intention to leave the organization. Individuals low in targeted state-like traits pre-intervention experience greater growth than individuals high in the state-like traits. Brief, online, self-directed interventions were effective and longer, in-person, group interventions showed greater benefit. No negative side effects were discovered. Limitations are discussed and an appendix of evidence-based interventions is provided. PPIs targeting Positive Emotions and PsyCap are a scalable, cost-effective strategy to increase employee engagement and satisfaction at the workplace.

## Keywords

PPI, Positive Psychology Intervention, Employee Engagement, Job Satisfaction, Positive Workplace Interventions, Psychological Capital, PsyCap

## Disciplines

Business | Education

**Increasing Employee Engagement and Satisfaction Through Positive Interventions for  
Human Flourishing**

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Master of Applied Positive Psychology Program, University of Pennsylvania

MAPP 800: Capstone Project

Advisor: Andrew Soren

August 1, 2021

## Abstract

Approximately four out of five employees globally are either disengaged or actively disengaged at work. Recent data shows a rapid drop in engagement in the leadership and management sector of organizations. This literature review explores the efficacy of Positive Psychology Interventions (PPIs) designed to increase the state-like constructs of Positive Emotions and Psychological Capital (PsyCap), a construct combining Hope, Efficacy, Resilience, and Optimism). Results from multiple studies show small to medium effect sizes for Positive Emotion and PsyCap Interventions for increasing employee engagement, productivity, job satisfaction, commitment to the organization, organizational citizenship behavior and reductions in stress, absenteeism, and intention to leave the organization. Individuals low in targeted state-like traits pre-intervention experience greater growth than individuals high in the state-like traits. Brief, online, self-directed interventions were effective and longer, in-person, group interventions showed greater benefit. No negative side effects were discovered. Limitations are discussed and an appendix of evidence-based interventions is provided. PPIs targeting Positive Emotions and PsyCap are a scalable, cost-effective strategy to increase employee engagement and satisfaction at the workplace.

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## Acknowledgements

I'd like to thank our service workers who help make our country run smoothly. So many of these valuable people are treated as invisible workers. I acknowledge my Uber driver, my Starbucks barista my airline flight attendant and everyone else I encounter in service. I'm always dismayed when, 80% of the time that I ask these people how they are doing, they respond with 'Thank you for asking how I'm doing'. Not only does it tell me that they feel invisible, but they really appreciate being 'seen.' I've always wished I could do more for them. Perhaps this paper is my way to do more for them, to help them to be seen. When other service workers respond to me with: 'My shift is almost over', 'TGIF', or 'I hate Mondays' they tell me in just a few words that they aren't engaged at work. To me, a job you don't love is a prison. I want to thank these people for inspiring me to help them love their work and this capstone is designed to help every worker, every valuable human being that stands behind the cold label of 'employee' or 'associate' that I value you and hopefully my work in this text will help you love work more.

I'd also like to thank my advisor, Andrew Soren, whose mixture of candid feedback and kind encouragement allowed me to take his guidance as just that, helping me to make this Capstone better. I hope you find value in the words you are about to read.

## INTRODUCTION

Managers and leaders in the corporate setting are always looking for ways to improve the organization. One avenue is through their most valuable asset, their employees. Commonly referred to as ‘human capital’, they are not a common commodity. They are human beings who are unique, special and valuable. How we view them, value them, and treat them has enormous impact on how they interact with the organization. By engaging and viewing employees through a more humanistic lens can be an avenue to improve the organization as a whole. When people feel truly valued and respected their best potential can come forth.

The Holy Grail of employees is the fully engaged employee, yet they continue to remain in the minority. Schaufeli et al. (2002) define work engagement as a positive and fulfilling work related state of mind that contains dedication, vigor, as well as absorption. The good news is it is possible to change unengaged or moderately engaged employees into being fully engaged, satisfied and more productive.

Through Positive Interventions (trainings and exercises) scientifically validated through studies conducted under the umbrella of Positive Psychology it is possible to tap into the state-like (areas that can be changed) qualities of employees to train them for the benefit of the organization as well as their own benefit. Employees who love their work love to work. This paper will detail the most promising aspects of positive psychology that have demonstrated evidence to be effective in the workplace environment.

The positive interventions detailed here fit the criteria of being free or low-cost, done alone or with a facilitator (none to minimal training required), in-person or online delivery for scalability. By utilizing cost effective, scalable, measurable, and scientifically validated methods

to train employees in areas that can be improved to experience more engagement and satisfaction with their work, everyone within the organization is the ultimate and immediate beneficiary.

This paper is written for managers and business leaders who want to make their businesses better through their employees and who have the power to make the organization thrive. So much lies in the hands of how our employees are treated. In the past and to some extent today, employees were treated like cogs in a machine. Give them a paycheck and the boss has free reign to command them at will. The concept of considering how much the employee enjoyed their work was to some managers, laughable. As the workplace has evolved managers have taken notice that using the motivator of pay is limited. Managers have begun to notice that other factors such as autonomy, interesting work, challenge, amiable co-workers and even fun can have an impact on employee engagement, satisfaction and performance.

Together, we will explore increasing employee engagement and satisfaction through the lens of developing the person themselves by helping them be a better human being by teaching them skills that allow them to be happier, more optimistic and resilient. Imagine your own self when tackling a challenge. Did you perform better when you were in a positive mood, confident you could do the task and looking forward to the fun of the challenge? How was your performance on a similar task when you were feeling sluggish or depressed, nervous and worried that you couldn't do what you've been assigned and feeling like you were going to fail? Same task, different outlook. We will look at the evidence of how well developing human flourishing skills improves the organization as well as the person. We will look at factors we can measure like absenteeism, turnover, productivity, profit, self-reported employee satisfaction and manager reviews of employees.

Consider that we spend approximately 50% of our waking day at work. Making work an enjoyable and engaging experience is a worthwhile investment to make life more enjoyable and meaningful. By exploring the most recent data on the short-term current state of employee engagement as well as longer periods of time, we will gain perspective on the situation. By conducting a literature review of seminal and current research we will examine which components of human well-being and flourishing applied to the workplace have shown evidence for improving engagement and satisfaction as well as conduct a review of positive interventions to engage employees more fully at work.

After defining in detail what positive psychology is and what it can do for you as a manager, an exploration of the benefits of teaching and training members of the organization to have more positive emotions and how that benefits them and the organization as a whole will be examined. We will then explore the highly popular concept of Psychological Capital as well as its sub-components of hope, efficacy, resilience and optimism.

An analysis of the impact of trainings on employees to increase their psychological capital by improving their levels of hope, efficacy, resilience and optimism will also be discussed. Then we will detail actual trainings you can do in your organization on your own to develop positive emotions, hope, efficacy, resilience and optimism.

At the end of this exploration, you will have a solid scientifically validated understanding of how components of positive psychology can impact workplace engagement and satisfaction. You will have realistic expectations of what positive psychology can and cannot do for you and you will have a toolbox of specific, actionable trainings you can employ right away that are either free or low cost, can be self-directed or done in groups, in person or virtually.



After bringing these techniques into the organization you can look forward to not only a better functioning organization but a more enjoyable one.

### **A SPECIAL NOTE FOR MY READERS**

The journey we take together in this paper is a treasure trove of data and studies. The reason for this is to share with you what the science says versus persuading you to buy into a compelling idea. Some of the data is rich and dense and is organized in the following fashion:

1. Seminal studies. These are the first, groundbreaking studies which started the ideas I'll be sharing with you. Some go back to the 1950s so you can get a foundational understanding of the concepts.
2. Meta-Analyses. These are studies-of-studies and aggregate multiple studies into one to get a high-altitude view of the field and this sets reasonable expectations and weeds out anomalies of studies that may show extra small or extra-large effect sizes or impact.
3. Individual Studies. These are included to highlight something special worth your attention. It may be surprising findings or findings based on different cultures, gender, or age. Each study included has value and I will be pointing these out as you read along. I hope you enjoy this journey as much as I've enjoyed researching and writing it!

### **CURRENT SHORT & LONG-TERM STATES OF EMPLOYEE ENGAGEMENT**

Employee engagement ebbs and flows based on multiple factors including macro influences like the economy and pandemics such as Covid-19. A recent short term Gallup survey covering only 3 months (Harter, 2020) recorded the largest drop in U.S. employee engagement since record keeping began in 2000. Leaders and managers alike were impacted. From April to June 2020 actively engaged U.S. employees went from a record high of 38% down

to 31% in a matter of several weeks. Actively engaged employees are psychologically committed to the organization, more loyal, productive and tend to stay at the organization. Employee engagement is highly correlated to performance outcomes thus presenting potential negative consequences for industry. Actively disengaged employees do not like their jobs, tend to spread their bad feelings in and out of the organization and gossip negatively. They are the least productive members of the organization and are looking to leave their jobs. Currently actively disengaged employees stand at 14%. Engaged employees (not actively engaged employees) stand at 54%. Engaged employees are productive but not psychologically committed to the organization, are not as productive as actively engaged employees and may leave the organization and have higher absenteeism rates. Currently the ratio of engaged to actively engaged employees stands at 2.2 to 1, the lowest reading since 2016. Data sampling was conducted by the Gallup Organization of 2,687 part and full time US workers (Harter, 2020).

While this survey only covers a few months, the record speed of the drop in engagement is disturbing. It demonstrates that employee engagement is more fluid and influenceable than previously thought. Of great concern as well is the sector of the largest decline in engagement: managers and leaders themselves. We are used to seeing employee engagement being an issue for those lower on the corporate ladder, not the upper. Imagine the challenge corporations face with unengaged management. The drop was more significant for at the workplace versus home workers as well as more significant for blue collar service workers. Based on gender, males had a steeper decline versus women.

While coronavirus carries the largest load of the negative impact the drop is larger than the recessions of 2001-2002, 2008-2009, the 9/11 terrorist attacks and previous pandemics. Beyond coronavirus the societal discord caused by the killing of George Floyd has heightened

the diversity and inclusion discussion. The confusion and lack of clarity of how to respond to the coronavirus in relation to new worker guidelines has only added to the problem.

Some may view a global pandemic as something that will eventually dissipate, and things will go back to the way they were. It may be wise to consider how to handle an uncertain future by training employees to be resilient and creative during times of uncertainty. Do you want to be able to weather the next storm?

What about a longer-term global view of employee engagement? The 2021 Gallup survey on the state of the global workplace surveying 100,000 business units showed only 12% of employees worldwide were actively engaged at work in 2009 and that number rose steadily every year until 2019 when it peaked at 22%. The trend of almost doubling employee engagement in 10 years is impressive even though barely more than 1 out of 5 workers were actively engaged at the 2019 peak. 2020 recorded the first drop in engagement over the last decade and went down to 20%.

Could all of this data just be short-term blips that won't matter a year or so from now? Perhaps. But imagine if employees were resistant to the impact of Covid-19 or 9/11 or a recession. What if employees saw these events as challenges instead of bad events with bad consequences that we have to learn how to overcome every time? By training for skills such as resilience and optimism we may be able to create a steadier and stronger workforce.

Regardless of your point of view, the short & longer-term views of global employee engagement are not impressive. In the 12-year period of 2009-2021 80% to 88% of employees were either disengaged or actively disengaged from work. While the long-term trend is moving in the right direction continuing to have 4 out of 5 employees not fully engaged is reason for concern. Herein lies opportunity. Imagine if you could move some of the 80% into the 20%

actively engaged camp? Imagine the increase in productivity and profit that could be enjoyed if you could move the needle in the right direction.

Improving the state of employee engagement lies with leaders and managers and their ability to communicate clearly, inspire and train in areas that matter. With the largest drop in engagement impacting managers the most, the situation is the darkest it has been in recent history. This poor state of affairs is an excellent opportunity for positive psychology to offer their own unique solutions on increasing employee engagement for employees and managers and leaders alike. Having more employees in the actively engaged camp will help organizations navigate our uncertain future and perhaps even grow and thrive when the next crisis comes our way. A long-term investment and commitment in this area may be a wise choice worth considering.

### **WHAT IS POSITIVE PSYCHOLOGY AND HOW CAN IT HELP?**

Psychology, as many of us know it, tends to deal with what is wrong with people mentally. Thoughts of anxiety, depression, and schizophrenia come to mind. But what about the flip side of what's wrong with people? What about what's right with people or even better, what's amazing about them?

Positive psychology studies what's right with people. Through scientific study positive psychology studies human flourishing, well-being, the good life and factors which create the type of life most worth having (Snyder & Lopez, 2009). The Positive Psychology Center at the University of Pennsylvania describes positive psychology as an evidence based scientific study of specific individual and community strengths people use to thrive and flourish (Seligman, 2021). An underlying belief of the field of positive psychology is that people want to enjoy and live lives with meaning and purpose. The field seeks to cultivate and amplify the best versions

of ourselves and to improve and enhance experiences at work and at play (Seligman & Csikszentmihalyi, 2000).

A major goal of positive psychology focusses on not just fixing what is wrong with us or reducing our deficiencies, but to examine our strengths and positive qualities and amplify them to enhance our experiences to move us into a greater state of well-being.

While the term positive psychology may be relatively new to some the concept has significant history. Socrates argued that philosophy should focus on the overall well-being of the society and believed that choices humans made were based on a motivation to be happy. In 1954 Maslow argued that psychology should look at a more complete picture of human nature to include helping individuals reach their full potential instead of just trying to rid them of their ills (Menninger et al., 1963). Even business titans weighed in on the subject. Most notably Peter Drucker recommended executives should build on strengths versus weaknesses (Drucker, 1993).

In 1998 Dr. Martin Seligman was elected to the position of president of the American Psychological Association and popularized the term positive psychology and ignited a frenzy of enthusiasm for the scientific study of human strengths and what makes humans flourish. Seligman's plan was to gather researchers together who were studying human strengths and positive human attributes and place the spotlight on positivity and move it away from a sole focus on negativity. Positive psychology serves the scientific community by completing the psychological circle to round out the other areas of psychology that are focusing mostly on the negatives of the human condition like Abnormal Psychology (Snyder & Lopez, 2009).

It is noteworthy to consider what positive psychology is not. It does not ignore reality such as bad events nor does it put a positive spin on everything that comes its way. Positive psychology has been criticized as being 'happyology' and popular media outlets write about

positive psychology from the perspective of quick short cuts to happiness which don't accurately represent the seriousness of the science or research rigor behind the studies. Other critiques of positive psychology are that it is a small club of insiders who do not interface with the rest of the scientific community. They focus too much on the individual and not enough on groups such as communities and governments and societies. Also, some techniques employed and popularized have not undergone proper research to study their impact. Consider the 'like' button on social media which was designed to encourage and compliment someone's post only to discover a spike in teenage suicide as a result of the negative impacts of social comparison (example: I didn't get as many likes as them therefore I'm not popular) (Hunt et al., 2018).

Part of the motivation to create the field of Positive Psychology also includes challenging the notion that we should concentrate only on what is wrong with us and repair it. An alternative argument is to focus on what's right about us and make that even better. Consider 3 people who want to partner in a triathlon. One team member is an expert swimmer, the second an expert runner and the third an expert cyclist. Would it make more sense for the swimmer to train to be a better swimmer and compete in the swimming portion of the race or train to be a better runner and do the running portion? Obviously, the expert swimmer has a low chance of being better at running than the expert runner so should you invest resources in trying to improve that area? Perhaps sticking with what you're good at and honing your craft will win the race. This line of thought developed the concept of human strengths.

Positive Psychology studies the specific components of well-being and flourishing. One of the most popular models is PERMA which posits that if a person experiences Positive emotions, Engagement, supportive Relationships, Meaning, and Achievement in their lives then they have the building blocks of a flourishing life (Seligman, 2018).

Positive psychology has also moved into the study of the intersection of the individual and the workplace. Subjective experiences such as contentment with the present moment, flow, as well as satisfaction with the past and hope and optimism for the future are studied from the perspective of learning how to enhance an individual's experience with all of these modalities at work and in their personal life. The theory and promise of Positive Psychology in the workplace is that if you can move workers into a greater space of well-being and satisfaction they will be in a better mental space to be happy, engaged and productive. By focusing on enhancing the well-being of the individual the well-being of the organization stands to increase as well.

By studying well-being and human flourishing our goal is to create trainings and activities (positive interventions) to bring the workforce into states of higher productivity, engagement and satisfaction.

What exactly are positive interventions? Parks & Biswas-Diener (2013) explain positive interventions as evidence-based, intentional acts or a series of actions designed to increase anything which causes or enhances well-being and/or flourishing in the non-clinical population. These interventions are often activities involving the body and/or the mind. Some positive interventions designed for the mind can be writing activities like writing about three good things that you experienced during the day and why you think they happened (Seligman et al., 2005). Physically oriented interventions could be rigorous exercise which increases cognitive brain function (Griffin et al., 2011).

Other activities such as appreciating beauty and enjoying nature can also act as a positive intervention to increase well-being as well as minimize short-term depressive symptoms (Proyer et al., 2016). Even doing interventions that help us savor experiences, express and reflect upon gratitude, as well as engage in acts of kindness have shown evidence of enhancing one's positive

affect (good mood), decreasing negative affect (bad mood) and minimizing stress (Cohn et al., 2014). Positive interventions include the domains of physical & mental exercises including reframing how we look at a situation.

As of this writing (August, 2021) a google search for ‘positive psychology’ returns 364,000,000 results. In 2017 there were 567,000 scholarly articles under the keyword ‘positive psychology’. As of 2021 that number has multiplied to 3,220,000 with 35,200 new articles in the first six months of 2021. The field is rapidly growing, and my goal is for organizations and their members to benefit from these discoveries.

## **WELL BEING, HEALTH, JOB SATISFACTION, ENGAGEMENT & WORKPLACE PERFORMANCE**

### **WELL-BEING & PHYSICAL HEALTH**

Well-being is a combination of constructs that produce positive emotions and the sense that you are leading a good life (Wong, P., 2011). Well-being is more than being happy, which can be a fleeting emotion, but is something deeper and more solid.

Diener et al. (2017) employ the term subjective well-being which they define as one’s evaluation of their life including their emotional experiences. Subjective well-being contains broad assessments of how we are doing. They include life satisfaction, how satisfied we are with our health, our feelings and reactions to events and life circumstances as well. While subjective well-being (SWB) is rather broad, it applies to all of the different ways we evaluate our own life including satisfaction, positive emotions and negative emotions. This paper will discuss 6 components of well-being with evidence demonstrating their impact on workplace engagement and satisfaction as well as suggestions on how organizations can employ positive psychology to



increase well-being at the workplace through positive interventions which can be used in workplace trainings.

Below is a collection of studies showing relationships between high degrees of subjective well-being, job satisfaction and job performance. Well-being is also connected to mental and physical health including loving and meaningful personal relationships (Pavot & Diener, 2008). Work by Keyes and Simoes (2012) discovered that individuals who self-reported that they experienced high levels of well-being experienced less physical and mental health challenges, had lower rates of work absenteeism, higher quality relationships, lived longer and had higher levels of productivity at the workplace. Keyes and Simoes also discovered that if a person did not have good mental health, then the chances of any cause of death increased. This includes women and men of all ages. In a 10-year follow-up, less than one percent of individuals over the age of 18 with high mental health levels in 1995 passed away over the next decade as compared to 5.5% of non-flourishing adults in the same time period (Keyes & Simoes, 2012).

Keyes & Grzywacz (2005) also discovered that workers classified as completely physically healthy reported the highest levels of productivity as well as the lowest health care costs. However, those with poorer health had lower rates of productivity and higher health care costs and the worst outcomes were reported from workers with complete ill-health. The healthiest workers had 22.8% greater productivity than the least healthy workers and 7.5% greater productivity than the group in between (classified as the incomplete health group). The healthiest workers also had 56% fewer absent days in any 30-day period. The authors suggest organizations change measurements from absence of illness to the presence of health.

Regarding health care costs and the intersection of employee well-being Ganster & Schaubroeck (1991) discovered that employees higher in subjective well-being had improved

health outcomes and Kuykendall & Tay (2015) discovered employees had better physiological functioning. Darr & Johns (2008) discovered that employees low in job satisfaction who were also high in work stress correlated with negative health impacts on physical as well as mental illness.

How strong are the relationships between subjective well-being and health? Ngamaba et al. (2017) investigated a meta-analysis of 29 studies and discovered a positive, medium sized, significant correlation of 0.35 for health and subjective well-being. The data was even more compelling for developing countries with a 0.42 correlation versus developed countries (0.34). The researchers suggest that subjective well-being may be increased by focusing on increasing your health status.

Prilleltensky et al. (2015) put forward a six-domain model of well-being called I COPPE which includes: 1. Interpersonal 2. Community 3. Occupational 4. Physical 5. Psychological and 6. Economic components. The authors argue there is solid evidence that well-being is correlated to the 6 pillars of the I COPPE model and can be measured in a scale (diagnostic survey) they designed. They further argue that if you can measure well-being through these 6 pillars you can also potentially diagnose areas in the workplace arena that may be targeted for improvement through trainings and positive interventions.

Diener et al. (2017) focus on the tangible positive impact well-being has on organizations. They point out that Fredrickson's Broaden-and-Build perspective posits that positively oriented emotions broaden your scope of what you see (literally) as well as cognitively for ideas and this creativity builds one's portfolio of talents (Fredrickson, 2000). Fredrickson's research shows that positive emotions promote good outcomes in organizations because people think more broadly which enhances their social and personal acumen. Also, a person's

experience of positive emotions can impact and influence other people in the organization including employees, customers of the organization and other stakeholders in a positive way. Fredrickson advises organizations to explore the cultivation of positive emotions to enhance the well-being of members of the organization. There is also an expanding set of evidence that workers higher in subjective well-being predicts other positive outcomes such as worker health (Diener et al., 2017).

Are workers higher in subjective well-being more productive than their less subjective well-being colleagues? Smit (2015) conducted a cross-sectional study with subjects from a law firm in Johannesburg and measured subjective well-being amongst the staff. They discovered that flourishing employees with above average degrees of subjective well-being were higher in productivity, happiness and better at creative problem-solving tasks and had fewer sick days and remained at the firm longer. Overall, employees high in subjective well-being (SWB) have lower health care costs and are more productive than their colleagues scoring lower in SWB.

## **JOB SATISFACTION & ENGAGEMENT**

We will now explore the relationship between job satisfaction, well-being, and performance. Harter, Schmidt, Ashland, Killham & Agrawl (2010) led a meta-analysis of 7,939 workplace units spanning 36 companies to explore the correlation between engagement and employee satisfaction with productivity, customer satisfaction, employee turnover, profit, and accidents. Correlational relationships were confirmed on all components with the implication that if management focused on increasing employee satisfaction business unit outcomes including profit may be favorably impacted. The size of the correlations are quite large with the correlation between overall job satisfaction and employee engagement standing at 0.77 (values

between 0.5 and 1 are considered to be strong). A comparison of engaged versus un-engaged employees on project success rates as measured by profitability and sales revealed that above average engaged employees had a 63% success rate versus 37% for the below average engaged employees. For business divisions spanning companies, the above average engaged employee achieved a 103% higher success rate as compared to the below average employees.

A meta-analysis conducted by the team of Judge, Thoreson, Bono & Patton compared job satisfaction and job performance on 312 samples covering 54,417 workers. They discovered there was a moderately large and positive correlation (0.31) related to job performance and job satisfaction (Judge, Thoresen, Bono, & Patton, 2001).

Bowling et al. (2010) conducted a meta-analysis on the relationship between job satisfaction and subjective well-being. They found a positive correlation between job satisfaction and subjective well-being. This same positive relationship was found compared to happiness, positive affect (good mood) as well as the lack of negative affect (bad mood). Longitudinal studies (observing the same subjects over time) discovered a stronger relationship with subject well-being causing job satisfaction versus job satisfaction causing subjective well-being. This provides evidence to suggest that members of the organization higher in subject well-being may predict how satisfied they will be with their jobs.

A meta-analysis of 16 studies regarding job satisfaction and job performance prediction (Ricketta, 2008) did find some evidence to support the belief that job satisfaction will result in higher job performance. While the effect size was small it was statistically significant.

The research team of Mount, Ilies & Johnson (2006) discovered that job satisfaction had a positive correlation with task performance, and it was also negatively correlated to counterproductive work behaviors such as gossiping and stealing. The team studied 141

customer service workers spanning ten fast food establishments from a big food chain. Emotional stability, agreeableness and conscientiousness were negatively correlated to counterproductive behaviors (CPB). Self-ratings were confirmed by supervisor ratings. The researchers concluded that workers without job satisfaction are likely to engage in counterproductive behaviors on an interpersonal and organizational level.

Research by Dalal (2005) unearthed similar findings with a negative correlation of -0.28 comparing deviant behavior (such as gossiping) and job satisfaction. Dalal further concludes that lack of job satisfaction predicts interpersonal and organizational counterproductive behavior (CPB). This also explains one reason for underperformance by dissatisfied workers: they are spending work time engaging in counterproductive behavior such as gossiping, complaining, stealing etc.

Dalal also found predictive qualities in personality traits. Lack of agreeableness or conscientiousness predicted organizational deviance (violating work policies). Podsakoff, LePine & LePine (2007) discovered that job satisfaction predicts intent to quit their job.

Subjective well-being, employee engagement and job satisfaction matter. As you can see from the above studies there is evidence that employees possessing greater levels of subjective well-being correlate with higher degrees of job satisfaction and that correlates to higher performance. This matters to the bottom line and the more employees like their work the more profit a company can make through greater employee engagement.

There is a compelling business case to focus on ensuring and cultivating a work environment that supports subjective well-being, engagement and job satisfaction. The data shows it can be an investment that pays attractive dividends.

## COMPONENT 1: POSITIVE EMOTIONS

Positive emotions may feel good and increase well-being but what purpose do they serve, especially in the organization? Researcher Barbara Fredrickson studied positive emotions to try to understand if they held any intrinsic value (Fredrickson, 2001). In business intrinsic value measures what an asset is worth through objective criteria. Fredrickson argues that positive emotions may very well be an asset that does have worth and can be measured. This section will explore the value of positive emotions as an asset with worth to the organization as well as review positive interventions that can develop the state-like (can be changed) aspect of positive emotions in individuals.

Fredrickson created the broaden-and-build theory that argues that positively valenced emotions will broaden a person's thought and action processes which in turn builds their intellectual, physical, social and psychological resources. Positive emotions can open our minds to see more ideas and connections and thus make us more creative by seeing those connections easier. This is where we see value in the organization. More creative thinking can create more innovative products and services. Individuals who have positive emotions enjoy a wider range of thoughts and ideas and see a larger set of options to consider compared to those who do not.

How and why this happens lies in an experiment conducted by Wadlinger & Isaacowitz (2006) where they discovered that positive mood broadens a person's attention to visual stimuli away from the center of the stimulus to explore a wider view. You literally look around and see more. Researchers speculate that by broadening one's view (literally) you take in more information and thus increase your mental resources by knowing more about your surroundings. This may have evolutionary survival roots because you have a better chance of surviving if you know what's happening around you.

These positive emotions create Fredrickson's broadening effect on the way people perceive, address and process information (Gasper & Clore, 2002) including the number and type of activities they engage in (Fredrickson & Branigan, 2005). Positive emotions are helpful during ideation and brainstorming sessions. Individuals who experience positive affect are more inclined to want to socialize, exercise and get involved in outdoor activities than individuals in a neutral mood (Schiffirin et al., 2012). The broadening of the thought processes and actions encourage individuals to build cognitive, physical, social, and psychological resources which can be used later (Fredrickson et al. 2008).

The team of Young, Glerum, Wang & Joseph conducted a meta-analysis of the most engaged workers in relation to their personality traits (2018). 114 longitudinal studies were examined covering 44,224 employees and research concluded that positive emotions as a personality trait were the strongest predictor of engagement at 31% (Young et al., 2018). Researchers conclude that positive emotions are integral for engagement, problem solving and creativity.

Within the workplace, positively valenced emotions have been observed to enhance creative and efficient thought processes. Workers induced into a positive mind state performed better at tasks requiring creativity in problem-solving versus workers in a negative mood (Rowe et al., 2007). This may offer an advantage to human resources interviewing protocols. If hiring for a position requires creative problem solving the Rowe data suggest individuals with more positive emotions may possibly be better candidates.

Individuals self-nominated as happy (often experiencing positive emotions) also performed better on questions and problems on the Graduate Record Exam (GRE) compared to individuals in a negative mindset (Lyubormirsky et al., 2011). Positive emotions have also been

correlated to closer affiliations with other people including relationship quality (Waugh & Fredrickson, 2006). Individuals in a positively skewed mood are also interested in participating in a greater array of activities versus individuals in a neutral state (Fredrickson & Branigan, 2005). Fredrickson further argues that these interactions build social assets which can be called upon when you need them which increases survival (Fredrickson, 1998). Once positive emotions are established the benefits reach far and wide. We not only build a library of personal knowledge, but we create a powerful network. Fredrickson's research implies that the human ability to have positive emotions might be a core human strength (Schiffman et al., 2012).

Now we will explore the impact of positive interventions to enhance positive emotions. A meta-analysis led by Heckerens et al. (2021) explored the best-possible-self positive exercise to increase positive emotions. While there are different delivery methods and styles the intervention has shown evidence for effectively increasing positive affect as well as optimism. The meta-analysis investigated 34 randomized controlled trials. The statistical analysis tool Hedge's  $g$  was employed to measure the effect size of the intervention when comparing the control group and the group that did the intervention. To interpret the data, a hedge's  $g$  of 0.2 is small, 0.5 is medium, and 0.8 is large. The results of the meta-analysis showed a Hedge's  $g = 0.28$ . For optimism the Hedge's  $g = 0.21$ . This shows some evidence for the best future selves exercise leading to both more positive emotions and more optimism. Both effect sizes were statistically significant.

Zeng et al. (2015) led a meta-analysis on the impact a loving-kindness meditation (LKM) exercise would have on positive emotions. 24 studies were reviewed covering 1,759 participants. Medium effect sizes on daily positive emotions were found on all studies. Studies involving longer term on-going loving kindness meditation showed effect sizes that ranged from



small up to large. Curiously, the intervention length and meditation time did not influence the effect sizes. Researchers concluded that LKM practice interventions are effective for enhancing positive emotions.

In the Zeng et al. (2015) study of loving kindness interventions one of the better and more stable performers was the intervention conducted by Fredrikson et al. (2008). Their meditation practice increased daily feelings of positive emotions over a longer period and that in turn created a vast array of personal resources including more mindfulness, life purpose, social support and a decrease in symptoms of illness. This also increased life satisfaction and reduced depressive symptoms. The effect size of Hedge's  $g = 0.492$  which is a medium effect size.

Ouweneel et al. (2016) examined an online self-guided positive psychology intervention designed for enhancement of positive emotions, work engagement and self-efficacy. Bandura (1977) describes self-efficacy as one's belief and confidence regarding their ability to perform behaviors required to achieve specific performance goals. Another way to view subjective well-being is how people evaluate their lives from two perspectives: How well they think they are doing and how well they feel they are doing. Both perspectives consider people's belief and feeling about whether they are living a good life (Diener, 2012).

The three-part online intervention contained happiness, goal setting and resource building exercises. Compared to a control group the intervention group increased in positive emotions as well as self-efficacy but not on engagement. The biggest impact was found with employees who were low in engagement before the intervention, thus they had further growth potential. Employees in medium or high levels of engagement did not show the same level of impact as they were already high in engagement. Researchers concluded that employers should target low engagement employees since they have the most untapped potential to experience gains.

Watkins et. al (2015) led a randomized controlled experiment to explore the efficacy of a 3-blessings gratitude exercise and its impact on subjective well-being. Individuals who participated on the gratitude exercise had significantly larger levels of well-being versus the control group. Interestingly, after the daily one-week assignment of writing about three things that participants were grateful for on that day subjective well-being continued to rise to five weeks after treatment. While happiness scores are just one facet of subjective well-being, they rose 2% right after the intervention and continued to rise to 11% above pre-intervention levels up to six months later. Subjective well-being encapsulates an expansive range of concepts like short-term moods, global assessments of life satisfaction, the scale from happiness to depression, as well as euphoria (Diener et al., 2003). Depressive symptoms also dropped 29% right after the intervention and lasted for 6 months. Of note, is there were no maintenance interventions after the initial one-week exercise.

Seligman et. al (2005) made similar observations in his research. Seligman et al. (2005) explored five happiness/positive emotion interventions with a control group and reported three interventions increased happiness/positive emotions and decreased depressive symptoms. The first one (3 good things) was similar to the 3 blessings exercise detailed in the previous paragraph.

Researchers also discovered complimentary findings when measuring for depression. Participants had significantly lower degrees of depression post treatment even when they controlled for pretreatment depression levels. Similar to the subjective well-being measures, peak impact occurred 5 weeks after treatment ended.

Some other curious findings also occurred during the study. Males gained significantly more from the exercise than the female participants. Those who started the treatment with low

trait gratitude gained more from the experiment than those who had higher trait gratitude. As with previous studies already discussed it appears that individuals who enter interventions low in a trait tend to grow more than those who have medium to high levels of it.

The experiment increased access to positive memories as measured by self-report surveys and researchers hypothesize that the treatment might train positive cognitive biases beneficial to subjective well-being. Beyond just recalling positive memories the evidence suggests that the longer-term positive benefit is due to grateful processing and thinking differently to process benefits through a more grateful lens.

The second intervention of note was using signature strengths in a different and novel way every day for 7 days. Participants took the free online VIA Character Strengths Assessment ([www.viacharacter.org](http://www.viacharacter.org)) and were given a report on their top signature character strengths. From this data report participants used at least one of those top strengths in a different way every day. Results demonstrated an immediate 3.5% increase in happiness/positive emotions scores which increased to 8% after 1 month and 6 months as compared to pre-intervention. It is also noteworthy that this 7-day exercise had positive effects 6 months later without a maintenance intervention.

## **COMPONENT 2: POSITIVE PSYCHOLOGICAL CAPITAL**

Psychological capital, also called PsyCap combines the psychological assets of hope, efficacy, resilience and optimism into one construct. Luthans et. al (2007) describes psychological capital as having four components: 1. Having the will and the way to achieve a

goal (Hope) 2. Possessing the confidence to attempt a task and exert the necessary effort or energy to be successful. (Efficacy) 3. When adversity strikes bounce back and continue on (Resilience). And 4. Believe you can achieve the goal now and in the future (Optimism). This has also been described as the HERO Model (Hope, Efficacy, Resilience, & Optimism) (Donaldson et al., 2020).

Individual studies of hope, efficacy, resilience, and optimism have been successfully conducted (Luthans et. al, 2007). However, research indicates that the combination of the four as one construct shows better results (Avey, Luthans, & Jensen, 2009) when measuring stress-associated intentions to quit and job search behaviors. Physiological, cognitive and emotive stress symptoms were measured versus self-report. The results were so compelling that the term Psychological Capital was created to encapsulate the combination of Hope, Efficacy, Resilience and Optimism (HERO Model) as one construct. The main benefit of HERO observed by Luthans et. al (2007) was predictability. Luthans discovered that the composite predicted job satisfaction and performance among employees better than the individual measures. Following this section introducing Psychological Capital we will go in depth individually on Hope, Efficacy, Resilience and Optimism along with subsequent positive interventions and then share further research on Psychological Capital as a standalone construct.

Psychological capital falls within the area of Positive Organizational Behavior (POB) which is “the study and application human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement” (Luthans, 2002). There are five requirements for a positive approach to be considered a part of Positive Organizational Behavior: 1. It must be established in research and theory. 2. It must be measurable (with validity). 3. It must be somewhat unique and novel to the discipline of

organizational behavior. 4. It must be state-like versus trait-like (individuals can learn and develop the trait) and 5. It must have a positive influence on work affiliated individual level satisfaction and performance (Luthans, 2002; Luthans et al., 2007).

To further clarify definitions of terms and their importance to the field, positive states such as a good or a bad mood are feelings which are fleeting and easily changed. State-like is changeable and accessible to development such as constructs like hope, efficacy, resilience, and optimism which can be strengthened through trainings. There are other state-like constructs such as courage and forgiveness.

Trait-like, on the other hand, are somewhat stable and difficult to change. These are personality characteristics. Positive traits are quite stable and rather challenging to change. Some examples would be intelligence and talents. For workers to develop and improve positive psychology focusses on the state-like traits since trainings can develop and improve in those areas.

We will now discuss in depth the four components of PsyCap: Hope, Efficacy, Resilience and Optimism (HERO) and then share research on the impact of Psychological Capital as a stand-alone construct.

## **COMPONENT 2a: HOPE**

The first component of the PsyCap HERO Model is hope. This section will dive deeper into what hope is as well review studies focusing on hope and its impact on the workplace.

Hope is the will and the way towards achieving a goal. Peterson and Luthans (2003) describe hope as the combination of willpower (agency) and waypower (knowing the path and plan forward). C. R. Snyder defined hope as believing you have the ability to create different ways to achieve a goal and also be able to motivate yourself by believing you can achieve those goals through the different pathways you've strategized (Snyder et al., 1991). According to Snyder (2000) hope is possessing the desire to accomplish a desired effect. Hope contains energy and has the motivation for an individual to pursue a goal. It is state-like and can be changed and developed over time. Hope also provides avenues towards goals and creative alternative ways to reach those goals.

Research has revealed that individuals who demonstrate high degrees of hope employ contingency plans, forecast obstacles and challenges and create plans b, c and d to achieve the goal (Luthans et. al, 2007). Hope is not only the motivation to accomplish a goal but the faculties to identify, clarify, and proceed on a pathway towards a successful outcome.

Snyder et. al (1991) created the two-part hope theory. Part one states hope is a "positive motivational state" containing agency in the sense of goal directed energy. Part two of hope theory adds on pathways or the planning to meet those goals. Employees high in hope will create multiple alternative plans to meet a goal in case resistance or setbacks occur. Workers who have more hope prepare more and view success and failure differently than their colleagues who are lower in hope (Snyder, 2002). Those higher in hope have backup plans that lead them

to greater success. According to Synder (1991) low-hope workers give up and lose motivation to pivot when they reach a roadblock towards their original plan.

A meta-analysis by Reichard et. al (2013) set out to investigate hope research in the workplace. They investigated 45 studies spanning research on 11,139 workers. Researchers were able to confirm that the overall correlation with hope and work performance was 0.27 based on supervisor evaluations and 0.35 based on objective performance. The correlation with job satisfaction and hope was 0.32. The correlation between hope and commitment to the organization was 0.23. The correlation between hope and employee health and well-being was 0.39. And finally, the correlation between hope and burnout and stress was -0.26 (as hope increased, burnout and stress decreased). Some moderators to the relationships were discovered such as females and U.S. based studies demonstrated more robust hope-to-work-outcome effects. Researchers concluded that hope and positive psychology constructs in general are important in predicting employee behavior.

A 2002 survey study of organizations reported that workers having high levels of hope experienced greater success as defined by supervisor reviews than employees who had lower levels of hope (Adams et. al, 2002).

Luthans et. al (2005) studied 422 Chinese workers spanning 3 factories in China. Researchers discovered that the level of hope, as rated by their supervisors, was highly correlated to job performance.

Youssef and Luthans (2007) conducted 2 studies of 1,032 participants and 232 respectively. They investigated the hypothesis that the construct of hope, optimism and resilience would influence worker outcomes. One outcome measure was performance. The first study was self-report and the second study was an appraisal of performance by the supervisor.

Other outcome measures were happiness at work, job satisfaction, as well as organizational commitment. The results concluded that hope, optimism and resilience showed evidence of positive correlation to performance with hope being the largest contributor to the benefits.

Peterson & Luthans (2003) led a cross-sectional study of 59 store managers at fast food restaurants and discovered that their hope levels were highly correlated with the fiscal performance of the stores.

Peterson and Byron (2008) discovered that the higher level of hope an employee had, the higher their job performance, even controlling for self-efficacy. They observed this effect for sales employees, mortgage brokers, and management executives.

Law & Guo (2016) investigated correlations between self-efficacy & hope with on-the-job stress, job satisfaction, as well as commitment to the organization for 133 correctional officers working in the prison system in Taiwan. This study is significant because working in a prison can be highly stressful and lacking in hope. Results showed that levels of hope have a significant positive correlation to job satisfaction and commitment to the organization as well as a significant negative correlation with stress at work. The correlation between satisfaction at work and hope was 0.33 and for self-efficacy 0.27. The data demonstrates that correctional officers possessing higher levels of self-efficacy and hope reported higher levels of job satisfaction. Only hope had a significant negative correlation to job stress ( $-0.63$ ) which means that the officers who had higher hope levels had lower stress levels on the job compared to their less-hopeful peers. There was also a significant correlation of 0.54 among self-efficacy, hope, job stress and satisfaction which the researchers interpreted as commitment to the organization.

This study demonstrated that hope and self-efficacy contributes to workplace well-being along with commitment, satisfaction with the job, and lowered stress. Working in a prison can



be highly stressful and research on hope theory (Luthans & Jensen, 2002) recommends that officers have high hope levels to succeed in their challenging work environment.

As the variety of studies have demonstrated, higher degrees of employee hope (having the will and the way to reach a goal) show evidence for greater success at work, increased financial and job performance, increased happiness at work and job satisfaction, greater organizational commitment and increased degrees of well-being and health.

The appendix section details specific positive interventions that can be employed to increase hope in the workplace.

### **COMPONENT 2b: EFFICACY**

Efficacy is the next component in the HERO Model of PsyCap and we will explore it in depth in this section. According to psychologist Albert Bandura, self-efficacy (synonymous with efficacy) is your assessment of your ability to perform a task or deal with a situation. It has also been more simply described as your own belief in your ability to successfully accomplish a task or succeed in a specific situation (Bandura, 1977). How you feel about your ability to achieve a goal will impact how you approach that goal. For example, do you do the task on your own, delegate it or ask for help? Self-efficacy is foundational to Bandura's social cognitive theory that highlights the impact learning through observation and social experiences have in developing a person's personality. A core concept of social cognitive theory posits that your actions and reactions, thoughts and behaviors will be influenced by what you've observed in others. Self-efficacy develops through a combination of your external experiences and observations as well as your self-perception. Based upon Bandura's theory, individuals who

have high levels of self-efficacy or the belief they are able to successfully achieve a task well are more inclined to interpret hard tasks as a challenge to be conquered versus a task that should be avoided (Bandura, 1977). Bandura also argues that the strength and level of self-efficacy can be used to predict if a person will attempt a new behavior. It will also predict how long they will persist when confronted with obstacles (Bandura, 1997).

The theory further states that your thoughts and perceptions of situations and your ability to handle them influence your level of self-efficacy. Based on your expectations this will determine your coping behavior. Will you initiate and engage or not? What degree of effort will you put forth? How long are you going to persist if you encounter obstacles along the way? Self-efficacy determines how you will handle a situation and how much effort you will exert.

The model further details that self-efficacy derives information from four areas: performance accomplishments, vicarious experiences, verbal persuasion, and physiological states.

Performance accomplishments are based on the idea that your positive as well as negative past experiences impact and influence your ability to successfully complete an upcoming or current task. If a task was done well in the past then you are inclined to feel competent and perform well at that task again or on similar tasks in the future (Bandura, 1977).

Vicarious experiences means that you can create low or high self-efficacy based on what happens to other people. You can observe another person attempting a task and then compare your own abilities with theirs to decide and gauge how well you would do the same task. Bandura explained vicarious experiences as “seeing people similar to oneself succeed by sustained effort raises observers’ beliefs that they too possess the capabilities to master comparable activities to succeed.” (Bandura, 1977). For example, if you’re young and in good

shape and you see a runner similar to your age and physical ability finish a marathon you might think, “If they can do it...so can I.”

Verbal persuasion can impact self-efficacy by the influence another person has on you based on their verbal feedback or persuasion. If you receive encouragement on doing a challenging task that may influence you to persist until you succeed. Redmond (2010) described self-efficacy as being impacted by others based on their encouraging or discouraging you. For example, if a friend wants to do their first marathon but fears they won't do well, a friend's encouragement that they could do it would be a form of verbal persuasion that raises self-efficacy enough for them to register for the event and compete.

Physiological feedback are the physical feelings you experience and how you interpret these feelings will influence your levels of self-efficacy (Bandura, 1977). For example, perspiring and having an upset stomach when thinking about giving a speech can reduce self-efficacy by interpreting your body feelings as a sign that you can't do it. Self-efficacy can also be influenced by emotional and psychological feedback as well. Bandura emphasizes that it's not just the physical feelings but the interpretations of those feelings that matter most. For example, being afraid of swimming in cold water may not deter you if you interpret this as a temporary negative. You may interpret the situation as “I'm tough enough for this cold water.” These negative physical feelings could be motivating (Bandura, 1977).

These four influencers to self-efficacy of performance outcomes, vicarious experiences, verbal persuasion, and physiological feedback all can be remembered and retained for future recall.

Since a large part of learning is developed by modeling and observing others this forms the self-efficacy of how you feel your chances are of being successful on a similar task which

can be recalled later (Bandura, 1971). After memory recall, individuals will refine their strategies and do self-corrective adjustments based on their own performance.

Further research by Bandura (1986) showed that a person's expectation of efficacy on a task would determine whether they would attempt the task, how much energy they would put in and the length of time they would persist. Individuals with high levels of self-efficacy attempt tasks, invest the appropriate amount of energy, and if done well, succeed. However, people who have low self-efficacy often give up early and fail (Bandura, 1986). Research gives evidence that when you change your self-efficacy levels and raise them it leads to medium effect sized changes in behavior if you do it properly (Sheeran et al., 2016). According to research by Kanter people high in self-efficacy was predictive of higher productivity, better interactions at the workplace, and increased levels of output. (Kanter, 2006)

Self-efficacy is one of the most studied areas of psychology including its intersection with work performance (Stajkovic & Luthans, 1998) and with making career decisions, a part of Social Cognitive Career Theory (SCCT; Lent et al., 1994). The Social Cognitive Career Theory (SCCT) has been a model for myriad research projects that examine the ways workers make career choices or achieve satisfaction and performance professionally (Brown & Lent, 2019; Lent & Brown, 2019).

Stajkovic & Luthans (1998) led a 114 study meta-analysis covering 21,616 employees to explore relationships between work-related performance and self-efficacy. They discovered a positive and significant 0.38 correlation between work-related performance and self-efficacy. Work-related performance measured behaviors such as task completion as well as engagement in the steps required to complete the task. Also, the simpler the task, the higher the correlation. As task difficulty increased the correlation dropped based on reduced self-efficacy. The author

hypothesizes that self-efficacy may predict work performance better than looking at personality traits.

Sadri et al. (1993) also conducted a self-efficacy and work-related behaviors meta-analysis. Sadri's team discovered work related behavior choice (intention to take on a task, attempts to complete a task and successful completion of a task) and self-efficacy has a 0.34 correlation. There was a large divergence between studies looking at work related behaviors in the field (0.37 correlation) versus laboratory simulations which were 0.60 correlation. While the relationship is clearly positive and significant Bandura (1978) argues that the relationship is causal in nature. This is important from the perspective that if you can predict that high self-efficacy will predict work-related behaviors and since self-efficacy is not trait-like but state-like (it can be changed via training) then training programs could have positive impact on work-related behaviors.

The implications are large. Training employees could be a mediator to change worker behavior. Identifying employees with high self-efficacy and potential abilities could be a selection criterion for skill-based training programs. Conversely, low self-efficacy employees could be placed in self efficacy training, not skills-based training as the added knowledge training won't impact efficacy (Sadri et al., 1993). For example, if two employees are asked to give a presentation and one is afraid and the other is excited about the opportunity then skills-based presentation training would be appropriate for the excited employee. The scared employee would be better suited to self-efficacy training to boost their confidence that they can perform well. Bandura (1986) further argues that efficacy impacts behavior in three ways: the behavior you choose, the effort you expend, and your body's physiological arousal.

Judge et al. (2007) led a self-efficacy and work-related performance meta-analysis that controlled for the five big personality traits of conscientiousness (organized vs. careless), extraversion (outgoing vs. reserved), openness to experience (curious vs. cautious), agreeableness (friendly vs. critical), and neuroticism (nervous vs. resilient). They also controlled for intelligence and job experience. Based on these constraints the researchers discovered that the correlation between performance and self-efficacy was relatively small. However, important discoveries were made. Self-efficacy did predict performance on tasks that were low in complexity but not on more complex tasks. Self-efficacy also predicted performance on a specific task but not on the job. It is worth considering that as tasks are successfully completed, and self-efficacy rises you can then add on more complex tasks.

Other correlations showed general intelligence with a 0.52 correlation to work performance. Experience and conscientiousness both had a 0.26 correlation. The following variables did significantly influence self-efficacy with their correlation values noted in parentheses: General Mental Ability (0.17), Conscientiousness (0.19), Extraversion (0.29), Emotional Stability (0.21), and Experience (0.26). When adding in self-efficacy there was not a significant influence on performance (0.13).

While the above effect sizes were small (except for general mental ability) there were variables that moderated the performance/self-efficacy relationship. Self-efficacy showed higher correlation with performance at the workplace when the job complexity was low versus high (0.42 vs. 0.30), short versus long interval between measuring performance (0.41 vs. 0.31), assigned goals versus no goals (0.52 vs. 0.34) and experience to the task versus no experience (0.42 vs. 0.31).

While Judge's team concludes that self-efficacy is moderately correlated with performance the predictive validity drops once individual differences are included and they suggest that due to the task-specific nature that encompasses self-efficacy it is a better predictor of narrow performance versus overall job performance. This meta-analysis shows us that while self-efficacy training can be an enhancer to workplace performance it is not a panacea and is more effective when specific tasks and goals are clearly delineated.

Judge & Bono (2001) conducted another meta-analysis covering over 500 published studies and over 200 unpublished doctoral dissertations where they investigated the 4 components of positive self-concept (self-esteem, generalized self-efficacy, emotional stability and locus of control) in relationship to work satisfaction and job performance. The correlation to job satisfaction was 0.45 for generalized self-efficacy, 0.26 for self-esteem, 0.32 for internal locus of control, and 0.24 for emotional stability. With regards to results for correlations to job performance, they were 0.23 for generalized self-efficacy, 0.26 for self-esteem, 0.22 for internal locus of control, 0.19 for emotional stability.

Investigators explored 274 correlations and found that locus of control, self-esteem, generalized self-efficacy, neuroticism, and generalized self-efficacy were the best predictors of job satisfaction and job performance. Of note is the largest average impact was for self-efficacy.

Cherian & Jolly (2013) investigated a meta-analysis to explore the correlation with self-efficacy, employee motivation and job performance. An analysis of the 14 studies revealed that self-efficacy theory can be used for work performance by motivating employees to carry out the goals of the organization. It was also observed that employees high in self-efficacy are more inclined to create goals that are challenging, and which are frequently achieved (Bandura & Locke, 2003). Cherian & Jolly also observed that employee performance is positively influenced

by overall self-efficacy. Secondly, how complex a task was moderated the link between self-efficacy and performance. Investigators also noted that the more difficult a task the lower the performance and self-efficacy. These are similar observations to previous studies already discussed.

In 2020 Kasalak & Dagyar conducted a meta-analysis to explore correlations between teacher self-efficacy and work satisfaction. Investigators studied 426,515 teachers from over 50 countries (39% collectivist countries and 61% independent countries) who completed the Teaching and Learning International Survey (TALIS). Surveys from 2008, 2013 and 2018 were collectively analyzed. The hypothesis of the study is that educators who view themselves as competent in their area of professional domain may possess high levels of self-efficacy attitudes and these attitudes might beneficially impact their work satisfaction.

Results did demonstrate a positive correlation between self-efficacy and a teacher's job satisfaction. Correlations were positive and significant for all countries. Correlations ranged from 0.12 (South Africa) up to 0.50 (Malaysia) with the average correlation being 0.28. The year of the survey moderated the results with 2008 having a 0.36 correlation versus 2018 having a 0.23 correlation.

Of note: The correlation was the same for collectivist versus individualistic cultures. Kasalak & Dagyar conclude that the results of the study did demonstrate that a teacher's self-efficacy does have a significantly positive correlation to their job satisfaction. They concluded that when self-efficacy increases so will their job satisfaction.

A similar meta-analysis by Kalkan (2020) also explored teachers' attitudes towards their own self-efficacy and work satisfaction levels. A review of 35 studies from 2000-2018 showed that there was a positive relationship of moderate effect size between teachers' self-efficacy



beliefs and work satisfaction levels. Levels did vary significantly based on the year of study, the location and type of school and the scales used. They also noted a stable relationship between the level of dignity that the profession enjoyed and the teacher's job satisfaction.

A more recent 2021 meta-analysis exploring self-efficacy by Livinti et al. (2021) confirms previous studies and Livinti's team looked at the relationship between research self-efficacy (self-efficacy theory modified for researchers) and 14 relevant variables based upon Social Cognitive Career Theory (SCCT). Research self-efficacy has shown evidence of being one of the best predictors of successful research activities and may give clues to predict general workplace success. The meta-analysis investigated 85 studies (published and unpublished) that were conducted between 1989 and 2020 investigating 17,754 subjects. Large associations were found with interest in research and research self-efficacy (0.47 correlation) and no associations were found between gender (-0.03 correlation) or age (-0.01 correlation). This meta-analysis shows evidence for self-efficacy increasing when one is interested in the work, identifies with it and it aligns with their goals.

Chen (2016) explored the relationship with creative self-efficacy (having the confidence that you are creative) and work engagement. Chen posits that creativity could be a critical human capability that aids the organization in developing innovation (Chen, 2013). Innovation can then be a catalyst to enhance global competitive advantage (Zhang & Bartol, 2010) since it converts individual knowledge into unique financial value which is hard to imitate (Chen, 2013). Therefore, creative employees are uniquely valuable to the organization because their innovative contributions are a product of their creative thinking (Bharadwaj and Menon, 2000).

According to Chen, creativity levels vary based on self-efficacy and their belief they can engage successfully with the task which is the basis for creative self-efficacy. (Example: Do I

have the confidence and belief that I can be successfully creative?) By definition, creative self-efficacy is grounded in the core of self-efficacy itself with a person's belief that they can develop and apply new ideas to achieve an organizational goal. (Chen, 2013).

The Chen study comprised of 101 online questionnaires completed by science and technology faculty members at US institutions of higher learning. 71% of the respondents were male and 29% female. 75% had a doctoral degree and 25% had a master's degree. 51% were over 51 years old, 43% were 41-50 years old, and 7% were 25-40 years old.

Results revealed a 0.69 significant positive correlation between creative self-efficacy and work engagement. This is a high medium effect size and rather large compared to previous studies measuring self-efficacy. The author concludes that the study supports the notion that high creative self-efficacy employees will use their available time to engage with work challenges (Chen, 2013) and work to create innovative ideas at the workplace. Chen further suggests that managers can increase employee creative self-efficacy by conveying their expectations and encouragement for creativity in the workplace.

In support of Chen, Tierney & Farmer (2011) discovered that when employees thought their manager expected creativity and that their creativity was recognized more by management then their creative self-efficacy increased (Farmer et al., 2003).

While self-efficacy has positive impact in the workplace can it transfer to other domains that impact work such as health? Work by Cooke et al. (2016) showed evidence that self-efficacy predicted the initiation as well as maintenance of several health-related behaviors including alcohol use, eating a healthier diet (Burke et al., 2008), physical activity (Cortis et al., 2017) as well as smoking (Gwaltney et al., 2009). Since healthcare costs are such a large

workplace expense and productivity is so heavily impacted by it, using self-efficacy to improve and maintain healthy workers is worthy of consideration.

### Digital Self-Efficacy Interventions

While self-efficacy benefits look encouraging how effective are digital interventions? One meta-analysis looked at automated digital health behavior modification interventions to explore the impact it has on self-efficacy (Newby et al., 2021). The meta-analysis reviewed 20 studies covering a total of 5,624 participants. The interventions covered healthy eating habits, physical activity and smoking. Overall, a small and positive effect size of 0.19 related to self-efficacy was discovered.

Another digital positive psychology intervention attempting to improve positive affect, engagement at work and self-efficacy was investigated by Ouweneel et al. (2013). The three-part program targeted happiness exercises, goal setting exercises and resource building exercises. Results did show a small enhancement in positive affect and self-efficacy versus control groups. Of note is when participants were separated into groups selected by their pre-intervention levels of self-efficacy only the ones who were low in self-efficacy experienced significant positive benefit from the intervention. The author hypothesizes that those already high in self-efficacy didn't change. But those low in self-efficacy did grow because they had more growth potential. The authors further recommended giving the intervention only to individuals low in self-efficacy. These observations have been seen before in previous studies where the greatest benefit came from those low in self-efficacy prior to the trainings.

The studies above provide evidence that self-efficacy predicts behaviors. The greater a person's self-efficacy the higher the probability they will take on tasks, persist and succeed. Self-efficacy prediction has better results on simpler tasks that are short and assigned to workers

most likely because they are easier to achieve. While self-efficacy predicts task performance it does not predict job performance. It is correlated to job satisfaction. Creative self-efficacy predicts work engagement and self-efficacy trainings have shown positive health behavior change. The lower someone's current self-efficacy levels the more trainings will benefit them. Individuals already high in self-efficacy may show greater growth through skills-based trainings. It is interesting to note that over a century ago the famous automaker Henry Ford said, "*If you think you can or think you can't.... you're right.*"

### **COMPONENT 2c: RESILIENCE**

Resilience is the act of coping in a positive fashion and making adaptations when faced with significant risk or setbacks (Masten, 2001; Masten & Reed, 2002). The American Psychological Society (APA) considers resilience to be the act of 'bouncing back' from difficult experiences and being able to successfully adapt when confronted with trauma, adversity, tragedy, excessive stress or threats (Chin et al., 2019). Resilience defined through the workplace lens is described as the "positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility" (Luthans, 2002a).

Resilience is multi-faceted and is influenced by the environment which may be present or absent of resilience enhancing stimuli. With present and cultivated resilience resources, one's capacity to adapt successfully to stress can be enhanced. This means resilience is state like and can be changed through trainings.

Southwick & Charney (2012) argue that resilience has ten protective factors.

1. Facing fear. Facing fear is acknowledging an adversity and working towards resolving the issue. It is considered an adaptive response because you are adapting and changing to the event to solve the problem. Facing fear is resilient while avoiding the issue or pretending it's not there or wishing it away is not.

2. Optimism. Believing that the future is going to be positive. Optimism is protective in the sense that pessimism would reduce creativity and motivation and hope to resolve the issue. Optimism can be motivating to solving the adversity.

3. Moral Compass. This is doing what is morally, ethically, and legally right. Maintaining a strong moral compass can allow a person to feel good about themselves and the way they have handled an issue.

4. Religion and Spirituality. Regardless of a specific faith the protective factor ingredient is faith towards a higher power that is protecting and guiding you through your adversity. Believing that a higher power is helping you can give faith and confidence that the issue will be resolved.

5. Social Support. Being able to share the adversity and receive supportive listening as well as advice can help a person feel more resilient by knowing they are not alone and there are others out there willing to help.

6. Role Models. Role models act as guides on how to resolve an issue. By observing a role model long enough you may be able to surmise how they would handle a situation and you can imitate that.

7. Physical Fitness and Strengthening. Physical exercise can reduce stress and balance the body and the mind to think in a calm and clear fashion.

8. Brain Fitness. This refers to lifelong learning which gives one a larger breadth and depth of how to handle an adversity as well as improve mental toughness, so the adversity doesn't create unproductive side effects like worry and anxiety.

9. Cognitive and Emotional Flexibility. This includes humor and acceptance. Laughing about a situation may help reduce the stress of the adversity and acceptance of a bad situation can also be calming and allow you to focus more time on solving the challenge.

10. Meaning. This is looking for some purpose the adversity may be serving you or perhaps a growth opportunity will present itself because the adversity occurred.

### Interventions

Karen Reivich and Andrew Shatte describe seven strategies to enhance resilience, illogical or non-optimal modes of thought that do not enhance resilience in their book "The Resilience Factor: 7 Keys to finding your Inner Strength and Overcoming Life's Hurdles (Reivich & Shatte, 2003). The seven strategies are :

1. Learning Your ABCs: When an adverse event occurs listen to your inner voice to identify what you say to yourself and be mindful of the way your thought processes impact your feelings and behavior. The ABCs stand for A: Adversity: What happened? B: Belief: How are you processing and evaluating the adversity? C: Consequences: How did you respond to the event? Often, the belief will dictate your response which is the consequence. Therefore, repetitive unwanted consequences tend to lie in unproductive beliefs. Changing your beliefs can change the consequences because your response will be different.

2. Avoiding Thinking Traps: Avoid thought models that reduce resilience. These are what the authors call pre-programmed, old dialogues and old ways of thinking. One example would be assuming that everyone who takes your parking spot did it to annoy you when in fact

they may not have even seen you. By changing your interpretation of the event (the thinking trap belief of ‘the stranger did it to annoy me’) to ‘they didn’t see me’ can reduce feelings of anger and victimization.

3. Detecting Icebergs: Become aware of your personal deeply ingrained (perhaps hidden) beliefs and explore when they aid you and when they hurt you. For example: Believing the police are only there to arrest you and not protect you from criminals may be an iceberg. This iceberg can hurt you by not calling the police at an appropriate time when they could help you.

4. Challenging Beliefs: Find new cognitive models to avoid choosing the wrong or non-optimal solutions. For example: Believing that a few drinks after work is a reward for work well done may result in adverse health consequences. Changing beliefs around alcohol as believing it to be a reward to believing it to be a weight gaining depressant may change your behavior.

5. Putting it in Perspective: Avoid pondering the ‘what-if’ scenarios and interpreting all failures as catastrophes. For example: If you lose your job you could engage in endless ‘what if’ scenarios around poverty or homelessness. Instead, a realistic perspective may be ‘People lose their jobs all the time and don’t become homeless. They look for another job and that will be my new focus, spending full time looking for another job until I get one. I’m smart and work hard and will eventually find a new job, maybe even a better one.’

6. Calming and Focusing: Remain calm and focused when you feel overwhelmed by stressful situations or emotions. For example: When feeling overwhelmed proactively do something to counteract it like journaling or going to a yoga class or work on solving the adversity.

7. Real-time Resilience: Challenge, reframe and replace unproductive thoughts with more resilient ones. For example: When an adversity occurs such as being late and you run into a traffic jam, instead of yelling at the traffic and panicking you can immediately contact the people you are meeting and tell them you'll be late and then simply accept what you cannot control. You will eventually get there. This can be done immediately when the adversity occurs and spare yourself a longer period of anger and stress.

There are several types of positive interventions to increase resilience in general and at the workplace. Below are scientific studies exploring the efficacy of multiple different types of interventions and programs. There are three suggested positive interventions for organizations to consider based on free or low cost, online delivery for scalability or self-paced in the Positive Interventions section in the Appendix. These considerations are made to overcome budget and time constraints as well as recognizing feasibility challenges with multi-week in-person trainings.

A meta-analysis studied workplace resilience trainings from 2003 to 2014 (Robertson et al., 2015) and their impact on personal resilience, subjective well-being, mental health, physical and biological outcomes, psychosocial outcomes, and performance outcomes. Results of the meta-analysis showed evidence of efficacy in all areas studied and the authors consider resiliency trainings to be useful for the employee population.

A team of researchers led by Joyce (Joyce et al., 2018) conducted a meta-analysis on resilience training programs and subsequent interventions. They reviewed controlled or randomized controlled trials to explore how effective psychological resilience trainings are. 17 studies passed the inclusion criteria. 11 of which were randomized controlled studies.



The interventions fell into 3 sub-groups: 1. Cognitive Behavior Therapy (CBT), 2. Mindfulness-based interventions, or 3. A mixture of both Mindfulness based and CBT. Results showed a moderate positive effect size of 0.44 to the resilience interventions. This is suggestive that all 3 types of interventions were effective. Researchers concluded that the combining CBT and mindfulness methodologies appeared to have a beneficial influence on resilience at the individual level.

Joyce's team further analyzed each intervention type and the Cognitive Behavior Therapy (CBT) only group showed an effect size that was small and positive at 0.27. The mindfulness-based group showed a moderate positive effect of 0.46.

It is interesting to note that studies doing a 6-month follow-up showed improvement. The Cognitive Based Therapy (CBT) interventions provided evidence of a moderate to approaching large effect size of 0.76. (Note: Only 2 studies were included in these calculations).

The six-month follow-up on the mindfulness-based interventions resulted in a moderate effect size of 0.58. These are similar effect sizes that were observed directly after training. Researchers noted that both intervention styles, mindfulness or CBT gave evidence of being able to increase resilience as measured by self-report questionnaires.

The meta-analysis is showing evidence that resilience is state-like and can be developed in an individual. There is further evidence that CBT or mindfulness training are effective for resilience enhancement. These types of treatment interventions have been extensively researched for effective improvement on psychological and physical health measures (Keng et al., 2011; Bohlmeijer et al., 2010; Grossman et al., 2004).

While results were positive for the intervention programs, they did vary widely in their training times from a brief 2-hour single session up to a 28-hour multi-session training. Of

concern regarding the two single session interventions was the fact that they had conflicting results (Sood et al., 2014; Sood et al., 2011) which made the researchers hesitant to endorse such brief interventions going forward.

Most interventions studied were based on traditional group therapy formats where participants met for several weeks in sessions lasting 60-90 minutes. Time is an influencing variable when acquiring new skills, so the researchers see the inherent efficacy of interventions using time to their advantage. 80% of the interventions in the meta-analysis were in-person trainings and the other 20% were a combination of bibliotherapy (reading text), online workshops/webinars and/or tele-coaching.

The next study investigated physiological measures of resilience. Tugade & Fredrickson (2004) conducted a novel experiment to explore if trait resilient individuals could bounce back from negative or stressful emotional stimuli. The hypothesis was that physiological factors such as blood pressure and pulse should return to normal faster after a stress inducing event if they are naturally resilient and should return to normal faster than individuals who are low in resilience. 57 subjects were tested for heart rate and blood pressure as a baseline prior to an anxiety inducing stimulus. Then they were told they would have to give a speech to an audience in a short period of time. Heart rate and blood pressure was taken again, and it was significantly higher. Then scientists measured how quickly they went back to normal. All participants did exhibit anxiety physiologically with higher blood pressure and heart rate when told they needed to prepare for a speech. Trait resilient participants (participants who were established to have high levels of resilience prior to the study) recovered faster and went back to normal baseline blood pressure and heart rate faster as compared to the low resilience group. (Tugade & Fredrickson, 2004).

Corporate resilience training is gaining popularity and in-person training can create a challenge with remote workers, accessibility, scalability, and engagement. These can add to cost and time. There is a demand for online interventions and the research team of Dr. Kimberly Aikens investigated the impact of an online workplace intervention (Aikens et al., 2014) to discover if workplace mindfulness programs were effective as well as practical for reducing employee stress while simultaneously increasing resilience and well-being.

89 participants from Dow Chemical company (44 assigned to the digital mindfulness intervention and 45 assigned to a waitlist which acted as a control) came into the study. Prior to embarking on the program participants completed 4 surveys: 1. The Perceived Stress Scale, 2. The 5 facets of mindfulness questionnaire, 3. The Connor-Davidson Resiliency Scale, and 4. The Shirom Vigor Scale. The same surveys were completed post intervention and at 6-month follow-up to measure efficacy impact.

The participants who were in the mindfulness training group did show significant reductions in stress as well as an increase in mindfulness, resilience and vigor. Post intervention the mindfulness training group increased their resilience levels by 11% while the control group decreased by 4.6%. When followed up six months later, the intervention group increased resilience levels by another 12%.

The program was a modified version of the Mindfulness Based Stress Reduction Program (MBSR) designed by Jon Kabat-Zinn (Kabat-Zinn, 2003). While effective, it is 30 hours of teacher-led training with 30-45 minutes of home-based daily practice. To accommodate workplaces that don't have the time to commit to the MBSR program the current study used a modified version of the MBSR which had a 75% reduction in the time commitment.

Part of the study wanted to investigate if the online shortened program would be practical in the workplace, scalable and effective. The program was shortened to 7 weeks and combined live, weekly 60-minute virtual classes with online applied training. After the pre-assessments students had access to their online dashboard which had a workbook with weekly lessons. The introductory class was in-person and then participants were given a workbook homework assignment. All classes were online except class 5. Each week had a 3-part agenda. Part 1 was to complete experiential audio exercises which taught:

1. Focused sitting exercises on breath, sound, physical sensation, and thought
2. Body scans
3. Walking meditations
4. Physical movement exercises
5. Three-minute breathing followed by a pause, focus on the breath, notice physical sensations and thoughts, and connect to the present moment.

There were also performance-oriented activities such as dealing with stressful situations, recognizing auto-thinking and auto-scripts, mindful communicating and mindful problem-solving.

Part 2 of the program was weekly progress tracking. They also received e-mail coaching based on their survey question responses. Part 3 was customized text messaging that corresponded to their progress with daily reminders and encouraging messages. Researchers concluded that the online mindfulness intervention was not only practical but effective in stress reduction, resilience and vigor improvement as well as work engagement which together enhanced overall employee well-being.

In 2020 Nadler, Carswell and Minda conducted a randomized online mindfulness training to explore impact on resilience, well-being, emotional intelligence and work competency ratings (Nadler et al., 2020). The 8-week online program was conducted on 37 participants working full-time at a Fortune 100 company. Pre and post-test assessments were conducted.

After the conclusion of the training the participants in the intervention group showed statistically significant evidence for increases in resilience as well as positive mood. There were also statistically significant decreases in stress and negative mood. The wait-list control group had no improvements.

Participants took the Brief Resilience Scale (BRS; Smith et al., 2008) assessment which is a six item self-assessment tool to measure a person's inclination to move beyond stressful, challenging events. The Brief Resilience Scale pre-test score for the participant group was 3.29 vs. 3.63 for the control group. After the intervention the intervention group improved by 14.89% with significance (from 3.29 to 3.78) while the control group decreased by 6% (from 3.63 down to 3.41). Researchers concluded that the mindfulness training showed evidence that performance increased on critical leadership capabilities including creativity and decisiveness. The investigation also highlighted the efficacy of online mindfulness training to enhance emotional intelligence, well-being, and workplace performance.

In 2013, Bekki studied 150 STEM female doctoral students with a mean age of 27 in an online resilience building and stress reduction program (Bekki, 2013). The program was 5 hours long in total spread over a 2-week period. Program focus was on problem-solving knowledge, coping efficacy, resilience, personal resources and confidence building. After the 2-week intervention there was a positive effect size of 0.66 in resilience, coping, efficacy and problem-solving knowledge.

Two studies investigated the efficacy of a brief online resilience building program. In 2008 Steinhardt and Dolbier studied the efficacy of the Transforming Lives Through Resilience Online Education program (Steinhardt & Dolbier, 2008). 30 college students participated in the intervention program (randomly assigned) and 27 were placed in the wait-list control group. Participants engaged with the 4-week program and each weekly 2-hour session focused on transforming stress through focusing on problems, coping, and emotion focused exercises. The free program can be reviewed at: <https://sites.edb.utexas.edu/resilienceeducation/>. Measurements were taken pre and post intervention on coping strategies, resilience, protective factors as well as symptomology.

Results of the study showed that the intervention group had significantly higher resilience scores than the control group. The intervention group also had more effective coping strategies vs. the control group such as higher levels of problem-solving ability and decreased avoidant behavior. Also, the intervention group scored higher on protective factors such as positive affect, self-esteem and self-leadership vs. the control group and also showed decreased scores on symptomology such as depressive symptoms, negative affect and perceived stress vs. the control group. The authors concluded that the intervention program may be effective for stress management and prevention for the college student population.

In 2010 Dolbier also investigated the Transforming Lives Through Resilience Education program and studied 38 college students with a mean age of 21 and 84% female (Dolbier et al., 2010). Participants engaged in the four-week program consisting of weekly 2-hour sessions. The results were impressive with a large and statistically significant improvement in stress-related growth. The Standardized Mean Difference effect size was 1.92.

Sood et al. (2012) investigated a stress management and resilience training intervention on the impact on faculty at a Dept. of Medicine at the Mayo Clinic with a randomized clinical trial. The study utilized the Stress Management and Resiliency Training (SMART) program (Sood, 2014). 40 doctors were randomized into a single blind waitlist control trial. The training was a single 90-minute one-on-one workshop in the SMART program. The results showed a statistically significant increase in resilience and overall quality of life 3 months after the intervention.

Results from the Connor-Davidson Resilience Scale (CDRS) were: Intervention Group +9.8 vs. -0.8 for the control group. Perceived Stress Scale (PSS) results were: Intervention Group: -5.4 vs. 12.8 for the control group. Smith Anxiety Scale (SAS) results were: Intervention Group: -11.8 vs. +2.9 for the control group. Researchers concluded that the study provided evidence that just one session focused on enhancing resilience and decreasing stress for doctors is possible. Also, the intervention showed evidence for a clinically meaningful and statistically significant increase in resilience along with decrease in stress, anxiety and overall improvement in life quality versus the control group. Please note that the original SMART program is 8 weeks long ([https://www.bensonhenryinstitute.org/wp-content/uploads/2017/01/SMART\\_overview\\_2017.pdf](https://www.bensonhenryinstitute.org/wp-content/uploads/2017/01/SMART_overview_2017.pdf)) and the 90 minute single session was modified from the original.

In 2019 Chesak et al. investigated the impact of the Stress Management and Resiliency Training (SMART) program on teachers and staff in public schools. A brief SMART program was deployed to measure the impacts on participant anxiety, stress, gratitude, resilience, happiness, life satisfaction, and quality of life (QOL). Evidence showed significant improvement in participant anxiety, stress, gratitude, happiness, quality of life, and life

satisfaction. In self-report surveys 77.2% of participants noted that their newly acquired skills had positive impact on students and 72% of participants reported improved interactions with co-workers.

Regarding resilience alone, the Connor-Davidson Resilience Scale at baseline (before the intervention) scored a 6.36 out of a maximum score of 8. After 2 months the average resilience score increased to 6.55 (a 3% improvement). At 6 months it increased to 6.65 (a 4.5% improvement). At 12 months it increased to 6.71 (a 5.5% improvement).

The program is based on 4 modules: Gratitude, Mindful Presence, Kindness and Resilient Mindset. The intervention consists of an initial 90-minute session to discuss core SMART components. Then participants read “The Mayo Clinic Guide to Stress-Free Living” including the 12 SMART self-paced modules. Weekly emails are sent from weeks 8 to 52. There are also eight 60-minute teleconferences during the program. Researchers concluded that the short version of SMART improved, stress, anxiety, resilience, gratitude, satisfaction with life, subjective happiness, and quality of life among teachers and staff. The authors believe this program would be effective for burnout prevention.

In 2014 Sharma et al. investigated the efficacy of bibliotherapy (reading educational text) to reduce anxiety and stress and increase mindfulness and resilience (Sharma et al., 2014). Cuijpers & Schuurmans define bibliotherapy as a type of therapy that is self-directed (Cuijpers & Schuurmans, 2007) and is grounded in the utilization of industry standard treatments for mental health issues. The intervention employs written information and explanations as well as exercises that do not use a therapist. There is evidence for successful bibliotherapy use and for



decades has aided mental health programs and multiple meta-analysis show evidence of efficacy (Cuijpers et al., 2011).

Sharma's team suggests that resilience-based trainings will have higher probability of being integrated into the corporate environment if they can be utilized minus the in-person training component. Their goal was to explore the efficacy of a self-guided Stress Management and Resiliency Training (SMART) program which is done solely with written materials to improve resiliency, stress, and mindfulness.

The study utilized the "Train Your Brain Engage Your Heart Transform Your Life"  
([https://www.amazon.com/Train-Brain-Engage-Heart-Transform/dp/1452898057/ref=sr\\_1\\_1?dchild=1&keywords=Train+Your+Brain+Engage+Your+Heart+Transform+Your+Life"&qid=1624107394&sr=8-1](https://www.amazon.com/Train-Brain-Engage-Heart-Transform/dp/1452898057/ref=sr_1_1?dchild=1&keywords=Train+Your+Brain+Engage+Your+Heart+Transform+Your+Life)).

Since publication of this book it has been upgraded and renamed to:

[https://www.amazon.com/Mayo-Clinic-Guide-Stress-Free-Living/dp/B01J2BMZD2/ref=tmm\\_aud\\_swatch\\_0?encoding=UTF8&qid=1371834550&sr=8-3](https://www.amazon.com/Mayo-Clinic-Guide-Stress-Free-Living/dp/B01J2BMZD2/ref=tmm_aud_swatch_0?encoding=UTF8&qid=1371834550&sr=8-3)

37 workers from a medical center were enrolled in the written version of the SMART program and given instructions to use the skills offered in the training book without any further support. The results were positive. 89% finished the program and were measured before and after the intervention. Researchers discovered a statistically significant improvement in resilience, mindfulness, perceived stress, anxiety and quality of life even 3 months after the program ended.

Connor Davis Resilience Scale (CD-RISC) showed significant increases from baseline pre-intervention with 11% improvement four months after the intervention. Perceived stress scale (PSS) decreased -24%. Anxiety (SAS: Smith Anxiety Scale) decreased 24%. Mindful attention awareness scale (MAAS) increased 16% after four months. Linear Analog Scale Assessment of Quality of Life (LASA) increased 14% after 12 weeks. There were no reported side effects. Researchers conclude that the study provided evidence that a short, self-guided program to reduce stress and increase resilience and mindfulness gave participants high quality short-term improvement to enhance resilience, mindfulness and quality of life while reducing stress and anxiety.

In conclusion the above studies point to similar outcomes when resilience trainings are brought into the workplace. Work happiness and job satisfaction increases including commitment to the organization and employee engagement. Self-esteem also increases including a sense of control and agency over one's life and improved relationships. Employers also reap benefits especially through increased productivity.

### **COMPONENT 2d: OPTIMISM**

Optimism is a state-like quality in a person that reflects the level to which they expect generally favorable outcomes for their future (Carver et al., 2010). There is a correlation between higher levels of optimism and subjective well-being during challenging times. Optimists have higher levels of engagement coping and lower levels of avoidant coping behavior. They also tend to be energetic and task-focused which relates to socioeconomic benefits for them. Optimism is correlated to greater persistence in educational efforts and to higher later income (Carver et al., 2010). Optimists also have an 11 to 15% longer life span

along with greater odds of achieving ‘exceptional longevity’ (living beyond the age of 85). This relationship is independent of socioeconomic status, health conditions, depression and health behaviors such as smoking, diet and alcohol consumption.

Forgeard and Seligman (2012) reviewed the causes and consequences of optimism and noted that anthropologist Lionel Tiger (1979) considered optimism to be a feeling connected with an expectation about the future that would be to their advantage or for their pleasure. In general optimists think positively about the future even if they don’t know what the future holds for them. Researchers have further divided optimism into two constructs: optimistic explanatory style and dispositional optimism.

Optimistic Explanatory Style was developed by Martin Seligman at the University of Pennsylvania (1991, 2011). Optimists believe that the causes of bad events are external (‘the date didn’t go well because I didn’t like their personality’), temporary (‘things will get better soon’), and specific (‘everything else is going well in my life’). A pessimistic explanatory style believes that the causes of bad events are internal (‘the date didn’t go well because I’m boring’), permanent (‘things will always be bad’), and pervasive (‘I’m bad at everything I do.’).

While optimists do acknowledge the existence of negative events, according to Seligman, they are interpreted in a more constructive, non-fatalistic manner. The industry gold standard to measure optimism is the Attributional Style Questionnaire (ASQ; Peterson et al., 1982) where respondents are required to explain hypothetical scenarios that are a mixture of favorable and unfavorable. Based upon their explanations of why the events occurred, scoring is based on the degree of optimism or pessimism they use to explain the events. An example of a hypothetical may be: “You earned an A on an exam.” Explaining why it happened because you are smart and

studied hard is optimistic versus explaining that you earned an A because the professor gave an easy exam is more pessimistic.

Dispositional optimism is a second construct, developed by Scheier and Carver (Carver et al., 2009), to measure and view optimism. This point of view is grounded in the expectancy-value model of goal pursuit. It argues that individuals will pursue goals that are most important to them and have value as well as goals that they feel have a high expectation of achieving (Scheier and Carver, 2001). Dispositional optimism contrasts from the explanatory style model by not asking how individuals interpret an event but by directly asking them if they expect future events to be favorable or not. This has also been called 'expectational optimism' (Schueller and Seligman, 2008). Measuring dispositional optimism is often assessed with the Life Orientation Test (LOT-R; Scheier et al., 1994).

Optimists tend to have higher levels of subjective well-being including when faced with challenging situations like childbirth (Carver & Gaines, 1987). To understand why, Nes and Segerstrom (2006) conducted a meta-analysis literature review and discovered that optimists deal with challenges by actively approaching the situation and trying to solve it versus denying or avoiding it.

A study by Seligman and Schulman (1986) explored a staff of insurance agents at Met Life and discovered that the more optimistic a salesperson was the more insurance they sold. Also, they were 50% less likely to quit their jobs. The levels of optimism mattered as well. The top 10% of optimists as measured by the Attributional Style Questionnaire (ASQ) sold more than the top 50% of optimists.

## Intervention Studies

Researchers Carrillo, Rubio-Aparicio et al. (2019) conducted a meta-analysis on one of the most popular optimism enhancing positive interventions called the Best Possible Self. The Best Possible Self (BPS) exercise encourages a positive view of oneself in the best possible future, after striving diligently towards it. The meta-analysis reviewed 29 controlled studies covering a total of 2,909 participants. Medium effect sizes of 0.33 were found for optimism, positive affect was 0.51 and improved well-being was 0.325.

Compared to gratitude exercises Best Positive Self (BPS) had a more beneficial and medium effect size of 0.33 on positive affect and reducing negative affect was 0.49. The researchers conclude that the BPS (Best Possible Self) exercise is a valuable positive psychology intervention and suggest there may be better results for older participants with shorter practices as measured in total minutes practiced.

Malouff and Schutte (2016) conducted a meta-analysis to explore the efficacy of psychological interventions to increase optimism. While they did discover that higher levels of optimism lead to better mental and physical health their main focus was to explore the effect sizes of randomized controlled trials as well as identify the factors that potentially influence the interventions.

Malouff and Schutte investigated 29 studies covering a total of 3,319 participants. A significant medium sized effect of 0.41 was discovered providing evidence that interventions do increase optimism. Further analysis revealed that higher effect sizes were found with the following five characteristics: 1. The Best Possible Self intervention was used., 2. The intervention was done in person., 3. An active control group was used., 4. Separate negative and

positive expectancy measures were utilized versus the LOT-R assessment., 5. A final assessment occurred within one day of the end of the intervention.

Brady et al. (2019) conducted a meta-analysis on the correlation between sales performance and a variety of positive psychology constructs. The review of 59 studies covered 14,334 salespeople and showed small to moderate positive correlations with positive psychology constructs. The correlations with sales performance and adaptability were 0.26, engagement was 0.36, optimism was 0.33 and proactivity was 0.27. There were relatively weak relationships with resilience 0.12 and empowerment 0.12.

A study by Yalcin, Celik & Uysal (2019) discovered that an individual's optimism increases their happiness at work and increases when relationship-oriented behavior from the manager becomes involved. Additionally, the perception of manager support had a direct positive meaningful impact on happiness at work.

A study by Mishra & Patna (2016) investigated 346 employees from three large banks in India and discovered that optimism is positively related to employee performance (supervisor review) and job satisfaction (self-report). A 2020 study by Miralam & Ali studied 257 managerial and sales executives exploring the determinants and predictors of job performance. While there was a significant positive correlation between self-efficacy, optimism, hope and resilience with job performance optimism was the most dominant predictor of job performance followed by self-efficacy and resilience. Optimism was also the only predictor of job performance among non-managerial executives. The authors concluded that optimism appeared to be the overall dominant determinant of employee performance (Miriam & Ali, 2020).

Schulman explored West Point Academy students and discovered that the students who remained at the army training school despite the grueling training were more optimistic than

those who quit who were more pessimistic. While one may want to guard themselves from unrealistic optimism Forgeard and Seligman (2012) suggest that the cultivation of a flexible and realistic optimistic behavioral is optimal. The data suggests that optimists don't quit as quickly as pessimists because they don't interpret the negative events of sales rejection or difficult trainings as signs of failure.

Medlin and Green (2009) explored the correlation between performance enhancement and optimism and hypothesized that workplace optimism would have a positive impact on individual performance. Medlin and Green studied 426 full and part time employees to explore the efficacy of management programs that foster employee engagement and optimism. Results of their studies showed that the programs on employee engagement positively impacted optimism and optimism positively influenced individual performance. Employee engagement was significantly and positively correlated to workplace optimism with a moderate effect size of 0.58. Workplace optimism was also significantly and positively correlated to individual performance at a moderate effect size of 0.64. While the study was non-random as well as based on self-report, the authors conclude that the greater the level of engagement the greater the level of workplace optimism and higher levels of optimism lead to higher levels of individual performance. The authors suggest that implementing management programs to foster workplace optimism for the purpose of enhancing individual employee performance may be effective.

Peters, Flink, Boersma and Linton (2010) used the Best Possible Self (BPS) positive intervention to study its impact on optimism. Their investigation studied the possibility of temporarily increasing optimism with a 3-step process. Step 1 was to spend 1 minute thinking

about their best possible self in the future. Step 2 was to write continuously for 15 minutes on their best possible self in detail followed by Step 3 which was a 5-minute visualization about their best possible self where everything went well and turned out for the best after a lot of hard work. Compared to the control group significantly large effect sizes were found for positive affect and positive future expectancies. Positive affect increased by 37%, negative affect dropped by 15%, positive expectancies increased by 4% and negative expectancies dropped by 20%. Some benefits to this intervention are that it is free, can be self-guided, completed online and is scalable.

Odou and Vella-Brodrick conducted a seven-day mental imagery positive intervention to measure increases in well-being (2011). The study examined mental imagery ability (MIA) on the efficacy of two popular interventions: Three Good Things (TGT) and Best Possible Selves (BPS) as compared to a control group. Pre and post well-being questionnaires were completed. Of the 210 participants there was evidence to partially support the hypothesis that the daily interventions, practiced for 7 days, would significantly increase well-being. One week after the intervention ended Best Possible Selves participants increased well-being and positive affect by 11% and Negative Affect decreased by 15%. The three good things exercise showed an increase in well-being by 10%, Positive Affect 0% and negative affect dropped by 15%. These differences were statistically significant. One of the limitations of the study was the large dropout rate thus leaving a smaller test group that finished the study, only 38 of the 210 completed the entire study. Researchers suggest doing the exercise once a day may have been too onerous. However, evidence for the superiority of the Best Possible Self exercise was suggested.



Sergeant & Mongrain (2014) explored the impact of an online optimism intervention in pessimistic individuals. The author notes that design factors such as variety and activity duration can impact results as well as the personality traits of the participants. A randomized controlled trial of 466 individuals completed a daily writing activity for three weeks. Results showed evidence that psychological well-being improved in the cultivation of optimism in the short term. The longer term two-month follow-up showed improvements in stable psychological well-being. Pessimists had greater improvement from the intervention and also reported fewer depressive symptoms. The author concluded that online interventions can have impact on state-like optimism in the short term.

Hough et al. (2020) empirically explored the impact of ethical workplace environments, organizational trust and workplace optimism on individual performance. An investigation of 250 employees from multiple organizations revealed that an ethical environment and organizational trust both positively influenced workplace optimism. They further discovered that only workplace optimism directly influenced individual performance. The ethical environment and organizational trust impact on individual performance is indirect via workplace optimism. The authors conclude that an ethical environment along with organizational trust will nurture high levels of workplace optimism which in turn lead to improved employee performance.

As the evidence suggests, optimism improves the workplace from multiple angles. Optimism has been shown to predict performance, increase job satisfaction and workplace performance as well as engagement and subjective well-being. Optimists sell more, earn more, live longer, have greater health and energy, persist more on tasks and are less likely to quit. While optimists enjoy greater professional success and embrace challenges more often, its state

like quality lends itself to trainings. Trainings have shown evidence to increase optimism and the best results are those individuals that start the trainings with a pessimistic leaning. With online trainings available bringing optimism into the workplace has mostly an upside trajectory.

### **PSYCHOLOGICAL CAPITAL RESEARCH**

Now that we have a solid and granular understanding of the components of PsyCap and the HERO Model (Hope, Efficacy, Resilience and Optimism) we will explore the research on studying the 4 constructs as one component. As discussed at the beginning of this paper PsyCap has the benefit of predictability yet it goes beyond that. Through Hope and Efficacy workers hold the belief that they create their own success. Through Resilience they are better insulated against setbacks and through optimism they expect good things will happen at work.

Higher job satisfaction is reported by individuals high in PsyCap because they expect to succeed (optimism) and believe they can do so (efficacy) (Luthans, Avolio, et al., 2007). There is even a higher commitment of loyalty to the organization with employees high in PsyCap (Luthans, Norman, Avolio & Avey, 2008).

Benefits have also been found on the flip side of PsyCap with a negative correlation towards less desirable employee attitudes such as cynicism and intention to quit. These high levels of efficacy empower employees to think that they can achieve their goals (agentic thinking) and that is self-motivating. This also builds resilience against quitting and thus, there are lower levels of turnover and thoughts of quitting their jobs. This mindset also leads employees high in PsyCap to volunteer for challenging tasks (Bandura, 1997).

Baker and Demerouti (2006) argue that the normal requirements of the working environment, even controlling for task and personal resources, will eventually create stress for

employees which can result in psychological exhaustion, anxiety, and poor health. However, the psychological constructs of efficacy and optimism are mentally and physically protective from the inevitable stress that is found in the workplace. Psychological well-being is increased with these same constructs (Avey, Luthans, Smith, & Palmer, 2010).

Below is a series of literature reviews and summaries of experiments on the efficacy and limitations of Psychological Capital (PsyCap).

The seminal 2007 study by the Luthans team (Luthans et al., 2007) examined how hope, efficacy, resilience, and optimism together, as a composite (psychological capital) as well as individually predicted work performance and satisfaction. Results showed a positive and significant relationship between each factor with satisfaction and performance and the greatest positive relationship, however, was for the composite of hope, efficacy, resilience, and optimism. This study was considered to be the birth of Psychological Capital and the HERO Model. The composite of Hope, Efficacy, Resilience and Optimism was a stronger predictor of performance than the underlying components.

The study looked at the manufacturing sector and service sector. They discovered that PsyCap had a 0.33 correlation to performance in the manufacturing sector and a 0.22 correlation for the service sector. The correlation between PsyCap and job satisfaction was 0.32.

Avey et. al (2011) reviewed a meta-analysis of PsyCap's influence regarding the attitudes, behaviors, and performance of employees. Their research has demonstrated that PsyCap is a helpful predictor of significant employee outcomes and behaviors in the workplace which can translate to positive attitudes, behaviors, and performance. PsyCap is also useful at the other end of the spectrum with respect to reducing undesirable attitudes and behaviors.

The Avey meta-analysis covered 51 studies comprising 12,567 employees in total (Avey et al., 2011). They hypothesized that PsyCap would be positively related to positive employee attitudes, behaviors and increased employee performance and would be negatively correlated to undesirable employee behaviors and attitudes.

Positive behaviors are termed organizational citizenship behavior (OCB) and negative behaviors are termed counterproductive work behaviors (CWB). Counterproductive work behaviors (CWB) can be as serious as stealing or sabotage or bullying or less offensive behaviors such as openly criticizing the organization or gossiping.

They discovered a high correlation with employees high in psychological capital (hope, efficacy, optimism, and resilience) and advantageous employee attitudes like job satisfaction, organizational commitment, and psychological well-being. They also discovered desirable behaviors such as positive employee citizenship and a positive correlation with performance metrics. Performance measures based on self-report were similar to supervisor evaluations as well as objective measures such as sales performance.

Significant results were also found with a negative correlation to undesirable attitudes such as cynicism, deviant behavior, intent to leave the organization, job stress and anxiety. U.S based and service sector studies showed stronger results.

Lupsa et al. (2020) led a meta-analysis to explore the efficacy of interventions meant to improve psychological capital, performance, and well-being. 41 studies covering 3,911 participants were investigated. Results showed a significant effect size of Cohen's  $d = 0.34$ .

Koydemir et al. (2021) led a meta-analysis of 68 randomized controlled studies covering 16,085 non-clinical participants. They wanted to explore how positive psychological interventions conducted in-person and digitally impacted psychological and subjective well-

being (i.e. eudemonic and/or hedonism). Data showed that the interventions did enhance well-being by an average effect size of 0.23 (Cohen's *d*). When studies targeted both aspects of well-being, the effect size went up to 0.43. Interventions that were longer showed more immediate effects than shorter ones. Also, traditional in-person based delivery methods were more effective than the digital methods. Investigators also found that the interventions did have long-term effects.

Larson and Luthans (2006) investigated 74 manufacturing employees and discovered there was a positive and significant correlation between psychological capital and job satisfaction of 0.37 as well as organizational commitment (0.31). In addition, researchers discovered that employee's psychological capital also had a positive influence on work attitudes.

With regards to cross cultural applicability, in China, researchers Tian et. al (2020) looked at the correlation of workplace stress and fatigue as well as the potential mediating role psychological capital (PsyCap) may play with Chinese physicians. The study was cross-sectional and took place in 2018 in the province of Liaoning. 1,104 physicians were studied. Each completed a 14-item Fatigue Scale (FS-14) as well as the Psychological Capital Questionnaire (PCQ), Effort-Reward Imbalance questionnaire (ERI), as well as questions about demographics and details of their work. A regression analysis was also calculated to examine any associations between occupational stress, PsyCap and doctor fatigue.

The results were concerning. 84% of the physicians in the study experienced fatigue. Psychological capital and workplace stress were significantly related to fatigue. Investigators further discovered that the subcomponents of Psychological capital (resilience 0.38) and (self-efficacy 0.28) contributed a larger role in the mediation of fatigue. Investigators were concerned with the high levels of fatigue and made recommendations to management to consider

employing PsyCap to mediate the correlation with occupational stress and fatigue and utilize PsyCap interventions to reduce fatigue.

Ayed et. al (2020) explored the impact PsyCap had on team performance at 13 advertising agencies in Amman. An analysis of 250 questionnaires discovered a significant influence between PsyCap and team performance. There was also significant impact from leadership behavior acting as a moderating variable between PsyCap and team performance with a positive correlation of 0.67. This strong correlation demonstrates that how the leader behaves impacts PsyCap and ultimate team performance. In fact, an increase in one unit of PsyCap corresponded to a 85.3% increase in team performance. Participants in the study shared that the advertising agencies paid attention to PsyCap because managers understood that through the motivation and encouragement of the employees to share new ideas and to make suggestions it would help the team achieve their goals and increase their competitiveness in the workplace. A similar investigation by Ishaque et al. (2017) similarly discovered a positive correlation between PsyCap and employee performance.

Bambang et. al (2018) investigated the role that organizational change and PsyCap would have on impacting employee performance and commitment to the organization at a business unit within a financial services firm in Semarang, Central Java, Indonesia. Of the 275 employees who participated, 163 were selected based on permanent employee status and they worked at least 5 years at the organization.

Results of the study revealed that PsyCap and change within the organization does impact employee performance. PsyCap influences the performance of the employee with a significant positive correlation of 0.25. Change within the organization influences employee performance with a significant positive correlation of 0.24. Organizational commitment became a

moderating variable that influenced psychological capital and employee performance with a 0.40 positive correlation.

Does PsyCap have any relationship to how helpful workers are to each other? The next study looks at Organizational Citizenship Behavior (OCB) which is voluntary actions to be helpful to others and the organization while the help is not a part of their job description. OCB has five components: conscientiousness, altruism, courtesy, sportsmanship, as well as civic virtue (Organ, 1988).

In South Africa Chamisa et al., (2020) documented that the quality of healthcare services has been declining due to increased workload, high turnover, low support, and nurses being required to do jobs not in line with their job description. Their research team studied over 200 nurses from 5 hospitals in South Africa and discovered that psychological capital does have a positive correlation with significance to organizational citizenship behavior (OCB) at the 0.43 level. Nurses who displayed higher degrees of PsyCap displayed reciprocity through the expression of organizational citizenship behaviors. The study authors recommended management to acknowledge the potential benefit PsyCap and OCB can have in the hospital by nurturing and retaining the nurses.

A 2019 study of PsyCap (Akhtar & Rasheed, 2019) discovered psychological capital had a positive correlation between task performance and a negative correlation to turnover. Authors suggest integrating PsyCap into the human resources programs of the organization.

Researchers Campbell, McCloy, Oppler & Sager (1993) explored PsyCap as it correlates to multiple variables. Test results showed the following correlations with psychological capital: job satisfaction ( $r = 0.54$ ), commitment ( $r = 0.48$ ), psychological well-being ( $r = .57$ ), employee performance  $r = 0.26$  and organizational citizenship behaviors ( $r = 0.45$ ). The following

negative correlation corresponded with undesirable attributes: cynicism ( $r = -0.49$ ), intention to quit their job ( $r = -0.32$ ), deviance ( $r = -0.42$ ) and stress and anxiety ( $r = -0.29$ ). All results were statistically significant.

The above study is important with specific reference to the negative correlation between PsyCap and stress and anxiety. According to Chenoweth (2011) high stress and anxiety in the workplace is expensive. According to his data, 43% of employees experience stress at the workplace. With an annual medical expense of \$743 per employee per year the costs become significant quickly. 3% of the annual workload is lost due to stress related absenteeism. 4.5% of the annual workload is lost due to stress related presenteeism (being at work but not fully functioning due to illness). For every 500 employees at an organization 215 (43%) will suffer from stress totaling annually to \$809,475 in lost productivity. PsyCap may have a positive impact on helping the issue.

To further scrutinize the Campbell research an analysis was conducted on the source of the measurement. Neither self-report ( $r = 0.33$ ), supervisor evaluation ( $r = 0.35$ ), or objective performance ( $r = 0.27$ ) showed any major differences in performance results. Credibility intervals for all measures was high. Some differences to note was positive work outcomes were stronger for US based studies, but no differences were found between student and worker populations. PsyCap's impact again was greater within the services industries versus manufacturing.

The results of this study are clear and significant. Psychological capital is positively correlated to job satisfaction, loyalty and well-being at the workplace and negatively correlated to cynicism, intention to quit, and employee anxiety and stress. The author's data suggest that PsyCap can enhance performance by 28% beyond chance, create a 78% increase in



psychological well-being and a 24% reduction in negative outcomes such as cynicism. They conclude that PsyCap predicts employee workplace performance, team cohesion, high performance, work engagement, return on investment and crosses cultures for global application.

Donaldson et al. (2020) did specifically take up the question “Does Psychological Capital and the HERO Model work globally?” While we have explored single studies from diverse areas around the globe, most PsyCap studies focus on WEIRD countries (Western, Educated, Industrialized, Rich and Democratic).

Donaldson’s team explored this question of generalizing the HERO model across 15 Nations (Australia, Brazil, China, France, Germany, Great Britain, India, Ireland, Italy, Japan, Netherlands, New Zealand, Philippines, South Africa, and the United States). While noting that many meta-analyses investigating positive organizational psychology interventions (POPIs) showed high efficacy at increasing well-being and positive work functioning that targeted specifically hope, efficacy, resilience, or optimism, Donaldson’s team wanted to see if a popular and successful positive intervention based on the HERO model) would predict positive behaviors at work from different geographical cultures and regions.

By studying 3,860 employees from the 15 nations above they discovered that Psycap is highly correlated with workplace proficiency, proactivity, adaptivity and overall work performance. Correlation with WEIRD countries and work performance ranged from 71% to 85%. Non-WEIRD countries were higher with work performance correlation ranging from 80% to 88%.

While it is encouraging to see the global efficacy of PsyCap on the workplace, there is the consideration of how to deliver trainings effectively. Specifically, does digital format training work well?

Luthans, Avey and Patera (2008) studied the efficacy of a digital training intervention to increase psychological capital. 187 participants went into the intervention groups and 177 went into the control group. The online program was 2 hours long and used personalization and multimedia including detailed PowerPoints and video commentary. A pre and posttest was performed on the participants and results showed that there was an increase in psychological capital through the digital format at a level of significance.

Researchers Da et al. (2020) also explored the efficacy of digitally delivered psychological capital interventions in the workplace on work-related attitudes. The randomized controlled study utilized a daily online self-learning method with 104 full-time employees in China. Pre, post and 1-week post measurements were examined in a self-report survey. Researchers discovered that the online instruction did improve psychological capital, increased satisfaction with the job and reduced intention to quit. Because of the success of the online intervention and the scheduling challenges that some workplaces have in China with getting all employees together at the same time and place they recommend using the self-paced, online version as an effective method to teach PsyCap.

To contrast the online method researchers Corbu et al. (2021) explored micro-coaching interventions with non-executive employees and its impact on psychological capital as well as goal related self-efficacy. In a controlled design trial, 60 non-executives were split into an experimental group (35) and a waiting list control group (25). Workers were from the automotive industry and participated for 5 weeks in the program. The approach was strengths-based and focused on setting specific professional and personal goals. The interventions had group meetings, three individual sessions with a coach as well as individual inter-session evaluation. Measurements were taken pre, post and 4-month follow to study impact. Results

showed psychological capital increased significantly with large effect sizes at 4-months and post intervention as compared to pre-tests. Results also showed that goal-oriented self-efficacy was a predictor for goal attainment while being coached. The authors conclude that short-term positive psychology coaching has value for increasing personal resources like PsyCap and the achievement of goals. It is hypothesized that the effect sizes were large because of the length of time and personalized nature of the intervention.

From the vast array of studies reviewed one of the highest performing interventions came from the Lupsa et al. (2020) meta-analysis. The stress management and resilience training (SMART) program performed well with research conducted by Sood et al. (2011).

The training was one 90-minute session one-on-one within the SMART program. Pre and post-test measurements were taken prior to the intervention and 8 weeks after. Scores for the Connor Davidson Resilience Scale (CDRS) went from -0.8 to 9.8, Perceived Stress Scale (PSS) went to -5.4 from +2.2, Smith Anxiety Scale (SAS) went to -11.8 from +2.9 and Linear Analog Self-Assessment Scale (LASA) went from -0.6 to +0.4. The effect sizes were large for Connor Davis Resilience Scale (Cohen's  $d = 1.16$ ), Perceived Stress Scale (Cohen's  $d = -1.01$ ), Smith Anxiety Scale (Cohen's  $d = -1.32$ ), and Overall quality of life (Cohen's  $d = +0.83$ ). The promising aspect of this intervention is its brevity and long-term efficacy.

This literature review shows great promise for the effects of Psychological Capital trainings on a global workforce. PsyCap trainings have been seen to be effective increasing job performance, psychological well-being, job satisfaction, work commitment, organizational citizenship behavior (being helpful to co-workers), proactivity, proficiency, and adaptability. PsyCap has also shown evidence to decrease turnover, stress, healthcare costs, intention to quit and cynicism.

We have also seen evidence for efficacy on online delivery trainings even only a few hours in length. Results appear to be better with longer term trainings as well as in-person and micro-coaching showed substantial benefits. Overall, PsyCap is a low-cost, scalable training that improves the workplace environment on multiple levels and is worthy of consideration as an investment in the organization's future success and competitiveness in the workplace arena.

### **LIMITATIONS**

The hundreds of studies referenced contain high quality peer reviewed and randomized controlled studies. However, there are limitations to consider. Some studies did not cover large amounts of participants and some studies had large dropout rates which may be an indication that the content did not engage the participant. In person interventions and trainings appeared to have better results as well as trainings that lasted weeks versus hours. Some studies have not been replicated by other investigators and some studies also did not clearly disclose their interventions to the extent that they can be replicated. Of greatest concern is that while most studies showed positive growth, the growth is in the small to moderate effect size versus a large effect size.

Also, participants low in PsyCap, resilience and optimism received the greatest growth benefit while those already high in those areas did not grow as much. Logistically speaking it can be difficult and expensive to gather workers for in-person trainings.

While digital, self-taught trainings are economical and scalable they didn't appear to have large effect sizes or do as well as in-person. As a practitioner and trainer in PsyCap my personal experience has been that digital delivery is just as effective as in-person if you design an interactive and engaging program with lots of breakouts and exercises to keep the class momentum engaging. The more the participant talks the more engaged they become. One

observation I have made that was only referenced once in studies by Dr. Sonja Lyubomirsky is the attitude of the participant (Lyubomirsky et al., 2005). If they are excited about the content they will engage, grow and enjoy the experience. If they are resistant to the program, they won't gain much from it based on their preconceptions and attitude. I suggest allowing participants to opt-in to the program offerings.

## **CONCLUSION**

Positive Psychology Interventions to increase Positive Emotions, Hope, Efficacy, Resilience and Optimism show scientific evidence to increase job performance, satisfaction and workplace well-being. In the ever-competitive landscape of today's work environment where organizations need to provide more than a paycheck as a motivator creating a workplace environment that people want to be in is incredibly important. Workers, especially after Covid-19, realize that most of their lives are spent working and it matters how much they enjoy their work. By utilizing the training benefits of Positive Psychology interventions and especially developing positive emotions and PsyCap, employees not only work better for the organization, but they stay longer and enjoy their work and personal lives. With economical and scalable digital training formats easily available PsyCap trainings will quite likely be a staple in the organization of the future.

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## APPENDIX

The following contains the suggested positive interventions to be used in an organizational setting including instructions.

### POSITIVE EMOTIONS INTERVENTIONS

Based on the evidence-based studies this section will detail specific positive interventions that can be employed at the workplace to increase positive emotions at work.

#### **Positive Emotion Intervention #1: Good Things**

##### **Variation #1: 3 Good things group share**

Number of Participants: 2 or more

Format: Online or In-Person

Self or Guided: Facilitator led

Cost: Free

Intervention Length: 10 - 30 minutes

In a group of two or more share one good thing that happened to you in the last 24 hours. Conduct three rounds until each participant has shared 3 good things. As an executive education instructor at Harvard Professional Development I have used the 3 good things intervention extensively. I changed the name from '3 blessings' to '3 good things' to remove potential association with religiosity. My real time results have matched the results in the 3 blessings studies with specific reference to men appearing to receive more benefit and growth as well as those with lower beginner trait gratitude.

##### **Variation #2: Group Gratitude share**

Number of Participants: 2 or more

Format: Online or In-Person

Self or Guided: Facilitator led

Cost: Free

Intervention Length: 10 - 30 minutes

In a group of two or more share, share 1 thing you're grateful for in your life such as a loving family. Conduct three rounds until each participant has shared three things that they are grateful for. This differs from Intervention #1 in that what you're grateful for does not need to have occurred in the last 24 hours or be an event.

### **Variation #3: Small, Medium, Large Gratitude share**

Number of Participants: 2 or more

Format: Online or In-Person

Self or Guided: Facilitator led

Cost: Free

Intervention Length: 10 - 30 minutes

This experimental intervention was developed based upon my experience of thorough use of evidence-based Intervention #2. I discovered that most participants shared only large gratitude items such as loving family and children. This sometimes resulted in participants running out of ideas. There appears to be an unspoken assumption that gratitude is only for big things in your life. To address this limitation, I sought to expand participants' concept of gratitude to include even small things in life. To expand 'gratitude spotting' and being more mindful that there are many things to be grateful for I incorporated rounds of gratitude to include medium and small items to aid participants in expanding their awareness of gratitude to include the smaller, yet important things in life. After round 1 (1 big thing you're grateful for) share a medium size thing you're grateful for such as you bought a new car. After round 2 share 1 small

thing you're grateful for such as you had a good cup of coffee this morning. Continue until each participant has shared 1 large, medium and small gratitude item.

#### **Variation #4: Timed Gratitude**

Number of Participants: 2 or more

Format: Online or In-Person

Self or Guided: Facilitator led

Cost: Free

Intervention Length: 5 to 15 minutes

This intervention was created based upon my experience of using evidence-based intervention #2. In a group of 2 or more each person shares 1 thing they are grateful for. The facilitator sets the length of time the exercise will be conducted. Typically, 5-15 minutes is optimal. Each participant shares 1 item they are grateful for and continue to go around the group until the time is up. This exercise lends itself well to the small, medium, large gratitude feature.

#### **Positive Intervention #2: New Use of Signature Strengths**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Can be both

Cost: Free

Intervention Length: 7 days

This evidence-based intervention is from Seligman's five intervention study (2005). Participants are instructed to take the [www.viacharacter.org](http://www.viacharacter.org) assessment. The free survey takes approximately 40 minutes to complete, and a report will give participants their top character

strengths and a description of them. For the next seven days participants are requested to use at least one of their strengths in a new and different way each day. The program can be completed solo and online if desired. It is suggested that an in-person group sharing of experiences and ideas may have higher efficacy although that has not been tested. A facilitator can explain the exercise and small breakout groups can share their strengths from the report and discuss reactions to it. Participants can also brainstorm together what new way they will use each strength. To increase compliance dyads can be established as accountability partners to check in before and after each day to discuss the new way they used their strength. Evidence shows positive emotions and happiness increase for up to 6 months after the intervention and depressive symptoms decrease for the next 6 months. Pre and post-test assessments can be measured using the Steen Happiness Index and Depression Scale Scores from the Center for Epidemiological Studies (Seligman, 2005).

### **Positive Intervention #3: Best Possible Self**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Facilitator Guided

Cost: Free

Intervention Length: 7 days

This exercise is from the Peters et al. (2010) study utilizing the Best Possible Self Intervention. Positive affect increased 37% versus a control group with a 0.20 effect size. This can be conducted in person or over digital format (Zoom) with one or several participants. A facilitator gives the following instructions:

“The activity you will do now is to spend time thinking about your best possible self for up to one minute and after one minute write about your thoughts. ‘Think about your best possible self’ means that you think about yourself in the future where everything has gone very well for you. In fact, everything has worked out in your favor! You worked diligently and enjoyed success by accomplishing all of your life goals. You can think of this as the manifestation of all of your dreams and now you have realized your maximum potential. Therefore, articulate the best possible pathways where things can turn out in your life for the best. Start thinking now about your best possible self. I will track the time and let you know when you can start to write down your thoughts. (Give them 1-3 minutes to think quietly).

“Start to write about your best possible self in your life for 15 minutes. The only rule we have about writing is that you write continuously for the entire time. If you run out of things to say, just repeat what you have already written. Don’t worry about grammar, spelling or sentence structure. Don’t worry about erasing or crossing things out. Just write. The things you write are only for yourself and do not have to be handed in afterwards. I will tell you when it is time to stop writing. Please start writing.” (Set a 15-minute timer).

“It’s time to complete your sentences. The writing session is now complete. At this point, please imagine with great specificity all the things you wrote about. For five minutes just think about your best possible self. Visualize your perfect future life in granular detail. Be very specific. I will keep track of time for you. Please, begin now with the visualization. (Set the timer for 5 minutes).

This is the end of the intervention. It is optional if you’d like to have a group or dyad debrief where participants share their experiences and how they feel regarding their positive emotions. Discussions can be workplace focused such as best possible career self or focusing on

a team project. You can also pre and post-test their positive and negative emotions with the PANAS scale: <https://ogg.osu.edu/media/documents/MB%20Stream/PANAS.pdf>

## **HOPE INTERVENTIONS**

### **HOPE INTERVENTION #1: 3 Step Hope Training**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Facilitator guided for a group and written exercise for self-guided

Cost: Free

Intervention Length: 90 minutes

The following training is based on the key findings from the meta-analyses and collection of individual studies based on hope. This specific training is based on the Peterson and Luthans (2003) study which found high correlations between hope, financial performance, employee retention and job satisfaction. The training can be done in person or online, in a group or alone. To increase efficacy and engagement it is suggested to conduct a group in-person workshop consisting of approximately 90 minutes in length. For individuals the method can be a written exercise handed into the manager upon completion.

The authors suggest a three-step training to increase state-like hope. Step 1 increases agency by employing techniques where managers participate and encourage participants to set and reach for stretch goals. Step 2 increases way power (the path and plan forward) by requiring plans that are well thought out including contingency plans. Step 3 encourages reaching larger goals by teaching the 'stepping' method which breaks down large, complex goals into bite size, attainable micro-goals. Re-goaling is also taught when persistence is futile. Incorporating case-studies, roleplays and experiential learning is also encouraged.

Below are specific suggested exercises for the three-step training:

#### Step 1: Increasing Agency

Managers will lead a breakout with their direct reports and ask them to set 1 professional goal for the next 1, 3 and 6 months. Group members can have the same goal and are encouraged to brainstorm together. Managers can offer suggestions. After goals are set ask participants to stretch the goal and make it a little more challenging but still attainable. (I.E. If you want to increase sales by 10% consider 15% as a stretch goal. Same goal but bigger). For an individual training Step 1-3 can be a written exercise that the participant hands into the manager when complete.

#### Step 2: Increasing Waypower

For each of the three goals listed in step 1 have participants brainstorm and write down three different methods and plans that could be used to achieve the goal. Choose your primary method as the one you will try first and then list two more backup plans that you like in case the first plan doesn't work.

#### Step 3: Stepping Method

For each of the 3 goals write down the micro-steps you will need to take to reach the goal. This is your step-by-plan to break down big goals into manageable bite-size pieces.

#### Optional items:

Managers can give case studies or personal experiences as examples when teaching each step to personalize the experience. There can also be role plays between managers and employees to illustrate the concepts as well. Re-goaling can also be taught. Plan out at what point you feel the goal is futile and unattainable. Then decide a new goal that will be initiated if Goal #1 is not achieved.

Suggested Debrief: At the conclusion of the session ask the participants to discuss how hopeful they feel about achieving the goals they established during the session. You can also request feedback on the session itself: Asking what went well and what could be done better next time can aid in customizing the exercise for the specific organization.

### **HOPE INTERVENTION #2: 90 Minute Visualization Hope Training**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Facilitator guided or self

Cost: Free

Intervention Length: 90 minutes

The following intervention is similar to intervention #1 with the addition of a visualization exercise. Use this intervention if you feel that participants would engage in the visualization portion.

Feldman et. al (2012) suggest the following 90-minute single session training. The agenda begins with:

1. Participants choose and write about a personal goal they want to achieve in the upcoming six months that is personally relevant to them.
2. Listen to a 20-minute educational lecture on the components of hope (definition, why clear and concrete goals are important, as well as intrinsic motivation and clearly defined pathways to reach the goals). Participants are encouraged to ask questions. For self-guided individuals can watch a pre-recorded video prepared by the organization.



3. Participants engage in a 20 minute hope-based goal mapping exercise (the following worksheet can be used:

<https://www.k12.wa.us/sites/default/files/public/ossi/k12supports/pubdocs/Hope%20Worksheet%20Instructions.pdf>

4. A 20-minute hope visualization exercise (ask participants to close their eyes and visualize every step from their mapping worksheet, face all the obstacles and resolve them successfully. Visualize the entire experience with all of their 5 senses and finally visualizing seeing themselves as accomplishing the goal as well as experiencing the positive emotions and confidence that occurs). For individual self-guided participants can watch an instruction video created by the organization.

This exercise investigated by Feldman et. al (2012) was conducted on a college student population and I suggest, based on their results, that it can be applied to the workplace population without modification. Feldman’s team discovered that compared to a control group the double-blind randomized participant pool displayed increased levels of life purpose, hope, and vocational calling post-test versus pre-test on a survey they completed before and after the intervention. After one month, participants also had greater progress on measures of progress on goals they chose for themselves. Hope did predict goal progress but did not stay when following up one month later. The authors suggest that a brief one-time intervention may not have as long and meaningful as a longer, deeper intervention. It is of note that a 90-minute session did have performance impact one month later. A link to the Feldman study can be found here: <https://doi.org/10.1007/s10902-011-9292-4>

## **SELF-EFFICACY POSITIVE INTERVENTIONS**

### **Positive Intervention #1: Self-Efficacy Management Best Practices**

In the course of reviewing this literature some investigators made note that not only are there positive intervention trainings that can increase self-efficacy but there are also ongoing best practices that managers can employ on a daily basis to create and maintain a workplace environment high in self-efficacy. Below are suggestions for what may be considered ongoing positive interventions in the form of how managers interact with employees.

Stajkovic & Luthans (1998), in the course of conducting their meta-analysis, observed the following eight manager behaviors which increased employee self-efficacy and performance.

These items can be viewed as a manager's toolkit:

1. Provide highly accurate descriptions of the task that needs to be performed to permit self-efficacy to be more accurately gauged.
2. Provide technical training to enhance successful outcomes.
3. Remove undesirable factors from the work environment that may inhibit a successful outcome.
4. Provide self-efficacy training to experience better performance.
5. Provide enhanced training in cognitive and behavioral strategies to handle complex tasks.
6. Time self-efficacy enhancing programs close to the task event itself.
7. Provide clear metrics to measure success.
8. Link personal consequences to the task to enhance seriousness and buy in.

Cherian & Jolly (2013) made five suggestions to increase the self-efficacy and motivation-to-perform link. They are as follows:

1. Give employees all necessary details of the tasks you want them to complete including precise definitions and explanations and any context that will assist them in approaching the task.
2. Explain any technical skills needed for a successful outcome and teach employees how to choose the optimal method to complete a complex task.
3. Keep the physical environment distraction free since that can create negative thinking, psychological stress and decrease team morale.
4. Provide trainings to achieve success when performing specific tasks.
5. Support employees by encouraging them to attempt challenging tasks through training programs.

### **Positive Intervention #2: 3 Things Exercise**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Facilitator or Self-guided

Cost: Free

Intervention Length: 30 minutes

**Source:** <https://positivepsychology.com/3-ways-build-self-efficacy/>

The following written exercise can be done alone and is self-guided. It can also be completed in a group with breakout discussions to solidify the practice. The three things exercise permits a daily tracking of activities along with the associated feelings.

Simply complete the following prompts:

1. Write about three things that you did in the last 7 days that went well.
2. Describe how each of the three things made you feel. Write an entry for each item.

3. What are three goals you want to achieve successfully in the upcoming weeks or months?
4. Describe how you would feel after each of these items is accomplished? Write an entry for each item.

This can be a one time or weekly exercise. Debriefing and sharing in a group can enhance the results.

### **Positive Intervention #3: Achievement Journal**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Facilitator or Self-guided

Cost: Free

Intervention Length: 10 minutes

**Source:** <https://positivepsychology.com/3-ways-build-self-efficacy/>

The following written exercise can be done alone and is self-guided. It can also be completed in a group with breakout discussions to solidify the practice. The achievement journal exercise permits long term tracking of achievements.

In a separate journal or a digital document spend 10 minutes writing about of all your previous successes and accomplishments. Write continuously for 10 minutes, including big and small accomplishments. The focus is to continue writing for the full 10 minutes. Review the document when you are feeling doubtful about your abilities. It is important to include even small achievements to continue to maintain perspective and prevent demeaning self-talk.

### **Self-Efficacy Positive Intervention #4 (Experimental): Goal Setting for Self-Efficacy with prompts**

Number of Participants: 1 or more

Format: Online or In-Person

Self or Guided: Facilitator or Self-guided

Cost: Free

Intervention Length: 10 to 60 minutes

This intervention can be done independently as a journal writing exercise, in person with a group or online. It can also be done in a group with breakouts for discussion. Sharing the exercises with others at meetings can also be used to get supportive feedback as well as to celebrate successes along the way. The prompts are designed to help participants brainstorm their own ideas. While the prompts have not been scientifically validated, they are based on the author's experience as a college instructor and as a certified executive coach.

The general concept of this intervention has two primary sources. The first is the Kirk, Schutte & Hine (2011) study on using an intervention of expressive writing for workers which increased self-efficacy. Kirk's team used the expressive writing method pioneered by Pennebaker & Beall (1986) which has been modified for a workplace application.

Participants can self-pace on how many questions they want to journal at any given time. It is advised that they only write when they are motivated and interested to do so.

1. Describe your personal goals for the workplace.

Suggested prompts to consider: Describe your ideal self professionally today, next year and 5 years from now. Look at your ideal self compared to your actual self. Can you see any of

those differences as goals? Which ones excite you and you'd be open to working towards? List out goals you're excited to work on.

2. Describe the obstacles you see in reaching your goals.

Suggested prompts to consider: What does your inner voice say to you when you think of these goals? What does the negative inner voice say? List out those obstacles. Rate the obstacles along the lines of 'true' or 'not true'. Which obstacles are insurmountable? Which ones can you get around? How will you get around them? Start to think about the steps you need to take to overcome the obstacle. What resources will you need? How long will it take? How motivated are you to overcome the obstacles?

3. How much influence do you have on your work environment?

Suggested prompts to consider: Think about where you do have autonomy. What can you do unsupervised? What allies do you have in the office who can help you get what you want? Who do you have influence over in the office? Who could you influence if you tried?

4. Create an action plan to achieve your goal.

Suggested prompts to consider: List out step-by-step what you need to do to achieve the goal.

5. Further develop the action plan

Suggested prompts to consider: Next to your step-by-step goal achievement list create 3 columns. In the next column list out the resources you'll need for each step. In the next column list the people who can help you. In the next column write out the minimum and maximum amount of time it will take to achieve the goal.

6. Organize support at work for achieving your goals

Suggested prompts to consider: Make a list of people who will help you achieve your goal. Then make a list of people whose help you need but whose support you don't yet have. Finally, make a list of people who you don't feel will support you. Reach out to the people who will help you and specifically tell them your idea and ask for their support. For the people whose support you need but don't have yet plan to speak with them and begin the conversation around your goals and explore their thoughts and interest.

7. Prepare yourself where you encounter challenges towards achieving your goal.

Suggested prompts to consider: What setbacks do you foresee reasonably coming your way? How will you get around them? When and if they do occur what do you want to say to yourself to keep yourself positive? Who can you plan to call for support in case you do get a setback? Prepare your support network plan of who you will talk to and what you'll do to get back on track.

8. Consider your own pitfalls that might inhibit your goal achievement.

Suggested prompts to consider: What do you think will get in your way? Think about specific items such as: you sleep in too long on the weekends, you procrastinate, drink too much, spent too much time on the internet, don't deal with negative items. Consider any behaviors you are willing to change to meet your goals.

9. Convince colleagues at work about your goals and enroll them in your action plan

Suggested prompts to consider: Create a plan with appointments on who you will talk to, when, and what you'll say. Make coffee and lunch dates. Consider the best way to engage each worker to convince them of your goals. What's the best time and setting for each one to get them on board?

10. Take action to achieve the goal

Suggested prompts to consider: Make an appointment with your supervisor to get them on board. Start to enact the action plan by taking solid steps. This could be registering and paying for a class, sending a resume to apply for a job. This is the action step. This is where you start doing. Enjoy it!

11. Deal with actual setbacks you encountered at work.

Suggested prompts to consider: If you have a setback ask yourself, “What role did I play in this?” Could this have been prevented? Could you have seen it ahead of time? What can you learn from this so it won’t happen again? What can you do now to deal with it?

12. Evaluate your progress

Suggested prompts to consider: How are you doing? How pleased are you? Are you on track with your timeline? How do you feel about the process? What successes have you had? Celebrate them!

13. Assess the progress you made, what else is there to do?

Suggested prompts to consider: Make a list of your accomplishments as well as the actions you’ve take to date. Make a list of what is left to do to achieve your goal.

14. Make plans for the future. What is next?

Suggested prompts to consider: Make a list of your next generation goals. What are they? Which ones excite you? Which ones are you intrinsically motivated to work on?

15. Create your plan of action to accomplish your future goals.

Suggested prompts to consider: Recall week 1 and describe your ideal self professionally today, next year and 5 years from now. Look at your ideal self compared to your actual self.



Can you see any of those differences as goals? Which ones excite you and you'd be open to working towards? List out goals you're excited to work on.

This intervention has great flexibility. An entire group workshop could be created with a facilitator using each prompt as a group discussion for brainstorming and motivation. Larger online groups can go into breakout rooms for more intimate discussions and a spokesperson returning to the main group for a debrief on highlights. This can also be easily collapsed down to an individual journal prompt exercise lasting weeks.

### **Resilience Positive Intervention #1: Free online 4-week Resilience Program**

Number of Participants: 1 or more

Format: Online

Self or Guided: Self-guided

Cost: Free

Intervention Length: 4 weeks

The Transforming Lives Through Resilience Education program is an evidence-based intervention that has shown moderate to large effect sizes with significance on increasing resilience (Steinhardt & Dolbier, 2008; Dolbier, 2010). The advantages of this intervention over others are primarily its efficacy and scalability by being available online, budget conscious (free of charge) and realistic in that it's only an 8-hour intervention.

The intervention can be accessed through the University of Texas at Austin website: <https://sites.edb.utexas.edu/resilienceeducation/>. The program was developed by Dr. Mary Steinhardt, EdD, LPC.

Transforming Lives Through Resilience Education consists of 4-online sessions lasting 2 hours per session. The 4 sections are: Transforming Stress Into Resilience, Taking Responsibility, Focusing on Empowering Interpretations, and Creating Meaningful Connections.

Session 1: Transforming Stress Into Resilience presents a resilience model based on work by O'Leary & Ickovics (1995) and Carver (1998) and presents information on common stress responses such as giving up (succumbing), putting up (diminished), bouncing up (resilience) and stepping up (thriving). Those who give up tend to succumb to the stressor and have feelings of defeat. Those who put up with the stressor struggle with it and can feel diminished. Those who bounce up and fully recover are called resilient. Those who step up to the challenge and develop into a higher functioning level before the stressor are considered to be thriving. There is also a discussion on 2 categories of coping: problem and emotion focused. There is encouragement to use the problem-focused strategies such as active coping, planning, positive reframing, and acceptance which permits participants to resolve stressors within their own realm of influence. There is encouragement to use emotion-focused coping strategies such as denial, behavioral disengagement, self-distraction and venting when feeling overwhelmed in the short run or the stressor is outside their realm of influence. In the long run problem-focused coping is associated with resilience and thriving. Emotion-focused coping is associated with succumbing and diminishing.

Session 2: Taking Responsibility is presented as a responsibility model where a line is shown between taking and not taking responsibility for one's actions. Taking responsibility is defined as claiming one's power and agency to choose and create which is shown above the line and focusses on situations within one's realm of influence. They discuss denying, blaming, making excuses and shaming at what is labeled as below-the-line responses which reduce a

person's realm of influence. Participants then engage in a 5-step exercise to assist them into moving above the line and taking responsibility for managing stressors. The session ends with a link to taking responsibility and self-esteem (Branden, 1994).

Session 3: Focusing on Empowering Interpretations consists of lecture on changing participants' disempowering interpretations into empowering ones with the ABCDE thinking model from Albert Ellis (Ellis, 2001). A represents the Activating event or stressor. B represents Belief in disempowering or negative thoughts about the activating event. C represents Consequences and is about how one feels and behaves in response to beliefs and thoughts. D represents Disputing the disempowering beliefs and creating empowering interpretations. D can also represent distracting or distancing temporarily from the situation. E represents the amount of energy one has in store to handle the activating event. In this module participants are made aware of their negative and disempowering interpretations of stressors and their links to below-the-line activity in the responsibility model. They are also shown positive and realistic empowering interpretations and those are linked to above-the-line behaviors in the responsibility model.

Session 4: Creating Meaningful Connections teaches enhancing participants' awareness of the link to connecting with or withdrawing from friends and loved ones and the impact that has on thinking, behavior, and health. There is evidence from research that health and well-being are directly correlated with how well they are connected with others and permit support during stressful and challenging times (Ornish, 1997). The lecture then proposes that participants who create meaningful connections with friends and loved one are more likely to think in empowering ways and move above the line by taking more responsibility in their lives. The last part of session 4 lectures on the concept of self-leadership based on the internal family

system model which considers individuals to be complex systems with multiple sub personalities (i.e., the achiever, the caretaker, the critic) (Schwartz, 2001). Self-leadership is the extent to which the system is operated by a core self, an active and compassionate inner leader with wisdom, perspective, and vision. Instead of a passive observer or witness, the self is considered to be the best teacher, coach, mentor or parent the participant has ever met. When the self is leading one experiences more of the following 9 characteristics: calm, clarity, curiosity, compassion, confidence, courage, creativity, connectedness, and contentment. This level of active self-leading creates a safe and nurturing environment and enables one to be more resilient and have more well-being as well as transform stressors into opportunities for enhanced resilience and thriving. Participants are further taught that experiencing self-leadership is essential for taking responsibility, focusing on empowering interpretations and creating meaningful connections with others.

### **Resilience Positive Intervention #2: Bibliotherapy Resilience Program**

Number of Participants: 1

Format: Printed Book or Digital

Self or Guided: Self-guided

Cost: \$7.99

Intervention Length: Self-paced

For employers that want to have a self-directed, low cost and evidence-based program to increase workplace resilience “SMART with Dr. Sood” is recommended. The book is 228 pages

long, available on amazon in print or digital format:

[https://www.amazon.com/dp/B07RG64GDP/ref=docs-os-doi\\_0](https://www.amazon.com/dp/B07RG64GDP/ref=docs-os-doi_0)

SMART (Stress Management And Resiliency Training) is designed to be simple, fun and engaging with approaches to handle modern day stress and resiliency challenges. The author has 3 decades of experience in the field and the approach has been tested in over 20 clinical trials, some of which were explained in detail earlier in this paper. Over 500,000 people have taken the program. Dr. Sood is the Executive Director of the Global Center for Resiliency and Wellbeing and The GRIT Institute.

The program consists of four modules: Gratitude, Mindful Presence, Kindness, and Resilient Mindset. Within each module there are three content areas: Awareness, Attention, and Attitude.

Module 1: Gratitude contains four learning points and one positive intervention. The positive intervention is to think about five people in your life who are meaningful to you, and you send them silent well wishes of gratitude. The first learning point is the seesawing brain which explains that our brain toggles between being focused and intentional or automatic default. Automatic default is dominant since it's easier but keeps us unfocused, fatigued, fearful and stressed which leads to negative health outcomes. The second learning point is to take charge of your brain to prevent mind wandering and maintain focus. The third learning point is gratitude in the small and mundane to appreciate how wonderful life really is. The fourth learning point is  $1 + 1 = 11$  which encourages participants to take the course with a partner.

Module 2: Mindful Presence has two learning points and one positive intervention. The intervention is to give two minutes per day of undivided attention to one person who deserves it but isn't getting it. The first learning point is that mindful presence is an intentional presence.

The author encourages being intentional about what you focus on to increase flexibility on your perspectives. To alleviate an upcoming stressful event in two weeks you can focus on shorter term items like just what needs to be done in the next hour. The second learning point focusses on two sources of resilience and joy: Novelty and Meaning. The author suggests reframing everyday events as more novel and meaningful to reduce boredom.

Module 3: Kindness has four learning points and one positive intervention. The positive intervention is to send a silent good wish to as many people as you can during the day. The first learning point is that kindness isn't a choice. The body needs uplifting emotions and without kindness anger, hatred and envy can dominate our thoughts. The second learning point is that kindness has many flavors and can be expressed towards other humans, animals, in words or actions. The third learning point is to drop one unhealthy habit. The author suggests dropping either prolonged sitting, habitual multi-tasking, or daily excessive news. He further suggests picking the one you struggle with the most. The fourth learning point is to develop a personal practice to clear the brain. The author suggests making this a daily practice.

Module 4: Resilient Mindset has four learning points and one positive intervention. The positive intervention is to align your day with at least one of the following principles: gratitude, compassion, acceptance, meaning and/or forgiveness. The first learning point is that the brain is designed to have conflicting thoughts and it is ok to accept the conflict. The second learning point is to practice using the principles of gratitude, compassion, acceptance, meaning and/or forgiveness to redirect our thinking into more productive and healthy avenues. The third learning point is to make one positive change in your diet, exercise and sleep. The fourth learning point is, whenever possible, to live your day feeling inspired. Small, spontaneous inspirations can be the most profound.

### **Resilience Positive Intervention #3: Mayo Clinic Bibliotherapy Resilience Program**

Number of Participants: 1

Format: Printed Book or Digital

Self or Guided: Self-guided

Cost: \$19.99

Intervention Length: Self-paced

This intervention is based on the evidence-based success of the study utilizing the “Train Your Brain Engage Your Heart Transform Your Life”. Participants in the study read the 443-page book including 3 handouts summarizing the program with positive, significant results on enhancing resilience and overall well-being. Since publication of this book it has been upgraded and renamed to: [https://www.amazon.com/Mayo-Clinic-Guide-Stress-Free-Living/dp/B01J2BMZD2/ref=tmm\\_aud\\_swatch\\_0?encoding=UTF8&qid=1371834550&sr=8-3](https://www.amazon.com/Mayo-Clinic-Guide-Stress-Free-Living/dp/B01J2BMZD2/ref=tmm_aud_swatch_0?encoding=UTF8&qid=1371834550&sr=8-3)

The upgraded book is 427 pages and has the same core content from Dr. Amit Sood. Content is based on the Mayo Clinic stress management program and the most recent brain research. Studies have shown efficacy in improving resiliency, stress, anxiety, quality of life and mindful attention. The brevity and self-direction of the program can be attractive to employers from a cost and scalability perspective.

Research from other studies and meta-analyses have shown efficacy in treating stress (Jeffcoat & Hayes, 2012; Reeves, 2010), anxiety (Haug et al., 2012; Cuijpers et al., 2011; Jeffcoat & Hayes, 2012; Reeves, 2010), well-being (Reeves, 2010) and depression (Haug et al., 2012; Cuijpers et al., 2011).

The course is divided into ten modules: The Brain, Attention Training, Refining Interpretations, Gratitude, Compassion, Acceptance, Higher Meaning, Forgiveness, Tribe and Relaxation and Reflection.

Module 1: The Brain discusses why the brain wanders with techniques to focus and there is lecture based on habits, emotions and attention.

Module 2: Attention Training focusses on paying attention to joyful items, finding novelty in relationships, the impact of technology, ways to amplify novelty, spending more time in nature, and increasing gratitude and kindness.

Module 3: Refining Interpretations lectures on preferences, prejudices, and principles. Acceptance and forgiveness are discussed as well as compassion and perfectionism.

Module 4: Gratitude discusses freedom from desires and its link to happiness, generosity and healing. The negative consequences of ingratitude are discussed as well as gratitude practices on can practice.

Module 5: Compassion discusses the role it has played in evolution and its link to well-being, love, spirituality and health. Compassion practices are considered.

Module 6: Acceptance discusses obsession and apathy as well as ways to practice acceptance. The benefits of acceptance of people and situations are discussed.

Module 7: Higher Meaning lectures on who you are, why you exist, and what is this world? There is discussion on the three domains of belonging, working and understanding spirituality. The health implications of leading a meaningful life are discussed.

Module 8: Forgiveness discusses when to and when not to forgive, the revenge instinct and why forgiveness matters. The health impacts of anger are discussed as well as different methods to forgive.



Module 9: The Tribe discusses your family and community and the value of listening and sharing. Healthy arguing techniques are discussed.

Module 10: Relaxation and Reflection discusses the benefits of relaxation, prayer and meditation.

As a low cost and scalable and effective solution available in print or Digital or audio format it is an intervention worth serious consideration.

### **Optimism Positive Interventions**

#### **Optimism Positive Intervention #1: Best Possible Self**

Number of Participants: 1 or more

Format: Online or in person

Self or Guided: Self-guided or Facilitator

Cost: Free

Intervention Length: Under 60 minutes

The Best Possible Self Intervention can be self-guided or completed in a group, in-person or online. A trainer/facilitator can be used but can be completed alone by following the directions. Data shows that face-to-face in a group with a facilitator may garner slightly better results. This is a no-cost intervention to increase optimism.

The Best Possible Self Intervention is based on the 2006 study by Sheldon and Lyubormirsky on how to increase positive emotions (Sheldon & Lyubormirsky, 2006). The intervention takes place in 3 steps: contemplation, writing and visualization. Below is a script that can be read aloud or read by participants:

Step 1: “Welcome! You have been selected to think about your best possible self now and during the next few moments. Thinking about your best possible self means that you imagine yourself in the future and everything has gone as well as it possibly could. You have worked hard and succeeded at accomplishing all of your life goals. Think of this as the realization of your life dreams, and of your own best potential. In all of these cases you are identifying the best possible way that things might turn out in your life, in order to help guide your decisions now. You may not have thought about yourself in this way before, but research suggests that doing so can have a strong positive effect on your mood and life satisfaction. So, we’d like to ask you to continue thinking in this way over the next few moments following up with a writing exercise that you’re about to do. Your job now is to think about your best possible self for the next 60 seconds. Please, start thinking about your best possible self now. I will tell you when it is time to start writing down your thoughts after 60 seconds. Please begin.

(After 1 minute) Step 2: “OK! Please give me your attention and start to write about your best possible self in your life for 15 minutes. The only rule we have about writing is that you write continuously for the entire time. If you run out of things to say just repeat what you have already written. Don’t worry about grammar, spelling, or sentence structure. Don’t worry about erasing or crossing things out. Just write. The things you write are only for yourself and do not have to be handed in afterwards. I will tell you when it is time to stop writing. Please start writing now for the next 15 minutes.

(After 15 minutes) Step 3: “OK! Please, finish your sentences. The time for writing is over. Now, I invite you to imagine as vividly as possible the things you have been writing about.

Think about your best possible self in your life for 5 minutes. Imagine your ideal future life with as much detail as you can. I will tell you when it is time to stop. Please, start thinking.

This is the end of the exercise. Participants in a group setting in-person or online may debrief and share their feelings and experiences about the exercise. It's okay to share what they wrote if they want, and it's encouraged to have them talk about how impactful they feel the exercise is to their mood and optimism. Self-directed individuals who did the exercise alone do not need to debrief. Typically, the exercise takes under one hour to complete.

### **Optimism Positive Intervention #2: Online Optimism Intervention**

Number of Participants: 1 or more

Format: Online or in-person

Self or Guided: Self-guided or facilitator

Cost: Free

Intervention Length: 3 weeks

This online optimism intervention can be done alone, in an online group or in person. The intervention is the Sergeant & Mongrain (2014) study discussed previously. Evidence suggests improvement in optimism and psychological well-being especially for pessimistic participants.

This intervention has two optimism training components. The first is a cognitive bias toward recall of positive experiences and the second is tending to view goals as worthwhile and achievable. The intervention last three weeks.

Day 1: In a physical or digital journal list five things that make you feel like life is pleasurable, enriching or worthwhile. Now list three things that can help you see the bright side of a difficult situation.

Day 3: Briefly describe a goal you would like to achieve in the next day or two. Describe in detail the steps you would like to take to meet the goal.

On even days (Days 4,6,8...20) engage in the things you feel make life pleasurable from the Day 1, 5, 9, 13, 17 writings as well as complete the tasks and goals you described on Day 3, 7, 11, 15, and 19 writings.

Days 5, 9, 13, 17 repeat the Day 1 exercise

Days 7, 11, 15, 19 repeat the Day 3 Exercise

After the intervention you can debrief with the participants on their levels of optimism pre and post intervention as well as any other changes they have noticed in their lives.

### **Psychological Capital Positive Interventions**

To implement a PsyCap Intervention in your organization I suggest using the HERO Model and choosing at least 1 intervention from each category (Hope, Efficacy, Resilience and Optimism). The criteria for choosing an intervention should be based on the interventions you feel your participants will engage with the most. While the interventions described all are evidence-based results will be better with engaged participants.

Also, most of the studies reviewed did not disclose the specific training interventions utilized. Luthans and Youssef-Morgan (2017) did discuss the components to consider when creating a PsyCap training program. Their suggestions are detailed below:

Follow the HERO Model Framework. For the hope component use a design based on goals and pathways with implementation scenarios and planning for obstacles. For the self-efficacy section, create an experience of success as well as modeling relevant role models. Teach persuasion, positive feedback, and arousal. For the resilience component teach the identification and building of assets and how to avoid risks. For the optimism component teach how to interpret and label events as positive, glass half full as well as developing the expectation for positive outcomes.

To sustain the benefits reinforcement can be conducted with periodic online or face-to-face coaching. Also consider inspirational videos such as TED talks, sports, music, video/smartphone games, and apps such as 'SuperBetter' which use interactive gamification for tracking achievements, social networking, and challenges.

The following specific outcomes under the PsyCap umbrella can be targeted: higher performance at work and more job satisfaction, more happiness, greater commitment to well-being, more engagement and mindfulness, increased innovation, creativity, relationship satisfaction, hardiness, and health satisfaction, as well as better problem solving and greater well-being. Targets can also look at reducing anxiety, stress, burnout, depression, substance abuse, negative affect, turnover intent, cynicism, work/family conflict and lower body/mass index.