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Evaluating Positive Organizational Psychology Interventions

Stewart I. Donaldson, Scott I. Donaldson, & Christoper Chen

> *If you can't measure it, you can't improve it.*
>
> – Peter F. Drucker

The first author's former professor, colleague, and neighbor, Peter F. Drucker, known as the father of modern management, strongly advocated and imprinted on his students the importance of reliable and valid measurement. He insisted that we cannot manage or manage the process of change unless we can measure it well. Positive organizational psychology interventions (POPIs) aim to generate positive and meaningful changes in the lives of workers and their organizations. In Chapter 1, we described the findings from POPI studies using the most rigorous measurement and research designs to date, which uncovered five successful intervention types:

- Psychological capital interventions
- Job-crafting interventions
- Employee strengths interventions
- Employee gratitude interventions
- Employee well-being interventions

Donaldson et al. (2019a, 2019b) provided the specific action and change models for each type of POPI, and described in detail the positive effects of each type of intervention.

The authors in this volume have used some of the most promising positive psychological science theories, principles, concepts, and empirical research findings to guide the design of the next generation of POPIs. These newer interventions are based on the science supporting flow theory, best-self interventions, job crafting, social determination theory, strengths enhancement, appreciative inquiry, and the like. We explain in this chapter the importance of rigorous measurement and strategic evaluation of these proposed POPIs as the key to achieving lasting success.

Measurement of Positive Psychology Constructs

Ackerman et al. (2018) reviewed almost two decades of published research associated with positive psychology through the lens of its measurement. This effort was done to review how constructs in positive psychology have been operationalized, measured, validated, cited, and used to build the science. Their findings revealed that a wide range of constructs have been studied in research linked to positive psychology, including inherently positive constructs (such as well-being and happiness) as well as those with pathological undertones (such as depression and anxiety). Well-being was one of the most cited constructs, with 39 scales measuring some form of well-being, although pathology-focused scales have also been utilized extensively (see Table 10.1).

It was also found that positive psychological science to date has predominantly used self-report measurement scales – 78% of empirical articles used some type of self-report measurement scale, with 68% using *only* self-report measurements. This includes approximately 1,279 established self-report scales along with 310 scales that were newly created or adapted from existing scales. All these scales were examined in terms of domain, constructs, positive scales, adapted or created scales, scale validation, and operationalization of popular constructs. In short, only a total of 38 scales reviewed were also further validated in later studies. However, the list of the most highly cited measurement scales in positive psychological science to date provides POPI evaluators and researchers a wide range of measurement options (see Table 10.2).

One of the most important aspects of designing a strong strategic evaluation of a POPI is finding or developing valid measures of the main constructs of interest. This can be accomplished by carefully reviewing relevant and appropriate measures that have been validated in previous empirical research (see Ackerman et al., 2018; Donaldson, 2019; Donaldson & Donaldson, under review), or by developing and validating new measures that are specifically relevant to the constructs you are attempting to influence with your POPI. Donaldson and Grant-Vallone (2002) provided specific guidance about ways of using self-report measures in the workplace that minimize the problems of self-report and mono-method bias. Donaldson et al. (in press) illustrated the importance of using collateral reports whenever possible in positive organizational psychology and POPI research and evaluation.

POPI Efficacy Evaluation or Effectiveness Evaluation?

An important distinction to make in the evaluation of POPIs is whether the purpose of the evaluation is to determine POPI efficacy or POPI effectiveness. In short, POPI efficacy evaluation typically determines whether the intervention works under controlled research conditions. Efficacy evaluations often use randomized control trials (RCTs) or quasi-experimental designs to determine if the participants in a POPI are better off on key outcomes than those in a comparison or control group. In a recent analysis of the published peer-reviewed positive psychology intervention (PPI) and POPI literature, it was found that we can now

Table 10.1 Most Cited Constructs in Positive Psychological Science.

Construct	Sub-Construct (if any)	Number of Scales	Representative Scales
Well-being	General well-being	39	SPWB (Ryff, 1989)
happiness/subjective well-being		36	AHI (Seligman et al., 2005)
life satisfaction		13	SWLS (Diener et al., 1985)
Total		88	–
Emotions and mood	General emotions/all emotions	31	FEQ (Fordyce, 1988)
Mood		12	POMS (McNair et al., 1971)
Specifically positive emotions		5	DPES (Shiota et al., 2006)
Total		12	–
Personality	Non-big five	28	Eysenck I6 Junior Questionnaire (Eysenck & Eysenck, 1975)
Big five		15	BFI/BFI-44 (John et al., 1991)
Total		43	–
Self-esteem and self-efficacy	Self-esteem	17	RSE (Rosenberg, 1965)
Self-efficacy		14	GSES (Sherer et al., 1982)
Total		31	–
Spirituality, religiosity, and faith	Spirituality	18	BMMRS (Fetzer Institute & National Institute on Aging Working Group, 1999)
Religiosity and faith		11	RCI-10 (Worthington et al., 2003)
Total		29	–
Physical/general health		28	SF-8 (Ware et al., 2001)
Depression		36	CES-D (Radloff, 1977)
Anxiety		26	DASS (Lovibond & Lovibond, 1995)
Stress (not including posttraumatic stress)		24	PSS (Cohen et al., 1983)
Affect		23	PANAS (Watson et al., 1988)
Posttraumatic stress/posttraumatic growth		23	PTGI (Tedeschi & Calhoun, 1996)

(Continued)

Table 10.1 *(Cont'd)*

Construct	Sub-Construct (if any)	Number of Scales	Representative Scales
Meaning/purpose		22	MLQ (Steger et al., 2006)
Strengths		22	VIA-IS (Peterson et al., 2005)
Relationships		21	ECR (Brennan et al., 1998)

Source: Ackerman et al. (2018).

learn from more than 220 RCTs and 22 meta-analyses based largely on RCTs of PPIs and POPIs (Donaldson et al., 2020a). One of these meta-analyses carefully analyzed the strongest efficacy evaluations of POPIs to date and found that POPIs can have very important positive effects on constructs such as well-being, engagement, leader–member exchange, organization-based self-esteem, workplace trust, forgiveness, prosocial behavior, leadership, job stress, and calling (Donaldson et al., 2019a).

The continued development of strong evidence-based research on the efficacy of POPIs is a very important activity for the field. POPIs that do not turn out to be efficacious under highly controlled conditions should be abandoned, or at least revised and tested again to make sure they are successful before being implemented more widely in organizations and the society at large. That is, a newly designed POPI should first be able to pass the tests of efficacy evaluation before it is given to actual employees and their leaders in the diverse global workplace. However, it is important to point out that while a successful efficacy evaluation is helpful, it does not provide sufficient evidence to truly determine if the POPI is or will be effective under uncontrolled "real-world" conditions.

POPI Effectiveness Evaluation

Positive organizational psychology practitioners, including many of the chapter authors in this volume, use basic research on positive organizational psychology topics and POPI efficacy evaluations to guide the design of new or "next-generation" POPIs. But, how do we know whether or not these new POPIs will actually work in organizations, and how do we make them as effective as possible overtime? Effectiveness evaluations of POPIs are critical to ensure "real-world" success. That is, evaluating programs being implemented for clients, service recipients, or consumers in "real-world" work-related settings and organizations is the domain of POPI effectiveness evaluation (Donaldson, 2007; Donaldson et al., 2020b). Stated another way, does the POPI of interest actually make a difference in society? As pointed out above, it could be argued that all POPIs should be subjected first to efficacy evaluation, and if successful, subsequently implemented in the field and be subjected to effectiveness evaluation. However, this ideal is not always realized in practice, and POPIs will often bypass efficacy

Table 10.2 Most Cited Positive Psychology Measurement Scales.

Measure	Development	Dataset Citations	Google Scholar Citations	Construct	Source of Development
Satisfaction with Life Scale (SWLS)	Diener et al. (1985)	210	20,766	Well-being	*Journal of Personality Assessment*
Positive and Negative Affect Schedule (PANAS)	Watson et al. (1988)	150	30,091	Positive and negative affect	*Journal of Personality and Social Psychology*
Life Orientation Test-Revised (LOT-R)	Scheier et al. (1994)	69	5,775	Optimism	*Journal of Personality and Social Psychology*
Rosenberg Self-Esteem Scale (SES)	Rosenberg (1965)	51	34,716	Self-esteem	(Book)
Psychological Well-Being Scale (PWBS)	Ryff (1989)	50	10,525	Well-being	*Journal of Personality and Social Psychology*
Hope Scale/Adult Dispositional Hope Scale (ADHS)	Snyder et al. (2003)	46	3,507	Hope	*Journal of Personality and Social Psychology*
Values in Action Inventory of Strengths (VIA-IS)	Peterson & Seligman (2004); Park & Peterson (2009)	45	7,186	Character Strengths	N/A
Gratitude Questionnaire-6 (GQ-6)	McCullough et al. (2002)	42	2,189	Gratitude, grateful disposition	*Journal of Personality and Social Psychology*
Subjective Happiness Scale (SHS)	Lyubomirsky & Lepper (1999)	39	2,643	Happiness	*Social Indicators Research*
Meaning in Life Questionnaire (MLQ)	Steger et al. (2006)	32	2,207	Meaning	*Journal of Counseling Psychology*

Source: Ackerman et al. (2018).

evaluation while being developed, implemented, and evaluated in the field. In fact, one might imagine that due to a variety of factors related to urgency, time, resources, and feasibility, the bulk of next-generation POPIs will be evaluated in practice (versus under controlled research conditions) using various effectiveness evaluation techniques and approaches.

Types of Effectiveness Evaluation to Consider

The great news for positive organizational psychology practitioners is there are now a wide range of approaches that can be used to measure, monitor, and evaluate the effectiveness of your practice (Donaldson, 2007). In an effort to advance progress in the practice of positive psychology, we strongly encourage practitioners to use some form of measurement and effectiveness evaluation to guide and improve their work. Under great time and resource constraints, this may be limited to some minimal collection of feedback from those participating in the various aspects of your POPIs, which is much better than doing nothing (unfortunately, doing nothing is rumored to be common practice today). With a bit more time and resources, consider at least building internal effectiveness evaluation into the design of your projects and POPIs. Perhaps better yet, consider partnering with those who specialize in effectiveness evaluation to make your applications and POPIs as effective as possible under "real-world" conditions.

For example, consider using a participatory approach to effectiveness evaluation that engages all relevant POPI stakeholders in a developmental (Patton, 2010) or formative evaluation process (Donaldson, 2007). Developmental evaluation is often most useful when you are developing a new POPI under complex and uncertain workplace or organizational conditions. Formative evaluation is often most useful when you begin implementing your POPI to make sure it is feasible, appropriate, and acceptable before it is fully implemented. Donaldson (2007) provides both a three- (Table 10.3) and expanded six-step (Figure 10.1) participatory evaluation framework (based on the CDC Framework; National Center for Chronic Disease Prevention and Health Promotion, 2020) that can be used to help you answer formative evaluation, process/implementation evaluation, outcome/effectiveness evaluation, and impact evaluation questions.

One potential positive side effect of using these participatory effectiveness evaluation frameworks is that they often facilitate the development of evaluative thinking. That is, they encourage participants to be reflective and think deeply about how to continually improve their work and the POPI you are implementing. They can also help build greater internal evaluation capacity within the organizations you are developing with your POPI. Donaldson (2007) expands upon these frameworks to show how you can make your effectiveness evaluation efforts culturally responsive and strengths (versus deficit) focused. Integrating more effectiveness evaluation into the practice of positive psychology and PPI work in general, and specifically into the practice of positive organizational psychology and POPI work, may be one of the most important new directions to further develop the field.

Tailoring POPIs to Needs

Another crucial new direction for the design and evaluation of POPIs is systematic needs assessment and tailoring. We now know from a wealth of data collected as part of POPI efficacy evaluations that POPIs tailored to the specific needs of workers and organizations are likely to be more effective in practice

**Table 10.3** Donaldson Three-Step Participatory Effectiveness Evaluation Framework.

1. Engage stakeholders in developing logic models and theories of change.

2. Formulate and prioritize evaluation questions.

3. Answer evaluation questions.

Source: Donaldson, 2007, forthcoming.

(see Donaldson et al., 2019b). The development and validation of the Positive Functioning at Work Scale is a recent attempt to provide a needs assessment instrument that can be used broadly to determine which POPI components best address employee and organizational needs. The scale builds upon and extends the PERMA profiler, and assesses nine building blocks of well-being and positive functioning:

1. Positive emotions – experiencing happiness, joy, love, gratitude, etc.
2. Engagement – absorption; experiencing flow
3. Relationships – connecting with others; loving and being loved
4. Meaning – connecting to meaning; finding your purpose
5. Accomplishment – pursuing and accomplishing goals; striving for greatness
6. Physical health – biological, functional, and psychological health assets
7. Mindset – future orientation, growth mindset, and perseverance
8. Environment – spatiotemporal elements, such as access to natural light, nature, physiological safety
9. Economic security – the perception of financial security

The results from a needs assessment like the Positive Functioning at Work Scale can help guide the design of POPIs so that they can better focus on addressing the most pressing employee and organizational needs.
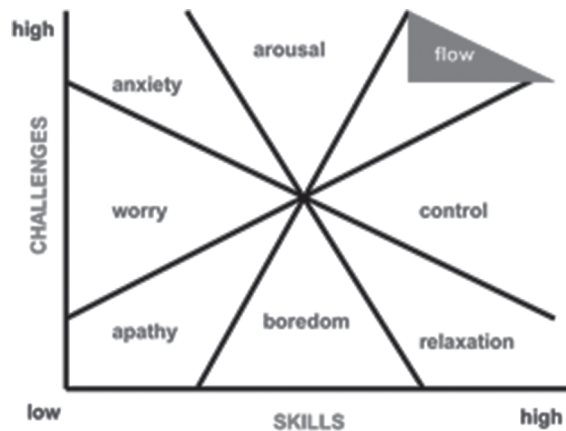
Figure 10.1 CDC Six-Step Participatory Effectiveness Evaluation Framework.
Source: CDC (2020).

Conclusion

One purpose of this final chapter is to highlight and underscore how important measurement and evaluation are to the future development of positive organizational psychology practice. It is our hope that practitioners will utilize and build upon these instruments that have been developed and validated to measure positive psychology constructs. Valid measurement is fundamental to our ability to determine employee and organizational needs, and design POPIs that address those needs, POPI efficacy evaluation, and POPI effectiveness evaluation. Sound evaluation is essential for the further development of our field and for making "next-generation" POPIs as effective as possible. We hope you end this book as excited as we are about the future of positive organizational psychology, and its potential to enhance well-being, optimal functioning, and the effectiveness of diverse workers, leaders, and organizations across the globe.

References

Ackerman, C. E., Warren, M. A., & Donaldson, S. I. (2018). Scaling the heights of positive psychology: A systematic review of measurement scales. *International Journal of Wellbeing*, *8*(2), 1–21.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York, NY: The Guilford Press.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*(4), 385–396.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*, 71–75.

Donaldson, S. I. (2007). *Program theory-driven evaluation science: Strategies and applications*. New York, NY: Routledge Academic.

Donaldson, S. I. (2019). *Evaluating positive functioning and performance: A positive work and organizations approach.* (Doctoral dissertation.) Retrieved from PQDT-Global.

Donaldson, S. I., Cabrera, V., & Gaffaney, J. (2020a). *Following the positive psychology intervention science to generate well-being for all: Encouraging diversity, equity, and inclusion especially during a global pandemic.*

Donaldson, S. I., Donaldson, S. I., & Ko, I. (2020b). Advances in the science of positive work and organizations. In S. I. Donaldson, M. Csikszentmihalyi, & J. Nakamura (Eds.), *Positive psychological science: Improving everyday life, health and well-being, work, education, and society* (2nd ed.). New York, NY: Routledge Academic.

Donaldson, S. I., & Donaldson, S. I. (under review). *The Positive Functioning at Work Scale: Psychometric assessment, validation, and measurement invariance.* Manuscript submitted for publication.

Donaldson, S. I., & Grant-Vallone, E. J. (2002). Understanding self-report bias in organizational behavior research. *Journal of Business and Psychology*, *17*(2), 245–262.

Donaldson, S. I., Heshmati, S., & Donaldson, S. I. (in press). A global perspective on well-being and positive psychological science: Systematic reviews and meta-analyses. In A. Kostic (Ed.), *Positive psychology: An international perspective*. London: Wiley.

Donaldson, S. I., Lee, J. Y., & Donaldson, S. I. (2019a). Evaluating positive psychology interventions at work: A systematic review and meta-analysis. *International Journal of Applied Positive Psychology*, *4*, 113–134.

Donaldson, S. I., Lee, J. Y., & Donaldson, S. I. (2019b). The effectiveness of positive psychology interventions in the workplace: A theory-driven evaluation approach. In V. Z. Llewellyn & S. Rothmann (Eds.), *Theoretical approaches to multi-cultural positive psychology interventions* (pp. 115–159). Cham, Switzerland: Springer International.

Eysenck, H. J., & Eysenck, S. B. G. (1975). *The Eysenck Personality Questionnaire*. London: Hodder & Stoughton.

Fetzer Institute. (1999). *Multidimensional measurement of religiousness/spirituality for use in health research*. Retrieved from https://fetzer.org/resources/multidimensional-measurement-religiousnessspirituality-use-health-research

Fordyce, W. E. (1988). Pain and suffering: A reappraisal. *American Psychologist*, *43*(4), 276–283.

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory – Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, *33*(3), 335–343.

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, *46*(2), 137–155.

McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality & Social Psychology*, *82*(1), 112–127.

McNair, D. M., Lorr, M., & Droppleman, L. F. (1971). *Manual for the profile of mood states*. San Diego, CA: Educational and Industrial Testing Services.

National Center for Chronic Disease Prevention and Health Promotion. (2020). Retrieved from https://www.cdc.gov/obesity/downloads/cdc-evaluation-workbook-508.pdf

Park, N., & Peterson, C. (2009). Character strengths: Research and practice. *Journal of College and Character*, *10*(4), 1–10.

Patton, M. Q. (2010). *Developmental evaluation. Applying complexity concepts to enhance innovation and use*. New York, NY: Guilford Press.

Peterson, C., Park, N., & Seligman, M. E. P. (2005). Orientations to happiness and life satisfaction: The full life vs. the empty life. *Journal of Happiness Studies*, *6*(1), 25–41. doi:10.1007/s10902-004-1278-z

Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. American Psychological Association; New York, NY: Oxford University Press.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*(3), 385–401.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology*, *67*(6), 1063–1078.

Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *The American Psychologist*, *60*(5), 410–421.

Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports*, *51*(2), 663–671.

Shiota, M. N., Keltner, D., & John, O. P. (2006). Positive emotion dispositions differentially associated with big five personality and attachment style. *The Journal of Positive Psychology*, *1*(2), 61–71.

Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, *18*(2), 122–139.

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, *53*(1), 80–93.

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, *9*(3), 455–472.

Ware, J., Kosinski, M., Dewey, J., & Gandek, B. (2001). *How to score and interpret single-item health status measures: A manual for users of the SF-8 Health Survey*. Boston, MA: QualyMetric.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*(6), 1063–1070.

Worthington, E. L., Jr., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., … O'Conner, L. (2003). The Religious Commitment Inventory-10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology*, *50*, 84–96.