“I believe the development of an adequate global leadership is essential to world peace because our quality of life is dependant upon the quality of our leadership. Sufficient leadership talents exist on earth for all people to have productive and harmonious living. Our task is to find those talents and develop them.”

-Dr. Donald O. Clifton-

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Researchers at the Gallup Leadership Institute are interested in the role that positive psychological capacities
play in authentic leadership and human resource development/performance. We call these positive capacities
“Psychological Capital” or simply PsyCap because they represent individual (and team) resources that can be
invested in and developed for increased performance. Over the past three years, we have developed the
theoretical understanding and reliable and valid measurement for PsyCap, as well as initial intervention
strategies to enhance the level of PsyCap impact on performance/ work-related attitudes.

Drawn from positive psychology, we define PsyCap as “An individual’s positive psychological state of
development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary
effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in
the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to
succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond
(resiliency) to attain success” (see Luthans, Youssef, & Avolio, Psychological Capital, Oxford, UK: Oxford
University Press, 2007).

In this briefing, we summarize two main studies that empirically examined PsyCap across varied samples.
Results indicated that PsyCap can be reliably and validly measured, as well as be developed using relatively short
two-hour micro-interventions, which had a positive impact on performance and satisfaction. Utility analysis
of these results indicated a substantial return on development (ROD) can be gained from the investment in and
development of PsyCap.

Purpose of the Studies

The two studies outlined here are part of a comprehensive research program that is aimed at measuring and
developing PsyCap and assessing its impact on performance and work related positive attitudes. Study 1
summarized here had two main purposes. The first was to develop a PsyCap measure that can reliably and
validly determine the level of PsyCap of participants. Existing standardized measures of each PsyCap
component (hope, efficacy, resiliency, and optimism) were adapted to obtain an overall PsyCap measure. The
second purpose was to determine the relationship between measured PsyCap and desirable outcomes such as
performance and job satisfaction.

The second study was aimed at developing and validating a repeatable, highly focused training intervention (a
micro-intervention) that can enhance the PsyCap levels of participants. Using a rigorous experimental design
in this second study contributes to making causal conclusions about not only being able to develop PsyCap, but
also its impact on performance.
Procedures

Study One

This study consisted of four heterogeneous samples. These samples included two separate samples of management students (N = 167; N = 404) as well as full-time employee samples from both high-tech manufacturing (N = 115) and service (N = 144) organizations. Participants either completed an online or hard copy form of an assessment survey designed to determine relationships between PsyCap and other study variables. Procedural and statistical controls were implemented to help support and validate the results found. The procedures used in this study were aimed at supporting the reliability and validity of our proposed PsyCap measure and assessing the relationship between PsyCap and performance and job satisfaction. Figure 1 contains sample items from the Psychological Capital Questionnaire (PCQ-24).

Figure 1
Sample Items from the PsyCap Questionnaire (PCQ)-24

Below are statements about you with which you may agree or disagree. Using the following scales, indicate your level of agreement or disagreement.

(1 = Strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree)

1. I feel confident helping to set targets/goals in my work area.
2. I feel confident presenting information to a group of colleagues.
3. There are lots of ways around any problem.
4. I can think of many ways to reach my current work goals.
5. When I have a setback at work, I have trouble recovering from it and moving on. (Reverse)
6. I usually take stressful things at work in stride.
7. When things are uncertain for me at work I usually expect the best.
8. I’m optimistic about what will happen to me in the future as it pertains to work.

Results of Study 1

In Study 1, the analysis of the PCQ-24 measure indicated both high reliability and support for its validity or accuracy of measurement. What this means is that the items in each of the PsyCap scales consistently tapped into each of the capacities as intended. Moreover, the PsyCap scales positively correlated with other scales and performance outcomes in the predicted direction.

Second, there was strong support for a core construct of overall PsyCap (combining the four component scales) in relation to performance and job satisfaction. In addition, the PsyCap of participants in both the manufacturing and service firms accounted for a greater share of performance and satisfaction than did recognized human capital variables such as age, education, and experience.
Study Two

This follow-up study consisted of samples of (1) management students, (2) a cross-section of managers from a variety of organizations, and (3) engineering managers from a large, high-tech firm. These individuals participated in the micro-intervention outlined in Figure 2 with the content summarized in Figure 3. The participants’ level of PsyCap was measured before and after this intervention and in Samples 2 and 3 their performance was also determined pre- and post-intervention.

Figure 2
Psychological Capital Intervention (PCI)

Note: The PCI is intended to affect each state as well as the overall level of PsyCap for performance impact.
Figure 3
Summary of 2-Hour PsyCap Intervention

Hope Development
The hope construct is influenced by impacting goals, pathways and agency. Specifically, participants practiced generating work related goals that were personally valuable, reasonably challenging and included a clear beginning and ending point. These goal characteristics generate sustained motivation, thus using goal components to increase agency (what I believe I need to accomplish). In addition, participants practiced generating multiple pathways to their work related goals and identified obstacles for which to plan. After completing the exercise individually, each participant received feedback from the group regarding additional pathways that could be utilized and additional obstacles to expect. This practice increased pathway generating and ability to plan for obstacles thus reducing the negative impact of obstacles on agency or maintaining a clear focus and purpose.

Optimism Development
Building efficacy for pathway generation and obstacle planning provided a foundation for generally positive expectations. When individuals were confident they could identify and plan to overcome obstacles, the expectation of achieving the goals increased. Negative expectations that goals would not be accomplished were challenged as individuals began to see pathways to success and options to overcome obstacles. Group feedback increased positive expectations as individuals saw group members were also expecting and making plans for success. Thus, participants’ expectations for success increased which increased optimism.

Efficacy/Confidence Development
Participants practiced setting up stepwise techniques to accomplishing goals. Next, they explained each sub-goal to the group answering questions about how it would be accomplished. Task mastery for designing and pursuing goals was attained through this process. Next, vicarious learning took place as each participant saw peers work toward their goals or hear success stories about how goals were attained. This stage including emotional arousal influenced by positive expectations of achieving goals as well as social persuasion by the instructor and group members that goals would be accomplished by validating schedules and timelines of goals.

Resiliency Development
Resiliency was increased by building awareness of personal assets in the form of talents, skills and social networks. Participants were asked what resources they could leverage to accomplish a given goal. After creating the list of resources, the instructor and peer group members identified additional resources individuals did not list. Participants were then encouraged to leverage these resources as necessary. Similar to the planning for obstacles, participants were encouraged to identify in advance obstacles that could impede their progress. While in the hope exercise the focus was making plans to overcome these obstacles, this exercise focused on making plans to avoid the obstacles and prevent them from becoming legitimate concerns. Finally, the influence process was impacted by becoming aware of initial thoughts and feelings when facing adversity (i.e. confident or in despair) and choosing resilient thoughts based on resources and options available to participants to overcome adversity.

Source: Adapted from Luthans, Avey, & Avolio (2006).
Results of Study 2

In this PsyCap intervention study, results are depicted in Figures 4 thru 9. As shown in Figure 4, participants in the training intervention in all three samples significantly increased their PsyCap from pre-intervention (Time 1) to post-intervention (Time 2). On the other hand, the randomly assigned control group in Sample 1, who underwent a different (team-building exercise) intervention, had no significant increase in their PsyCap. The PsyCap training intervention also resulted in an increase in the performance of both the broad cross-section of managers (Figure 5) and engineering managers in the high-tech firm (Figure 6). As shown in Figure 6, a matched control group of engineering managers who did not receive the PsyCap training did not experience an increase in their performance during the same period of time. When the data are analyzed according to those participants who started with a relatively low level of initial PsyCap (the bottom half of the samples) or relatively high, the results shown in Figures 7 thru 9 indicate the differences are even more pronounced. Figures 8 and 9 present the results for the changes in Manager (Figure 8) and Company (Figure 9) rated performance. In Figure 8, for Managers starting at low and high initial levels of PsyCap, the PsyCap training had positive effects. The same pattern emerged for Company rated performance in Figure 9. Also, there was no change in Company rated performance for the control group of Managers in Figure 9.

Using utility analysis formulas that contain the results for the engineering managers and the costs of their PsyCap training intervention, the return on investment in this example was calculated to be 270 percent (see Luthans, Avey, Avolio, Norman, and Combs, “Psychological Capital Development,” *Journal of Organizational Behavior*, Vol. 27, No. 3, 2006, pp. 387-393.).

Figure 4

![Changes to PsyCap for All Samples](source: Luthans, Avey, & Avolio (2006).)
Figure 5

Changes to Manager Rated Performance for Cross-Section of Managers


Figure 6

Changes to Company Rated Performance for Engineering Managers

Figure 7

Changes to PsyCap for All Samples with Low Initial PsyCap


Figure 8

Changes to Manager Rated Performance of a Cross-Section of Managers

Key Initial Research Findings on PsyCap

- Psychological Capital (PsyCap) measurement was found to be reliable and valid.
- PsyCap seems to have a significant positive relationship with performance and satisfaction.
- PsyCap seems to be a core capacity that is greater than the sum of its parts (hope, optimism, efficacy, and resiliency), i.e., PsyCap appears to be synergistic.
- PsyCap appears to have a greater impact on performance and satisfaction than the individual capacities of hope, optimism, efficacy, and resiliency.
- It was found that PsyCap could be developed through a short, highly focused micro-intervention training session.
- Increases in training participants’ PsyCap leads to increases in their performance.
- Both the development and performance of those with relatively low levels of initial PsyCap are more greatly affected by the PsyCap training intervention.
- Investment in the development of PsyCap can lead to a very high return.

Implications for Future Research on PsyCap

- Preliminary findings on the relationship between PsyCap and performance/satisfaction needs to be replicated with other samples and outcomes, while examining how levels of trust, organizational support, and task complexity may impact these relationships.
- The finding of a core capacity of PsyCap that predicts performance and satisfaction better than the individual capacities of hope, optimism, efficacy, and resiliency needs to be tested in a broader range of samples.
- The PsyCap micro-intervention needs to be assessed with different samples, different cultures, and at different levels of public and private sector organizations.
- More evidence is needed to support the conclusion that the micro-intervention can be used to develop PsyCap, to cause improved performance and other desired outcomes such as work attitudes, retention, customer satisfaction, and safety over time.
- PsyCap as demonstrated in these studies in terms of measurement, development, and performance impact needs to be fully integrated into research and application of authentic leadership development.

Implications for Practical Application of PsyCap

- PsyCap can be developed in human resources through a short training intervention.
- Enhancing the levels of human resources’ PsyCap leads to increased performance.
- Investing in and developing PsyCap can result in very high returns.
- PsyCap of groups/teams may determine how agile and adaptable groups/teams are in challenging contexts.
- PsyCap and other human capital dimensions in combination can help account for the human “intangibles” in organizations that contribute to sustainable, veritable performance.
- PsyCap may be an important input and outcome of authentic leadership development (ALD).

References


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