

Developing Critical Thinking in Leaders



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The age-old question “Are leaders born or made?” illuminates the need for further scholarly debate and research on leadership development. While many authors and subject matter experts have opinions, the simple answer is that leaders are both. They are born and made better through development. Effective leadership, the cornerstone of any successful organization, requires an investment of time and energy. Successful organizations have discovered that developing their personnel is the best way to optimize operations and increase profitability.

Many efforts toward developing personnel fail due to lack of crucial areas in leadership development planning. A leadership development program requires more than building on best practices from management fields of expertise. Leadership development programs need to focus on key areas of critical thinking, decision making, problem solving and proper application of a development progression plan. To identify the importance of leadership development, the context is best formulated utilizing a portion of the selection-optimization-compensation (SOC) theory (Day, Harrison, and

CRITICAL THINKING IN HR

Although we may not have been aware of it, critical thinking has always played an important role in business. Have you ever been in a meeting with senior management making a business case for an HR policy, only to find your sound case was derailed? Someone in the room may relate it to something that didn't work in the past, causing your valid arguments to be lost? If this sounds familiar, that person may have applied their critical thinking skills to the situation to your detriment.

Source: Allianz Care (2022)

Halpin 2012) that links human development and leadership development.

SOC processes are keys to effective self-regulation in adulthood and considered the orchestrating processes of successful aging, in turn serving as a catalyst of leader development (Day, Harrison, and Halpin 2012). The selection and optimization processes are seemingly straightforward and consistent with normal organization behavior when personnel are promoted through leadership positions based upon their knowledge, skills and abilities.

Ideally, individuals go through a selection process for a career and then optimize the core competencies to become experts within an industry. Utilizing the SOC model allows the "C" compensation portion of the model to act as the focus area of a formidable leadership development program. Here's why:

The term "compensation" has more than one meaning. When talking about leadership development, compensation does not describe pay or remuneration. Instead, it's about developing your leader's ability to adjust, counteract and move forward, even if that means to fail forward. Compensation is an area that can be further explored through the lens of leadership development to build upon how leaders utilize their dynamic capability. In its basic form, compensation is the area of the SOC model that addresses what happens when a goal is not met, or the plan sustains a negative impact or other setbacks. Most of the time, leadership resorts to previous solution sets to deal with events, while leadership development programs would properly prepare leaders to think critically.

DEVELOPING LEADERSHIP PROGRAMS AND PLANS

Leadership development programs that prepare leaders to lead through times of adversity are essential, yet often organizations realize that the program is focused on management, not leadership. Some organizations have intended to organize and develop leadership programs, only to find that a management program was seemingly repackaged with a new label. General Electric (GE) is an example of a company that spent a great deal of time and energy on leadership development programs. GE had prided itself on spending more than \$1 billion annually worldwide on training and education to develop what is considered its most important product: leaders (Ben-Hur, Jaworski, and Gray 2012). Throughout the case study of reimagining GE's leadership culture, there are examples of training programs with best practices that focused on the efficiency of management. The intent to

develop a leadership program was authentic. However, the action of producing content that is valuable is where programs can derail even the best of intentions. There are subtle underlying reasons that can be found as clues that may have contributed to derailment. A statement from former GE Chairman and CEO Jeffrey Immelt on the topic of leadership offers one clue (Stanford 2010). Immelt speculated aloud about how GE's deep-rooted leadership culture prepared managers to negotiate the challenges of an increasingly complex and uncertain business environment. Immelt's comment that "leadership culture prepared managers" is a clue that GE's leadership development lacked specific skillsets to face complex problems. Such examples show the distinct need for leadership development programs to cultivate critical thinking skills among leaders, not previous best practices.

To generate new thoughts, develop new solutions and be open to authentic dialogue, leaders need to know how they think. If leaders do not know how they think, they are susceptible to allowing bias to influence decisions and risk areas of unexploited potential. A cognitive approach to understanding leadership provides an insight into understanding differences in leader development through examining the cognitive structures and processes of leaders (Day, Harrison, and Halpin 2012). In the book *An Integrative Approach to Leader Development*, the authors identify on the first page of the first chapter that the leadership development integrative theory is developed with the U.S. Army in mind. So, let's continue with this mindset. Following the book's identification of crucial U.S. Army field manuals, there is another clue to why critical thinking has been missed as an essential portion of leadership development.

The U.S. Army field manual (FM) describes critical thinking as an important component of both ethical reasoning and mental agility (Day, Harrison, and Halpin 2012). While most will not take issue with this statement, what does it give you? Let's look at the FM definition of critical thinking to continue building insight and importance of inclusion within leadership development programs. The field manual defines critical thinking as:

"Critical thinking is a thought process that aims to find truth in situations where direct observation is insufficient, impossible or impractical. It allows thinking through and solving problems and is central to decision-making. Critical thinking is the key to understanding changing situations, finding causes, arriving at justifiable conclusions, making good judgments and learning from experience."

(Department of the Army 2006).

The field manual's definition of critical thinking leaves much to be desired, in terms of how to conduct critical thinking or develop a process of thinking to reach a logical, critical point. The best way to create critical thinkers in a leadership development program is to identify steps to take that perform critical thinking functions, such as elements of reasoning.

As a distinguished philosopher, a highly sought-after presenter and keynote speaker, Richard Paul experimented with teaching tactics and strategies by engaging in rigorous self-assessment, further defining a teachable way to increase development (Paul n.d.). (Paul was director of research and professional development at the Center for Critical Thinking, whose body of work included eight books and more than 200 articles, establishing him as an internationally recognized authority on critical thinking.) The elements Paul later created are vital to creating a development model that assists with learning critical thinking. Previous research on the topic revealed statements about the importance of being critical thinkers yet failed to lay a foundation for steps to take that may define a process. Paul developed a comprehensive model for learning critical thinking, with the elements and standards fundamental in a leadership development program (Guillot 2004). Using elements of reasoning and intellectual standards helps create the mind-matter relationship that is the basis of critical thought (Guillot 2004).

DEVELOPING CRITICAL THINKING SKILLS – ELEMENTS OF REASONING

Learning from Paul's foundational work, critical thinking can be broken down into eight elements of reasoning:

- 1. Purpose of the thinking.** A critical thinker looks deeper for the essential motive or purpose in each situation in an attempt to eliminate false purposes (Guillot 2004). From experience during service in the U.S. Air Force (USAF), I found this step is significant when dealing with multiple experts within a field who are gathered to solve a complex problem. During a meeting to develop a new multi-domain command center, personnel gathered from operations, program developers and higher headquarters to establish a plan for the way ahead. At the onset, the common overall intent was mentioned and progression slides were shown to cover the "you are here" perspective, including potential action items. After two days of conferencing in person with multiple breakout sessions, there was evidence that a common, true purpose did not exist in the group. When the specificity of action arose, there were ambiguous statements of reasoning involved that stifled any further activity and everyone in the meeting agreed that hitting pause to critically think and define an agreed-upon process was necessary. The process of questioning led to the discovery that the purpose was not collectively agreed upon.
- 2. Questioning.** While questioning seems straightforward, leaders need to know that questions can assist with compartmentalizing the problem. Most

problems present themselves in complicated or complex environments that have multiple moving parts. With such issues, questioning can be utilized to develop understanding in smaller areas to understand the bigger problem. Questioning can also lead to the identification that more information is required.

- 3. Information.** This resource must be identified by quality and timeliness. Today more than ever, the amount of information available is overwhelming and daunting to leadership, especially when time is limited. From experience, the topic of information was always evaluated from an availability perspective, yet credibility was also important. During defense support of civil authorities operations during natural disasters, data and sensors from multiple agencies would arrive to support the operations area. Decision makers would find themselves in situations where they were drowning in data and swimming in sensors, creating information overload. Another phenomenon of information is the notion that having more information will assist in making an overwhelmingly tricky decision. Klein (2017) described the feeling that there is not enough actionable information creating “doubt that threatens to block action,” which can delay a decision, resulting in lost opportunities. Having the right balance of information can allow leadership to develop other important elements, such as concepts.
- 4. Concepts.** These are the ideas and objects that make other ideas comprehensible. For the critical thinker, it would be impossible to understand the world without using and understanding concepts. Along with purpose, the element of concepts is very important when considering the context of working together to develop a comprehensive understanding. Developing the concept allows decision makers to bound other elements and define where the edges of boundaries exist. In the article “Critical Thinking for the Military Professional,” there is a distinct comparison of concepts made toward the thought of conceptual traps, never demonstrated prior to the terrorist attack of Sept. 11, 2001 (Guillot 2004). Then-CIA Director George Tenet said none of the warnings indicated terrorists would fly aircraft into buildings (Johnston and Schmitt 2004). With these fundamental concepts in our conscience as critical thinkers, there can be a transition toward the element of interpretation.
- 5. Interpretation.** This is the conscious thought process that draws conclusions based on the analysis of assumptions. During service in the intelligence field in the USAF, I found this area of interpretation was very subjective to one’s perspective. Subjectivity can be dangerous when dealing with intelligence reports evaluating threats to the security of friendly forces. To develop interpretation and in-depth analysis, necessary skills are taught at formal schools to establish a baseline of tactics, techniques and procedures (TTPs). Without establishing a corporate culture that embraces mental models of sensemaking TTPs, friction may result among decision makers and

mid-level leaders. Understanding how someone develops a point is essential to further reasoning and may lead to further exploration of assumptions that are being held.

- 6. Assumptions.** Utilizing assumptions during operational planning enables the topic to be further developed, especially when many facts are unknown. When efforts reveal that an assumption has been confirmed, then the assumption may be upgraded to a fact, which allows further assessment of concepts. When efforts reveal that an assumption is unable to be confirmed, the assumption must undergo constant comparative analysis to determine its ongoing value. Assumptions assist with the overall effort to understand the problem or decision, which lends well to considering others' points of view.
- 7. Point of view.** This is the ability to see things from another point of view that bolsters the conceptual element of critical thinking. During multiple executive leader decision briefings in the USAF, the primary planner would display the "thoughts of others" to portray other points of view just before presenting information for decisions. Considering different points of view allows those involved to open the aperture of mindset to explore other possibilities. Exploration of possibilities further assists with wrapping up reasoning by coming up with overall implications and consequences.
- 8. Implications and consequences.** The critical thinker is allowed to consider implications of their beliefs, opinions and actions through three lenses: possible, probable and inevitable. Like the point-of-view element, the conclusion of intelligence briefings ends with the description of "most likely" and "most dangerous" implications or consequences. In doing so, the entire spectrum of likelihood is considered. Discovering implications and consequences leans heavily on the efforts, time and energy spent developing the other reasoning elements. All the elements are interconnected and continuously in flux based upon that latest update, information interpretation or timing.

Replicating thinking skills throughout an organization will benefit the collective when confronted with complicated, emerging problem sets. Understanding a leader's mental model of leadership thinking is helpful, because it likely includes information regarding the level of moral reasoning, the abstraction of leader identity and the complexity of leadership knowledge principles that are held (Day, Harrison, and Halpin 2012). Once leadership thinking begins evolving toward more in-depth understanding, leadership development plans and programs should focus on recognizing the different context for decision making.

DEVELOPING DECISION MAKING: CYNEFIN FRAMEWORK

Individual differences in cognitive ability and motivation may play into one's ability and speed of skill development as well as the ability to apply those skills in leadership situations (Day, Harrison, and Halpin 2012). For a leadership

development plan, training must provide the ability to develop leadership skills in situations that require decisions in complex environments. All too often, the charter of a development plan is to recycle training and education information to prepare leaders. Snowden and Boone (2007) have applied a decision-making framework, called the Cynefin framework, for more than a decade to encompass different context, perspectives and complications to help ensure the correct application of decision making. The Cynefin framework breaks the mold of how leadership may provide substantial content toward leadership development programs and plans. The framework is designed so:

“Effective leaders learn to shift their decision-making styles to match changing business environments. Simple, complicated, complex and chaotic contexts each call for different responses. By correctly identifying the governing context, staying aware of danger signals and avoiding inappropriate reactions, managers (and leaders) can lead effectively in a variety of situations (Snowden and Boone 2017, p 7.)”

Creating challenging decision-making exercises within a leadership development program is complex because time is required to learn from experiences. Another example of real-world operations from my experience was the Deepwater Horizon Oil Spill of 2010. USAF personnel were deployed to the disaster areas to assist with finding skimmable oil positions from airborne sensors. Upon arrival, the team appeared to be within a similar environment of experience. Yet some leaders froze when the situation presented was realized as entirely different from previous experience and training. There was a quick determination that the job was no longer recognizable. Therefore, initial solution sets would not be viable. The leadership styles that sensed the change in context were able to adjust potential solution sets and began probing, sensing and developing new ways of thinking instead of repeating old solutions to new problems.

This example highlights the importance and understanding that the ability to lead and apply critical thinking processes in complex environments is a must. But it does not happen overnight. The development of expert performance in complex skill domains has been shown to take a minimum of 10 years of concentrated practice (Day, Harrison, and Halpin 2012). Not all decisions will result in success. So, when problems arise and things fail, there must be developmental practice in discovering the “why.”

DEVELOPING PROBLEM SOLVING: AUTHENTIC DIALOGUE

No one likes to fail, yet setbacks will occur. Before implementing a fix-action plan, there should be time to fully exploit the problem to discover the root cause. All too often, not knowing how to deal with a problem is uncomfortable and may receive immediate attention to take a corrective action. Yet moving too quickly to apply corrections may prove ineffective. Leadership development programs should value the art of the operational autopsy to discover what went

wrong. In a presentation to the Stanford Graduate School of Business, then-GE CEO Immelt presented a lecture on business and revealed his top 10 items for new business graduates to be successful in the corporate world (Stanford 2010). During the video, one area that he emphasized was the importance of “knowing and understanding why things fail.” An area that was not stressed in the video is that honest, open communication is required to find the root “knowing” cause of problems. When promotions are on the line or bonus money is involved, no one wants to accept being wrong or pointed out as the reason something fails. Creating a culture of authentic dialogue allows an environment where dissection of problems may occur with a goal of learning. With Day’s model of SOC, this would be where compensation, how a leader applies critical thinking to discover and counteract, should spring forth to ensure the same mistakes do not recur.

Additionally, the culture of authenticity builds trust among team players who work closely together. It takes practice to develop the problem-solving techniques of defining the problem, listing contributing factors, establishing one item that may possess the root cause and designing operational fixes. Problem-solving training should not be conducted at only off-site training locations, because these training events may seem manufactured and removed from reality. The Center for Creative Leadership’s research of one-off educational events confirmed that participants often returned energized to practice only to be stifled by the reality of corporate life (Conger and Fulmer 2003).

Leadership development problem-solving practices should be “baked in” to daily, quarterly or yearly reviews to discover where problems may be thwarted. Most practice focuses on the individual. But with the increase in team-based decisions, leadership development training should also address group thinking (Kayes 2006).

CONSIDERATIONS FOR APPLYING LEADERSHIP DEVELOPMENT PROGRAMS

Having the right people in the organization plays a vital role in the application of many leadership development programs and plans. In applying the areas for leadership development, consider the group of individuals that know how to grow and enjoy it. In an article titled “Hire for Attitude, Train for Skill,” Carbonara (1996) stated that one cannot build a company without great people. If new hires are not possible, look to conduct an application such as Zensar Technologies, which flattened the traditional leadership structure to include all innovative ideas (Bhandarker and Rai 2019). Understanding that critical thinking, decision making and problem solving are portions of the big-picture vision allowed Zensar to develop its “vision community.” The vision community allowed young employees an opportunity to express ideas and channel thinking toward better productivity.

For overall application purposes, develop a plan, including metrics to measure effectiveness. Upon review of GE’s model of Crotonville, Conger and Benjamin

(1999) recommended developing new objectives to create dialogue, focus on the bottom line, impart knowledge, build teams and disseminate lessons for leadership education. After new mindsets and new objectives are assimilated, there must be appropriate time and effort dedicated to practice and master leadership skills.

One area that cannot be rushed is to hone the application of practice and skill toward intellectual standards. Implementation of the intellectual standards of clarity, accuracy, precision, relevance, depth, breadth, logic, significance and fairness provides a framework that may filter information for relevancy and validity (Burton 2017). Burton further explained that critical thinking must become second nature and requires the practice of analytical mindset to see details concerning the big picture. Following elements of reasoning and intellectual standards allows practical application in continuous improvement of organizational effectiveness.

Once these items are designed, developed and executed, there must be a way to continuously improve and update. To measure how an organization's approach affects critical skills development, there should be longitudinal studies that track progress over time (Rivers and Kinchin 2019). One way to prepare for progress checks is to develop an understanding of your organization's knowledge management plan, asking "How do we share and update our information?" This type of in-depth analysis of current information and knowledge management plans will support identifying areas of need for a leadership development program. Overall, application efforts focus on enhancing developmental readiness so that organizations can maximize their return on investment from leadership development efforts.

CONCLUSION

Leadership development programs must divest themselves from the previous management style content that has plagued large corporations. Leadership development should focus on providing dependable skills that are available to face unknown challenges. The best way to be optimally positioned for the complex environment of business today is to develop leadership programs that encompass critical thinking's elements of reason, decision-making practices, practical problem-solving techniques, and appropriate application of programs. As stated before, effective leadership is the cornerstone of any successful company, yet there must be a commitment of time and energy. Leadership development programs that consistently produce winning results embrace the application and practice of thinking critically, identifying decision-making context, promoting authentic open dialogue on why things fail and executing a leadership development training objective.

The company that achieves monetary success and thrives in the mayhem of complexity is the company that has effectively invested in its people by developing critical-thinking leadership skills throughout all ranks and positions. ■

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REFERENCES

- Allianz Care. 2022. "Critical Thinking In HR," March 29. Viewed: Aug. 2, 2022. <https://www.allianzcare.com/en/employers/employer-blogs/2022/03/critical-thinking-in-hr.html>.
- Ben-Hur, S., B.J. Jaworski, and D. Gray. 2012. "Re-Imagining Crotonville: Epicenter of GE's Leadership Culture?" *Harvard Business Review*, June 14.
- Bhandarker, A. and S. Rai. 2019. "Effective Leadership at Zensar Technologies: Riding the Wave of Change." *Leadership Development*, 22.
- Burton, R.J. 2017. "Critical Thinking and SOF Decision Making." *Special Warfare*, June 30.
- Carbonara, P. 1996. "Hire for Attitude, Train for Skill." *Fast Company*, Aug. 31. Viewed: June 27, 2022. <https://www.fastcompany.com/26996/hire-attitude-train-skill-2>.
- Conger, J. A. and B. Benjamin. 1999. *Building Leaders: How Successful Companies Develop the Next Generation*. San Francisco: Jossey-Bass.
- Conger, J.A. and R.M. Fulmer. 2003. "Developing Your Leadership Pipeline." *Harvard Business Review*, December. Viewed: June 27, 2022. <https://hbr.org/2003/12/developing-your-leadership-pipeline>.
- "Critical Thinking in HR." 2022. <https://www.allianzcare.com/en/employers/employer-blogs/2022/03/critical-thinking-in-hr.html>.
- Day, D.V., M.M. Harrison, and S.M. Halpin. 2012. *An Integrative Approach to Leader Development: Connecting Adult Development, Identity and Expertise*. London: Routledge.
- Department of the Army. 2006. *Army Leadership: Competent, Confident and Agile. Field Manual 6-22*. Washington, D.C. Viewed: Aug. 12, 2022. http://usacac.army.mil/CACZ/repository/materials/FM6_22.pdf.
- Guillot, W. Michael. 2004. "Critical Thinking For The Military Professional. Air and Space Power Chronicles," June 17. Viewed: June 27, 2022. <https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Chronicles/guillot.pdf>.
- Johnston, D. and E. Schmitt. 2004. "Uneven Response Seen on Terror in Summer of 2001," *New York Times*, April 4. Viewed: Aug. 11, 2022. <https://www.nytimes.com/2004/04/04/us/uneven-response-seen-to-terror-risk-in-summer-01.html>.
- Kayes, D.C. 2006. "From Climbing Stairs to Riding Waves: Group Critical Thinking and Its Development." *Small Group Research* 37(6): 612-630.
- Klein, G.A. 2017. *Sources of Power: How People Make Decisions*. Cambridge, MA: MIT Press.
- Paul, R.W. (n.d.). "The Foundation of Critical Thinking." Viewed: Aug. 11, 2022. <https://www.criticalthinking.org/pages/dr-richard-paul/818>.
- Rivers, C. and Kinchin, I. 2019. "Dynamic Learning: Designing a Hidden Pedagogy to Enhance Critical Thinking Skills Development." *Management Teaching Review* 4(2): 148-156.
- Smith, G.F. 2003. "Beyond Critical Thinking and Decision Making: Teaching Business Students How To Think." *Journal of Management Education* 27(1): 24-51.

Snowden, D.J. and M.E. Boone. 2007. "A Leader's Framework for Decision Making." *Harvard Business Review*, November. Viewed: June 28, 2022. <https://hbr.org/2007/11/a-leaders-framework-for-decision-making>.

Stanford Graduate School of Business. 2010. "Jeff Immelt of GE: Leaders Must Drive Change," May 25. Viewed: Aug. 2, 2022. <https://www.youtube.com/watch?v=PHZ9i5Z8RQs>
