

Unveiling the impact: A mixed-method inquiry into the impact of leadership development programs

Keyhan Shams

Staley School of Leadership, Kansas State University, Manhattan, Kansas, USA

Stephanie Dailey

*Department of Behavioral and Organizational Sciences,
Claremont Graduate University, Claremont, California, USA, and*

Timothy Steffensmeier

Staley School of Leadership, Kansas State University, Manhattan, Kansas, USA

Abstract

Purpose – Prior research and theory have shown that transformational leadership can be developed through leader development programs (LDPs). To explain how this happens, research suggests a strong connection between an individual's leader self-concept and their leadership behavior that can be manipulated through LDPs. The purpose of this article is to delve deeper into this phenomenon to understand how development occurs and to better understand how an LDP can improve leadership behaviors by influencing one's self-concept and ultimately reduce the training transfer gap. As a broader goal, this article contributes to the existing literature on the value proposition of investing in LDPs.

Design/methodology/approach – We conducted an explanatory sequential design mixed-methods study to measure the development of participants and the impact of the program. The quantitative phase of the study used self-report surveys to measure the LDP's impact on participants' transformational leader behavior (TLB) and concept of themselves regarding leadership, their leader self-views (LSVs). The study also measured the relationship between LSVs and later enactment of leadership behaviors as the second hypothesis. The subsequent qualitative study was designed to understand the mechanisms that might explain the quantitative results.

Findings – The study's empirical findings indicate a positive relationship between LSVs (efficacy, self-awareness and identity) and distal leader development outcomes (TBLs). The study's findings also provide support for the claim that LDPs convert knowledge and skills into TLB, expanding an individual's capacity to be effective in leadership roles and processes (Day & Dragoni, 2015). Qualitative results also show LDPs improve leader behavior by influencing their self-efficacy via providing tools and knowledge as well as building experimental mindset.

Originality/value – By showing LDPs' long term impacts, this paper demonstrates why short-term leadership development programs are worth investing.

Keywords Leader development, Leader self-views, Transformational leadership

Paper type Research paper

Introduction

Prior research and theory have shown that transformational leadership can be developed through leader development programs (LDPs) (Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009; Dvir, Eden, Avolio, & Shamir, 2002). To explain how this happens, research



suggests a strong connection between an *individual's leader self-concept* and their *leadership behavior* that can be manipulated through LDPs (Day & Dragoni, 2015). The purpose of this article is to delve deeper into this phenomenon to understand how development occurs and to better understand how an LDP can improve leadership behaviors by influencing one's self-concept and ultimately reduce the training transfer gap. As a broader goal, this article contributes to the existing literature on the value proposition of investing in LDPs (e.g. Avolio, Avey, & Quisenberry, 2010; Boaden, 2006; Tingle, Corrales, & Peters, 2019).

We collaborated with Midwestern non-profit organization throughout 2021, which conducted virtual LDPs two days a month. The LDP aimed to develop individuals' leadership capacity for responding adaptively to challenges, regardless of their formal leadership position or context. Having adaptive leadership as the theoretical foundation, the program conceptualized leadership as an activity to solving organizational and community challenges (Heifetz, 1994; Heifetz, Linsky, & Grashow, 2009). The LDP taught five leadership principles aligned with adaptive leadership framework: (1) Leadership is an activity not a position (2) Anybody can lead, anytime, anywhere (3) It starts with you and must engage others (4) Your purpose must be clear (5) Leadership is risky (O'Malley & Cebula, 2015).

We conducted an explanatory sequential design mixed-methods study to measure the development of participants and the impact of the program. The quantitative phase of the study used self-report surveys to measure the LDP's impact on participants' transformational leader behavior (TLB) and concept of themselves regarding leadership, their leader self-views (LSVs) (hypothesis 1). The study also measured the relationship between LSVs and later enactment of leadership behaviors as the second hypothesis. In sum, this phase of the study aims to show whether there is a relationship between TLB and LSVs and if these two are influenced by the LDP.

The subsequent qualitative study was designed to understand how an LDP influences participants' LSVs and their TLBs in their communities/organizations. It explored decision-making processes and concrete leadership practices through phenomenological interviews, shedding light on the LDP's effectiveness in bridging the training transfer gap.

Overall, through this evaluation, this study provides an analysis of the LDP's impact on individuals and offers recommendations for further improvements to enhance future LDPs. It gives insights about how LDPs can narrow the training transfer gap.

Literature review

Leader development

Leader development is the effort to enhance individual human capital by increasing the leader effectiveness of individual organizational members (Day, 2000). Early focus on leadership research assumed leaders were born, not made (Lord & Hall, 2005). However, only about 40% of leader emergence can be explained by genetics (Chaturvedi, Arvey, Zhang, & Christoforou, 2011). Therefore, more recent trends in leader development research investigate the outcomes and antecedents of effective leadership, as well as the development process over time. For instance, Tsyganenko (2014) demonstrated LDPs effect on behavioral scales, vision, support, and relentlessness. Day and Dragoni (2015) described a set of distal and proximal indicators that might signify leadership development. Furthermore, Day, Fleenor, Atwater, Sturm, and McKee (2014) examined longitudinal studies of leadership development and highlighted intrapersonal and interpersonal factors involved in leadership development. Also, Mason, Griffin, and Parker (2014) showed that leaders experiencing increase in self-efficacy, perspective taking and positive affect through LDPs also reported enhancement in their transformational leadership behavior. In alignment with this research direction, this study seeks to incorporate antecedents and outcomes into its LDP impact assessment approach. The following section will delineate the LDP assessment approach in this research with more detail.

Leader development outcomes

Distal outcomes of leader development are the long-term developmental indicators of leader effectiveness, and they include dynamic skills and advanced meaning-making structures and mental processes (Day & Dragoni, 2015). Day (2000) argued that measuring leader behavior (rather than other indicators like job performance) is an appropriate criterion for measuring development. That is, leaders are effective in so far as they apply their leadership knowledge, skills, and abilities in order to exhibit effective leadership behaviors (i.e. distal outcome; Day & Dragoni, 2015). Before a person experiences changes in their leader behaviors, Day and Dragoni (2015) contended that there are earlier, more proximal, outcomes we can observe earlier in the process of development. Proximal outcomes of leader development are early changes in a person's self-concept (LSVs) that indicate their likelihood to develop. The three leader LSVs are leader self-efficacy, leader self-awareness, and leader identity (Day & Dragoni, 2015).

Closing the training transfer gap

Training transfer studies examine the extent to which skills learned in one context can be transferred to another context. In a meta-analysis evaluating the effectiveness of development programs, researchers have found that formal development programs can positively impact trainees' utilization of newly acquired skills and improved performance on the job (Lacerenza *et al.*, 2017). More specifically, prior research and theory has shown that transformational leadership can be developed through leadership interventions (Avolio *et al.*, 2010; Dvir *et al.*, 2002).

Despite these studies and the prevalence of LDPs within organizations, measuring and ensuring program effectiveness has not been clearly operationalized. Dynamic skill theory explains why growth is variable among and within people and is often noticed gradually (Day & Dragoni, 2015). Whereas some people emerge from leader development opportunities changed, others display no perceptible growth in proximal or distal indicators (Avolio *et al.*, 2010; Reichard & Beck, 2017). This variability makes it difficult to evaluate the success of an LDP. According to Huang, Blume, Ford, and Baldwin (2015), training transfer falls along a continuum from trainees' potential to the actual transfer. This fluctuating transfer rate may depend on many factors like time, context, content, and capacity of participants.

According to Avolio and Hannah (2008), individual state antecedents of development include LSVs. To address the challenges above and contribute to the understanding of leader development, our hypotheses include:

- H1. Participants' TLB and LSVs will increase immediately after the program and over time (30 days after).
- H2. There is a positive relationship between LSVs and TLBs whereby LSVs at Time 2 (right after the program) will be significantly related to TLBs 30 days after (Time 3).

Methods*Study design*

This research is situated in an interplay space between positivism and interpretivism approaches to science (Ospina & Uhl-Bien, 2012). Anchored in constructivism epistemology, the research uses a mixed-method approach to study an LDP's impact on LSVs and TLB. The quantitative phase utilized positivistic approach to investigate hypotheses using close-ended surveys, while the qualitative study employed interpretivism as the ontological commitment, existential phenomenology as the theoretical framework, and phenomenological interviews as the method to respond to research questions (Crotty, 1998).

Qualitative and quantitative methods were used in a sequential explanatory design. According to Creswell, Plano Clark, Gutmann, and Hanson (2003), “The purpose of the sequential explanatory design is typically to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study” (p. 178). In the field of leadership, Hastings and Sunderman (2019), showed that this type of design could be used to enhance the quantitative data to be completely understood. Accordingly, in this study, first, the quantitative phase of this research produced results about two hypotheses mentioned above. As the second phase of the research, the qualitative research was expected to help explain the mechanisms underlying the results of testing Hypothesis 2 by delving deeper into participants’ real world leadership experiences after the program.

The question that directs qualitative phase is: *How do participants describe their decision-making process regarding exercising (or not exercising) leadership?* The focus on the reasoning process here stems from Day *et al.*'s (2009) integrative leader development theory. They argued that LSVs as cognitive processes (self-awareness and self-efficacy as self-regulatory processes and leader identity as epistemic cognition) are important individual differences in leader development. As such, we expected that this qualitative question would uncover “how” the LDP influenced LSVs and how it impacted enacting leadership behaviors. Finding this “how” can inform the LDP’s teaching team about possible ways of improving their future program. The next section will explain how different methods are being employed in the research design.

Procedures

About the LDP. The program included six 45–60-min interactive modules presented over two days each month over 2021. The modules revolved around the personal comfort zone boundaries (Module A), making tougher interpretations (Module B), taking a reflection/balcony stance (Module C), analyzing different stakeholders involved (Module D), managing conflict/heat (Module E), and designing experiments (Module F). Teachers created an interactive environment in which people were engaged in different modalities including group discussions, lecture, storytelling, and peer coaching.

Distinguishing leadership from authority, the main objective of the program was to change participants’ leadership approach from traditional to more adaptive. The program aimed to encourage participants to view leadership as an activity that everybody can do, rather than solely as a position of authority. To do so, the teachers familiarized the participants with four leadership competencies: diagnosing the situation, managing self, energizing others, and intervening skillfully (Heifetz *et al.*, 2009; O’Malley & Cebula, 2015).

Sampling procedure for quantitative phase. 2,223 participants attended this program from February 2021 to February 2022. To evaluate the LDP’s impact at the individual level, a field study was designed using self-report survey data at the individual level of analysis. To evaluate the LDP across time and measure the change in participants’ LSVs and TLBs, all participants were asked to respond to pre-post surveys at three timepoints. According to the data collected, 367 participants responded to all three surveys (16.5%). The final sample was reduced to 333 after removing missing data and outliers. The average age was 45.06, with the youngest being 23 and the eldest was 78. Most participants had a bachelor’s or master’s degree (77.81%) and identified as White or Asian (83.18%), while underrepresented minorities (URM) constituted 10.21%. Gender data was not available. Over three-fourths of participants (77.48%) were enrolled through a leader development initiative (such as being sponsored by their work), whereas roughly one-fourth (22.52%) signed up to participate through an open enrollment process (enrolling individually on their own). Participants were at various career stages and worked in various sectors (i.e. governmental, private, non-profit, education, and faith). Participant demographics can be found in Table 1.

Baseline characteristics		N = 333	%
<i>Cohort</i>			
	Cohort 1 – May 2021	44	13.21
	Cohort 2 – June 2021	42	12.61
	Cohort 3 – July 2021	23	6.91
	Cohort 4 – August 2021	9	2.70
	Cohort 5 – September 2021	8	2.40
	Cohort 6 – October 2021	44	13.21
	Cohort 7 – November 2021	83	24.92
	Cohort 8 – December 2021	24	7.21
	Cohort 9 – February 2022	56	16.82
<i>Education level</i>			
	High School	10	3.03
	Some College	24	7.2
	Associate's Degree	22	6.6
	Bachelor's Degree	111	33.33
	Master's Degree	131	39.34
	Doctorate Degree	13	3.9
	Missing	22	6.6
<i>Race</i>			
	URM	34	10.21
	Non-URM	277	83.18
	Missing	22	6.60
Source(s): Created by authors			

Table 1.
Demographic
characteristics at
baseline

Data collection and analysis procedure for quantitative phase. This evaluation focused particularly on changes in nine cohorts of participants' LSVs right after the program and 30 days after and variables were assessed at three time points (Table 2). Before the LDP, participants received a survey as a part of their registration (T1), which they completed using Qualtrics. After the two-day program concluded, participants completed the time-two (T2) survey. Finally, 30 days after the program, the individuals were sent a survey via email (T3). This three-timepoint design is beneficial because it reduces the risk of common method bias posed by self-report surveys by spreading them across time and allows time to demonstrate behavioral change once a person returns to the workplace.

All data cleaning and subsequent analyses were performed using R (R Core Team, 2021). After matching participant data across timepoints, we listwise deleted incomplete cases above the threshold of three missing items, reducing the sample from 367 to 333. After acceptable internal consistency indicated by Cronbach alpha scores (>0.70), mean composite scores for all items were used. We confirmed the data do not violate the assumption of a

Variable	Construct	Time-point
DV – Leader effectiveness	Transformational Leader Behavior	T1, T3
IV – Self-views	Leader Efficacy	T1, T2, T3
IV – Self-views	Leader Awareness	T1, T2, T3
IV – Self-views	Leader Identity	T1, T2, T3
Controls	Self-Views, Transformational Leader Behavior, Race	T1
Source(s): Created by authors		

Table 2.
Timing of data
collection for each self-
report measure

dependent *t*-test, normality of the difference scores. Histograms of the difference scores appear normal and skew values < 3 and kurtosis <10 confirm normality of the difference scores. Given no violations, we proceeded to analysis. Dependent *t*-tests were run to compare differences in scores in LSVs and TLBs between all three timepoints.

Sampling procedure for qualitative phase. We sent a follow-up survey within one year of completing the LDP asking those who completed all three surveys if they were willing to have a 60-min interview about their leadership experiences. The organization provided the researchers with the survey database and the emails of respondents. The researcher contacted the participants who completed all four surveys over the course of a year and were willing to be interviewed. Due to valid considerations of the partner, we decided to limit our interviews to only one round, but to increase the number of participants. 18 participants accepted the invitation and were interviewed once either on Zoom or Microsoft Teams. [Table 3](#) shows aggregate demographics of the interviewees.

Data collection and analysis procedure for qualitative phase. The phenomenological interviews took place monthly, coinciding with the one-year anniversary of the training program in 2022. These phenomenological interviews aim for pre-reflective experiential accounts and are different from gathering cultural narratives, personal views, perceptions, interpretations that may occur in basic interpretive interview studies. According to [Van Manen \(2014\)](#), “It is much easier for an interviewee to share [their] views, interpretations, or opinions about something than to give a detailed experiential account of an event or moment in a particular place in time” (p. 315). As such, in this research, as an act of eidetic reduction to

Baseline characteristics	<i>N</i> = 18	%
Positions		
Manager	1	
Principal leadership strategist	1	
Treasury services/president elect	1	
Caregiver coordinator	1	
Program administrator	1	
Director of assessment and accreditation	1	
IL coordinator	1	
Risk manager	1	
Assistant professor	1	
Child care health consultant	1	
Speech language pathologist	1	
Training specialist	1	
Dean	1	
Head track and field coach	1	
Senior director of finance	1	
CEO	2	
Department head	1	
Level of education		
High school	1	5.5
Some college	2	11.1
Bachelor's degree	8	44.5
Master's degree	5	27.8
Doctorate degree	2	11.1
Race		
URM	6	33.3
Non-URM	12	66.7

Source(s): Created by authors

Table 3.
Demographic
characteristics of the
interviewees

improve the reliability, the interviewer avoided prompting participants with the quantitative results and asking about causal explanations, generalizations, and abstract interpretations (Puligandla, 1970; Van Manen, 2014). Instead, we administered open and semi-structured *existential* phenomenological interviews in which the interviewer was constantly seeking for connections to quantitative results to delve deeper into and asking follow-up questions (Creswell & Poth, 2018).

In these interviews, participants were asked to describe their leadership experiments bringing specific examples, concrete stories, and anecdotes about the details of the environment, people around, interactions, motivations, beliefs, meanings, feelings, and practices (internal and external state) (Pugh, 2013; Van Manen, 2014; Weiss, 1995).

The researchers explored the mental steps people took to decide to exercise leadership. Processes of action (especially dynamics of time), emotions, and values gave us a precise frame of focus both in interviewing and analyzing the data (Pugh, 2013; Saldaña, 2021) (See the short version of the Interview Guidelines in Table 4).

In doing analysis, we ran two cycles of coding. We started the first cycle with a blend of coding methods in which initial codes are driven: process, emotion, and value coding. Then, we transitioned to the second cycle of coding to classify, integrate, and conceptualize the codes (Saldaña, 2021). We utilized NVivo's concept mapping tool to create a diagram illustrating the emerged themes, categories, subcategories, codes, and subcodes (Bhattacharya, 2017). Additionally, we employed analytical memos to document emergent theories, unexpected findings, and preliminary responses to the research question (Saldaña, 2021; Weiss, 1995).

After completing the coding process, we began the thematic analysis to develop theoretical insights. Our aim was to derive a theory explaining the reasons behind individuals' engagement or disengagement with leadership practices. In the results sections, we structured our arguments into paragraphs with categories and subcategories serving as headings and subheadings. Employing a codeweaving technique, we integrated codes, categories, themes, and concepts into coherent sentences to articulate the theory (Saldaña, 2021). Additionally, we included direct quotes to provide further illustrative evidence.

IRB procedures and ethics. The research team consisted of two groups of researchers: one from a Midwestern land grant university (first and third authors) and the other from a university in Southern California (second author). The research proposal was submitted to Institutional Review Boards at both universities, with one in the Midwest handling the

Interview phase	Questions
Beginning of the interview	One year after the program, how do you conceive leadership today?
Phase 1: success story	<ul style="list-style-type: none"> a. Can you walk me through a recent time in which you exercised leadership successfully? b. As the follow up questions: Can you describe the specific moment that you decided to do that? What came to your mind? How did you get motivated? Was there anybody or anything that helped you? How did you feel? Did you experience that in other occasions? (Pugh, 2013) c. Added Question: How did you make sure that your intervention was successful?
Phase 2: failure story	<ul style="list-style-type: none"> a. Can you walk me through a recent experience in which you exercised leadership unsuccessfully? b. What exactly did impede you from doing that successfully? (Repeat questions about emotion as phase 2)

Table 4.
Interview questions

Source(s): Created by authors

qualitative phase and another in Southern California handling the quantitative phase. Approval was granted by both boards. Two distinct consent forms were crafted for the quantitative and qualitative research phases. Both IRB forms emphasized the strict confidentiality of participant responses and stated that researchers may publish only aggregate results without disclosing individual identities. Additionally, participants in the qualitative phase were provided with a preliminary research summary for member check, with four participants verifying its accuracy.

Reliability and validity testing procedures. Reliability and validity tests take different approaches in quantitative and qualitative studies. While in quantitative phase, we used several numerical reliability tests such as power analysis, tests re-tests, Cronbach α , reliability test in the qualitative phase revolved round how accurate, precise, and broad the phenomenon was represented (Becker, 2001). This achieved not only through laborious analysis, but through what the data have shown (Katz, 2001). As such, readers can assess the reliability of this research by attending to Tracy's (2010) credibility criterion. We invite readers to assess this research based on the number of interviews, duration of data collection, and thick description it provides of the decision-making processes people take to exercise leadership (Tracy, 2010).

Measures

Leader self-views (LSVs). Leader identity. Refers to how individuals think of themselves or describe themselves as leaders (Lord & Hall, 2005). Leader identity was measured using Hiller's (2005) four-item leader identity scale, which aims to measure someone's perception of themselves as a leader.

Leader self-awareness. Is the knowledge of self and others including insights into one's leadership self-resources: strengths, weaknesses, intentions, motivations, values, identity, and learned preferences and accurate understanding of how one is perceived by and impact others (Hall, 2004; Taylor, 2010). Leader self-awareness was measured with the three-item scale by Neider and Schriesheim (2011) that aims to capture the degree to which a person is aware of their strengths, weaknesses, internal motivations, and impact on others.

Leader self-efficacy. Is the "Belief in [one's] perceived capabilities to organize the positive psychological capabilities, motivation, means, collective resources, and courses of action required to attain effective, sustainable performance across their various leadership roles, demands, and contexts" (Hannah, Avolio, Luthans, & Harms, 2008, p. 670). Leader self-efficacy was measured utilizing Murphy's (1992) seven-item scale.

Transformational leader behavior (TLB). A transformational leadership style transforms followers, encouraging performance beyond expectations and progress toward self-actualization (as opposed to simply meeting performance expectations as characterized by transactional leadership; Bass, 1985, 1999; Burns, 1978). Transformational leaders vitalize followers and organizations through four interrelated behaviors: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006). TLB was measured using a slightly adapted, seven-item Global Transformational Leadership scale (Carless, Wearing, & Mann, 2000).

Controls. We collected LSVs and TLBs at T1 to control for baseline levels before the program. To determine other control variables, we tested the relationship between the outcome variable (TLB T3) and available demographics (i.e. education, race, age, cohort month, program enrollment path) using a series of one-way ANOVAs and independent *t*-tests. (Gender data for most participants were unavailable). Analyses showed that among these variables, only race was significant, and therefore only race was used as a control along with LSV and TLBS.

Results (quantitative phase)

Correlations

Correlation analysis was used to examine the relationship between constructs/subconstructs (variables) across three time points (Table 5). The analysis was conducted using Pearson's correlation coefficient, which is a measure of the linear relationship between two variables.

Result 1: TLBs increase over time

The data collected from the sample population at T1 shows that participants start the program with an average score of 5.81 on TLB and when surveyed at T3, there was a significant increase in TLB T1 – T3 with a medium effect size (Table 6). In sum, study results show participants' TLB increased over the course of the program across time (Figure 1).

Table 5.
Means, standard deviations, intercorrelations and internal consistencies of predictor and outcome variables

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. LI.T1	5.13	1.02	0.87										
2. LI.T2	5.65	0.87	0.70	0.87									
3. LI.T3	5.73	0.79	0.71	0.74	0.86								
4. SA.T1	5.13	0.76	0.52	0.31	0.35	0.68							
5. SA.T2	5.32	0.78	0.46	0.49	0.41	0.58	0.76						
6. SA.T3	5.51	0.68	0.41	0.34	0.50	0.49	0.58	0.71					
7. SE.T1	63.17	17.96	0.63	0.58	0.54	0.46	0.43	0.35	0.93				
8. SE.T2	72.32	16.14	0.54	0.63	0.53	0.32	0.49	0.35	0.70	0.93			
9. SE.T3	73.76	16.67	0.48	0.54	0.61	0.37	0.39	0.47	0.68	0.76	0.95		
10. TLB.T1	5.83	0.57	0.54	0.45	0.48	0.47	0.54	0.42	0.54	0.45	0.44	0.80	
11. TLB.T3	6.06	0.52	0.40	0.39	0.52	0.33	0.46	0.59	0.39	0.43	0.54	0.65	0.85

Note(s): $N = 333$. Composite scores of all predictor and outcome variables were significantly correlated at the level of $p < 0.001$. Cronbach's alpha reliability estimates are on the diagonal. All variables are on a scale of 1–7 except Leader Self-Efficacy, which is on a scale of 1–100. Variables: LI = Leader Identity SA, = Leader Self-Awareness SE = Leader Self-Efficacy, TLB = Transformational Leader Behavior

Source(s): Created by authors

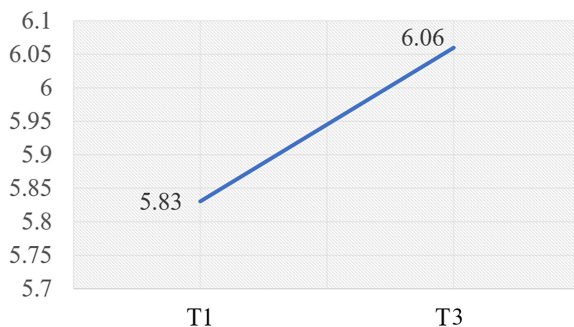
Table 6.
T-test results

Variable	<i>t</i>	<i>df</i>	<i>d</i>
Leader efficacy T1 – T2	12.54***	332	0.67
Leader efficacy T2 – T3	2.32*	332	0.13
Leader efficacy T1 – T3	13.82***	332	0.76
Self-awareness T1 – T2	5.04***	332	0.26
Self-awareness T2 – T3	5.08***	332	0.28
Self-awareness T1 – T3	10.08***	332	0.55
Leader identity T1 – T2	12.64***	332	0.69
Leader identity T2 – T3	2.46*	332	0.13
Leader identity T1 – T3	15.06***	332	0.83
TLB T1 – T3	9.10***	332	0.50

Note(s): $N = 333$. Dependent *t*-tests were run to compare across time-points. Composite scores were used because Cronbach's alpha values of each scale demonstrated acceptable internal reliability of each scale.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source(s): Created by authors



Note(s): The chart is zoomed in to better show the changes across time

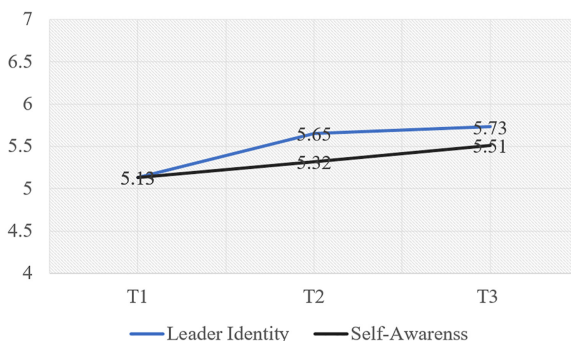
Source(s): Created by authors

Figure 1.
Transformational leader behavior score across time

Result 2: Leader self-views (LSVs) increase across time.

Leader self-awareness. Participants' leader self-awareness grows as a direct result of the program and continues to increase 30 days after the program. The mean of leader self-awareness T2 ($M = 5.32$) was significantly higher than the mean at T1 ($M = 5.13$), and there was a small to medium effect. Furthermore, there was a significant increase after the program (T2) and 30 days later (T3), T2 – T3, with the mean of leader self-awareness at T3 ($M = 5.51$) was significantly higher than T2 ($M = 5.32$), indicating a small to medium effect. Looking at their growth longitudinally, from before participants started the program to 30 days after, there were significant increases in their leader self-awareness (Figure 2).

Leader identity. Participants' leader identities grow as a direct result of the program and continue to increase 30 days after the program. The mean of leader identity T2 ($M = 5.65$) was significantly higher than the mean at T1 ($M = 5.13$), and there was a medium to large effect. Furthermore, there was a significant increase after the program (T2) and 30 days later (T3). The mean of leader identity at T3 ($M = 5.73$) was significantly higher than in T2 ($M = 5.65$) and had a small effect. Looking at their growth longitudinally, from before participants started the program to 30 days after, there were significant increases in their leader identity.



Note(s): The chart is zoomed in to better show the changes across time

Source(s): Created by authors

Figure 2.
Leader identity and self-awareness scores across time

Leader self-efficacy. Participants' leader self-efficacy grew as a direct result of the program and continued to grow 30 days after the program. The mean of leader efficacy T2 ($M = 72.32$) was significantly higher than the mean at T1 ($M = 63.17$), and there was a medium to large effect ($d = 0.68$). The mean of leader efficacy at T3 ($M = 73.76$) was significantly higher than T2 ($M = 72.32$), indicating a small effect. Looking at their growth longitudinally, from before participants started the program to 30 days after, there were significant increases in their leader efficacy (Figure 3).

Result 3: Leader self-views predict leader behavior

Not only did the LSVs and TLB increase before and after the program, but, increasing participants' LSVs had a direct impact on TLBs. We conducted hierarchical multiple regression analyses to test how LSVs predicted TLB. We created a series of nested linear regression models using the linReg function within JMV package in the R Studio statistical software (R Core Team, 2021). All variables were measured on continuous scales except for race, which was dummy coded with non-URM as the reference group. All continuous predictor variables were centered. Predictors were added one at a time for each LSV to determine the best model fit, and model comparisons were used to determine the most parsimonious model.

Results showed that all LSVs (leader self-efficacy, leader self-awareness, leader identity) at T2 were significant predictors of TLB at T3, even when controlling for all variables at T1 and race. Specifically, leader self-efficacy at T2 explained 2% of the variance in TLB at T3, after controlling for both variables at T1 as well as race, $\Delta R^2 = 0.02, p < 0.001$. Leader self-efficacy at T2 was a significant positive predictor of TLB at T3 ($b = 0.22, p < 0.001$). Additionally, leader self-awareness at T2 explained 1.4% of the variance in TLB at T3, after controlling for both variables at T1 as well as race, $\Delta R^2 = 0.014, p = 0.005$. Leader self-awareness at T2 was a significant positive predictor of TLB at T3 ($b = 0.16, p = 0.005$). Lastly, leader identity at T2 explains less than 1% of the variance in TLB at T3, after controlling for both variables at T1 as well as race, $\Delta R^2 < 0.01, p < 0.001$. Leader efficacy at T2 was a significant positive predictor of TLB at T3 ($b = 0.13, p < 0.001$).

Given the high correlation between all LSVs at T1 and T2, we investigated the VIF and tolerance values for each regression model, and all values were below five and above 0.20,

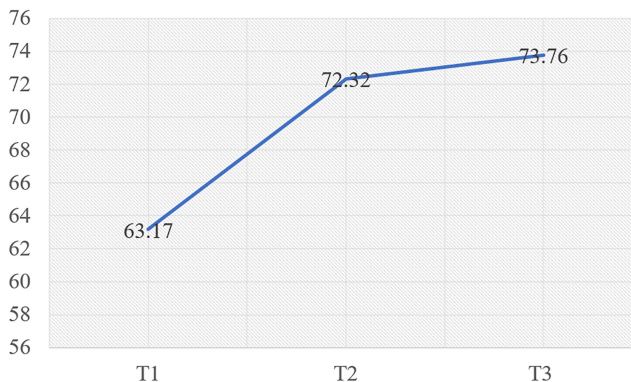


Figure 3.
Leader self-efficacy
score across time

Note(s): The scale range is 1-100. The chart is zoomed in to better show the changes across time

Source(s): Created by authors

respectively (Hair, Ringle, & Sarstedt, 2011). As such, there are no extreme cases of multicollinearity.

Therefore, these results suggest that the LDP was successful in improving TLBs after 30 days by impacting participants' LSVs during the program. Despite small effect sizes, these findings are crucial in demonstrating that we can model that the change in one's leader self-view predicts their behavior.

Results (qualitative phase)

The qualitative phase aimed to explain how the quantitative results achieved. The question driving this aim (How do people describe their decision-making process regarding exercising or not exercising leadership?) focused on participants' decision making since LSVs are important cognitive processes involved in leader development (Day, Harrison, & Halpin, 2009). Exploring the participants' reasoning process would reveal the role of cognitive elements in relation to their leadership actions and the way in which LDP impacted them.

The qualitative research findings were visually represented using a process-oriented concept map to address the primary question. Figure 4 displays three main themes within large rectangles derived from the research responses. Interview data were structured into five large circles representing categories, six long dash-dot ovals for subcategories, and 36 small circles as codes/subcodes, providing evidence for these themes. Connections between circles indicate potential cause-and-effect relationships. Additionally, four thick arrows between the rectangular themes illustrate the sequential nature of the decision-making process, flowing from left to right.

Theme 1: People start with evaluating the status quo

Category 1: Mental space of frustration. Our analysis of the interview data shows that all the interviewees claim that their decision-making process of exercising leadership starts with a feeling of "frustration" with the status quo. When asked to describe their emotions before intervention, interviewees commonly express this feeling with the exact word of "frustration" or with different words such as anger, exasperation, irritation, or discomfort. For instance, a sport coach told a story of a meeting when things did not go forward and says frustration led him to act,

... I think that's part of where turning up the heat was just frustration that we weren't really making any tangible progress on anything...

A department dean after describing the work conditions and how they had been tired of constantly ruminating about problems said,

... Super frustrated. ... I was mad at myself that I couldn't just do some breathing exercises and <laugh> go to sleep... And it was weeks, I was still angry about it...

A few interviewees even noted experiencing physical symptoms accompanying this frustration. For instance, a participant, serving as a CEO, reported experiencing something happening in her head during a tough conversation with a client,

... I feel like there's a cold breeze blowing across the top of my brain inside of my head and I start to feel like I can't catch my breath... So, I was ... so internally frustrated...

Our analysis reveals that, in several cases, this feeling of frustration served as a motive for thinking about intervention. We posit that this frustration communicates Heifetz's concept of disequilibrium, distress, or heat (Heifetz, 1994; Heifetz and Linsky, 2002). In our interview cases, we observed that this frustration or heat, regardless of being in the productive zone or beyond, prompted people to decide whether to take action or not.

Category 2: Mental space of ambivalence. Data suggests the frustration mentioned earlier places individuals in a situation where they need to decide whether to intervene or not. Here, another step for evaluation happens when participants assess the circumstances for their suitability for action. In this situation that we term the “mental space of ambivalence”, two subcategories of forces do battle in participants’ minds: “Anxiety” and “Courage to action”. Participants frequently described experiencing anxiety, hesitation, or stress stemming from uncertainty about how to intervene or fear of others’ judgments. For instance, a language pathologist who was frustrated with the workload for a long time described her stressful situation while deciding to raise the heat, stating, “Ah, I was physically sweating truly physically sweating. I was definitely nervous. I had to really check myself.” She mentions the feeling of frustration with the working condition and the feeling of nervousness/worry before taking action.”

On the other side, participants also describe a feeling of courage, confidence, and braveness for action that encourages them toward action. Based on what participants described, it seems this courage comes from different sources: Knowing how to act, the work/role expectations, and their personal characteristics.

Regarding “knowing how to act”, individuals referred to their life and career experiences, and the influence of the LDP’s tools on their confidence and courage to act. For instance, the aforementioned CEO shared how she navigated through such feelings using the LDP tools,

And honestly, the program gave me not only the strength to do it, but really truthfully, I feel like the skills to do it. . .

A manager described the LDP’s toolsets as guns and says,

I’m in the wild West, but I got more guns than everybody else. I’ve got multiple guns. And I’m like, who’s gonna fix? No one’s gonna mess with me, cause I’ve got all the competencies now. . .

In addressing the question, “Many people possess the tools and knowledge, yet do not exercise leadership. Why is that?” participants commonly attributed personal attitudes or characteristics to this phenomenon, which we categorize as “mindset”. Responses included quotes such as “I’m a very driven person,” “I’m a lifelong learner”, “I’m kind of bossy”, or “I’m a curious person”. Participants elaborated that these attitudes were shaped by various factors including family, upbringing, life events, career experiences, and inspirational individuals.

Besides this, some participants refer to a specific impact that the LDP had on their leadership behavior that can be categorized within the “mindset” category. Data suggests the LDP’s fifth principle that says, “leadership is risky” and the emphasis on “acting experimentally” have fostered an experimental mindset among some individuals. This was evident in a businessman’s response as he described the ambivalence moment before taking action,

. . . So, if I know that I am conducting an experiment, then when it doesn’t work, or if some part of it doesn’t work, I don’t feel like I failed. . . And I almost tell people, it’s kind of like doing laboratory research. . .

Theme 2: Evaluation leads to action/no action

Category 3: Action as intervention. Data suggests, based on the outcome of the internal struggle between anxiety and courage, individuals embark on divergent paths. When individuals overcome their anxiety with courage, it empowers them to initiate a journey of experimentation. In occasions that people see their experimentation as successful, they describe their post-action feeling as “better”, and “empowered”. For example, in response to the question, “How do you describe the feeling after taking action?” a participant who a high-level manager in a company is said,

... It's like something might happen. . . But it's always like there's something back there that goes, how to handle that. . . You know what to do. And it's so empowering. It makes you almost fearless. . .

In case of failure, participants describe their feelings as letdown, defeated, loser, and guilty. For instance, a caregiver coordinator said, "I've been in plenty of them [failure] and I feel like a loser". As we discussed earlier, a very interesting feeling was described when a participant defined their action under the concept of "give the work back" and it did not work (Heifetz, 1994). They described their feeling as guilty,

I felt a little bit guilty for not engaging them more. . . I think some of my perfectionism is also at play here. I could have done this my myself <laugh>. . .

Category 4: No action. If "anxiety" wins the battle, people may decide not to act. For instance, a sport coach said,

... it's like I'm trying to take things a certain way . . . And you know, when six people are telling me we don't like it, then what am I gonna do?

The decision of "no action" may result from alternative decision-making pathways that do not necessarily begin with frustration. Through our analysis, we identified subcategories like scale, priority, and others' willingness. For instance, another businessman highlighted "priority",

... I feel like I'm often asked to do stuff which maybe even above and beyond my job description and I'm willing and happy to do it unless there's a bunch of other things that are higher priority.

Explaining why he could not change his colleagues' approach to solving an issue, a risk manager argues that "it is not just one person's work" to make change happen,

... it's not about one person, it's about multiple entities within the group. And I don't think a lot of times people think about that takes a certain amount of flexibility, agility in many of us . . .

There were also individuals that brought up specific policies, procedures, and laws that may hinder taking action. Besides, there were participants that defined their inaction as an act of leadership attributing it to concepts like "giving work back to people" or "managing self". A department dean talked about a challenging document that was supposed to be revised by the team and they (him/her) did not intervene in it,

... I try intentionally not to do that. . . because I wanted it to seem like it was coming from the faculty and not from me. I think it's funny because I think sometimes by not acting on leadership, you're actually still doing leadership <laugh>

A training organizer, interestingly, explained his inaction as a respect for authority that later gave him a sense of regret,

... There's some regret, . . . maybe not always. But for me afterwards in that reflection, in that processing period, it goes back to the whole, oh man, I should have said this . . .

"No-action" decision might come out of work avoidance behavior. Drawing from our data, we hypothesize that issues mentioned above such as priority, scale, systemic barriers, and taking care of self may serve as mechanisms to avoid entering a state of disequilibrium and mental space of ambivalence (Heifetz, 1994).

Theme 3: People end the first round of decision-making process with assessment

Category 5: Post-action assessment. During interviews and analyzing the data, we came to the realization that some participants made frequent references to a particular phase in their intervention where they begin evaluating their actions. These participants reported this

assessment regardless of others' feedback on their intervention. We label this mental space the "space of assessment". This emergent theme prompted us to conduct five more interviews to explore this stage. We added a specific question to our guidelines: "How do you make sure that your intervention was successful?"

A caregiver coordinator named this phase as *self-talk*,

I do a lot of self-talk. You don't wanna do it, but can you do it? Yes, I can. I just don't want to. Okay so now that we've made that discovery, let's just get the job done. How about that?

A training specialist named this *pause moment*,

...I mean, I think the pause is to not just jump in, to not be reactive. That becomes a big thing as you're looking at you know, have something that occurs that leads to having thoughts and feelings that leads to your acting ...

Interviewing 18 people, this theme did not emerge out of all the interviews. As mentioned above some people evaluated their interventions based on others' feedback while some automatically went further and started an internal process of reflection and assessment.

Discussion

This study supports previous research on training transfer, leadership development, and transformational leadership, as it found that TLB increased as a result of the LDP. Adding to that, this research reveals a mechanism of how this increase may happen by measuring and explaining the relationship between LSVs and TLBs.

Impact on LSVs

The LDP goes beyond impacting behavioral changes and moves the needle on psychological changes in participants' leadership self-concept. The present study uniquely examined changes in all three LSVs within the same sample and showed that participants left the program with higher LSVs than when they started, demonstrating effectiveness of the LDP. Not only was there a significant increase in all three LSVs immediately after the program, but we also measured LSVs 30 days later, and results showed that there was even more growth in participants' LSVs once they returned to work. The results also support past theory and empirical studies, indicating that leader development can positively impact a person's leader self-concept (Day & Dragoni, 2015).

The study's empirical findings indicate a positive relationship between LSVs (efficacy, self-awareness, and identity) and distal leader development outcomes (TBLs). These findings support the theory of planned behavior, where behavioral changes are often preceded by changes in intentions and attitudes (Ajzen, 1991). The study's findings also provide support for the claim that LDPs convert knowledge and skills into TLB, expanding an individual's capacity to be effective in leadership roles and processes (Day & Dragoni, 2015).

Our qualitative results also explain how the LDP's influence on LSVs helped participants exercise leadership and win the battle between courage and anxiety. An important observation in people's descriptions was that they describe leadership as something out of their comfort zone. People described this discomfort both in the mental spaces of frustration (when the situation is frustrating itself) and ambivalence (when intervening is stressful). Based on the data provided earlier, we interpret that one of the biggest contributions of the LDP to people's decision to action was naming this moment of discomfort and giving them the confidence to deal with it. This mainly happened in Module A where participants drew their dis/comfort zone diagram. While this discomfort can significantly hinder leadership behavior, interview data revealed that individuals gained confidence to act by utilizing the LDP's tools and adopting an experimental approach taught in the program. Some

participants directly referred to the tools that were presented in modules D and E (stakeholder mapping and managing the heat). Moreover, viewing actions as experiments was emphasized in Module F. We argue that this can be the mechanism underlying the increased self-efficacy indicated in the quantitative results.

One of the most important insights arose from the second interview question. In response to “Could you describe a recent moment that you exercised leadership successfully?”, no participant described their leadership experiments as performing a traditional heroic role. Participants mainly referred to their daily activities and issues at work such as managing a work conflict resolution, facilitating a decision-making session, and helping the organization with understanding the work challenges. We never heard individuals say, “I got promoted to a higher position” or “I took the lead in a specific project”. This perhaps reverberates the LDP’s principle that leadership is an activity not a position. Based on this, we argue that framing leadership as activity rather than a position during the program, especially during modules D and F, may explain increased leader identity as a predictor of TLBs.

Moreover, the space of assessment is the phase in which participants review their action and evaluate what went wrong and right. Drawing upon the works of [Morin \(1993\)](#) and [Schneider \(2002\)](#), we argue that this mental space that people described as moment of pause, self-talk, and balcony can explain the increased self-consciousness and self-awareness in participants, especially when we notice that the LDP has several debriefing sessions called balcony in its curriculum such as Module C.

Limitations

In addition to the positive impacts observed, we identified certain challenges warranting further investigation. Specifically, in our qualitative study, we noted instances where individuals associated inaction with concepts central to the leadership competencies taught in the LDP, such as “giving work back to people” or “managing self.” Some participants cited refraining from intervention as a way to take care of self or empower others to exercise leadership. Distinguishing whether this inaction represents intentional leadership, as the framework suggests, or a justification for work avoidance, proved challenging for researchers. We recommend that those utilizing adaptive leadership as a teaching framework clarify the distinction between “inaction as lack of action” and “inaction as an act of leadership.”

Moreover, although both transformational and adaptive leadership fall under relational stream of leadership, we recommend developing new validated measurement tools aligned with the adaptive leadership framework. More tailored instruments could distinctively capture the adaptive leadership competencies, enabling a more precise evaluation of such LDPs. This is particularly important knowing that the object and result of transformational leadership –follower and influence–differ from those in adaptive leadership which is activity and adaptive capacity/space respectively ([Heifetz & Linsky, 2002](#); [Ospina, 2016](#)).

Conclusion

This paper showed that the LDP was impactful in different ways. The findings explain one mechanism underlying the improvements and changes in leadership competencies. For instance, the study shows the LDP was successful in improving TLB after 30 days by impacting participants’ LSVs during the program. Furthermore, the study surprisingly found that race was a significant predictor of TLB, with URM participants scoring higher, on average, on both variables.

Our deep dive into people’s leadership experiments through qualitative research also unveiled encouraging indications of LDP’s impact. The qualitative study demonstrated people’s decision-making process to intervene may involve three types of evaluations.

The analysis revealed that people's assessment of the current situation (first evaluation) may place them in a conflict between their anxieties and the courage to take action (second evaluation). Individuals conveyed that the outcome of this internal conflict shapes their decision to either take action or abstain from it. According to our analysis, we assume that the program exerted an influence on this conflict by enhancing self-efficacy. The study showed that the LDP's tools and experimental approach to interventions gave people confidence to intervene.

During interviews, it became clear that the program's new definition of leadership influenced how participants described their leadership roles. Viewing leadership as an activity rather than just a position seemed to encourage greater self-identification as leaders. Additionally, some participants discussed a reflective "third space" where they assessed their actions to improve future endeavors, aligning with literature suggesting this enhances self-awareness.

Recommendations for future research and practice

Several recommendations for future research and practices emerge from our study findings. Since LSVs at T2 predict TLB at T3, this suggests that designing training modules that particularly target participants' LSVs may narrow the training transfer gap. Our research suggests this can be achieved through three main ways:

- (1) Equipping participants with helpful tools regarding knowing self (e.g. drawing the dis/comfort boundaries) as well as individual reflection of implemented leadership actions. These tools could improve self-efficacy and help people with the mental step of ambivalence and post-action assessment.
- (2) Raising awareness about the emotions that may emerge within each mental space, as described in the qualitative phase, could enhance self-awareness as a self-regulation strategy during challenging periods of practice.
- (3) An experimental mindset can be established by distinguishing between leadership and authority, and by framing actions as experiments rather than adhering to an authority/expert's perspective of a perfect solution. This could also improve self-identification as a leader.

Moreover, since data shows URM participants show more TLBs across time than others, informed by [Festinger's \(1954\)](#) comparison theory, we suggest that race be considered as a factor for designing small peer-learning groups. We recommend further research to be done to explore what explains URM participants exhibiting more TLB.

References

- Ajzen, I. (1991). The theory of planned behavior. *Theories of Cognitive Self-Regulation*, 50(2), 179–211. doi:[10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- Avolio, B. J., & Hannah, S. T. (2008). Developmental readiness: Accelerating leader development. *Consulting Psychology Journal: Practice and Research*, 60(4), 331–347. doi: [10.1037/1065-9293.60.4.331](https://doi.org/10.1037/1065-9293.60.4.331).
- Avolio, B. J., Avey, J. B., & Quisenberry, D. (2010). Estimating return on leadership development investment. *Leadership Development Evaluation*, 21(4), 633–644. doi: [10.1016/j.leaf.2010.06.006](https://doi.org/10.1016/j.leaf.2010.06.006).
- Avolio, B. J., Reichard, R. J., Hannah, S. T., Walumbwa, F. O., & Chan, A. (2009). A meta-analytic review of leadership impact research: Experimental and quasi-experimental studies. *The Leadership Quarterly*, 20(5), 764–784. doi:[10.1016/j.leaf.2009.06.006](https://doi.org/10.1016/j.leaf.2009.06.006).

- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9–32. doi: [10.1080/135943299398410](https://doi.org/10.1080/135943299398410).
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Becker, H. (2001). Epistemology of qualitative research. In Emerson, R. (Ed), *Contemporary field research: Perspectives and formulations* (pp. 53–71). Waveland Press.
- Bhattacharya, K. (2017). *Fundamentals of qualitative research: A practical guide*. New York: Routledge.
- Boaden, R. J. (2006). Leadership development: Does it make a difference?. *Leadership and Organization Development Journal*, 27(1), 5–27. doi: [10.1108/01437730610641331](https://doi.org/10.1108/01437730610641331).
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Carless, S. A., Wearing, A. J., & Mann, L. (2000). A short measure of transformational leadership. *Journal of Business and Psychology*, 14(3), 389–405. doi: [10.1023/a:1022991115523](https://doi.org/10.1023/a:1022991115523).
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, California: Sage.
- Chaturvedi, S., Arvey, R. D., Zhang, Z., & Christoforou, P. T. (2011). Genetic underpinnings of transformational leadership: The mediating role of dispositional hope. *Journal of Leadership and Organizational Studies*, 18(4), 469–479. doi:[10.1177/1548051811404891](https://doi.org/10.1177/1548051811404891).
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. In A. Tashakkori, & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209–240). Thousand Oaks, CA: Sage.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, California: Sage Publications.
- Day, D. V. (2000). Leadership development: A review in context. *Leadership Development*, 11(4), 581–613. doi: [10.1016/S1048-9843\(00\)00061-8](https://doi.org/10.1016/S1048-9843(00)00061-8).
- Day, D. V., & Dragoni, L. (2015). Leadership development: An outcome-oriented review based on time and levels of analysis. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 133–156. doi: [10.1146/annurev-orgpsych-032414-11132](https://doi.org/10.1146/annurev-orgpsych-032414-11132).
- Day, D. V., Harrison, M. M., & Halpin, S. M. (2009). *An integrative approach to leader development: Connecting adult development, identity, and expertise*. London: Routledge/Taylor & Francis Group.
- Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. *Leadership Quarterly 25th Anniversary Issue*, 25(1), 63–82. doi: [10.1016/j.leafqua.2013.11.004](https://doi.org/10.1016/j.leafqua.2013.11.004).
- Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal*, 45(4), 735–744, available at: <https://www.jstor.org/stable/3069307>
- Festinger, L. (1954). A Theory of social comparison processes. *Human Relations*, 7(2), 117–140. doi: [10.1177/001872675400700202](https://doi.org/10.1177/001872675400700202).
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. doi: [10.2753/mtp1069-6679190202](https://doi.org/10.2753/mtp1069-6679190202).
- Hall, D. T. (2004). Self-awareness, identity, and leader development. In D. V. Day, S. J. Zaccaro, & S. M. Halpin (Eds.), *Leader development for transforming organizations: Growing leaders for tomorrow* (pp. 153–176). Lawrence Erlbaum Associates.
- Hannah, S. T., Avolio, B. J., Luthans, F., & Harms, P. D. (2008). Leadership efficacy: Review and future directions. *The Leadership Quarterly*, 19(6), 669–692. doi: [10.1016/j.leafqua.2008.09.007](https://doi.org/10.1016/j.leafqua.2008.09.007).

- Hastings, L. J., & Sunderman, H. M. (2019). Generativity and socially responsible leadership among college student leaders who mentor. *Journal of Leadership Education, 18*(3), 1–14. doi: [10.12806/V18/I3/R1](https://doi.org/10.12806/V18/I3/R1).
- Heifetz, R. A. (1994). *Leadership without easy answers*. Cambridge, MA: Belknap Press of Harvard University Press.
- Heifetz, R., & Linsky, M. (2002). Leadership on the line. *Harvard Business Review, 80*(6), 65–152.
- Heifetz, R. A., Linsky, M., & Grashow, A. (2009). *The practice of adaptive leadership*. Harvard Business Review Press.
- Hiller, N. J. (2005). *An examination of leadership beliefs and leadership self-identity: Constructs, correlates, and outcomes*. Doctoral dissertation. Pennsylvania State University.
- Huang, J. L., Blume, B. D., Ford, J. K., & Baldwin, T. T. (2015). A tale of two transfers: Disentangling maximum and typical transfer and their respective predictors. *Journal of Business and Psychology, 30*(4), 709–732. doi:[10.1007/s10869-014-9394-1](https://doi.org/10.1007/s10869-014-9394-1).
- Katz, J. (2001). A theory of qualitative methodology: The social system of analytic fieldwork. In Robert, E. (Ed.), *Contemporary field research: A collection of readings* (pp. 127–148). Waveland Press.
- Lacerenza, C. N., Reyes, D. L., Marlow, S. L., Joseph, D. L., & Salas, E. (2017). Leadership training design, delivery, and implementation: A meta-analysis. *Journal of Applied Psychology, 102*(12), 1686–1718. doi: [10.1037/ap10000241](https://doi.org/10.1037/ap10000241).
- Lord, R. G., & Hall, R. J. (2005). Identity, deep structure and the development of leadership skill. *The Leadership Quarterly, 16*(4), 591–615. doi: [10.1016/j.leafqua.2005.06.003](https://doi.org/10.1016/j.leafqua.2005.06.003).
- Mason, C., Griffin, M., & Parker, S. (2014). Transformational leadership development. *Leadership and Organization Development Journal, 35*(3), 174–194. doi: [10.1108/LODJ-05-2012-0063](https://doi.org/10.1108/LODJ-05-2012-0063).
- Morin, A. (1993). Self-talk and self-awareness: On the nature of the relation. *Journal of Mind and Behavior, 14*(3), 223–234.
- Murphy, S. E. (1992). *The contribution of leadership experience and self-efficacy to group performance under evaluation apprehension*. Doctoral dissertation. University of Washington. Available from: <https://digital.lib.washington.edu/443/researchworks/handle/1773/9167>
- Neider, L. L., & Schriesheim, C. A. (2011). The authentic leadership inventory (ALI): Development and empirical tests. *The Leadership Quarterly, 22*(6), 1146–1164. doi: [10.1016/j.leafqua.2011.09.008](https://doi.org/10.1016/j.leafqua.2011.09.008).
- O'Malley, E., & Cebula, A. (2015). *Your leadership edge*. KLC Press.
- Ospina, S. M. (2016). Collective leadership and context in public administration: Bridging public leadership research and leadership studies. *Public Administration Review, 77*(2), 275–287. doi: [10.1111/puar.12706](https://doi.org/10.1111/puar.12706).
- Ospina, S. M., & Uhl-Bien, M. (2012). Exploring competing bases for legitimacy in contemporary leadership studies. In M. Uhl-Bien, & S. M. Ospina (Eds.), *Advancing relational leadership: A dialogue among perspectives* (pp. 1–40). Information Age Publishing.
- Pugh, A. J. (2013). What good are interviews for thinking about culture? Demystifying interpretive analysis. *American Journal of Cultural Sociology, 1*(1), 42–68. doi: [10.1057/ajcs.2012.4](https://doi.org/10.1057/ajcs.2012.4).
- Puligandla, R. (1970). Phenomenological reduction and yogic meditation. *Philosophy East and West, 20*(1), 19–33. doi: [10.2307/1397657](https://doi.org/10.2307/1397657).
- R Core Team (2021). *R: a language and environment for statistical computing*. Vienna: R Foundation for Statistical Computing. Available from: <https://www.R-project.org/>
- Reichard, R. J., & Beck, J. E. (2017). Leader developmental readiness: Deconstructed and reconstructed. In M. G. Clark, & C. W. Gruber (Eds.), *Leader Development Deconstructed* (pp. 115–140). Springer International Publishing. doi: [10.1007/978-3-319-64740-1_6](https://doi.org/10.1007/978-3-319-64740-1_6).
- Saldaña, J. (2021). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications.

- Schneider, J. F. (2002). Relations among self-talk, self-consciousness and self-knowledge. *Psychological Reports, 91*(3, Pt1), 807–812. doi: [10.2466/PRO.91.7.807-812](https://doi.org/10.2466/PRO.91.7.807-812)
- Taylor, S. N. (2010). Redefining leader self-awareness by integrating the second component of self-awareness. *Journal of Leadership Studies, 3*(4), 57–68. doi: [10.1002/jls.20139](https://doi.org/10.1002/jls.20139).
- Tingle, E., Corrales, A., & Peters, M. L. (2019). Leadership development programs: Investing in school principals. *Educational Studies, 45*(1), 1–16. doi: [10.1080/03055698.2017.1382332](https://doi.org/10.1080/03055698.2017.1382332).
- Tracy, S. J. (2010). Qualitative quality: Eight 'big-tent' criteria for excellent qualitative research. *Qualitative Inquiry, 16*(10), 837–851. doi:[10.1177/1077800410383121](https://doi.org/10.1177/1077800410383121).
- Tsyganenko, M. V. (2014). The effect of a leadership development program on behavioral and financial outcomes: Kazakhstani experience. *Challenges and Innovations in Management and Leadership, 124*, 486–495. doi: [10.1016/j.sbspro.2014.02.511](https://doi.org/10.1016/j.sbspro.2014.02.511).
- Van Manen, M. (2014). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Walnut Creek, CA: Left Coast Press.
- Weiss, R. (1995). *Learning from strangers: The art and method of qualitative interview studies*. New York: Free Press.

Corresponding author

Keyhan Shams can be contacted at: Keyhan@ksu.edu

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com