



Coaching-Based Leadership in Educational Organizations: A Scale Adaptation Study

Ramazan Toka¹, Servet Atik²

Abstract

The current study set out to examine the component structure and psychometric qualities of the Zuberbühler et al. (2021) created Coaching-Based Leadership Scale (CBL) in a Turkish sample. 556 instructors who worked in public and private schools across Turkey provided the research's data. The scale items were first translated and backwards-translated by professionals who speak Turkish and English. The scale was then given to specialists so they could review it for correctness and consistency in light of the comments they had received. The scale's language equivalency was determined through a pilot research, and then its structural validity was investigated in a Turkish population. The findings of exploratory factor analysis (EFA), which was carried out for the scale's validity investigation, were assessed using confirmatory factor analysis (CFA). The scale features a two-factor structure with 16 components, according to the EFA results. The scale's model-data fit was found to be at an acceptable level by the CFA findings. The reliability coefficient of Cronbach Alpha for the scale was found to be 0.94. The correlation coefficient of the scale between the two apps was found to be .93 based on the test-retest findings. These findings suggest that the scale can be a viable and trustworthy instrument for assessing the coaching-based leadership levels of Turkish school principals, as evidenced by the scale's stability over time.

Keywords: *Coaching-based leadership, scale development, school principals, teacher.*

Article History:

Received: April 2, 2025

Accepted: June 21, 2025

Published: June 30, 2025

Recommended Citation: Toka, R. & Atik, S. (2025). Coaching-based leadership in educational organizations: A scale adaptation study. *International Journal of Excellent Leadership, 5(1), 21-37.*

¹Corresponding author: Teacher, Ministry of National Education, PhD Student, Inonu University, Malatya/Turkey, toka14584@gmail.com, ORCID: 0009-0009-7181-0477

²Assoc. Prof. , Faculty of Education, Inonu University, Malatya, Turkey, servet.atik@inonu.edu.tr, ORCID: 0000-0003-2841-6182

Introduction

Organizations need creative ways to leadership in order to remain innovative and competitive. Ellinger (2020) notes that coaching-based leadership, sometimes referred to as leader-as-coach or managerial coaching (Milner, McCarthy, & Milner, 2018), has drawn a lot of attention as a crucial sign of efficient management practices that affect workers without depending on official authority. Cox et al. (2010) state that in order to help their employees fulfill their potential and meet their personal development goals, coaching leaders should test and support them (Berg & Karlsen, 2016). According to Lee, Idris, and Tuckey (2019), a key component of effective leadership is coaching-based leadership (CFL), which mostly occurs in regular interactions between a leader and their followers (Zuberbühler 2020). Closing the hierarchical divide between the employer and the employee was the aim of this new paradigm in leadership. Hagen & Aguilar (2012) notes that the most fruitful microbehaviors exhibited by great leaders are still elusive despite the fact that prior developments in leadership theory, such as transformational or authentic leadership, can assist leaders in acting more successfully. As such, CBL might function as a medium for the exchange of ideas between different leadership ideologies. As such, CBL might function as a medium for the exchange of ideas between different leadership ideologies. The implementation of a relationship-oriented audit technique has led to the identification of coaching-based leaders as very significant in organizational contexts due to potential benefits for employee development, welfare, and performance (Bormann & Rowold, 2018).

Moreover, a common set of measuring techniques for CBL has not yet proven beneficial to scholars and specialists. Hagen & Peterson (2014) have examined most of the existing methods that evaluate various executive behaviors on coaching skills or executive coaching (Dahling, Taylor, Chau, & Dwight, 2016). To address the core components of CBL and determine its true benefits and relevance in the institutional environment, greater scale development and validation are thus needed.

Literature Review

The new paradigm of coaching-based leadership is the result of several years of research on coaching, management, and leadership coming together (DiGirolamo & Tkach, 2019). Grant and Gerrard (2020) define coaching as a collaborative collaboration that strives to promote the coachee's personal development and goal accomplishment. Professional coaching is a rigorous, well-defined process that often involves private, one-on-one sessions. Instead, managers or other leaders frequently offer coaching in a specific corporate setting to enhance the desired performance and success of staff members. Leaders in these kinds of interactions adopt a more conversational style as opposed to holding formal meetings (DiGirolamo & Tkach, 2019; Grant, 2010).

Though research over the past 10 years has expanded its conception, there hasn't been much published about coaching-based leadership (Karlsen & Berg, 2020). As to Cox et al. (2010), a coaching leadership style is characterized by providing staff members with assistance and helping them identify opportunities to accomplish their personal development goals. Goleman & Welch (2012) state that the main goal of coaching—one of the leadership modalities that produces the best results—is to help people improve their personal resources. According to Dello Russo, Miraglia, and Borgogni (2017), coaching leaders help employees reach their maximum potential by concentrating on their requirements and forming a solid collaboration. Ellinger, Bachrach, Wang, & Elmadağ Baş (2011) state that managers and leaders work to foster a culture of trust among their employees and bring about change and progress via customized learning. Coaches can assist employees find their own answers and improve their own development and performance (Grant & O'Connor, 2010; Milner et al., 2018). As stated by Karlsen and Berg (2020), who made this statement more recently, coaching is the main tactic employed by leaders to assist their employees in enhancing their personal qualities, self-leadership, and self-control.

As for commonalities between certain characteristics like stimulus of thought, inspiring motivation, self-awareness, the coach has been linked to earlier theories of leadership, including Bass and Avolio's (1994) transformational leadership (Grant, 2007). However, Kuntz, van Woerkom, van Kollenburg, and Poell (2018) define transformational leadership style as behaviors that are directed at groups of workers rather than specific people. As per Anderson (2013), leaders' coaching behaviors are characterized by one-on-one interactions with staff members aimed at promoting personal development.

Therefore, it is logical that these micro-behaviors would be a better way for them to exhibit their transformational leadership skills (Hagen & Aguilar, 2012). Furthermore, transformational leaders need to possess emotional intelligence, such as sensitivity and empathy to workers' emotional requirements, in order to address their internal demands (Lange, Bormann, & Rowold, 2018). Leaders who use coaching techniques might exhibit these skills in their regular communications with staff members. These assumptions are consistent with a current research (Lee et al., 2019) that confirmed the influence of coaching actions on employees' attitudes (such as job engagement and turnover intentions) by a leader using transformational leadership.

Moreover, CBL and genuine leadership—which is characterized as a model—may have certain similarities. According to Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008), leaders who embody self-awareness—an internalized moral perspective—concentrate on relational transparency, balanced information processing, and the audience's and their own positive progress. As stated by Gardner, Avolio, Luthans, May, and Walumbwa (2005), genuine leaders strive for authenticity even if workers are the focus of both leadership philosophies. On the other hand, leaders who use coaching place a high importance on their employees' capacity to solve problems and accomplish their own goals in order to achieve positive business outcomes (Goleman et al., 2012). As stated by Walumbwa, Avolio, Gardner, Wernsing, & Peterson (2008), authentic leadership is defined as a type of leader conduct that promotes positive self and audience growth through relational transparency, balanced information processing, internalized moral viewpoint, and self-awareness. This behavior may also be linked to CBL. While all leadership philosophies emphasize the importance of employees' labor, coaching-based leaders seek to enable employees to realize their own potential and find autonomous solutions to challenges in order to produce favorable company outcomes (Goleman et al., 2012). Authentic leaders, on the other hand, work toward becoming authentic (Gardner, Avolio, Luthans, May, & Walumbwa, 2005).

According to Nübold, Van Quaquebeke, and Hülshager (2020), leaders have the ability to foster more authenticity in their everyday interactions with staff members by establishing meaningful connections and articulating their demands to subordinates in an open and transparent manner. In their attempt to provide an integrated model of leadership behaviors, Behrendt, Matz, and Göritz (2017) emphasized that different leadership styles have an effect on certain micro-behaviors. Consequently, CBL stands for critical leadership behaviors in relation to worker development that can clarify the relationship between desired employee outcomes like improved performance and well-being and leadership styles like transformational or authentic leadership (Lee et al., 2019).

Furthermore, in the view of Miller et al. (2018), management coaching has been compared to CBL by earlier researchers. According to Ellinger & Ellinger (2020), this participatory management approach is characterized as a leadership practice that maximizes people potential by offering constructive feedback and support. DiGirolamo and Tkach (2019) found that leaders may use coaching skills as a component of a participative management style to assist workers realize how their work aligns with a vision. The authors coined the phrase "coaching approach to managing or leading" in response to this. According to Anderson (2013), understanding the manager as a coach is best achieved by looking at it by means of the "lens" of leadership theory as opposed to the expert coaching viewpoint. This is a result of the several coaching characteristics that have been recognized, including growth orientation, goal-setting and planning, and feedback. For the purpose of being an effective coach, a manager must acknowledge the leadership processes' relational and social constructivist features, which result in lessening of the leaders-followers hierarchical gap. It's important to combine the concepts of coaching managers and leaders into a unified CBL theory since these roles, activities, and objectives are often comparable (Tkach & DiGirolamo, 2019).

The idea known as Leader-Member Exchange (Graen & Schiemann, 1978) provided the motivation for CBL since it asserts that leaders are capable of developing outstanding connections with those under them. High levels of mutual respect, trust, interaction, and support characterize these partnerships, which improve employee performance. As stated by Pousa, Mathieu, and Trépanier, 2017, the concept of Leader-Member Exchange has been utilized to comprehend the interactions that occur between supervisors and staff members when they serve as coaches. Despite efforts to expand the theoretical framework of CBL, further research is needed to produce an integrated theory that clarifies

qualities and provides a strong foundation for CBL (Karlsen & Berg, 2020). Schaufeli and Bakker (2004) state that the Job Demand Resources (JD-R) model taking a psychosocial approach, leadership coaching is a valuable work resource that promotes a motivating process that improves favorable work-related outcomes.

The existing literature is limited about what Coaching-Based Leadership comprises, despite its widespread adoption in accordance with an emerging management framework for employee interactions (Karlsen & Berg, 2020). Finding the characteristics most commonly linked to this leadership style can help clarify the idea and advance theory development. As of yet, specialists and researchers have not employed a common set of assessment techniques for coaching-based leadership. There are numerous tools available today for evaluating managerial coaching or coaching skills (Hagen & Peterson, 2014), many of which evaluate various sets of managerial behaviors that haven't been examined before (Dahling, Taylor, Chau, & Dwight, 2016). Consequently, more scale development and validation are needed to address the fundamentals of coaching-based leadership and determine its true benefits and importance in the context of businesses.

These explanations make it clear that the adoption of a relationship-oriented audit approach, which can benefit employee performance, growth, and well-being in educational institutions and organizations, has led to the recognition of the significance of coaching-based leadership in organizational settings. Reducing the hierarchical distance between a leader and an employee is the goal of the new paradigm known as coaching-based leadership. Upon reviewing the literature, a restricted assessment instrument was discovered to gauge teachers' coaching-based leadership within educational institutions. This study aimed to translate the "Coaching-Based Leadership" scale developed by Zuberbühler et al. (2021) into Turkish in order to perform validity and reliability evaluations.

An accurate and proven measurement technique has not yet been published in the literature, despite the rising volume of research on CBL. If validated scales are to be investigated, management coaching and professional coaching are the most comparable fields.

The Behavioral Observation Scale (Heslin, Vandewalle, & Latham, 2006), the Coaching Behaviors Inventory (Ellinger, Ellinger, & Keller, 2003), and the Coaching Skills Measurement Model (Park, McLean, & Yang, 2008) are a few of the tools created to evaluate the common executive coaching features in the literature. Further instruments that have been produced recently but are not as popular among academics include the Manager and Leader Coaching Composite scale (DiGirolamo & Tkach, 2019), the Perceived Quality of Employee Coaching Relationship scale (Gregory & Levy, 2011), the Manager Oriented Coaching Skills Questionnaire (Grant & Cavanagh, 2007), and the Managerial Coaching Assessment System (David & Matu, 2013).

The diversity of these approaches suggests that scholars are quite interested in characterizing the qualities of coaching managers and leaders. However, like previous studies on leadership/manager coaching scales, the bulk of the scales have a variety of methodological and philosophical problems (Hagen, 2012). A portion of the elements in the theoretical component have more to do with management than with coaching. For instance, using the David and Matu (2013) scale to offer direction, assist employees in creating plans, and clarify how activities are to be completed; or the Ellinger et al. (2003) scale to establish and convey expectations. Other tools have disregarded important elements that have been highlighted in coaching literature, such as listening, questioning, and building trust and working alliances (Heslin et al., 2006). The aforementioned measure has faced criticism because of its correlation with the sports industry (Pettersson & Little, 2005).

Managers and leaders are required by their businesses to step into the role of coach by utilizing a range of emotional, cognitive, and behavioral tactics to optimize their subordinates' performance (Grant, 2010). Several studies have shown that the coaching manager or leader exhibits a set of skills or beliefs that support the coaching attitude and allow the performance of certain actions or behaviors toward their team (Hagen, 2012). Coaching abilities and real coaching behaviors may be viewed differently, but they are connected and should be included in a framework that describes the leader in the role of coach.

Explanations on the Original Scale

To identify the fundamental characteristics of CBL, a thorough, systematic literature study was carried out (Peláez, 2020). The research has identified and supported a number of factors that are relevant to coaching-based managers and leaders who work with their staff in organizational and professional coaching contexts. The evaluation also included current leadership and management coaching initiatives. Eight essential traits that comprise the fundamental CBL abilities and behaviors were therefore found and categorized into four categories:

(I) Working Alliance: (1) a working alliance;

(II) Open communication: (2) attentive, empathetic and caring hearing and (3) strong inquiry;

(III) Learning and Development : (4) development facilitation, (5) feedback provision, and (6) identifying and developing strengths; and

(IV) Progress and Results: (7) planning and goal setting and (8) managing progress.

(I) Working alliance

Building a safe and solid connection that supports the development of respect, trust, and openness between parties is the foundation of forming a working alliance (Karlsen & Berg, 2020). Being genuinely interested in the future and well-being of staff members, being sincere, setting clear expectations, and keeping your word are all necessary for effective coaching. This quality is essential because it enables leaders to form alliances and create a close-knit, compassionate bond with staff members (Graham, Wedman, & Garvin-Kester, 1994). Therefore, by sharing meaning, purpose, and commitment, building a working alliance enables leaders and workers to take advantage of opportunities and reach a high degree of dependency to accomplish performance (Kemp, 2009).

(II) Open Communication

As per Gilley and Kouider (2010), the adoption of efficient communication strategies by coaching leaders is another crucial aspect. Whitmore (2002) state that effective questioning strategies and active, sympathetic, and compassionate listening are used by coaching leaders in both formal and informal settings. In order to grasp the core of what the employee is saying, the coaching leader becomes more adept at picking up on the motivation that lies beneath the genuine conversation (Kemp, 2009). Furthermore, Graham et al. (1994) state that the establishment of an atmosphere that enables workers to freely express their thoughts and emotions is made possible by enough degrees of empathy, comprehension, compassion, and acceptance. To foster meaningful connections, a leader must engage in active listening, attentively consider the employee's perspective, and respond with compassion, minimizing the impact of their own personal experiences and viewpoints. This approach enhances their understanding of the employee (Kemp, 2009). Likewise, Ellinger (2003) claim that question framing is regarded as an essential coaching technique that elicits motivation first and then a higher level of awareness and reflection. The employee's demands may be brought to light, heard, and fully comprehended thanks to this questioning strategy (Kemp, 2009).

(III) Learning and development

According to Park (2008), as coaches, leaders and managers also frequently engage in the dominating behavior of providing chances for development and ongoing learning to their staff in order to effectively guide people toward desired objectives. Additionally, assisting staff members in identifying, developing, and using their special talents while offering them constructive criticism makes coaching leaders more effective (Karlsen & Berg, 2020). They thereby motivate staff members to more effectively direct their skills into worthwhile actions (Peterson & Seligman, 2004). Utilizing their abilities increases employee engagement and increases the likelihood that they will meet their objectives (Harter, Schmidt, & Hayes, 2002; Biswas-Diener, R., 2010).

(IV) Progress and results

According to Grant, Cavanagh (2007), planning and goal setting is the assistance that managers provide to staff members in establishing personal objectives and making sure they follow through on the designated course of action. Managers and coaching leaders collaborate with each employee to create ambitious growth objectives that spur output (Dahling et al., 2016). They assist staff members in tracking

and assessing their development as well as managing their duties throughout the process in order to achieve steady improvement (Grant & Cavanagh, 2007).

Method

This study aims to determine the relationship between authentic leadership behaviors and crisis management skills of school administrators working in schools and to examine it according to some variables. For this reason, the research design was determined as a relational survey model. Relational survey models are research models that aim to determine the presence or degree of change in two or more variables together (Karasar, 2019).

Workgroups

The Coach-Based Leadership Scale was adapted to Turkish using three distinct samples of instructors from both public and private schools.

First Study Group

Data on exploratory factor analysis (EFA) were gathered from this research group. There are 310 people in this research group. In the initial research group, there were 181 female (58.4%), 129 male (41.6%), 248 undergraduate (80%), 62 (20%) graduate-doctorate teachers.

Second Study Group

The group that provided the Confirmatory Factor Analysis (EFA) data was this research group. This study group consists of 183 participants. The second study group consisted of 60 female (32.8%), 123 male (67.2%), 131 undergraduate (71.6%), and 52 (28.4%) graduate-doctorate teachers.

Third Study Group

It is the group where the data related to the Test Retest are obtained. The goal of this research group was to test the scale's consistency throughout time. The scale was applied to this study group twice with an interval of 15 days. This study group consists of 63 participants. The third study group consisted of 24 female (38.1%), 39 male (61.9%), 44 undergraduate (69.8%), and 19 (30.2%) graduate-doctorate teachers.

Data Collection Tool

Coaching-Based Leadership Scale: The "Coaching-Based Leadership Scale," developed by Martínez and Marisa Salanova (2021), was utilized in the study. to evaluate school administrators' coaching-based leadership skills based on reports from Isabel M., Cristián Coó Calcagni, and María Josefina Peláez Zuberbühler. The scale was created by Isabel M. Martínez, Marisa Salanova et al. (2021) in order to examine the psychological mechanisms and establish a connection between CBL and outcomes connected to the job (such work engagement and performance both within and outside of the role), as well as to develop and validate a instrument that measures CBL traits in the workplace from the perspectives of both leaders and employees. Their research with 706 employees in 10 enterprises in Spain (4 organizations; 74.6% of employees) and Latin America (6 organizations; Peru = 34.2%; Argentina = 24.3%; Mexico = 31.6%) allowed them to identify the traits of a successful coaching-based leader.

Transaction

Initially, the researchers who created the "Coaching-Based Leadership" scale emailed María Josefina Peláez Zuberbühler to get permission to use the measure, and then they translated the scale into Turkish. The Root-Based Leadership Scale's sixteen items were translated into Turkish before the scale was adjusted for Turkish. For the translation research, professional linguists provided assistance. A lecturer who is fluent in Turkish and English, two faculty members, and three PhD students translated the scale's components into Turkish.

Subsequently, a faculty member and four specialists within the discipline of managing education assessed the translation alternatives and determined several translations. Before the pilot application, the selected scale items were reviewed by three experts in Turkish language and literature for meaning,

fiction fidelity, and Turkish spelling. These experts' recommendations were implemented on the scale. Subsequently, two associate professors and a doctorate faculty member, who were not the same specialists that completed the original translation procedure and were fluent in both languages, finished translating the scale items back into Turkish. Ultimately, the scale's English translation was examined with another by two specialists, resolving any potential discrepancies. The most recent version of the Digital Leadership Scale was administered to fifty educators. It was determined from the pilot research that the participants found the scale items to be clear and intelligible.

In order to evaluate the dependability of the scale's score findings, construct validity is an essential step in the scale adaptation process. The construct validity of scales created in the social sciences is often tested using the factor analysis approach (Büyüköztürk, 2014). This method involves the use of two fundamental techniques: exploratory factor analysis (EFA), confirmatory factor analysis (CFA). The construct validity of the measure in this study was verified by using CFA after EFA. Based on the findings, CFA was done to assess model-data fit and the EFA analysis was conducted using SPSS 26. For the CFA procedure, AMOS 24 was employed. The measurement tool's construct validity is evaluated using EFA (Worthington & Whittaker, 2006). Contrarily, CFA involves leveraging the variables found in the model made to confirm the pre-existing structure to construct a "latent variable" (Yashioğlu, 2017).

The basis for assessing the normalcy assumption of the data set during EFA and CFA was the presumptions that the Z scores were between +3 and -3 and that the skewness and kurtosis values were between +1 and -1 (Çokluk, Sekercioğlu, and Büyüköztürk, 2010). After the analyses, it was discovered that the data sets used for the EFA and CFA research had a normal distribution. By contrasting the corrected item-total correlations with the upper 27% and lower 27% of the data, the discriminating power of the items was assessed (Can, 2017).

Findings

Exploratory Factor Analysis

The Coaching-Based Leadership scale for educational institutions was first modified using exploratory factor analysis. To ascertain if the data were appropriate for factor analysis, the results of the Barlett (Sphericity) Sphericity test and the Kaiser Meyer Olkin (KMO) coefficient were examined. According to Büyüköztürk (2014), a Kaiser Meyer Olkin (KMO) coefficient greater than .60 suggests that the data set is appropriate for study. Based on the Kaiser Meyer Olkin (KMO) coefficient of .96 and the Barlett Sphericity test result of $\chi^2 = 4292,582$ $df = 12$, ($p < .01$), the study indicated that the data set was suitable for factor analysis. The results of the exploratory factor analysis are shown in Table 1.

Table 1
Exploratory factor analysis results

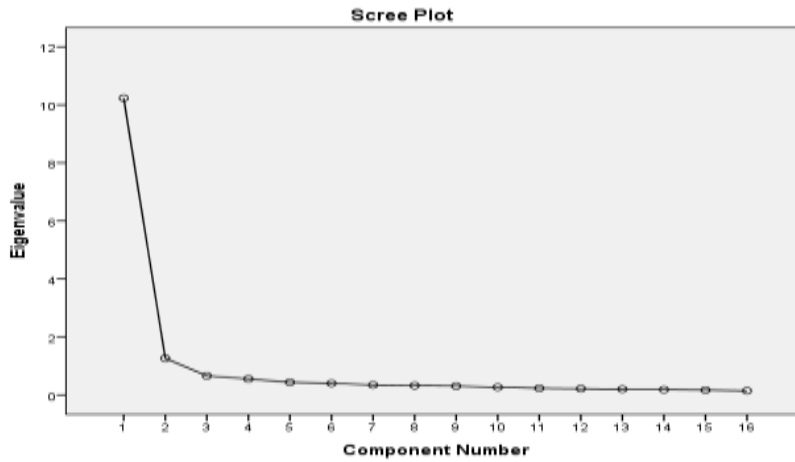
Items	Dimensions			
	Progress and Development	Communication and Commitment	Factor Common Variance	Corrected Item Test Correlations
1. My school principal asks me to provide information about my progress towards my goals. (Okul müdürüm, hedeflerimle ilgili ilerlemelerim hakkında bilgi vermeme ister)	.854		.801	.808
2. My principal helps me develop effective action plans. (Okul müdürüm, etkili eylem planları geliştirmeme yardımcı olur)	.845		.832	.854
3. My principal monitors and evaluates progress against my goals. (Okul müdürüm, hedeflerimdeki ilerlemeleri takip eder ve değerlendirir)	.839		.810	.835

4. My principal provides ongoing feedback to improve my performance. (Okul müdürüm performansımı geliştirmek için sürekli geri bildirim sağlar)	.804	.733	.783
5. My school principal sets ambitious, achievable goals. (Okul müdürüm, iddialı, ulaşılabilir hedefler belirler)	.793	.770	.830
6. My principal easily identifies my strengths. (Okul müdürüm, benim güçlü yönlerimi kolaylıkla tespit eder)	.769	.720	.797
7. My school principal gives me opportunities to actively take on more responsibility in my work. (Okul müdürüm, işlerimde aktif olarak daha fazla sorumluluk almam için bana fırsatlar sunar.)	.759	.692	.776
8. My principal appreciates my work-related strengths. (Okul müdürüm, işle ilgili güçlü yönlerimi takdir eder.)	.698	.693	.800
9. It is an important goal for my school principal for teachers and staff to renew and improve themselves. (Okul müdürüm için öğretmen ve personelin kendini yenilemeleri ve geliştirmeleri önemli bir hedeftir.)	.612	.553	.706
10. There is an understanding based on mutual respect between me and my school principal. (Okul müdürüm ile aramda karşılıklı saygıya dayalı bir anlayış vardır.)	.840	.727	.598
11. My principal cares about teachers and other staff. (Okul müdürüm, öğretmenleri ve diğer personelleri önemser.)	.800	.744	.716
12. When I talk to my principal, my principal listens to me carefully. (Okul müdürümle konuştuğumda okul müdürüm beni dikkatlice dinler.)	.760	.711	.723
13. When I tell my school principal about my problems, my school principal listens to me patiently. (Okul müdürüme sorunlarımı anlattığımda okul müdürüm beni sabırla dinler.)	.731	.707	.748
14. My school principal understands teachers and other staff by communicating with them.(Okul müdürüm, öğretmenler ve diğer personellerle iletişim kurarak onları anlar.)	.669	.743	.815
15. My school principal treats me with compassion during difficult times.(Okul müdürüm, zor günlerimde bana şefkatli davranır.)	.628	.693	.745
16. There is a sense of commitment between my school principal and the teachers.(Okul müdürüm ile öğretmenler arasında bağlılık duygusu vardır.)	.600	.625	.742
Eigenvalue		6.69	4.80
Total Variance Explained: (71,87)		41.81	30.05
Cronbach's Alpha		.95	.92
Cronbach Alpha (for the full scale)		.96	

Based on the EFA results, it was discovered that the Turkish version of the original 4-dimensional scale had a 2-dimensional structure. "Progress and Development" and "Communication and Commitment" are the two aspects that were identified through a review of the literature and scale items. The articles' factor loads varied from .60 to .85, and the factor common variances were found to be between .55 and .83 when the EFA data were reviewed. The scale's adjusted item test correlation coefficients were found to range from .55 to .83. After analysis, the scale was found to have a two-factor structure and an eigenvalue greater than 1 and that its total variance explained was 71.87%. Figure 1 displays a scree plot with the number of components.

Figure 1

Scree Plot Displaying the Number of Components



The two-factor structure of the scale is revealed by the Scree Plot in Figure 1.

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) was used to ascertain the structure of the two-dimensional scale that was produced as a consequence of the exploratory factor analysis. While evaluating the analysis results, the fit values in Table 2 were examined.

Table 2

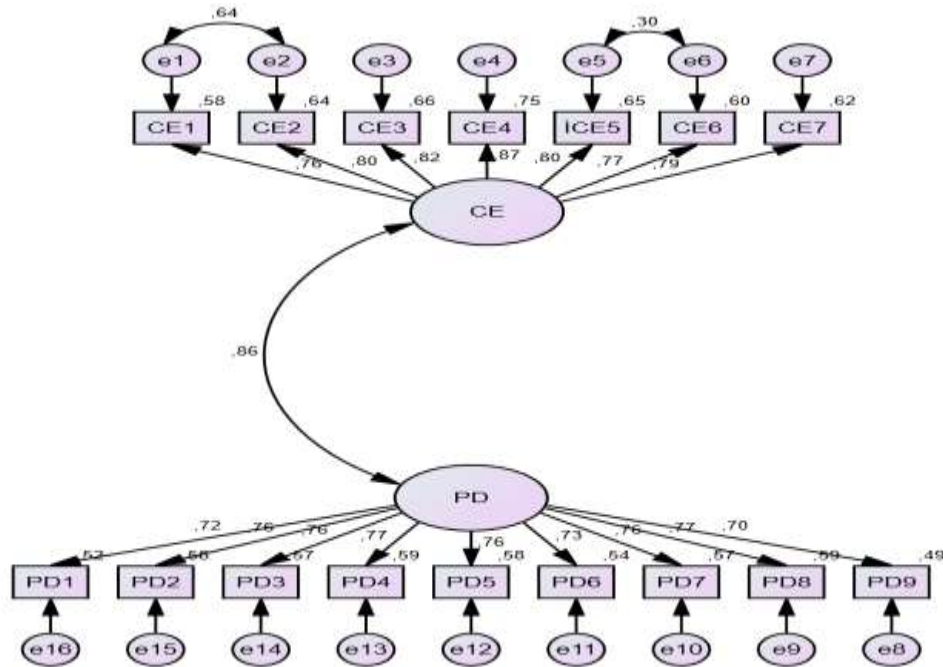
Acceptable and Good Fit Values for Fit Indices

Fit Index	Acceptable Compliance	Good Fit	Goodness of Fit Values Obtained in the Study
χ^2/sd	$2 \leq \chi^2/sd \leq 5$	$0 \leq \chi^2/sd < 2$	1,50 (Good Fit)
GFI	$0.90 \leq GFI < 0.95$	$0.95 \leq GFI \leq 1.00$	0,91(Good Fit)
AGFI	$0.85 \leq AGFI < 0.90$	$0.90 \leq AGFI \leq 1.00$	0,88(Good Fit)
NFI	$0.90 \leq NFI < 0.95$	$0.95 \leq NFI \leq 1.00$	0,93(Good Fit)
NNFI/TLI	$0.95 \leq NNFI < 0.97$	$0.97 \leq NNFI \leq 1.00$	0,97 (Good Fit)
IFI	$0.90 \leq IFI < 0.95$	$0.95 \leq IFI \leq 1.00$	0,97 (Good Fit)
CFI	$0.95 \leq CFI < 0.97$	$0.97 \leq CFI \leq 1.00$	0,97(Good Fit)
RMSEA	$0.05 \leq RMSEA \leq 0.08$	$0 \leq RMSEA < 0.05$	0,05 (Good Fit)
RMR	$0.05 \leq RMR \leq 0.08$	$0 \leq RMR < 0.05$	0,02(Good Fit)
SRMR	$0.05 \leq SRMR \leq 0.08$	$0 \leq SRMR < 0.05$	0,02(Good Fit)

(Harrington, 2009; Schreiber v.d., 2006; Sümer, 2000)

Upon reviewing the confirmatory factor analysis findings, the following values were found: $\chi^2/sd=1.50$, GFI = 0.91, AGFI = 0.88, MSEA = 0.05, NFI = 0.93, NNFI/TLI =0.97, IFI =0.97, CFI = 0.97, RMSEA = 0.05, RMR =0.02, SRMR =0.02. Taking into account the information acquired from the confirmatory factor analysis, it can be said that the scale has a good fit when examined in terms of fit index criteria.

Figure 2
Confirmatory Factor Analysis



(CC: Communication and Commitment, PD: Progress and Development)

The Cronbach Alpha internal consistency coefficient for the scale's reliability analyses was discovered to be for both the first and second study groups.96. According to Büyüköztürk (2014), when it comes to psychological testing, a Cronbach Alpha reliability coefficient of.70 and above is appropriate, and a Cronbach Alpha reliability value of.90 and above is regarded as exceptional (Kline, 2010). These results support the notion that the Coaching-Based Leadership Scale has an excellent internal consistency coefficient.

In order to ascertain if the scale is consistent with time, it was administered to fifty instructors operating in Turkey during the 2023–2024 academic year, twice and sixteen days apart. Table 3 lists the test-retest reliability coefficients, arithmetic mean, standard deviation, and Cronbach Alpha coefficients for both applications.

Table 3
Test-Retest Reliability Analysis

Application	\bar{X}	r	Cronbach's Alpha
I. Implementation	3-63		.97
II. Implementation	3 58	.93	.96

The arithmetic mean of the initial application scores was 3.63, and based on the information in Table 3, the Cronbach Alpha internal consistency coefficient was.97. Cronbach Alpha's internal consistency coefficient was.96, according to the findings of the second application and the scores' arithmetic mean was 3.58. In both cases, a correlation coefficient of.93 was observed to be attained. The

scale measures taken before and after the test show a strong and positive correlation. These findings support the notion that the scale is time-consistent. Lower-Upper Group Analysis approaches were also applied in the context of the scale's item analysis (Büyüköztürk, 2014). The Turkish version of the Coaching-Based Leadership Scale's higher 27% and lower 27% were compared to use the t-test to see whether there was a significant difference. The results of the item analysis for the scale are shown in Table 4.

Table 4
Item Analysis Results of the Coaching-Based Leadership Scale

Dimension	Items	Upper (%27) \bar{X}	Lower (%27) \bar{X}	Lower -Upper 27% t-Test	p
Progress and Development	1. My school principal asks me to provide information about my progress towards my goals.	4.82	3.50	10.82	.00
	2. My principal helps me develop effective action plans.	4.64	3.06	12.39	.00
	3. My principal monitors and evaluates progress against my goals.	4.50	2.52	15.80	.00
	4. My principal provides ongoing feedback to improve my performance.	4.70	2.74	18.07	.00
	5. My school principal sets ambitious, achievable goals.	4.81	3.07	14.95	.00
	6. My principal easily identifies my strengths	4.88	2.99	16.81	.00
	7. My school principal gives me opportunities to actively take on more responsibility in my work.	4.76	2.86	15.00	.00
	8. My principal appreciates my work-related strengths.	4.72	2.74	15.57	.00
	9. It is an important goal for my school principal for teachers and staff to renew and improve themselves.	4.75	2.59	18.47	.00
Communication and Commitment	10. There is an understanding based on mutual respect between me and my school principal.	4.61	2.38	16.54	.00
	11. My principal cares about teachers and other staff.	4.64	2.32	19.23	.00
	12. When I talk to my principal, my principal listens to me carefully.	4.70	2.28	21.39	.00
	13. When I tell my school principal about my problems, my school principal listens to me patiently.	4.60	2.22	21.03	.00
	14. My school principal understands teachers and other staff by communicating with them.	4.48	2.11	22.20	.00
	15. My school principal treats me with compassion during difficult times.	4.63	2.09	20.41	.00
	16. There is a sense of commitment between my school principal and the teachers.	4.58	2.06	22.63	.00

The results indicated that, using a cutoff value of 27% (lower and upper groups), the differences between the upper and lower 27% of participants varied in the Progress and Development dimension, from 10.82 to 18.47, and in the Communication and Commitment dimension, from 16.54 to 22.63. The comparison between individuals' upper and lower 27% revealed that t-test values were significant for all questions. According to Büyüköztürk (2014), significant t-values between the participant groups' higher and lower ranges were acknowledged as proof of the items' discriminating potential. Upon analyzing the collected data, it was determined that every item on the Coaching-Based Leadership scale was unique.

Discussion, Conclusion and Recommendations

It has been noted in recent years that coaching and mentoring programs are now widely used in educational institutions and other organizations worldwide. In this respect, it is thought that increasing these practices in schools will contribute to organizational performance, organizational effectiveness, and achieving the goals of the organization. According to this perspective, the school principal's coaching or mentoring abilities can help the leadership reach its objectives. A coach is someone who guides and guides new members of the community, whether it is an educational community or a social community. Mentors are the first referral when community members need help or guidance (Daloz, 2003). In the educational literature, the coach-mentor is seen first as a teacher, then as the student (mentee) develops his/her independence and trust, it is seen that the role of the mentor shifts from being an authority to being a guide and eventually is accepted as a colleague and friend (Daloz, 2003, Akt: Candemir, 2010). Watson (2006) state that mentoring in the teaching profession enables the teacher who has just started his profession to learn professional knowledge and skills more quickly and effectively and to adapt to the school and teaching profession and improves the effectiveness of the teacher.

A helping hand (coaching-mentoring) given to a novice teacher in the face of potential challenges would improve our educational system's quality and be crucial in helping the students the Turkish National Education System seeks to instill in their lives (Bakioğlu, 2013: 104). A coach is a person with vision and energy who has leadership potential and is willing to convey these characteristics. Mentoring, which is used in many organizations today, has an important place among the leadership roles of school principals. With mentoring, school principals provide guidance to their peers. An effective school principal is a person who understands and guides teachers, students and their relationships and emotions (Trail, 2000 Cited by: Balyer, 2012). Because of this, the principal of the school serves as a coach and a guide for the teachers and other non-teaching personnel, assisting them in their learning processes (Trail, 2000, quoted in Balyer 2012). This project aims to translate the Coaching-Based Leadership scale into Turkish from English and Spanish.

According to the study's validation results, the 16-item CBLS is a useful instrument with good psychometric properties. It is possible to draw the conclusion that the validity and reliability of the scale are strong enough to justify its use and the interpretation of findings in employee populations at Turkish educational institutions that are similar to the study sample. The scale's factor structure, which is based on EFA and CFA, shows that an associated two-factor solution properly explains the two dimensions (commitment and communication; advancement and development). According to other research on the conceptualization and categorization of the coaching function of leaders (Kemp, 2009), compared to the single-factor model, the two-factor model better fit the data.

Zuberbühler et al. (2021) and others are included within the research. Studies on the "Coaching-Based Leadership" model's validity and consistency scale, created by Martínez and Marisa Salanova (2021), were carried out after it was translated into Turkish. There are sixteen things on the two-dimensional scale. It was discovered that 71.87% of the variation was explained by the scale's variables. In any factor analysis, the total allowable variance should be greater than 40% (Kline, 2014), hence the rate of 71.87% that was attained is excellent. Consequently, it was determined that the variance described by the scale's factor structure was validated. To evaluate the reliability of the scale, item-total correlations and Cronbach's alpha internal consistency coefficient were examined. The item correlation scores on the "Coaching-Based Leadership" scale vary from .95 to .96. Büyüköztürk (2014) states that an item-total correlation of ≥ 0.30 indicates a high level of discriminating power in the items. The Cronbach alpha, or internal consistency coefficient, of the scale was determined to be .96. According to Field (2009), scales are considered reliable if their Cronbach's alpha value is .70 or above. The scale's strong dependability is demonstrated by these computed internal consistency coefficients (Özdamar, 2004). The scale items also underwent 27% lower and upper group analyses, and the results showed that the values derived from this analysis fell in the range of values acknowledged in the literature. Combining all of these results, it is possible to draw the conclusion that the scale is a viable and trustworthy instrument for assessing how teachers in educational institutions perceive the coaching-based leadership of school administrators.

Consequently, the coaching-based leadership scale that was created in Spain and Latin America (Peru, Chile, Argentina, and Mexico) is believed to be a useful instrument for evaluating the coaching-based leadership abilities of educational leaders when it is translated into Turkish. It is therefore anticipated that the modified coaching-based leadership scale would significantly advance the body of research. It is a potent instrument that can be utilized to evaluate and enhance the coaching-based leadership abilities of educational leaders. As it demonstrates the manager's coaching-based leadership growth as well as the individual's self-organization abilities, future study should look more closely at how the scale affects leaders at various educational levels to have a better comprehension of the potential for coaching-based leadership among educational leaders. The coaching-based leadership scale was determined to be a useful tool for the Turkish literature based on the data gathered from the study. Future studies on the coaching-based leadership style of Turkish school administrators are expected to benefit from the research.

The development of a CBL that will be used in Turkish educational institutions and other organizations is one of the study's practical ramifications. Given that coaching-based leaders receive little guidance in their own growth and development, this study looks at a legitimate and reliable approach that researchers, practitioners, or Human Resources professionals may use to assess and train the development of CBL characteristics in firms trying to generate internal coaching abilities in managers and leaders (Kemp, 2009). Organizational task and contextual performance as well as psychological well-being (e.g., work engagement) will increase with the expansion of coaching-based leadership. For businesses to be healthy and productive, then, the development of coaching-based leaders must be given top priority, particularly in light of the present crises and organizational failures (Scharmer, 2017).

Limitations

Notwithstanding its merits, this study is not without limits. First, in the study, teachers working across Turkey may not be representative of the whole country. In order to replicate our findings, it would be fascinating to use a sample that is more representative and diverse. Future research, using a complementary methodology, should modify and validate the scale in Turkey's educational institutions and other organizations in order to validate its application and compare findings about the function and worth of CBL in other contexts and cultures. Second, because the study's data are cross-sectional, it is unable to draw firm conclusions regarding the variables' causal relationships.

In order to substantiate the causal inferences about the impact of CBL on workplace-relevant outcomes, longitudinal studies are required. Third, qualitative and mixed research should be used to thoroughly evaluate CBL. Finally, future research should continue to use the CBL scale in order to further our understanding of the role of the coaching-based leader in organizations and explore its predictive importance in a range of work-related outcomes, such as goal achievement, job satisfaction, and objective performance indicators.

References

- Agarwal, R., Angst, C. M., & Magni, M. (2009). The performance effects of coaching: A multilevel analysis using hierarchical linear modeling. *The International Journal of Human Resource Management*, 20(10), 2110–2134. <https://doi.org/10.1080/09585190903178054>.
- Anderson, V. (2013). A Trojan horse? The implications of managerial coaching for leadership theory. *Human Resource Development International*, 16(3), 251–266. <https://doi.org/10.1080/13678868.2013.771868>.
- Bakioğlu, A., & Banoğlu, K. (2013). Öğretmenlikte kariyer basamakları uygulamasına ilişkin öğretmen görüşlerinin metaforlar ve sosyal ağ analizi yöntemiyle incelenmesi. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 37(37), 28-55.
- Balyer, A. (2017). Trust in school principals: Teachers' opinions. *Journal of Education and Learning*, 6(2), 317-325.
- Bass, B. M., & Avolio, B. J. (1994). Transformational leadership and organizational culture. *International Journal of Public Administration*, 17(3), 541–554.

<https://doi.org/10.1080/01900699408524907>.

- Behrendt, P., Matz, S., & Göritz, A. S. (2017). An integrative model of leadership behavior. *The Leadership Quarterly*, 28(1), 229–244. <https://doi.org/10.1016/j.leaqua.2016.08.002>.
- Berg, M. E., & Karlsen, J. T. (2016). A study of coaching leadership style practice in projects. *Management Research Review*, 39(9), 1122–1142.
- Borman, W. C., & Motowidlo, S. M. (1993). *Expanding the criterion domain to include elements of contextual performance*, in N. Schmitt & W. C. Borman (Eds.). San Francisco: Jossey-Bass, Personnel Selection in Organizations; 71-98.
- Bormann, K. C., & Rowold, J. (2018). Construct proliferation in leadership style research: Reviewing pro and contra arguments. *Organizational Psychology Review*, 8(2–3), 149–173.
- Büyüköztürk, Ş. (2014). *Sosyal bilimler için veri analizi el kitabı*. Ankara: Pegem Akademi.
- Can, M., & Gozgor, G. (2017). The impact of economic complexity on carbon emissions: evidence from France. *Environmental Science and Pollution Research*, 24, 16364-16370.
- Candemir, E. (2010). *Polis staj eğitimleri ve mentorluğa dayalı bir model önerisi*. Doktora Tezi. Ankara Üniversitesi Eğitim Bilimleri Enstitüsü. Ankara.
- Cox, E., Bachkirova, T., & Clutterbuck, D. (2010). *The complete handbook of coaching*. London: Sage.
- Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2012). *Sosyal bilimler için çok değişkenli istatistik: SPSS ve LISREL uygulamaları* (Vol. 2). Ankara: Pegem akademi.
- Dahling, J. J., Taylor, S. R., Chau, S. L., & Dwight, S. A. (2016). Does coaching matter? A multilevel model linking managerial coaching skill and frequency to sales goal attainment. *Personnel Psychology*, 69(4), 863–894. <https://doi.org/10.1111/peps.12123>.
- Daloz, J. P. (2003). " Big men" in sub-Saharan Africa: how elites accumulate positions and resources. *Comparative sociology*, 2(1), 271-285.
- David, O. A., & Matu, S. A. (2013). How to tell if managers are good coaches and how to help them improve during adversity? The managerial coaching assessment system and the rational managerial coaching program. *Journal of Cognitive and Behavioral Psychotherapies*, 13(2A), 497–522.
- Dello Russo, S., Miraglia, M., & Borgogni, L. (2017). Reducing organizational politics in performance appraisal: The role of coaching leaders for age-diverse employees. *Human Resource Management*, 56(5), 769–783. <https://doi.org/10.1002/hrm.21799>.
- DiGirolamo, J. A., & Tkach, J. T. (2019). An exploration of managers and leaders using coaching skills. *Consulting Psychology Journal: Practice and Research*. <https://doi.org/10.1037/cpb0000138>.
- Ellinger, A. D., & Ellinger, A. E. (2020). Providing strategic leadership for learning: Optimizing managerial coaching to build learning organizations. *The Learning Organization*. Online first. <https://doi.org/10.1108/TLO-05-2020-0070>
- Ellinger, A. D., Ellinger, A. E., Bachrach, D. G., Wang, Y. L., & Elmadağ Baş, A. B. (2011). Organizational investments in social capital, managerial coaching, and employee work-related performance. *Management Learning*, 42(1), 67–85. <https://doi.org/10.1177/1350507610384329>.
- Ellinger, A. D., Ellinger, A. F., & Keller, S. B. (2003). Supervisory coaching behavior, employee satisfaction, and warehouse employee performance: A dyadic perspective in the distribution industry. *Human Resource Development Quarterly*, 14(4), 435–458. <https://doi.org/10.1002/hrdq.1078>.
- Field, R., Hawkins, B. A., Cornell, H. V., Currie, D. J., Diniz-Filho, J. A. F., Guégan, J. F., ... & Turner, J. R. (2009). Spatial species-richness gradients across scales: a meta-analysis. *Journal of Biogeography*, 36(1), 132-147.
- Gilley, A., Gilley, J. W., & Kouider, E. (2010). Characteristics of managerial coaching. *Performance*

- Improvement Quarterly*, 23(1), 53–70. <https://doi.org/10.1002/piq.20075>.
- Gilley, J., & Coleman, M. P. (2010). Endogenous Nmnat2 is an essential survival factor for maintenance of healthy axons. *PLoS Biology*, 8(1), e1000300.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). “Can you see the real me?” a self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16(3), 343–372. <https://doi.org/10.1016/j.leaqua.2005.03.003>.
- Goleman, D., Welch, S., & Welch, J. (2012). *What makes a leader?* New York: Findaway World, LLC.
- Graen, G., & Schieman, W. (1978). Leader–member agreement: A vertical dyad linkage approach. *Journal of Applied Psychology*, 63(2), 206–212. <https://doi.org/10.1037/0021-9010.63.2.206>
- Graham, S., Wedman, J. F., & Garvin-Kester, B. (1994). Manager coaching skills: What makes a good coach? *Performance Improvement Quarterly*, 7(2), 81–94. <https://doi.org/10.1111/j.1937-8327.1994.tb00626.x>.
- Grant, A. M. (2007) Enhancing coaching skills and emotional intelligence through training. *Industrial and Commercial Training* 39(5), 257- 266. <https://doi.org/10.1108/00197850710761945>.
- Grant, A. M. (2010). It takes time: A stages of change perspective on the adoption of workplace coaching skills. *Journal of Change Management*, 10(1), 61–77. <https://doi.org/10.1080/14697010903549440>.
- Grant, A. M., & Cavanagh, M. J. (2007). The goal-focused coaching skills questionnaire: Preliminary findings. *Social Behavior and Personality: An International Journal*, 35(6), 751–760. <https://doi.org/10.2224/sbp.2007.35.6.751>.
- Grant, A. M., & Gerrard, B. (2020). Comparing problem-focused, solutionfocused and combined problem-focused/solution-focused coaching approach: Solution-focused coaching questions mitigate the negative impact of dysfunctional attitudes. *Coaching: An International Journal of Theory, Research and Practice*, 13(1), 61–77. <https://doi.org/10.1080/17521882.2019.1599030>.
- Grant, A. M., & Hartley, M. (2014). Exploring the impact of participation in a leader as coach programme using the personal case study approach. *The Coaching Psychologist*, 10(2), 51–58.
- Grant, A. M., & O'Connor, S. A. (2010). The differential effects of solutionfocused and problem-focused coaching questions: A pilot study with implications for practice. *Industrial and Commercial Training*, 42(2), 102–111. <https://doi.org/10.1108/00197851011026090>.
- Gregory, J. B., & Levy, P. E. (2011). It's not me, it's you: A multilevel examination of variables that impact employee coaching relationships. *Consulting Psychology Journal: Practice and Research*, 63(2), 67–88. <https://doi.org/10.1037/a0024152>.
- Gyllensten, K., & Palmer, S. (2007). The coaching relationship: An interpretative phenomenological analysis. *International Coaching Psychology Review*, 2(2), 168–177.
- Hagen, M., & Aguilar, M. G. (2012). The impact of managerial coaching on learning outcomes within the team context: An analysis. *Human Resource Development Quarterly*, 23(3), 363–388. <https://doi.org/10.1002/hrdq.21140>.
- Hagen, M. S. (2012). Managerial coaching: A review of the literature. *Performance Improvement Quarterly*, 24(4), 17–39. <https://doi.org/10.1002/piq.20123>.
- Hagen, M. S., & Peterson, S. L. (2014). Coaching scales: A review of the literature and comparative analysis. *Advances in Developing Human Resources*, 16(2), 222–241. <https://doi.org/10.1177/1523422313520203>.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–279. <https://doi.org/10.1037/0021-9010.87.2.268>.

- Heslin, P. A., Vandewalle, D., & Latham, G. P. (2006). Keen to help? Managers' implicit person theories and their subsequent employee coaching. *Personnel Psychology*, 59(4), 871–902. <https://doi.org/10.1111/j.1744-6570.2006.00057.x>.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307–324. <https://doi.org/10.1037/1089-2680.6.4.307>.
- Karlsen, J. T., & Berg, M. E. (2020). Coaching leadership style: A learning process. *International Journal of Knowledge and Learning*, 13(4), 356–368. <https://doi.org/10.1504/IJKL.2020.111143>.
- Kemp, T. J. (2009). Is coaching an evolved form of leadership? Building a transdisciplinary framework for exploring the coaching alliance. *International Coaching Psychology Review*, 4(1), 105–110.
- Kline, S. J., & Rosenberg, N. (2010). An overview of innovation. *Studies on science and the innovation process: Selected works of Nathan Rosenberg*, 173–203.
- Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford publications.
- Kunst, E. M., van Woerkom, M., van Kollenburg, G. H., & Poell, R. F. (2018). Stability and change in teachers' goal orientation profiles over time: Managerial coaching behavior as a predictor of profile change. *Journal of Vocational Behavior*, 104, 115–127. <https://doi.org/10.1016/j.jvb.2017.10.003>.
- Lange, S., Bormann, K. C., & Rowold, J. (2018). Mindful leadership: Mindfulness as a new antecedent of destructive and transformational leadership behavior. *Gruppe. Interaktion. Organisation. Zeitschrift für Angewandte Organisationspsychologie (GIO)*, 49(2), 139–147. <https://doi.org/10.1007/s11612-018-0413-y>.
- Lee, M. C. C., Idris, M. A., & Tuckey, M. (2019). Supervisory coaching and performance feedback as mediators of the relationships between leadership styles, work engagement, and turnover intention. *Human Resource Development International*, 22(3), 257–282. <https://doi.org/10.1080/13678868.2018.1530170>.
- Linley, P. A., Garcea, N., Hill, J., Minhas, G., Trenier, E., & Willars, J. (2010). Strengthspotting in coaching: Conceptualisation and development of the Strengthspotting scale. *International Coaching Psychology Review*, 5(2), 165–176. <https://doi.org/10.1037/t44065-000>.
- McLoughlin, C., Brady, J., Lee, M. J., & Russell, R. (2007). Peer-to-peer: An e-mentoring approach to facilitating reflection on professional experience for novice teachers. In *Australian Association for Research in Education International Education Research Conference: AARE 2007*. AARE.
- Milner, J., McCarthy, G., & Milner, T. (2018). Training for the coaching leader: How organizations can support managers. *Journal of Management Development*, 37(2), 188–200. <https://doi.org/10.1108/jmd-04-2017-0135>.
- Nübold, A., Van Quaquebeke, N., & Hülsheger, U. R. (2020). Be (com) ing real: A multi-source and an intervention study on mindfulness and authentic leadership. *Journal of Business and Psychology*, 35(4), 469–488. <https://doi.org/10.1007/s10869-019-09633-y>.
- Özdamar, K. (2004). *Paket programlar ile istatistiksel veri analizi II*. Eskişehir: Kaan Kitabevi.
- Park, S., McLean, G. N., & Yang, B. (2008, February). *Revision and validation of an instrument measuring managerial coaching skills in organizations*. Paper presented at the academy of human resource development conference, Panama City, FL (ERIC document reproduction service no. ED 501 617).
- Peláez, M. J. (2020). *A Journey into the Heart of Coaching-based Leadership: Empirical Findings within the Organizational Context* (Doctoral dissertation, Universitat Jaume I). <https://www.tdx.cat/handle/10803/668554#page=1>
- Peláez Zuberbühler, M. J., Salanova, M., & Martínez, I. M. (2020). Coachingbased leadership intervention program: A controlled trial study. *Frontiers in Psychology*, 10, 3066. <https://doi.org/10.3389/fpsyg.2019.03066>.

- Peterson, C., & Seligman, M. E. (2004). Character strengths and virtues: A handbook and classification (Vol. 1). Oxford University Press. <https://doi.org/10.5860/choice.42-0624>.
- Peterson, D. B., & Little, B. (2005). Invited reaction: Development and initial validation of an instrument measuring managerial coaching skill. *Human Resource Development Quarterly*, 16(2), 179. <https://doi.org/10.1002/hrdq.1132>
- Pousa, C., Mathieu, A., & Trépanier, C. (2017). Managing frontline employee performance through coaching: Does selling experience matter? *The International Journal of Bank Marketing*, 35(2), 220–240. <https://doi.org/10.1108/ijbm-01-2016-0005>.
- Pousa, C., Richards, D. A., & Trépanier, C. (2018). Managerial coaching of frontline employees: The moderating role of gender. *Human Resource Development Quarterly*, 29(3), 219–241. <https://doi.org/10.1002/hrdq.21322>.
- Scharmer, C. O. (2017). *Theory U: Learning from the future as it emerges*. Editorial Eleftheria.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293-315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>.
- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). Dr. Jekyll or Mr. Hyde: On the differences between work engagement and workaholism. *Research Companion to Working Time and Work Addiction*, 193-217. <https://doi.org/10.4337/9781847202833.00018>.
- Trail, K. (2000). Taking the Lead: The Role of the Principal in School Reform. *CSRD Connections*, 1(4), n4.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89–126. <https://doi.org/10.1177/0149206307308913>.
- Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The counseling psychologist*, 34(6), 806-838.
- Yaşlıoğlu, M. M. (2017). Sosyal bilimlerde faktör analizi ve geçerlilik: Keşfedici ve doğrulayıcı faktör analizlerinin kullanılması. *İstanbul Üniversitesi İşletme Fakültesi Dergisi*, 46, 74-85.

Ethical Declaration and Committee Approval

In this research, the principles of scientific research and publication ethics were followed.

Proportion of the Author Contribution

Researchers contributed equally to this study.