

RESEARCH ARTICLE

Strengthening resilience and coping through coaching: the impact of behavioral, cognitive and emotional skills

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ABSTRACT

In a constantly evolving world facing various challenges, resilience and coping are essential for overcoming difficulties and bouncing back. Coaching, as a personalized and development-focused approach, can play a significant role in enhancing resilience and coping. This article explores the impact of coaching on these processes, highlighting the behavioral, cognitive, and emotional skills that contribute to this transformation. Additionally, coaching strengthens self-confidence and develops greater emotional resilience. Coaching is crucial in building resilience by helping individuals effectively manage their emotions and find meaning in challenging situations. The Coaching process enables individuals to develop the skills and resources necessary to overcome obstacles and recover more quickly and effectively. Thus, coaching and resilience are closely interconnected, fostering growth and adaptation in the face of life's challenges. In partnership with several Moroccan-based companies, we conducted a study on 133 participants who agreed to participate in our survey. The results demonstrate the positive impact of behavioral, cognitive, and emotional skills on resilience and adaptation. The findings underscore the importance of these skills in strengthening resilience and adaptation among individuals. They highlight the critical role of these skills in promoting positive adjustment to challenges and changes, both at a personal and professional level.

Keywords: cognitive skills; behavioral skills; emotional skills; resilience; coping

1. Introduction

Managers and managers in key positions within companies are very concerned about managing workplace stress. Due to the demands and pressures inherent in their positions, occupational stress levels are often high, affecting their mental and physical well-being, decision-making capabilities, and ability to face challenges. In response to these obstacles, coaching has become a valuable tool to support leaders and managers in managing stress and improving their resilience.

Coaching is essential in restoring individuals' perspectives to complex situations by helping them identify the influence of their thoughts and beliefs on their emotional responses. Trainers use specific questioning

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methods to help individuals identify and replace negative thoughts on the one hand and restrict beliefs with positive, realistic ones on the other. This enables them to see difficult situations from a different angle. This process promotes personal development and resilience, empowering people to take advantage of development opportunities in difficult circumstances.

Given that stress significantly impacts executives and managers and the possible benefits of coaching to improve adaptation and resilience mechanisms, this study aims to evaluate the effectiveness of coaching interventions to address stress-related challenges in managers.

This study examines the impact of coaching on adaptation processes and resilience development and the mechanisms by which coaching impacts these outcomes. It aims to provide valuable insights into effective stress management and professional performance strategies.

In addition, this study offers practical advice to companies on utilizing coaching to improve the skills and resilience of executives and management. By focusing on effective coaching methods and best practices, companies can offer more effective assistance to their executives to adjust to the requirements of their roles and thus improve their overall well-being and effectiveness. Also, this study, which we carried out in partnership with a service company, aimed to develop collaborative behaviors within the organization. We validated our theoretical model using structural equation modeling (SEM) with Smart PLS software to analyze the responses of 133 selected participants. We confirmed the importance of cognitive, behavioral, and emotional skills in problem-solving and adaptation. Data was collected using a questionnaire based on a Likert scale from 0 to 5.

2. Review of the literature

2.1. Key definitions and concepts

2.1.1. Coaching

Transformations in the workplace and executives' careers raise specific challenges that coaching can address. Two significant issues arise when examining the professional experience of coached executives: temporality and day-to-day working relationships.

Concerning timeliness, cadres face stresses resulting from urgency, fragmentation, dispersion, and overwork. Frequent updates and time constraints related to work difficulties often disturb their time usage, amplified by digitization. Managers must also juggle between their timeliness and colleagues within or in collaboration with other services. These tensions may be exacerbated by division of work and status differences and manifest as difficulties in articulating the timeliness of separate work activities.

Regarding working relationships, the very nature of the functions performed by executives can lead to interpersonal conflicts. Some services have opposite objectives, thus restricting the activity of others for safety, feasibility, or cost-effectiveness reasons. Some posts face contradictory mandates or are charged with managing contradictions due to the division of tasks inherent in work organization. For example, in the banking sector, financial risk assessment officers may be perceived by traders as obstacles to their activities because they are forced to refuse contracts awarded too quickly. However, these executives can be blamed for a lack of emotional quota and encouraged to follow coaching, which shifts the attention from the activity and its collective organization to the individual communication mode.

These examples highlight the challenges that executives face in their work environment due to organizational transformations and performance expectations. Coaching can play an essential role in helping

executives develop time management skills, strengthen their communication and conflict resolution capabilities, and find solutions to these challenges.

Coaching is a professional practice that is now well-established in companies. According to the French Coaching Society, in 2005, the professional coaching market in France was estimated at around 90 million euros. About 2,500 professionals were engaged in coaching activity, of which more than 15% were sustained. This activity is practiced on all continents, as confirmed by the International Coaching Federation.

Coaching is a powerful tool for helping managers navigate personal and professional transformation, often involving significant shifts in attitudes, behaviors, and skills. This transformation process can be complex and challenging, as managers may encounter internal and external resistance and obstacles^[1]. Coaching offers a secure and confidential environment where managers can explore their challenges, address limiting beliefs, and identify areas for growth. It enables managers to become aware of their thought patterns and behaviors, recognize barriers to adopting new management models, and find solutions tailored to their context. Emotional support and active listening play a crucial role in this process, helping managers manage their emotions, overcome fears and doubts about change, and build confidence in their leadership abilities. Moreover, coaching can facilitate the learning and developing the skills needed to succeed in an ever-changing environment. Coaches can help managers identify skills gaps, develop personalized development plans, and provide continuous support to promote professional growth.

2.1.2. Coping

The acceptance strategy, developed by Carver and colleagues in their 1989 study, refers to one of the coping (adaptation) strategies individuals use to cope with stress and difficulties.

Acceptance is an adaptation strategy that focuses on recognizing and accepting the reality of a stressful or difficult situation. Rather than fighting the problem or trying to change it, the individual adopts an attitude of acceptance and resignation toward what cannot be changed^[2].

Acceptance involves acknowledging that certain circumstances are inevitable or beyond our control and showing an open attitude toward them. This, however, does not mean resigning or giving up; instead, it means accepting what cannot be changed and directing its energy towards more controllable aspects of the situation.

They have shown that acceptance, as a coping strategy, can benefit individuals' psychological and emotional well-being. It can help reduce stress, anxiety, and emotional distress by allowing the individual to free himself from the unnecessary struggle against unchangeable circumstances.

It is important to note that acceptance does not necessarily mean the absence of action or effort to improve a situation. Instead, it involves recognizing the limits of our control and directing our energy to aspects we can influence.

In summary, the acceptance strategy is a coping approach that involves recognizing and accepting the reality of stressful or difficult situations while directing energy towards more controllable aspects. This strategy can help reduce stress and promote the psychological well-being of individuals^[2].

Individuals adopt various strategies to cope with stress and challenges, seeking social support. This support involves turning to others for emotional support, advice, or practical help when faced with difficulties^[3]. For example, talking about problems with friends, family, or colleagues or seeking advice from people with similar experiences can be very beneficial. Social support positively affects psychological and emotional well-being by providing reassurance, advice, and new perspectives. It helps to reduce stress, build resilience, and improve the ability to adapt to difficulties.

They found that seeking social support can positively affect an individual's psychological and emotional well-being. Social support can provide comfort, advice, and different perspectives, which can help reduce stress, improve resilience, and promote adaptation to difficulties.

It is important to note that the search for social support may vary depending on individual preferences and needs. Some individuals may prefer emotional support, such as encouragement and sympathy marks, while others may prefer informative support, such as practical advice or relevant information. In addition, the quality and availability of social networks can also play a role in the effectiveness of this coping strategy.

The concept of coping focuses on the various strategies and mechanisms individuals use to handle stress, pressures, and demands from their environment. The study underscores the significance of coping within the work and career context^[4]. It points out that professionals encounter numerous challenges, such as workload, interpersonal conflicts, and organizational changes, emphasizing the need for effective strategies to manage these stressful situations—a three-dimensional approach to coping.:

- Problem-oriented coping involves dealing with a stressful situation by focusing on the specific aspects of the problem and finding practical solutions. This approach emphasizes active problem-solving, planning, and direct action to overcome obstacles.
- **Emotional coping:** This dimension of coping focuses on managing emotional responses to stressful situations. It is about finding ways to manage and express emotions, such as seeking social support, emotional expression, and relaxation activities.
- **Meaning-centric coping:** This dimension emphasizes seeking meaning in stressful situations. Individuals may seek to find a broader sense in their professional experiences, focus on their values and goals, or develop a positive perspective on challenges.

Different coping strategies can be more or less adaptive depending on the context and nature of the stress. This highlights the importance of aligning coping strategies with individuals' resources.

2.1.3. Resilience

Resilience is coping with, adapting to, and recovering from stressful or traumatic events. Research has identified several factors contributing to resilience, including personality traits, social skills, perception of social support, cognitive flexibility, and coping strategies^[5]. Coping strategies, which involve individuals' efforts to handle life's challenges, play a crucial role in promoting resilience. These strategies can be either problem-focused, addressing the issue directly, or emotion-focused, managing the emotions related to the stressful situation. The findings indicate that using adaptive coping strategies, such as seeking social support, problem-solving, accepting reality, positive reappraisal, and searching for meaning, is associated with enhanced resilience. These strategies enable individuals to effectively manage stress, maintain a positive outlook, and find meaning in difficult experiences. On the other hand, the use of poorly adaptive coping strategies, such as avoidance, denial, or excessive rumination, was associated with less resilience. These strategies can impede adaptation and recovery, prolonging the adverse effects of stress and preventing problem-solving.

2.2. Previous studies on the subject

2.2.1. The effect of coaching on resilience

Coaching can improve an individual's resilience development^[6]. As a professional and personal development approach, coaching can play an essential role in strengthening resilience. This paper highlights several mechanisms by which coaching can promote resilience.

Coaching provides valuable help in developing effective adaptation strategies. Coaches support individuals in exploring different perspectives, generating creative solutions, and taking concrete action to overcome obstacles. This approach strengthens adaptation and problem-solving skills, increasing individual resilience.

Coaching also promotes the establishment of firm, supportive relationships. Coaches help individuals to strengthen their social networks, build trust links, and seek appropriate support when needed. A strong support network is a critical element of resilience, as it enables individuals to benefit from emotional, practical, and informative support when they experience difficulties.

Finally, coaching encourages reflection and learning from difficult experiences. Coaches help individuals learn lessons from their failures and downsides, identify opportunities for learning and growth, and develop a positive vision of the future. This promotes the adoption of a resilient perspective, allowing individuals to rebound after negative experiences. Coaching has promoted resilience by offering support and guidance to individuals facing difficulties or significant life transitions. Through coaching, individuals can develop skills and strategies to cope with challenges, manage stress, and bounce back from adversity^[7].

Resilience-oriented coaching emphasizes strengthening individual internal resources, such as self-confidence, self-esteem, motivation, and overcoming obstacles. It helps individuals identify their strengths, values, and goals and use these elements to cope with difficulties and recover.

The article also highlights the importance of social support in developing resilience. Coaching can help individuals strengthen their support networks, improve their relationship skills, and find emotional support in their environment.

Coaching can help individuals develop resilience and adopt a more positive and adaptive perspective on challenges using specific approaches and techniques, such as questioning, reflection, visualization, and action planning.

The role of coaching in enhancing leadership resilience is explored, particularly how it can help leaders build and sustain their resilience in the face of leadership challenges and pressures^[8]. The discussion highlights various aspects of leadership resilience, such as coping with adversity, adapting to change, maintaining a positive outlook, making informed decisions, and inspiring others. The potential of coaching to develop these skills is emphasized, offering personalized support, tools, and techniques to bolster a leader's resilience. Additionally, the importance of emotional coaching is underscored, aiding leaders in managing emotions, cultivating self-awareness, and utilizing emotions constructively.

Table 1. Table of previous works.

Author(s)	Year	Title	Journal	Insights	Results	Conclusions
Naniek Krishnawati et al. ^[9]	2023	The Role of International Entrepreneurship Education in Shaping Students' Emotional and Cognitive Competencies for Entrepreneurship	International Journal of Learning, Teaching, and Educational Research	Entrepreneurship education contributes to students' emotional and cognitive competencies.	Analysis based on individual and multigroup differences.	Entrepreneurship education influences entrepreneurial attitudes and interests.
Maha Aly et al. ^[10]	2021	Emotional skills for entrepreneurial success: the	Journal of Technology Transfer	Entrepreneurship literature lacks emotional	Translational research can develop emotional	Emotional challenges faced by entrepreneurs

	promise of entrepreneurship education and policy		education and skills for are often clinical entrepreneurial overlooked. therapeutic resilience. approaches.
Andrea Caputo et al. [11]	The Entrepreneurial Behaviour: Unveiling the Cognitive and Emotional Aspect of Entrepreneurship”	Book series Entrepreneurial Behaviour Series Emerald Publishing	Unveils cognitive and emotional aspects of entrepreneurship. Introduces key insights from contributed chapters. Introduces key insights from contributed chapters.
Sabine Bergner [12]	2020 Being Smart Is Not Enough: Personality Traits and Vocational Interests Incrementally Predict Intention, Status and Success of Leaders and Entrepreneurs Beyond Cognitive Ability.	Frontiers in Psychology	Socio-emotional skills predict intention and success in leadership and entrepreneurship. The Big Five adds validity beyond cognitive ability. Personality traits and vocational interests enhance the prediction of leadership and entrepreneurship success.
U.E. Rzhetskaya et al. [13]	2019 Social and Psychological Features of Entrepreneurs in the Conditions of Behavioural Economy	- Advances in Economics, Business and Management Research, volume 114	Entrepreneurs utilize cognitive, behavioral, and emotional skills influenced by social and psychological factors in making economic decisions. Private theories, models, and paradoxes were achieved. Importance of considering social and psychological factors in economic behavior.
Pablo Egana-delSol et al. [14]	2023 Neurophysiological markers of emotion regulation predict the efficacy of entrepreneurship education.	Dental science reports	Entrepreneurship education focusing on socio-emotional skills enhances emotion regulation. The program had a positive impact on educational outcomes. Emotion regulation is the primary channel through which the program impacts educational outcomes.
Daniel Ordiñana-Bellver et al. [15]	2022 Emotions, skills, and intra-entrepreneurship: Mapping the field and future research opportunities	Management și Marketing	Emotional intelligence plays a significant role in enhancing entrepreneurial skills. Seven distinct but interrelated clusters were identified in this research field. Soft skills and emotional intelligence are more emphasized than hard skills in entrepreneurship and intrapreneurship.

Jianguanglung Dangmei ^[16]	2016	Investigating the Significance of Emotional Intelligence in Entrepreneurial Skills: A Review of Empirical Literature	Social Science Research Network	Emotional intelligence significantly contributes to entrepreneurial skills.	Previous empirical studies support the importance of emotional intelligence.	Empirical evidence supports the importance of emotional intelligence.
Lovlyn Ekeowa Kelvin-Iloafu et al. ^[17]	2019	Does Emotional Intelligence Affect Attainment of Strategic Goals of Small Enterprises (SCEs) in Developing Economies	International Journal of Entrepreneurship	Cognitive ability positively affects employees' achievement of strategic goals.	Cognitive ability positively affects employees' achievement of strategic goals.	Cognitive ability positively affects the achievement of strategic goals.

Table 1 contains research showing that emotional and cognitive skills are central to entrepreneurship, influencing attitudes, resilience, and success. Integrating these skills into entrepreneurial education and policies can strengthen the chances of entrepreneurial success.

Cognitive skills are crucial for a sustainable future, suggesting that education can empower entrepreneurs, enhancing their resilience to economic and social challenges^[18]. The positive impact of cognitive skills on overcoming difficulties is further highlighted, as entrepreneurs with strong expertise are perceived to achieve higher success^[19]. Additionally, a significant and positive correlation between emotional intelligence and SME performance is noted, indicating that the ability to manage emotions can help individuals endure and cope with stressful working conditions^[20],

The effectiveness of teams within enterprise systems relies on a well-defined cognitive and behavioral structure, which is crucial for organizational resilience, though emotional skills are not directly addressed^[21]. Cognitive and socio-emotional skills influence income, workforce, and education decisions^[22], underscoring their importance for adaptability and resilience in the labor market. Additionally, the success of entrepreneurs in Indonesia is influenced by both cognitive and non-cognitive skills, as well as the use of the Internet, suggesting that resilient entrepreneurs effectively utilize all available skills^[23].

2.2.2. Link between coaching, coping and resilience

Resilience and adaptation are interconnected and influence people's ability to manage the challenges and stresses of everyday life. Effective coping strategies enhance resilience, and resilient people employ positive and constructive mechanisms to manage stress and overcome difficulties^[24].

The article also highlights the importance of the individual's subjective perception in coping with stress and developing resilience. Individual differences in the perception and interpretation of stressful events can influence the coping strategies used and, consequently, the expression of resilience.

Psychological processes are crucial in coping with stressful events and building resilience. Both personal factors, such as personality, beliefs, and values, and external factors, including social support and available resources, influence coping mechanisms^[25]. Specific strategies, like taking proactive approaches and seeking social support, significantly impact how individuals manage stress and enhance their resilience. Flexibility and adaptability in coping strategies are also vital, as resilient individuals can adjust their methods to meet the changing demands of a situation, thereby coping more effectively with challenges. Additionally, various models of resilience and coping emphasize the importance of considering individual and contextual factors. Resilience and coping are presented not as fixed traits but as dynamic processes that can evolve.

The relationship between coping strategies and resilience focuses on how individuals confront difficulties and their impact on the ability to recover and bounce back. Effective coping strategies are crucial for promoting

resilience, as they help individuals manage stress, maintain emotional well-being, and prevent mental health issues. Additionally, these strategies foster a sense of control, enhancing a person's ability to handle challenges and recover from setbacks^[26].

In addition, coping can be influenced by various factors, such as personal resources (such as self-esteem and optimism), social resources (like social support), problem-solving skills, and cognitive flexibility. These factors can play an essential role in how individuals face challenges and in their ability to develop resilience.

2.2.3. Coaching resilience

Resilience is an essential concept in coaching, as it allows a person to face the difficulties and challenges of life with more strength and ability to rebound. Resilience is coping with complex life events, overcoming obstacles, and recovering from traumatic situations.

In coaching, resilience can be developed through techniques and approaches that help the person build confidence, focus on resources, and develop skills to cope with difficult situations. Resilience coaching can help people learn how to manage their emotions and thoughts, develop effective coping strategies, and strengthen their self-esteem.

The coach can help the person to strengthen his/her resilience by:

- **Identifying resources:** The coach can help the person identify the resources they are providing.
- **Mental training:** The coach can help the person develop mental skills such as concentration, positive thinking, and optimism. These skills can help the person overcome obstacles and stay motivated.
- **Leadership Coaching:** The coach can help the person develop leadership skills to manage difficult situations better. These skills can include decision-making, time management, and problem-solving. In short, coaching can help the person strengthen his/her resilience by giving him/her the skills and resources to cope with difficult life situations.

2.2.4. Crisis Management Coaching Practice

Coaching can be helpful in crisis management, as it helps individuals and organizations through difficult times by developing their resilience and ability to adapt to change. Coaching can help people:

- **Take back:** In a crisis, it can be difficult for individuals to take back and see things objectively. Coaching can help to have a clear view of the situation and evaluate the available options.
- **Developing communication skills:** Effective communication is crucial in a crisis. Coaching can help people develop communication skills to manage emotions and tensions.
- **Strengthening Resilience:** Resilience is the ability to cope with difficulties and to rebound after a difficult situation. Coaching can help people develop resilience by identifying their strengths and skills.

Appropriate coaching techniques for strengthening resilience:

Several coaching techniques can help develop a person's resilience. Here are some of them:

- **Visualization:** This technique involves helping the person to imagine a future situation in which he has overcome the present difficulty and has become stronger and more confident. Visualization can help build self-confidence and develop a positive vision of the future.
- **Cognitive restructuring:** This technique helps the person change his/her thinking by replacing negative thoughts with positive ones. For example, instead of thinking, "I cannot cope with this situation," the person can learn to think, "I can handle this situation using my resources and skills."

- **Self-compassion:** This technique helps people develop self-empathy and learn to accept their strengths and weaknesses. Self-compassion can help build self-confidence and create a more positive attitude towards challenges.
- **Awareness:** This technique helps people concentrate on the present moment and be aware of their thoughts, emotions, and bodily sensations. Awareness can help reduce stress and develop a more positive attitude towards challenges.
- **Problem-solving:** This technique involves helping the person identify possible solutions to a problem and develop an action plan to implement them. Problem-solving can help build self-confidence and develop problem-solving skills.

Using these techniques, the coach can help the person develop resilience and face life's challenges more confidently and positively.

2.2.5. Theoretical model

With cognitive, behavioral, and emotional skills, individuals are better prepared to approach learning and problem-solving holistically and effectively. They can analyze situations, communicate effectively, collaborate with others, manage their emotions, and make appropriate decisions, which promotes personal and professional growth.

First, emotional competence refers to a person's ability to perceive, understand, and manage his or her emotions and those of others. This competence is crucial in interpersonal relationships, decision-making, problem-solving, and leadership.

The text emphasizes various dimensions of emotional intelligence and provides practical tools to develop this skill. It explores the impact of emotions on individual and collective performance, offering insights for managers on leveraging this understanding to create a more positive, motivating, and productive work environment. The discussion highlights the importance of emotionally intelligent and empathetic communication, which fosters employee confidence, cooperation, and commitment. Additionally, it offers guidance on managing negative emotions, resolving conflicts, and cultivating a healthy emotional climate within organizations^[27].

In the book *Emotional Pedagogy and Psychology: Towards Emotional Competence*, he examines the link between pedagogy and emotional psychology, focusing on developing emotional competence in learners. The authors highlight how emotions influence the learning and development of individuals and how pedagogy can effectively integrate this emotional dimension to foster holistic education. It addresses several key aspects of emotional competence in the context of education, including:

- **Understanding Emotions:** The authors explain the basics of emotional psychology, providing theoretical insights into the nature and role of emotions in the lives of individuals.
- **Integrate emotions in pedagogy:** The authors explore different pedagogical approaches and strategies to consider learners' emotions and promote their commitment, motivation, and well-being.
- **Developing Emotional Skill:** The book offers tools and practical exercises to help educators establish emotional competence in learners. This includes learning emotional regulation, emotional recognition, empathy, and managing interpersonal relationships.
- **Promoting an emotionally healthy environment:** The authors emphasize the importance of creating a positive and secure emotional climate in educational contexts, thereby promoting the development and development of learners.

The second concept, Cognitive competence, refers to a person's ability to process information, solve problems, and use knowledge effectively in different situations. Cognitive competence is essential in the learning process and the development of learning capacities in individuals^[28].

They also address the concept of metacognition, which refers to a person's ability to reflect on their cognitive processes, monitor their thoughts, and regulate their learning. Metacognition involves becoming aware of one's learning strategies, regulating one's effort, and planning and monitoring one's performance. The authors highlighted the importance of metacognition in improving learning effectiveness, enabling individuals to make informed decisions about strategies to use, regulate their understanding, and adapt to different learning tasks and situations. And finally, behavioral skills.

Behavioral skills, also known as non-technical skills or soft skills, are personal and social qualities that influence how we interact with others, manage our emotions, communicate, and solve problems.

These skills are increasingly appreciated in the professional world. Employers are often looking for candidates who have not only technical skills but also solid behavioral skills. These skills can help improve work efficiency, interpersonal communication, team collaboration, problem-solving, stress and conflict management, and leadership.

By developing and nurturing these behavioral skills, individuals can improve their professional performance, work harmoniously with others, and solve problems effectively. They play a crucial role in career success and are increasingly seen as critical assets in the labor market.

Behavioral skills play a crucial role in learning and problem-solving. They positively impact effective communication, collaboration and teamwork, emotional management, critical thinking, time management and organization, and self-confidence. By developing these skills, individuals are better prepared to tackle challenges, interact with others constructively, manage their emotions adequately, think critically, optimize their time and organization, and face challenges with confidence and resilience. These behavioral skills foster an enabling environment for learning and problem-solving.

They offer a collection of practical tools to develop and strengthen behavioral skills. These non-technical skills are essential in the professional world and improve interpersonal relationships, communication, problem-solving, stress management, leadership, etc. These tools are designed to be easy to use in professional contexts and can be adapted to the specific needs of each^[29].

Combining learning, self-control, and problem-solving, we strengthen our ability to adapt to change and challenges. Lifelong learning offers us new perspectives and skills, while self-control helps us constructively manage our emotions and behaviors. Finally, solving problems enables us to find appropriate solutions to the challenges. Together, these elements promote more effective adaptation and help us to cope with changing situations confidently and flexibly.

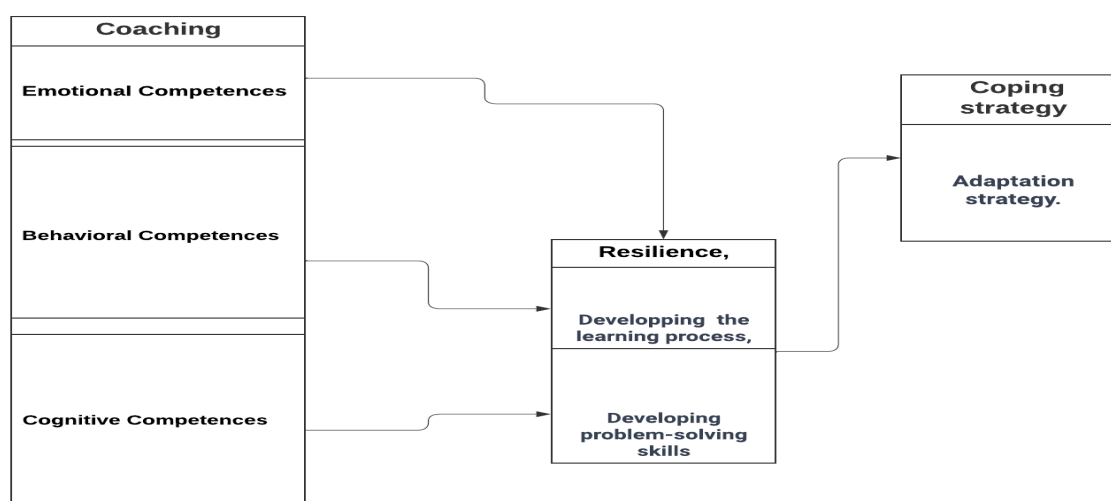


Figure 1. Design model.

Figure 1 represents a research model illustrating the influence of coaching on the development of resilience and coping strategies. The model identifies three skills developed through coaching: emotional competencies, which enhance the ability to manage emotions; behavioral skills, which foster adaptive actions and behaviors in the face of challenges; and cognitive skills, which improve the capacity for thinking, problem-solving, and decision-making. Coaching promotes resilience by helping individuals develop their learning process, enabling them to learn from experience and improve, and enhancing problem-solving skills, allowing them to find practical solutions to challenges. Consequently, resilience, reinforced by coaching, leads to adopting coping strategies, empowering individuals to deal effectively with difficult situations.

3. Research methodology

3.1. Type of study

To validate our theoretical model, we invited participants to complete a questionnaire to collect data to confirm consistency between the concepts and measures used. We carefully selected a diverse and representative sample of 133 participants, including directors, department heads, supervisors, managers, and team leaders.

By analyzing the responses obtained, we conducted statistical analyses to assess the relationships between the variables studied and test the hypotheses of our model. This research adopted structural equation modeling (SEM) using the partial least squares (PLS) technique. This variance-based modeling method is particularly effective for handling small sample sizes and data that do not follow a normal distribution ^[30]. Moreover, it enables several hypothetical relationships to be tested simultaneously ^[31].

The participants contributed to our model's empirical validation and understanding of the links between the studied variables. We used a Likert scale from 0 to 5, commonly employed in questionnaires, to collect quantitative responses on psychological or behavioral variables. This scale enables participants to indicate their degree of agreement, disagreement, or intensity on various variables. This scale allows participants to indicate their degree of agreement, disagreement, or intensity on a series of statements, ranging from 0 (Strongly disagree, Not at all intense) to 5 (Strongly agree, Very intense), choosing the level that best corresponds to their opinion or personal experience.

3.2. Measurement instruments

This study used emotional, cognitive, and behavioral skills scales to measure participants' dimensions. These scales were selected based on their validity and reliability in the scientific literature.

The Emotional Regulation Scale^[32] was used to evaluate emotional skills. This scale measures participants' ability to recognize, understand, and manage emotions. Regarding cognitive skills, scales such as the critical thinking scale^[33] and the^[34] problem-solving scale^[34] have been used. These scales measure participants' ability to analyze information, think critically, and effectively solve problems. The Communication Skills Scale^[35] and the Social Skills Scale^[36] were used to evaluate behavioral skills. These scales assess participants' communication, collaboration, leadership, and other behavior skills related to their ability to interact effectively with others.

Regarding learning and problem-solving, the Self-Regulated Learning Scale^[37] and the Problem-Solving Inventory Scale were used to measure these specific skills. These scales enable us to collect objective data and comprehensively assess the participant's dimensions. A complete set of 21 items covered all the study dimensions.

3.3. Data analysis

The data analysis methods used include factor analysis and reliability tests to assess the quality of measuring instruments. Factor analysis is an empirical and exploratory approach that aims to reduce the number of initial variables in a limited number of factors while preserving the maximum amount of information measured by the explained variance. This analysis also allows us to associate a descriptive role with each identified factor.

Two performance tests of factor analysis are used: the KMO (Kaiser Meyer Olkin) test, which evaluates the adequacy of the factor solution with a desired value greater than or equal to 0.8, and the Bartlett sphericity test, which must be significant (less than 5%). These tests assess the validity of the factor analysis.

The reliability analysis uses the Cronbach Alpha coefficient to verify the internal consistency of the measured items. This analysis examines whether the items of a given construct are consistent.

Then, a second analysis, called confirmatory factor analysis, is carried out on all buildings. The results of this analysis show that the measurement model used corresponds satisfactorily to the data. As part of this confirmatory analysis, the adjustment of each built with its indicators is also verified. This involves assessing each construct's internal coherence, convergent, and discriminatory validity.

In summary, the methods used allow us to assess the quality of the measuring instruments, reduce the number of variables through factor analysis, and verify the constructs' internal coherence, convergent validity, and discriminatory validity.

4. Results

To test the assumptions, we first look at the level of significance of the estimate parameters, also called path coefficients, which represent the relationships between the latent variables. In this study, we used a simulation method called Bootstrap to assess the statistical significance of each coefficient.

More specifically, we used the Bootstrap technique with a sample of 500 to perform these tests^[38]; this method generates many data samples from the original sample using re-sampling techniques. For each sample generated, we calculated path coefficients and examined their statistical significance.

Using this approach, we can determine whether the observed path coefficients are statistically significant or can be attributed to randomness. This allows us to test our assumptions and assess the strength and direction of relationships between latent variables.

We verify internal, convergent, and discriminatory validity for each reflective construct.

- **Internal validity** is assessed using the Cronbach alpha criterion.
- **Convergent validity:** Average Variance Extracted ^[39]. A high level of this criterion, i.e., more than 0.5 at least, shows that the variance of the construction concerned is explained up to 50% thanks to the associated indicators.
- The discriminatory validity through the matrix examination of the correlations between the built against the value of the EVA. Examining the loadings of the reflective constructs of the table shows that all items are above the threshold of 0.5 set by the researchers^[40] (see **Table 2**).

Table 2. Internal, convergent, and discriminant validity analysis.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
AD	0,797	0,810	0,868	0,622
APP	0,824	0,827	0,884	0,656
CCOGN	0,861	0,864	0,905	0,704
CCOM	0,734	0,735	0,849	0,653
CE	0,785	0,793	0,861	0,609
RESO	0,808	0,814	0,874	0,635

All the variables examined demonstrated internal, convergent, and discriminatory validity in our study.

Table 3. Search model quality analysis results.

	R-square	R-square adjusted	Q ² predict
AD	0,679	0,674	0,619
APP	0,600	0,591	0,572
RESO	0,742	0,736	0,723

If the determination coefficient R2 is more significant than 0.10, the independent variables have sufficient capacity to explain a substantial part of the variance of the dependent variable. Thus, in the results obtained in **Table 3**, we can see that R2 exceeds the minimum value of 0.10, confirming our model's validity and significance of our model.

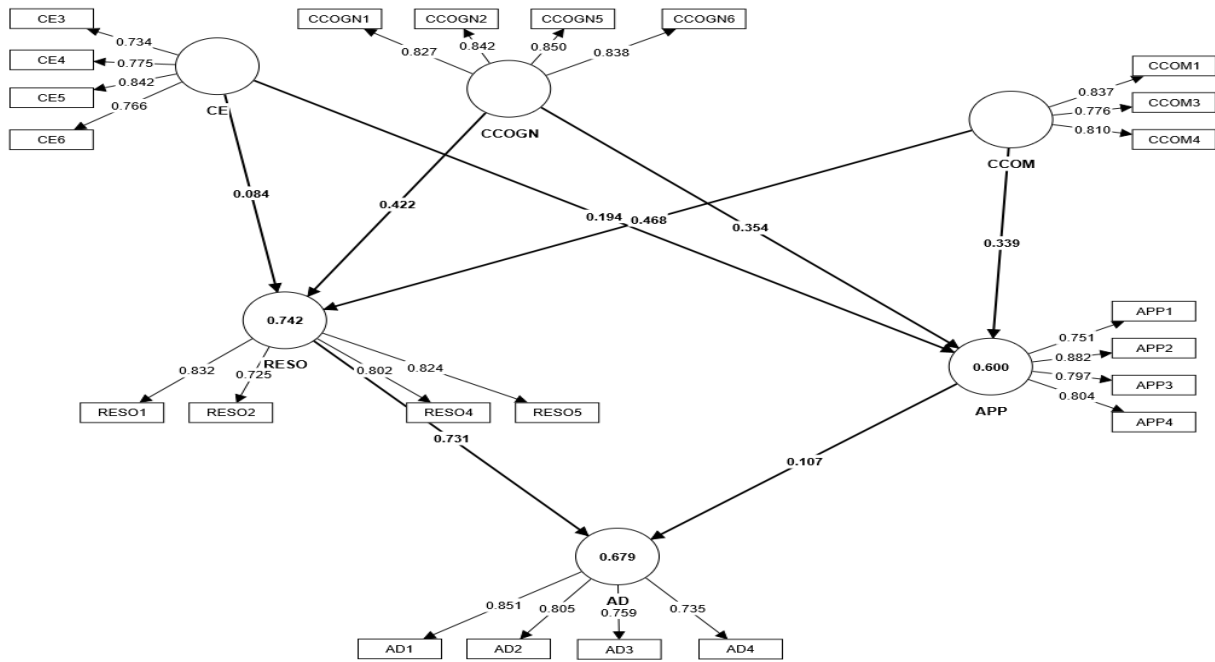


Figure 2. Structural model.

Table 4. Hypothesis testing.

	T statistics (O/STDEV)	P values	Hypothesis testing
CCOGN -> APP	3,538	0,000	Significant
CCOGN -> RESO	5,086	0,000	Significant
CCOM -> APP	4,469	0,000	Significant
CCOM -> RESO	7,110	0,000	Significant
CE -> APP	1,953	0,054	Significant
CE -> RESO	1,155	0,249	Not significant
RESO -> AD	8,745	0,000	Significant
APP -> AD	1,157	0,248	Significant

Coaching is essential in developing cognitive, behavioral, and emotional skills. It offers a structured framework and practical tools that enable individuals to enhance their ability to think critically, act appropriately, and manage their emotions constructively. This approach fosters sustainable personal and professional growth.

Furthermore, after analyzing **Table 4** and **Figure 2**, coaching plays a crucial role in developing resilience by focusing on two essential dimensions: learning capacity (APP) and problem-solving capacity (RESO). Coaching strengthens individuals' resilience in the face of challenges and obstacles by helping them develop their ability to learn from their experiences and adapt to changes. Additionally, by assisting them in developing their problem-solving skills, coaching prepares them to face difficulties proactively and effectively.

Developing cognitive skills (CCOGN) and behavioral skills (CCOM) provide individuals with the tools to solve problems effectively, adapt to changing situations, and build resilience in the face of difficulties. This promotes their continuous learning and ability to tackle challenges successfully.

By enhancing their cognitive skills (CCOGN), individuals improve their ability to analyze problems thoroughly, critically evaluate different options, and formulate effective solutions. This enables them to face challenges and obstacles with greater confidence and efficiency. Developing cognitive skills promotes

resilience by allowing individuals to adopt flexible thinking to approach problems from different angles, maintain a positive perspective to uphold a constructive attitude towards challenges, and continuously learn to adjust their strategies based on new information and experiences.

By working on behavioral skills (CCOM), individuals can put these abilities into practice in the context of problem-solving (RESO). This allows them to interact effectively with others, collaborate constructively, and make informed decisions, contributing to effective problem resolution.

From our model, we have shown that problem-solving capacity (RESO) plays a vital role in individuals' adaptation (AD) to the challenges and changes in their environment.

People with strong problem-solving skills can find creative and appropriate solutions to their challenges, allowing them to adapt to new or complex situations quickly. Conversely, learning is a continuous process of acquiring knowledge, skills, and experiences. It involves assimilating new information, integrating it into existing knowledge, and applying it in various contexts.

5. Conclusion

Enhancing cognitive abilities enables individuals to improve their capacity to thoroughly study problems, critically assess various alternatives, and develop efficient solutions. This empowers individuals to surmount challenges and hurdles with enhanced assurance and effectiveness.

Efficient problem-solving also promotes the ability to adjust and overcome challenges in different circumstances. Enhancing cognitive skills fosters resilience by equipping individuals to approach problems from various perspectives, maintain a positive mindset when facing challenges, and adapt their strategies based on new information and experiences.

Enhancing their behavioral aptitudes allows individuals to effectively apply these skills in the context of resolving problems. This allows individuals to communicate well with others, work together productively, and make well-informed choices, improving problem-solving efficiency.

Conversely, emotional competence has a significant impact on learning and adaptability. It allows individuals to regulate their emotions by being aware of them. Individuals proficient in emotional regulation can enhance their ability to concentrate, comprehend, and flexibly alter their thinking, hence facilitating their adjustment to novel situations.

Hence, cultivating behavioral, cognitive, emotional, and enhanced mental abilities equips individuals with the necessary means to effectively resolve issues, adapt to evolving situations, and foster resilience amid challenges. This promotes their motivation to acquire new knowledge continuously and enhances their ability to surmount challenges.

6. Study limitations

However, this study has several limitations. First, it does not sufficiently account for the importance of gender, which may influence collaborative behaviors and emotional competencies. Second, the diverse sample may only represent part of the professional contexts. Finally, the exclusive use of the Likert scale may limit the nuance of the responses obtained.

7. Research prospects

Several directions could be pursued in future research to extend and improve the results of this study:

Gender: Research on cognitive, behavioral, and emotional skills should include a more in-depth analysis of gender variations. Understanding how gender affects these skills could explain how cooperative behaviors emerge.

Long-term research: By conducting research over an extended period, we could evaluate the development of collaborative skills and their long-term effects on employee well-being and organizational success.

Diversification of samples: Extending the research to various business sectors and cultural contexts could uncover sectoral or cultural specificities in developing collaborative skills, allowing us to generalize the results.

Different evaluation techniques: Employing qualitative and quantitative methods, such as interviews, observations, and focus groups, could enrich our understanding of collaborative dynamics.

Impact of targeted interventions: We could assess the direct effects of these interventions in the field by evaluating the effectiveness of specific training programs engineered to promote cognitive and behavioral growth. And emotional skills.

Technology and teamwork: Examine how emerging technologies and online collaboration platforms influence the development and use of collaborative skills in contemporary work teams.

Conflict of interest

The authors declare no conflict of interest.

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