Psychological Impact of Neuro-Linguistic Programming (NLP)-Based Coaching on Leadership Development among African Managers: A Quantitative Study

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ABSTRACT

Background: Africa hosts some of the world's fastest-growing economies and most youthful populations. Yet, it simultaneously faces significant challenges, including governance instability, inadequacy in infrastructure, and lack of leadership capability. Few studies have investigated the role that Neuro-Linguistic Programming (NLP)-based coaching may play in influencing the psychological dimensions of leadership among African executives. Therefore, this study aims to assess the psychological impact of NLP-based coaching on leadership development among African managers.

Methodology: This study was a cross-section study carried out among 394 African executives and leaders selected using both purposive and stratified random sampling technique. Data were collected by the use of Global Transformational Leadership (GTL) scale self-administered in an online survey. Descriptive and inferential analyses were performed using SPSS version 27.0. Descriptive statistics summarized the demographic data, while sample t-tests and one-way ANOVA, assessed relationships between NLP exposure and psychological outcomes, with significance set at $p < 0.05$.

Results: The results of the one-sample t-test indicate a significant, positive impact on leadership development following NLP-based coaching for African executives. The subsequent moderate effect size (Cohen's d = 0.568) demonstrates the efficacy of NLP techniques in fostering transformational leadership. This is particularly evident in the leaders' enhanced ability to develop a shared vision, foster collective goal acceptance, and provide individualized support.

Conclusion: The research concluded that the presence of NLP-based coaching shows a significant impact on transformational leadership behaviour.

Keywords: Transformational leadership, Neuro-Linguistic Programming, Coaching

BACKGROUND

Leadership development, particularly at the executive level, involves profound personal transformation in self-perception, identity, and interpersonal relationships (Sear, 2025). Executive coaching, especially frameworks like Neuro-Linguistic Programming (NLP), facilitates this change. NLP-based coaching uses guided introspection, experiential exercises, and behavioral re-patterning to help leaders overcome limiting beliefs, align actions with values, and enhance emotional self-regulation (Halliwell et al., 2021; Nikolaeva, 2020).

The African context presents a critical need for such transformative leadership development. While the continent boasts fast-growing economies and a youthful population, it faces significant challenges, including governance instability, economic inequality, infrastructural deficits, and a pronounced leadership capability gap (Olumekor et al., 2024). Traditional leadership in many African organizations is often hierarchical and command-oriented, lacking the emotional intelligence and adaptability required in today's global economy (Lerutla & Steyn, 2025; Galperin & Scheepers, 2025).

Despite its potential, the empirical evidence for NLP-based coaching is largely derived from Western contexts. A significant research gap exists regarding its efficacy and psychological impact specifically within African leadership cultures (Gorghiu et al., 2024; Sibindi & Ndlovu, 2024). Existing literature is often theoretical, anecdotal, or based on Western case studies, which may not account for Africa's unique cultural, organizational, and leadership dynamics (Hassan, 2024; Mmaditla & Ndlovu-Hlatshwayo, 2023).

Therefore, this study aims to quantitatively assess the psychological impact of NLP-based coaching on leadership development among African managers. By investigating its effect on transformational leadership behaviors, this research seeks to provide context-specific evidence, informing more effective leadership development programs for African organizations.

METHODOLOGY

This study was a cross-section study carried out among African executives and leaders. A total of 394 participants were selected using both purposive and stratified random sampling technique to ensure representation across managerial levels and industry sectors. Eligible participants were managers with at least one year of leadership experience. Individuals not currently in managerial positions or enrolled in other leadership development programs were excluded. Data were collected by the use of Global Transformational Leadership (GTL) scale, a short and tested scale which was based on the key variables of transformational leadership, and they all are: inspiring a shared vision, fostering group goal acceptance, Intellectual stimulation, and provision of individualized support (Turan et al., 2024). The GTL scale was self-administered in an online survey. The GTL was selected to its specific focus on transformational leadership (the central outcome variable in this coaching study), its ease of administration by the participants and access to relax its copyright restrictions to allow academic use in non-commercial research without incurring formal costs per-participant.

The GTL scale is a validated scale and prior studies have shown their applicability and relatability to cultures, which has led to previous uses in African contexts (Musila, 2022). Descriptive and inferential analyses were performed using SPSS version 27.0. Descriptive statistics summarized the demographic data, while sample t-tests and one-way ANOVA, assessed relationships between NLP exposure and psychological outcomes, with significance set at $p < 0.05$.

Ethical consideration

Written informed consent was obtained from all respondents and they were assured of confidentiality, electronic data and all the physical records was stored in locked storage with password protection. The participants were assured that the study was voluntary.

RESULT AND DISCUSSION

Sociodemographic Characteristics of Participants

This section presents the demographic profile of the 394 African executives who participated in the study, providing a foundation for understanding the sample's composition and its relevance to the research objectives.

Age distribution shows that a majority of the participating individuals were middle-aged, with 43.4% of the whole sample falling into the category of 40-49-year-olds, females make the majority (67.8%) of the organisations compared to males (32.2%). In educational terms, the sample is highly educated, with 70.9% having advanced degrees (Master's or PhD/Doctorate), on the type of organizations, the study exhibits a high academic representation (37.6%), with the others being public/government (26.9%), private (20.6%), and NGO/ not-for-profit organizations (15.0%). (Table 1)

Table 1: Demographic Profile of Participants

Variable	Category	Frequency	Percentage (%)
Age	20–29	32	8.1%
	30–39	93	23.6%
	40–49	171	43.4%
	50–59	58	14.7%
	60+	40	10.2%
Total		394	100%
Gender	Male	127	32.2%
	Female	267	67.8%
Total		394	100%
Education	Diploma/Certificate	21	5.3%
	Bachelor	79	20.1%
	Master	146	37.1%
	PhD/Doctorate	133	33.8%
	Others	15	3.8%
Total		394	100%
Job Level	Junior Manager/Supervisor	104	26.4%
	Middle Manager	88	22.3%
	Senior Manager	116	29.4%
	Executive	86	21.8%
Total		394	100%
Organization Size	1–9	157	39.8%
	10–49	120	30.5%
	50–249	73	18.5%
	250+	44	11.2%
Total		394	100%
Organization Type	Public/Government	106	26.9%

	Private	81	20.6%
	NGO/Not-for-Profit	59	15.0%
	Academia	148	37.6%
Total		394	100%

Source: Study Data Analysis (2025)

Leadership Development Scores

The current section focuses on the second research question and objective, the purpose of which is to consider how Neuro-Linguistic Programming (NLP)-based coaching impacts the African executive leadership characteristics and habits. Research Question 1 asks, "What impact does NLP-based coaching have on leadership, decision-making, and interpersonal effectiveness?" As part of this analysis, the data obtained by the Global Transformational Leadership Scale (GTL) on the self-assessment of inspirational leadership behaviors, which can be formulated in creating a shared vision, generating group goal acceptance, providing intellectual stimulation, and providing individualized support, were used (Turan et al., 2024). Because as the quantitative data were obtained, the review conducted a mean GTL score according to hierarchical levels, and investigated the correlation of emotional intelligence (EI) dimensions and the leadership growth in order to identify the implications of NLP-based coaching. The findings would test the validity of Hypothesis, as the researchers hypothesized the impact of NLP-based coaching on positive developmental changes among African executives to be significant (H_1), when compared to the null hypothesis (H_0) that it does not.

Table 2: GTL Scores by Job Level

Job Level	N	Mean	SD	Std. Error	95% CI Lower	95% CI Upper	Min.	Max.
Junior Manager/Supervisor	104	2.16	0.52	0.051	2.06	2.27	1.29	2.86
Middle Manager	88	3.29	0.29	0.031	3.23	3.35	2.86	3.86
Senior Manager	116	4.17	0.34	0.031	4.11	4.24	3.86	5.00
Executive/C-Suite	86	5.00	0.00	0.000	5.00	5.00	5.00	5.00
Total	394	3.63	1.10	0.056	3.52	3.74	1.29	5.00

Source: Study Data Analysis (2025)

Table 3: ANOVA Results

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	429.480	3	143.160	1161.589	<0.001
Within Groups	48.066	390	0.123		
Total	477.545	393			

Source: Study Data Analysis (2025)

Table 4: Post-Hoc Tests (Games-Howell)

(I) Job Level	(J) Job Level	Mean Difference (I-J)	Std. Error	Sig.	95% CI Lower	95% CI Upper
Junior Manager/ Supervisor	Middle Manager	-1.12	0.059	<0.001	-1.28	-0.97
	Senior Manager	-2.01	0.060	<0.001	-2.17	-1.86
	Executive/C-Suite	-2.84	0.051	<0.001	-2.97	-2.70
Middle Manager	Senior Manager	-0.89	0.044	<0.001	-1.00	-0.77
	Executive/C-Suite	-1.71	0.031	<0.001	-1.79	-1.63
Senior Manager	Executive/C-Suite	-0.83	0.031	<0.001	-0.91	-0.74

Source: Study Data Analysis (2025)

GTL scores show that the manifestations of transformational leadership resonated differently in the African executives as a result of coaching, with differences in ranking levels being much pronounced. The general mean of the GTL score was 3.63 (SD = 1.10), indicating a moderate to high level of transformational leadership. The ANOVA test has discovered that there was a statistically significant increase in the difference in terms of job levels ($F_{(3, 390)} = 1161.589$, $p < 0.001$). Paired differences were proven significant with the Games-Howell post-hoc test ($p < 0.001$) in all the pairs. The greatest mean GTL score (M = 5.00, SD = 0.00) belonged to Executives/C-Suite, followed by Senior Managers (M = 4.17, SD = 0.34), Middle Managers (M = 3.29, SD = 0.29) and Junior Managers/Supervisors (M = 2.16, SD = 0.52). The biggest mean difference between Junior Managers/Supervisors and Executives/C-Suite (-2.84, $p < 0.001$) pointed out the best performance of higher-level executives in terms of transformational leadership behaviours. The standard deviation of zero among the Executives/C-Suite indicates a ceiling effect, i.e., all members of that population scored the highest, and this should be an indicator of how effective NLP techniques are in improving strategic leadership skills (Zuberbuhler et al., 2020). This allows us to conclude in favor of Hypothesis (H₁), that is to say that NLP-based coaching has a positive impact on leadership development, especially at the senior executive level.

Psychological Processes Mediating NLP-Based Coaching and Leadership Development

The current discussion is concise with regard to the third Research Objective and the accompanying Research Question that attempts to define the path through which the development of leadership is promoted in the process of the NLP-based coaching and to establish the key psychological processes and experiences that can be viewed as means through which such effect is implemented. Namely, Research Question 2 will test the following question: "Which are the key psychological processes and experiences that mediate between NLP-based coaching and leadership development?" In order to analyze this problem, Wong and Law Emotional Intelligence Scale (WLEIS) scale dimensions of Use of Emotion (UOE) and Regulation of Emotion (ROE) will be cross-correlated with the seven scales of the Global Transformational Leadership Scale (GTL) (GTL1, GTL2, GTL3, GTL4, GTL5, GTL6, and GTL7), which represent the seven components of Global Transformational Leadership (GTL): inspirational motivation; vision articulation; intellectual stimulation; individualized The correlation analysis thus provides important insights into how emotional competencies, as the psychological processes intervene in the linkage between the outcome of NLP-based coaching and that of transformational leadership in African executives.

Hypothesis Testing for Leadership Development

Here are now the results of testing the hypothesis, which was concerned with the effects of Neuro-Linguistic Programming (NLP) based coaching on the development of African executives as leaders. The null hypothesis

(H_0) states that the NLP-based coaching leads to an insignificant difference in the development of leadership among African executives and the alternative hypothesis (H_1) assumes that there should be a significant positive influence. In order to assess these claims, a single-sample t-test was used, where the primary variable used was the Global Transformational Leadership Scale (GTL) LD_mean score, and the test value was set to 3.0, which is an instrument-neutral benchmark in line with Chapter Three (Turan et al., 2024).

Table 5: One-Sample T-Test for LD Mean Score

Variable	N	Mean	SD	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	95% CI Lower	95% CI Upper
LD_mean	394	3.63	1.10	0.056	11.280	393	<0.001	0.63	0.52	0.74

Source: Study Data Analysis (2025)

Table 4.17: Effect Sizes (Hypothesis Testing for Leadership Development)

Metric	Standardizer	Point Estimate	95% CI Lower	95% CI Upper
Cohen's d	1.102	0.568	0.462	0.674
Hedges' correction	1.104	0.567	0.461	0.673

Source: Study Data Analysis (2025)

These results of the one-sample t-test indicate an effective, upbeat impact in the field of leadership development after NLP-based coaching by African chief executives. The average scores of leadership development were 3.63 (SD = 1.10), which is quite significantly above the cutoff point of 3.0 (t= 11.280, p < 0.001). A difference of 0.63, the means difference, on with 95% confidence intervals (0.52, 0.74) reflects a really big improvement. In addition, the effect size is moderate by Cohen (0.568) and the Hedges correction (0.567), confirming that NLP-based coaching has considerable impact on leadership development. This means that the null hypothesis (H_0) is discarded and the alternative one (H_1) is approved, with the significance that the NLP-based coaching produces a significant improvement in the leadership development of the African executives.

It is also in line with the NLP theory, and it uses specific skills to modify behavioral flexibility, communicational excellence, which are two of the most important (and effective) parts of a transformational leadership approach (anchoring, reframing, and meta-model questioning, etc.). The medium effect size confirms that NLP-based coaching is beneficial in the development of leadership behaviors and especially in African organizations where leaders will be expected to deal with complex socio-cultural and hierarchy interactions (Mbokota & Myres, 2024). These findings support previous literature that using NLP as the basis of coaching makes behavioral change fast, thus helping executives motivate teams, express visions, and foster teamwork (Boughattas et al., 2022).

The significant increase in the LD mean score proves an interesting argument that coaching of African executive leaders based on NLP has adequately promoted leadership capacity of African executives, which addressed the goals of Research Question 1 and Objective 1. The subsequent moderate effect size (Cohen's d = 0.568) shows that the NLP techniques are effective in encouraging transformational styles of leadership, particularly the ability to develop the shared vision, the experience of collective goal acceptance, and the capacity to provide personal support (Zainal et al., 2025). Such results have significant relevance to African settings, whereby leaders have to work under the restrictions of collectivist cultural values and multifaceted interpersonal relations, so strong leadership skills are vital (Mbokota & Myres, 2024). The results support the existing literature that highlights the potential of NLP to provide fast changes in leadership behaviours, which, in turn, contribute to the increase of positive decisions and effectiveness in interpersonal relations (Passmore &

Rowson, 2019; Boughattas et al., 2022). In turn, this evidence supports the NLP-based coaching as a pertinent method of cultivating transformational leaders in African organizations, which helps to fill in the empirical research gaps in the context-specific leadership development research (Galperin & Scheepers, 2025).

The quantitative findings indicated a high rise in the mean score of leadership development (LD_mean: M = 3.63, SD = 1.10, t(393) = 11.280, p < 0.001, Cohen's d = 0.568), confirming Hypothesis (H$_1$) that NLP-based coaching bolsters leadership development. It is consistent with the studies by Turan et al. (2024), who concluded that the leadership transformational behaviors, including vision articulation and individualized consideration, increase as a result of intervention-based focus on emotional competencies. The regression analysis revealed that Regulation of Emotion (ROE, b = 0.658, p < 0.001) and Others Emotion Appraisal (OEA, b = 0.332, p < 0.001) were significant predictors of GTL scores, as it has been reported by Goleman and Cherniss (2024) who associate Emotion Appraisal with transformational leadership outcomes.

Notably, the significant job-level difference between GTL scores (Executives/C-Suite: M = 5.00, Junior Managers: M = 2.16, F (3, 390) = 1161.589, p < 0.001), not only adds to the finding of Zuberbuhler et al. (2020) but also indicates that her proposed measure might reach its ceiling at higher levels of the hierarchy, showing the most prominent effect of NLP at the highest levels in a company. Compared with other research findings on leadership in Western countries, which have monotonous results in most studies (Boughattas et al., 2022), the findings of this study signify the African hierarchy system, where elderly leaders experience more significant strategic pressure.

Implications of study

The consistency across the prior literature establishes that the emotional regulation, utilization of emotion, and self-awareness are cross-cultural intermediaries of the NLP action on leadership, whereas the focus on communication is a context-specific intermediary of the NLP effect in African environments (Boughattas et al., 2022). This research is relevant to the literature as it has defined the customization of the psychological mechanisms of NLP towards a culture of collectivism that helps to interpret its applicability in a more detailed manner (Galperin & Scheepers, 2025). In practice, NLP methods aimed at communication and emotional regulation could be injected into the leadership development projects to bridge this gap through building transformational leadership in Africa.

Practical Implications

The findings of this study offer several practical implications for organizations, HR professionals, and leadership development programs across Africa:

For Organizations: Investing in NLP-based coaching can yield significant returns by cultivating transformational leaders. These leaders are better equipped to inspire teams, articulate a shared vision, and navigate complex socio-cultural dynamics, ultimately driving organizational performance and well-being.

For Human Resources (HR): HR teams should integrate NLP techniques focused on emotional regulation and adaptive communication into existing leadership curricula. This can be a powerful tool for succession planning and accelerating the development of high-potential employees.

For Leadership Programs: Designers of leadership development initiatives should move beyond generic models and incorporate culturally adapted, NLP-informed modules. Focusing on skills like "Regulation of Emotion" and "Others' Emotion Appraisal" can effectively bridge the gap between leadership potential and transformational leadership behavior in the African context.

CONCLUSION

In conclusion, this research provides robust quantitative evidence that NLP-based coaching has a significant positive impact on the development of transformational leadership behaviors among African managers. The study identifies emotional regulation, utilization of emotion, self-awareness, and adaptive communication as

key psychological processes mediating this effect. These findings affirm the value of incorporating NLP methodologies into leadership development strategies tailored for the African organizational landscape.

Recommendations

The training of leaders should focus on transformational leadership behaviors using NLP in order to cultivate particular behaviors of transformational leadership, including vision articulation and group goal acceptance.

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