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The Impact of Transformational Leadership on Leaders' Performance in the Context of Early Education Institutions

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Abstract: *Early education leaders need to embrace transformational leadership styles that promote growth and achievement to contribute to the success of the entire community. Research in this area is necessary because, according to conversations with school inspectors, the leaders of early education institutions in Romania need an adequate understanding of leadership styles, as seen by the lack of professional development courses available. Our research aimed to assess the impact of transformational leadership style on early education leaders' success as measured by operational indicators such as effectiveness, satisfaction, and extra effort. In this study, we employed the Multifactor Leadership Questionnaire (MLQX5) and focus group method. To determine the dominating style of the leaders in the study, correlations, regressions, and the Chi-square test were used to analyze the data. The findings indicate a connection between transformative leadership and a growth mindset that characterizes leaders. These aspects lead to high effectiveness and stimulate the individual towards continuous personal and professional development. We can conclude from the investigation that the outcomes of the leader's behavior are closely related to their leadership style and growth mindset.*

Keywords: *transformational leadership; effectiveness; satisfaction; extra effort; growth mindset; inspirational motivation; early education.*

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Introduction

Nowadays, the world is undergoing a process of continuous change, subsequently inviting educational institutions to restructure their activity to adapt to societal requirements. This aspect is a genuine challenge for 21st-century educational institutions as they are efficiently adapting to change. Also, it is important to encourage teachers to become proactive, to choose progress over stagnation, and at the same time uphold a positive outlook on their personal and professional development. Our research attempts to demonstrate that a leader's mindset has an impact on their decision to embrace a transformational leadership style. Achieving institutional goals and performance becomes easier by adopting such a leadership style. In connection with this idea, we find in the literature other studies showing how a growth mindset encourages students to be more involved in their academic work while also enabling teachers to feel more self-assured (Cavanagh et al., 2018; Hecht et al., 2023). An intrinsic motivation that emphasizes determination, perseverance, and resilience—skills essential for advancement—is linked to a growth mentality. According to Requena et al. (2024), several factors, such as the institution's leadership style, the general school climate, a growth mentality, the experience of the leaders, and their educational level, influence how effective the teaching staff is. The results of the study show that the leadership style the management team adopts and the growth mindset represent the only two independent variables that could predict teachers' effectiveness. Following this line of argumentation, we intend to demonstrate how the organizational culture and behavior of leaders in early childhood education institutions are significantly impacted by the growth mindset and the transformational leadership style of the administration. As shown by our discussions held with school inspectors, in Romania, the leadership styles are not sufficiently known by the leaders of early education institutions. This fact is attested by the lack of continuous training courses available at the national level. We want to provide clarifications on how the performance of the institutions is affected by the leadership style that early education institution management has chosen. We state that achieving the goals of an organization largely depends on the paradigms and principles the management team enforces, this aspect being mirrored by the leader's capacity to tap into organizational resources and the strive for directing the activities of the subordinate teaching staff towards goal achievement. Studies show that the implementation of transformational leadership can be used in various organizations to increase their effectiveness (Tian & Guo, 2024; Thamrin, 2012; Rafferty & Griffin 2004).

For this reason, we believe that the implementation of transformational leadership practices, in line with a growth mindset, in early childhood education institutions should become an important issue for education policymakers in Romania.

Literature review

Transformational leadership

Over time, transformational leadership has been discussed to a large extent in the existing literature in terms of its implications on the achievement of corporate performance. Transformational leadership can have an impact on employees' behavior, commitment, and job satisfaction, which, in turn, leads to the improvement of the work atmosphere, knowledge transfer, and overall better performance (Kilag et al., 2024; Orabi, 2016). The term *transformational leader* was coined by J. M. Burns in 1978 (Stone et al., 2014). He claims that this leadership type has the power to change attitudes, beliefs, and behaviors on the part of the members of a team or an organization, inspiring and motivating them to focus on performance improvement to reach organizational goals. Moreover, transformational leadership combined with the leader's charisma, fosters both self-esteem and self-confidence enhancement (Ramendran et al., 2020), being also employed to emphasize the long-term results of adopting an effective leadership style in an organization (Pleşcan, 2019). Transformational leadership is an intrinsic concept (Panfil, 2020), a development and progress-ridden one (Gregory Stone et al, 2004). It assumes the inspiration of the disciples while concentrating on developing a shared vision and goals inside an organization and employing creativity to solve issues (Ticlau, 2015).

Burns (1978) described in his study two types of leadership: (1) transactional and (2) transformational. Transformational leadership implies a leader's more comprehensive understanding, displaying the willingness to understand the employees' needs as they are deemed unique and important. It is a process where leaders and subordinates influence each other positively, having the aim of reaching higher levels of morality and motivation (Roşca, 2015). Transformational leaders emphasize raising subordinates' awareness concerning the significance of their results by documenting specific ways to reach them, and at the same time, increasing their objective-related and common organizational vision responsibility (Ispas & Ţebeian, 2012; Ticlau, 2015).

Bass (1985) highlights four factors related to transformational leadership: (1) charismatic leadership – confidence associated with their effort and objectives; (2) individualized consideration – employee development-focused approach; (3) intellectual stimulation – problem-solving abilities; (4) inspirational leadership – role model for the subordinates.

In other words, transformational leadership is the leader's ability to influence their subordinates regarding the importance they place on their work, having positive effects on the subordinates' job performance (Thamrin, 2012). Additionally, transformational leaders adopt behaviors that are tailored to the four fundamental components of transformational leadership: (1) idealized influence; (2) inspirational motivation; (3) intellectual stimulation; and (4) individualized consideration (Lippstreu, 2010). The leader is focused on adopting an intellectually stimulating leadership style, highlighting the use of subordinates' strengths, paying more attention to each individual in turn, and offering them guidance, support, and training opportunities (Bass & Riggio, 2005).

Transformational leadership is described from three main perspectives: (1) effectiveness, (2) satisfaction, and (3) extra effort. These three dimensions may be considered operational indicators for the performance of the institution (Budur, 2018). Moreover, transformational leadership is closely connected to corporate culture, employee performance, and job satisfaction, constructs that are positively associated with success and competitive advantages (Ali et al., 2020; Budur & Poturak, 2020; Poturak et al., 2020). Leaders' effectiveness, extra effort, and satisfaction have been correlated with employees' performance levels (Hundie & Habtewold, 2024). Each of these components has been measured in various studies through *The Multifactor Leadership Questionnaire (MLQ)*, which has been successfully used by many researchers who have emphasized the role transformational leadership has in shaping organizational culture (Cetin & Kinik, 2015; Mlinarevic, 2022; Mughal et al., 2024; Yuni Pratiwi & Sulaiman, 2024).

Growth mindset and inspirational motivation among transformational leaders

The stronger the organizational climate is and the transformational leadership more present in educational institutions, the more staff's motivation will increase, as a higher willingness to achieve performance and success emerges (Kartini et al., 2017; Shanti et al., 2020). Transformational leadership is mainly connected to the growth mindset that is a prerequisite

for leaders. Those who welcome and nourish a growth mindset will become more accountable for their progress, being aware of the fact that failure is merely a way to develop. This paradigm is also induced in their subordinates (Wahidah et al., 2022). Motivation documents the trajectory of an individual's efforts, that is, what outcome his/her actions and efforts will have (Hidayat et al., 2024). Inspirational motivation will cause a change at the institutional level as both organizational and personal objectives intertwine, motivation having a significant impact on teachers' performance (Rahmah et al., 2022; Rivai et al., 2019).

Inspirational motivation can be defined as the degree to which the leader can articulate an attractive vision for their subordinates (Judge & Piccolo, 2004). Leaders who foster inspirational motivation, challenge others to reach higher standards. They will have a positive outlook on upcoming obstacles and give a sense of meaning associated with the task (Hundie & Habtewold, 2024). Subordinates should have a well-defined purpose to be motivated to take action, these aspects provide the energy to lead a group to progress (Pawar, 2016). Studies show that inspirational motivation and idealized influence (attribute and behavior) have received the highest score out of all transformational leadership dimensions (Sadeghi & Pihie, 2012; Voon et al, 2011). By making use of behavior based on inspirational motivation, leaders inspire their subordinates to face emerging challenges (Jung et al., 2008). Idealized influence involves leaders' ability to inspire others to reach a specific objective, while inspirational motivation implies the development of a vision and positive expectations that their followers may accomplish (Verissimo & Lacerda, 2015).

Inspirational motivation may render itself as the foundation for knowledge transfer, an important component facilitating institutional success (Rawung et al., 2015). According to a study carried out by Orabi (2016), inspirational motivation, intellectual stimulation, and individualized consideration have a statistically significant influence on organizational performance, showcasing the fact that leaders play a major role in nourishing a growth mentality through inspirational motivation.

Studies reveal that among the elements of transformative leadership, charisma, inspirational motivation, and intellectual stimulation have been positively connected to organizational innovation (Mokhber et al., 2015). The preparation for development is described as having components like goal-driven orientation, setting objectives (Dweck, 1986), and the motivation to develop one's managerial skills from a leadership standpoint (Maurer & Lippstreu, 2005, apud. Avolio et al., 2009). Therefore, leaders who have an inspirational motivation are open to learning opportunities and progress;

they also demonstrate an increased willingness to lead. They are oriented towards self-development prioritizing the improvement of leadership (Avolio et al., 2009), subsequently reaching a higher efficiency level of the leadership process.

We claim that the growth mindset is a concept that is directly linked with transformational leadership as they both steer the individual towards personal and professional development. Recent empirical data show that leaders who have a growth mindset are learning-orientated, being more motivated to make extra efforts to achieve organizational goals (Bligh et al., 2018).

According to a study (Lee et al., 2023), a growth mindset is coupled with a higher level of life satisfaction, a fact that brings improvements in one's professional activity. Furthermore, the effectiveness of transformational leaders becomes a resource that can be tapped to reduce work-related stress, facilitating a boost in employees' resilience. This aspect will minimize the negative effect of requests on professional commitment (Xanthopoulou et al., 2013).

From the extra effort perspective, a growth mindset encourages leaders to perceive the additional effort as a learning and development opportunity. Transformational leadership further motivates them to exceed their limits and engage in activities that maximize their potential. Those individuals who had a growth mindset scored high effort levels, working hard to improve their skills (Miele et al., 2011). By fostering a growth mindset, transformational leaders may create an environment where people feel encouraged to try out new approaches and to also learn from failure. This aspect may lead to an increase in team effectiveness through innovation and adaptability.

In this sense, the growth mindset may become a promising tool for self-regulation improvement, especially in contexts that require sustained effort (Mrazek et al., 2018).

Transformational leadership and organizational culture of early education institutions

Adopting the appropriate leadership style becomes essential for leaders within this field as they have to manage a variety of aspects. So, maintaining a balance in approaching these responsibilities is important for reaching organizational objectives (Noureen et al., 2022). If leadership is analyzed in an educational context, it can be stated that it is a process of influencing employees toward goal achievement and organizational excellence (Amanchukwu et al., 2015). Leadership in an educational context

represents the capacity to have a vision that will reflect and further create new teaching and learning curricula as well as policies, priorities, plans, and procedures that occur in the daily life of the institution (Jovanovica & Ciricb, 2016). Leaders need to be able to think creatively and innovatively to adapt to the developments from the 4.0 era (Prestiadi et al., 2020), which is profoundly digitalized and filled with emerging challenges, being important in improving the overall community capacity (Supermane et al., 2018).

Based on the observation of the outcomes of leadership on educational institutions' performance, we can state that increased productivity is an essential characteristic of transformational leadership, entailing a change of organizational culture to increase its efficiency and effectiveness (Jovanovica & Ciric, 2016).

The concept of organizational culture encompasses the dominant values and belief system in an organization (Mlinarević et al., 2022), being influenced by several factors such as the institution's area of operation, geographic location, significant past events, employees' features as well as their interactional models (Mohelska & Sokolova, 2015). Organizational culture can influence how leaders establish personal and professional objectives and the way they complete tasks using the available resources (Lok & Crawford, 2004).

According to Choi & Scott (2008), organizational culture can be perceived as a complex and profound part of an organization that strongly influences its members. Moreover, Global leadership and organizational behavior effectiveness (GLOBE) considers that the defining elements of organizational culture are aspects such as rationale, values, beliefs, identities, and shared denominators regarding significant events arising from shared personnel experiences (House et al., 2004).

By creating a culture in full alignment with their vision and values, transformational leaders may bring about positive changes and may reach sustainable success for the organization. Transformational leadership can have a long-term impact on early education institutions.

Profile of transformational leader in early education institutions

Transformational leaders are usually characterized by their capacity to inspire and motivate others to reach higher performance levels. They have distinctive character attributes that help individuals stand out, such as straightforward communication, openness to new ideas, creativity, vision, adaptability, and the capacity to welcome change (Litz & Blaik-Hourani, 2020). They can inspire since they stimulate other individuals to invest in additional effort on reaching objectives, while also taking on responsibility

for their actions (Mlinarevic, 2021). Transformational leaders support the personal and professional development of their followers by providing mentorship, coaching, and feedback to enable individuals to develop and to reach their full potential (Wang et al., 2016). A transformational leader will support workers in taking chances and trying out novel approaches to problem-solving, which will help them take responsibility for their work and, in turn, give team members a sense of independence and accountability (Den Hartog & Belschak, 2012; Jain & Duggal, 2018).

Transformational leaders lead by personal example, manifesting the values and behaviors they expect from others, having a profound impact on subordinates and organizations.

Current study

Participants, methods, and instruments

Our research aims at evaluating the incidence of transformational leadership on leaders' performance in early education institutions in Romania. Our sample was a convenience-based one, composed of 100 teaching staff who presently occupies a management position in an early education institution. The selection criteria that we have taken into account are the following: (1) university studies in Education Sciences, (2) having a management position in early education (3) proof that they are included in The National Register of Educational Management Experts and (4) a minimum of one year of activity in the corresponding managerial position.

At the initial stage of our study, the leaders that have been included in our sample have received information on the research overview and its corresponding timeframe, followed by signing the consent forms, in full compliance with the requirements for the collection of personal data (Your Europe, nd).

In our research we have used both the quantitative research method (questionnaire-based survey), and the qualitative research method (focus group).

The focus group was planned following a request made by one representative of the leaders of early education institutions in Romania. We noticed that, when it came to the specific early education activities, leadership constructs needed to be reinforced. The study participants were split into groups of 15-20 individuals, 1-1.5 hours for discussions, the provided time enabling the participants to familiarise themselves with the three leadership styles (transformational, transactional, and laissez-faire), finding out key information about each of them.

Regarding the quantitative method of data collection, a questionnaire survey has been used, applying the *Multifactor Leadership Questionnaire (MLQ X5)*, with copyright1995 designed by B. Bass 7 Avolio B. J. Taote, the rights having been reserved in all communication media. Published by Mind Garden, the questionnaire was applied to 100 respondents, with the previous agreement (21st of February 2024) from the organization to use the instrument. The MLQ X5 questionnaire is recognized for identifying one's leadership style: transformational, transactional, and laissez-faire. It offered valuable insight into the way leaders from early education institutions inspire, motivate, and lead their teams. This instrument indicates a leader's performance about the leadership styles and the actions taken to improve the effectiveness level. Moreover, this questionnaire links the leadership styles with the expected performance outcome (Avolio & Bass, 2004).

The questionnaire contains 45 statements, 36 of these measuring key leadership behaviors and 9 of them assessing leadership outcomes. Answer scoring is done based on a 5-step Likert scale. The instrument structure allows the comparison of leadership behaviors with operational indicators of the leader's performance (effectiveness, satisfaction, and extra effort), based on which efficient leaders can be easily differentiated from inefficient ones.

The first part of the questionnaire has been designed to measure the three leadership styles: transformational, transactional, and laissez-faire. The second part measures the leader's performance, quantified through effectiveness, satisfaction, and the leader's willingness to make an extra effort to reach the objectives of the institution.

To measure the transformational leadership style, 20 items have been used which have been evaluated based on a 5-step Likert scale, where 0 means not at all, while 4 means always. An example of an item is: *I speak with optimism about the future*, the coefficient Alpha Cronbach is .847, which indicates very good reliability (Taber, 2018). This result demonstrates the fact that the selected questions for measuring the qualities of transformational leadership are quite consistent among themselves, suggesting that they measure this type of leadership effectively and reliably.

With reference to transactional leadership, eight-step Likert scales have been used. An example of an item is *I spend my time teaching and training*, the Alpha Cronbach value being .706, indicating good internal coherence (Taber, 2018).

In order to measure the laissez-faire leadership style, eight 5-step Likert scales have been used, an example being *I avoid making decisions*, the Alpha Cronbach value being .739, measuring the attributes of avoidant leadership, which indicates good internal coherence.

The second part of the questionnaire measures the leader's performance gauged by the operational indicators of effectiveness, satisfaction, and the leader's willingness to exert extra effort to achieve the institutional goals. The Alpha Cronbach value of .909, for a set of 9 attributes, indicates a strong internal coherence (Taber, 2018).

To have a broader perspective on leadership styles, the focus group method was used as a qualitative data collection method. The combination of the focus group method with the questionnaire-based survey is advantageous in identifying the respondents' outlook, offering a more comprehensive analysis of the answers as well as suggestions for interpreting the collected data (Chelcea, 2022). As part of the focus group, participants have put forward a leader's profile for the four types of leadership, emphasizing the transformational one. In the focus group, three open questions were used to identify the connection between the growth mindset and transformational leadership by actively involving participants in the discussions. We hereby exemplify two questions that have been used in the focus group: (1) How does a leader react to failures from a personal perspective? (2) How do you think a leader should react? (3) How would you describe the leader's role in creating a work environment where subordinates are encouraged to exceed their limits and achieve their full potential? The received focus group answers have been recorded and transcribed in full and subsequently analyzed by employing 'the long table' method (Chelcea, 2022, 229), a method that has enabled us to analyze the information taking into consideration categories that have resulted from the three questions. These were read several times so that the data collected could be well understood (Creswell, 2015). 40% of the respondents believe that a transformational leader adopts a growth mindset in the face of failure, i.e. they see failure as an opportunity to grow. To the second question asked in the focus group, 55% of respondents should always react calmly and be in control of the situation, to be able to identify new solutions together with the team. 80% of the respondents believe that a transformational leader is a person who encourages subordinates to go beyond their limits, guiding the team towards performance through effective communication, creativity, flexibility, openness to innovation, and empathetic listening. Following the analysis of the results, we can state the fact that there is a close connection between the leadership style of the management team, the growth mindset, the outcomes of the leader's leadership behavior, but also the extent to which a leader can influence organizational culture.

According to several studies, organizational performance has been closely connected to both the leaders' managerial capacity, including the case

of school institutions, and to the organizational culture they develop (Tonich, 2021; Cappelli & Neumark, 2001). Kindergarten has to develop towards progress in alignment with the needs of the educational environment and the community (Öztürk, 2020). Nevertheless, the leadership function can be considered a challenge to a leader because he/she needs to lead effectively in the school institution and to cultivate both his/her performance and the subordinates' performance (Tonich, 2021).

Since transformational leaders have a more considerable growth mindset, they can lead the organization toward the achievement of set objectives (Avolio & Bass, 2004). Our research has started from a set of questions that have constituted the foundation on which we have formulated our hypotheses and the research aim.

Methods

Research Aim: This research aims to evaluate the incidence of the transformational leadership style on the performance of leaders from early education institutions quantified on the one hand through effectiveness, satisfaction, and extra effort as operational indicators and, on the other hand, through the growth mindset in line with inspirational motivation.

Research objectives

O1. Evaluating the incidence of the transformational leadership style on leaders' performance in early education institutions

O2. Determining leaders' performance level as measured by effectiveness, satisfaction, and extra effort as operational indicators

O3. Identifying the connection between effectiveness, satisfaction, and extra effort as operational indicators of performance

O4. Determining how the transformational leader's success is related to the growth mindset and inspiring motivation.

Research questions

Q1. What is the impact of the transformational leadership style on the performance of leaders from early education institutions, quantified through the operational indicators of effectiveness, satisfaction, and extra effort?

Q2. To what extent do effectiveness, satisfaction, and extra effort determine the transformational leader's performance?

Q3. What is the impact of the transformational leadership style on leaders' performance in early educational institutions?

Q4. To what extent do inspirational motivation and the growth mindset influence the transformational leader's performance, quantified by the operational indicators of effectiveness, satisfaction, and extra effort?

General hypothesis

The transformational leadership style influences leaders' performance from early education institutions (quantified through effectiveness, satisfaction, and extra effort) and a growth mindset in line with inspirational motivation.

Secondary hypotheses

I1: The transformational leadership styles influence leaders' effectiveness related to the process of leading early educational institutions.

I2: The transformational leadership style generates the desire to make an extra effort to achieve the goals of the institution.

I3: The transformational leadership style determines an increase in the leaders' satisfaction level regarding achieving goals.

I4: The transformational leadership style fosters both inspirational motivation and the growth mindset related to the leader's performance.

Research results

Through the focus group, the study participants analyzed the characteristics of each leadership style, adding certain contributions to highlight a profile of the transformational leader. According to observations, a transformative leader must treat the other team members with honesty and respect, pay more attention to what their colleagues have to say and show courage and consideration while dealing with challenging situations.

The statistical data have been analyzed using the statistical program SPSS 26. To test the general hypothesis *The transformational leadership style influences leaders' performance from early education institutions (quantified through effectiveness, satisfaction, and extra effort) and a growth mindset in line with inspirational motivation*, Spearman-type correlations have been done. It highlights both the associations between the variables from the research hypothesis, and the hierarchical multiple regressions. This has emphasized the fact that transformational leadership is the strongest positive predictor for performance, quantified through effectiveness, satisfaction, and extra effort as operational indicators.

To address the assessment of the data normality hypothesis, the Shapiro-Wilk test has been used to observe whether the data are normally distributed, as the test is widely regarded as the most powerful normality test (Razali, 2011). The significant values for the Shapiro-Wilk tests, where the

Alfa threshold is lower than .05 ($p < .05$), show the fact that none of the score distributions follows a normal distribution within the analyzed sample (Table 1). According to our results, for the subsequent stage of data analysis, either nonparametric statistical methods or robust analysis techniques will be used upon the breach of normality assumptions.

Table 1. Results of the Shapiro-Wilk test where $p < .05$

	Kolmogorov-Smirnov			Shapiro-willk		
	Statistic	df	Sig.	statistic	df	sig
Transformational leadership	.083	100	.085	.960	100	.004
Transactional leadership	.125	100	.001	.972	100	.031
Laissez-faire leadership	.114	100	.003	.863	100	.000
Performance quantified by operational items effectiveness, satisfaction, and extra effort	.160	100	.000	.812	100	.000

The identification of the dominant leadership style of the managers included in our sample was completed by resorting to the use of the Chi-square test which is one of the most known nonparametric tests employed by researchers when they analyze categorical data (Sharpe, 2015). From the statistical analyses, it was found that out of the total of 100 leaders of the early education institutions participating in the study, 89 participants have a transformational leadership style as a dominant one, and 11 participants have a transactional leadership style (Table 2 and 2.1). We have obtained a p=.000 lower than .005, which renders our results significant.

Table 2. Leaders' dominant leadership style

	Observed N	*Expected N*	*Residual*
Transformational leadership	89	50.0	39.0
Transactional leadership	11	50.0	-39.0
Total	100		

Table 2.1. Results of the Chi-square test, p=.000

Chi-Square	*60.840[a]*
df	1
Sig	.000

To address the first research question, multiple linear regressions have been done to highlight the predictions resulting from the statistical data. *Q1. What is the impact of the transformational leadership style on the performance of leaders from early education institutions, quantified through the operational indicators of effectiveness, satisfaction, and extra effort?* In this model, we have introduced the leadership styles as independent variables while operational indicators (effectiveness, satisfaction, and extra effort) were perceived as dependent variables. Following our results, the regression model has an R2 of 0.512, pointing to a percentage of approximately 51.2% out of the results of leadership variation being explained by the three leadership styles as predictors in the model. This is a fairly strong result, whereas the R2 adjustment is also high (0.497), pointing to the fact that the model is highly appropriate for the data.

ANOVA shows the fact that the model is statistically significant ($F(3, 96) = 33.551$, $p < .000$), which means the fact that there is also a statistically significant difference in the capacity to predict the quantified performance through operational indicators (effectiveness, satisfaction, and extra effort) in both the models that include the leadership styles as predictors and in the ones that do not.

The non-standardized coefficients (B) show to what extent the dependent variable changes for each unit change of the predictor. In this case, transformational leadership has the highest positive impact on performance ($B = .759$, $p < .000$), followed by transactional leadership which also has a lower but positive impact ($B = .128$, $p = .040$). The laissez-faire leadership harms the results ($B = -.239$, $p < .000$).

The standardized coefficients (Beta) show the relative importance of each predictor within the model. Transformational leadership is the strongest predictor (Beta = .618), followed by laissez-faire leadership (Beta = -.288) and transactional leadership (Beta = .171).

The regression analysis shows that transformational leadership is the strongest positive predictor for performance quantified through operational indicators of effectiveness, satisfaction, and additional effort (Beta = .618, $p < .000$), followed by transactional leadership which also has a positive

impact (Beta = .171, p = .040). Laissez-faire leadership presents a negative correlation (Beta = -.288, p < .000), suggesting an avoidance tendency with weaker results.

To answer the research question *Q2. To what extent do effectiveness, satisfaction, and extra effort determine the transformational leader's performance?*, we have investigated the three variables with an exploratory aim to discover existing significant connections between extra effort, effectiveness, and the transformational leader's satisfaction, applying a bivariate correlation test (Spearman type correlations) and hierarchical multiple regression. The significant obtained results point to the fact that additional effort and effectiveness are interconnected, r = .622**, indicating a strong positive correlation which suggests that as the leader's effectiveness increases, so does the tendency to make an additional effort. The strongest correlations in the data set show a close connection between the leader's satisfaction and their willingness to make extra efforts to achieve organizational goals, extra effort, and satisfaction: r = .696**. A strong correlation that supports the existence of a significant connection between perceived effectiveness and leaders' satisfaction level is recorded between effectiveness and satisfaction r = .651**. Following the analyzed results, we can conclude that transformational leadership contributes to leaders' performance enhancement in early education institutions quantified through effectiveness, satisfaction, and additional effort as operational indicators. Likewise, it can be safely stated that the transformational leadership style as part of the management process of early educational institutions, generates the willingness to make an extra effort towards reaching institutional objectives hence causing an increase in the leaders' satisfaction level concerning goal achievement, validating our general and specific research hypotheses.

To answer the research question: *What is the impact of the transformational leadership style on the leaders' performance in early education institutions?* both Spearman type correlations and linear regressions have been done. The statistical analysis demonstrates that there is a positive correlation between transformational leadership and performance-related operational indicators (effectiveness, extra effort, and satisfaction). Our results answer the research question validating the fact that transformational leaders inspire and motivate subordinates to engage in extra efforts to achieve goals, r = .543**. Additionally, it is suggested that transformational leadership contributes to an increase in effectiveness level, r = .581**, whereas the transformational leadership style is strongly correlated with higher levels of satisfaction on the part of leaders, r = .629**.

In the second part of our analysis, we used multiple linear regression to identify whether there is a connection between a transformational leader's performance and the leader's performance quantified through the operational indicators of extra effort, effectiveness, and satisfaction. According to the obtained results, in the first model where we have introduced transformational leadership as an independent variable, it explains 33.5% of the dependent variable additional effort (EEE) (R^2 = 0.335, F (1, 98) = 49.349, $p < 0.001$). Consequently, transformational leadership positively and significantly predicts the extra effort level (Beta = 0.579, $p < 0.001$). In the second model where we have introduced transformational leadership as an independent variable, it explains 34.6% of the dependent variable of effectiveness (EFF) (R^2 = 0.346, F (1, 98) = 51.810, $p < 0.001$), which indicates that transformational leadership is a significant and positive predictor of effectiveness (Beta = 0.588, $p < 0.001$). The third model where we have added transformational leadership as an independent variable, explains 40.6% of the dependent variable satisfaction (SAT) (R^2 = 0.406, F (1, 98) = 67.025, $p < 0.001$), demonstrating the fact that transformational leadership has a significant and positive influence on the satisfaction level (Beta = 0.637, $p < 0.001$). Based on the obtained results, we can state that transformational leadership is a robust predictor for these variables directly influencing individual perceptions and behaviors in organizations.

As an answer to question *Q4. To what extent do inspirational motivation and the growth mindset influence the leader's performance that is quantified through the operational indicators of effectiveness, satisfaction, and extra effort?* both Spearman type correlations and multiple linear regressions have been done where we have introduced inspirational motivation as an independent value, whereas operational variables (effectiveness, satisfaction and additional effort as dependent variables through which we have gauged performance. The correlations have been done to observe whether there is a significant connection between inspirational motivation and the leader's performance, quantified through the operational indicators of effectiveness, satisfaction, and extra effort (Table 3). The analysis results show that inspirational motivation presents moderate positive and statistically significant correlations with extra effort, effectiveness, and satisfaction. The correlation between inspirational motivation and extra effort is 0.583, indicating the fact that an increase in motivation implicitly determines the increase in the additional effort made. Additionally, there is a correlation of 0.548 with effectiveness, suggesting that more motivated individuals tend to perceive the existence of a higher effectiveness in their activities. Moreover,

inspirational motivation correlates with a coefficient of 0.574 with satisfaction, highlighting the fact that high motivation levels are associated with increased satisfaction.

Table 3. Spearman correlations between inspirational motivation and operational indicators (effectiveness, satisfaction, and extra effort)

Variables	1	2	3	4
1 Inspirational motivation	1	.583**	.584**	.574**
2. Extra effort	.583**	1	.622**	.696**
3. Effectiveness	.548**	.622**	1	.651**
4. Satisfaction	.574**	.696**	.651**	1

** $p < 0.01$ level (2-tailed)

The results of the multiple linear regressions show that inspirational motivation proves to be a strong and significant predictor of the three dependent variables. Following the obtained results, in the first model where we have introduced inspirational motivation as an independent variable - it explains 30.9% of the dependent variable extra effort ($R^2 = 0{,}309$, $F(1, 98) = 43.771$, $p < 0{,}001$). Consequently, inspirational motivation positively and significantly predicts the level of extra effort (Beta = 0.556, $p < 0{,}001$). The second model also has inspirational motivation as an independent variable, it explains 27% of the dependent variable effectiveness ($R^2 = 0{,}270$, $F(1, 98) = 36.324$, $p < 0{,}001$), which means that inspirational motivation positively and significantly predicts the leader's effectiveness level (Beta = 0.520, $p < 0{,}001$). In the third model where inspirational motivation stays as an independent variable, 33% of the dependent variable satisfaction is explained ($R^2 = 0{,}330$, $F(1, 98) = 48.239$, $p < 0{,}001$), indicating the fact that inspirational motivation is positive and significantly predicts the leader's satisfaction level. (Beta = 0.574, $p < 0{,}001$).

The statistical analyses demonstrate that the intercept (constancy) is significant for each model, this aspect indicating the fact that even when inspirational motivation is zero, the estimated values for the operational indicators of extra effort, effectiveness, and satisfaction are still positive.

Discussions

The research results show that transformational leadership is predominant (89%). This is a fact that validates an increased performance level from the point of view of operational indicators of effectiveness, satisfaction, and extra effort. The results also show a close interconnection between the leadership style, growth mindset, and behaviors of the early education leaders, in line with inspiring motivation. The literature has evidence that supports the conclusions of our study about the connection between transformational leadership and a development mindset. The fact that our study specifically addresses the leaders of early childhood education institutions—an area that has not received enough attention in the literature—is one of its novel features.

First of all, the adoption of a growth mindset may be influenced by both the individual traits of the leader and the organizational environment. The team will perform less if the leaders have inflexible opinions and their organization does not support individual growth (Hidayat et al., 2024). Furthermore, research indicates that developing a growth mindset and employing leadership strategies might increase intrinsic motivation (Zhao et al., 2024). According to other studies, an organization's ability to generate sustained growth is directly impacted by the transformational leadership and adaptability of its executives (Dong, 2024). Bennett (2009) reinforces the idea that workplace satisfaction is higher in the case of a transformational leader's subordinates, highlighting a connection between inspirational motivation, intellectual stimulation, and satisfaction. These results further support the hypothesis of our study that transformational leadership is important for leaders' satisfaction in early childhood education institutions. It also reinforces the claim that transformational leadership generates positive organizational outcomes (El Toufaili, 2017). The significant connections showed that the leader's satisfaction was closely related to the leadership styles. This idea is supported by other studies (Graham, 2016). The leader is responsible for changing organizational paradigms to guide them towards growth (Isrowiyah & Munir, 2021).

In our study, a significant correlation has been recorded between the transformational leadership style, workplace satisfaction, and the willingness to make extra effort. When exposed to transformational leadership, the leader encourages subordinates to be enthusiastic about the future and to solve their problems in creative ways, exerting extra effort to reach the institution's objectives. By employing a transformational leadership approach, the

institution may reach higher performance levels from the perspective of the operational indicators of effectiveness, satisfaction, and extra effort.

The findings show that some ongoing professional development initiatives should be important to be implemented to emphasize the development of transformational leadership, growth mindset, and inspiring motivation. This aspect could be useful in raising teachers' satisfaction and performance in early education. The development of transformational leadership and a growth mindset become crucial for achieving the performance of the institution. We may conclude from the findings that the two essential components are complementary.

Limitations

Various studies support the fact that the leadership style the leader adopts plays an essential role in performance achievement as each style has a specific effectiveness context and therefore may profoundly impact the various organizational outcomes, including employee productivity, professional satisfaction, and organizational commitment (Alrashidi et al., 2024). Several studies underline that while transformational leadership can enhance performance, being a mediator for humble achievement requires a lot of energy and resilience from the leader (Mukhlisin et al., 2024). According to existing studies, transformational leaders make a lot of effort to develop their skills while remaining responsible for their team (Omdal & Roland, 2020). The literature explains effectiveness in terms of skills and behaviors, rather than in terms of results of their actions (Andersen, 2015). For that reason, it is important to highlight the skills that a transformational leader needs to develop, to have actions that lead to success, and elements that are absent from the national policy requirements. The sample of our study was composed of 100 leaders of Early Education Institutions where transformational leadership is understood in moderation. The limited sample size indicates that there is less focus on identifying the principles of leadership that early education leaders should embrace to improve team performance.

There is a problem when referring to the effective leadership of early education institutions in Romania which can occur due to clashes in opinions on what and whom one has to lead. Early education leaders tend to be poorly chosen, sometimes with support from politicians. Their actions are contagious; the person who suggests them imposes on them how to lead and what type of leader they need to be. As a result, leadership becomes less effective.

For that reason, in our country, it's necessary to spread the practices that develop the transformational leadership and growth mindset among Early

Childhood teachers. The understanding of transformational leadership could increase the effectiveness of managing these issues. In light of our findings, it could be helpful to investigate whether transformational leadership abilities can be developed through ongoing professional development.

Conclusions

The results of this study can bring major changes to the effective practices of the adopted leadership styles in early education institutions. The leader-participants in this study are aware of the role transformational leadership has in reaching personal performance. They understood the operational indicators of satisfaction and progress but also, the importance of a growth mindset related to inspirational motivation. Following the results of our study, we consider that the motivation to effectively lead the organization increases the leaders' desire to personally develop, displaying an orientation towards responsibility and accountability. The leadership and the development of leadership skills may include personal sacrifices that improve the group and the organization's efficiency (Maurer et al., 2017). According to our study results, transformational leadership has a significant influence on the performance quantified through operational indicators of effectiveness, satisfaction, and extra effort. Additionally, the results show the fact that the growth mindset and transformational leadership are closely connected with performance. The statistical analyses confirm the fact that inspirational leadership has a fundamental role, even in the cases where this has not been sufficiently developed and can have an impact on the increase of quantified performance through the operational indicators of extra effort, effectiveness, and satisfaction. In conclusion, we can state that certain intervention programs based on the increase of inspirational motivation and the growth mindset can be efficient for performance improvement and individual satisfaction enhancement. Under both our obtained results and other researchers who have been mentioned in our study, we can state the fact that the leadership style adopted by early education institutions can significantly influence a growth mindset and individual performance.

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Authors' contributions: *These authors contributed equally to this work. All authors contributed to the study conception and design. All authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.*

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