The impact of leadership learning on work locus of control

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ABSTRACT:

The study aimed to investigate the impact of leadership learning practices on the work locus of control among heads of departments at public universities in the Kurdistan Region-Iraq. More precisely, the study concentrated on investigating the impact of selected leadership learning practices; self-managed, practice-based, and formal learning practices on work locus of control. Data were collected from 207 heads of departments from different public universities in the Kurdistan Region-Iraq. A self-administered questionnaire of three parts was sent online to the participants to collect the primary data from the sample under the research. Descriptive and inferential statistics were utilized to analyze the collected data and test the research hypotheses using SPSS (25.0). The empirical results showed a positive relationship between leadership learning practices and locus of control. The Pearson correlation analysis revealed that all three leadership learning practices (self-managed, practice-based, and formal learning) were significantly related to the locus of control. The results of regression analysis supported these findings and revealed that leadership learning practices collectively explained 24% of the variance in the locus of control. The practice-based learning and formal learning practices were found to have the strongest positive impact on locus of control, while self-managed learning had a weak and insignificant impact. Hence, it can be said that these results assert the importance of leadership learning practices in promoting individuals’ locus of control. It is also suggested that investing in formal and practice-based leadership learning programs may positively influence the individual’s locus of control, which can have significant implications for personal and professional development.

KEYWORDS: Locus of Control, Leadership Learning, Public Universities, Kurdistan Region-Iraq.

Introduction

The concept of locus of control has garnered considerable attention from the scientific community over the past 50 years. A study of "PsychInfo" reveals that the term was used in approximately 18,000 articles by the end of 2015 (NOWICKI & DUKE, 2017). In addition, numerous recent studies incorporated the concept as a primary variable (Bani-Hani & Hamdan-Mansour, 2021; Chiang et al., 2019; Churchill et al., 2020; Heywood et al., 2017). The ongoing interest in the concept of locus of control might be due to its important implications for psychological and behavioral studies.

Rotter, (1966) states that locus of control refers to the individuals’ perception of their capability to exercise control over their lives. The concept is divided into two distinct categories: "internals" and "externals". It is also added that highly internally controlled people view their actions and behaviors as the primary determinants of the outcomes they experience. Conversely, those with a high level of external locus of control believe that external factors such as the actions of others, fate, or chance are the main causes of what occurs in their lives.

According to Shannak and Al-Taher. (2012), one of the most significant personality characteristics that affect an individual's behavior in an organizational setting is their locus of control. This is due to its significant impact on job involvement, job satisfaction, absenteeism, performance, happiness, and work-related stress (Padmanabhan, 2021; Pushpinder Singh & Kaur, 2018). Therefore, investigating

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and understanding this concept in a context that has not been previously studied, to the best of researchers' knowledge, is crucial.

On the other hand, leadership learning has gained significant attention from researchers globally. While some academics question whether leadership is intrinsic, this study focuses on the perspective that leadership is a result of a learning process. Leadership potential is not something that some people have and others do not. However, it is more widely distributed than traditionally believed. Practically, all people have the potential to lead, but traditions and myths about leadership can prevent individuals from becoming effective leaders (Kouzes & Posner, 2016). They further argue that to become exemplary leaders, individuals must move past these myths and focus on implementing leadership learning programs that will enable them to learn and grow as leaders. This is because developing leadership skills can lead to more productive organizations through the enhancement of individuals’ feelings of self-worth and meaningfulness.

In the current highly competitive environment, improving individuals’ abilities is a vital step for developing effective leaders, which can also help organizations to survive and prosper (Seidle et al., 2016). They also add that the demand for leadership learning practices has evolved as an answer to the internal and external challenges faced by organizations globally. The Internal challenges arise from the new structures of organizations, which view leaders as coordinators, consultants, and coaches, rather than just bosses. On the other hand, external constraints resulted from the rapid changes that have created uncertainty, unpredictability, and complexity of issues that cannot be resolved by traditional leaders.

Additionally, Maheshwari and Yadav (2018) contend that having suitable leadership learning programs within an organization is viewed as a competitive advantage. Therefore, organizations must offer leadership development programs that enhance people's beliefs of their self-worth-worth, confidence, and problem-solving skills, as these factors may impact their locus of control (Maheshwari & Yadav, 2018). It can be said that investigating the association between the two variables, leadership learning practices and locus of control is an important area of research. Additionally, exploring this relationship will help decision-makers comprehend how leadership learning programs impact the way people view their abilities to manage their working environment.

Although previous research has explained the linkage between locus of control and various outcomes, including job involvement, job satisfaction, performance, absenteeism, happiness, work stress, and well-being, few studies have investigated locus of control within the context of organizations. Therefore, examining the factors that affect locus of control within such an important context might help organizational leaders to gain insight into how to better support their personnel, improve work satisfaction, and reduce stress levels in the workplace. This research gap is particularly relevant since individuals’ perceptions can significantly affect organizational outcomes. Consequently, this study aims to fill this gap, theoretically, by testing the impact of self-managed learning, practice-based learning, and formal leadership development on work locus of control. In addition, this study will provide valuable insights that can guide the development of effective leadership learning programs and contribute to the development of highly effective leaders within organizations. Based on the above discussion, this study will try to answer the following research question.

**Research Question**

“What is the impact of implementing leadership learning practices on the work locus of control of heads of departments in governmental universities in the Kurdistan Region-Iraq?”

**Aims of the Study**

The present study aims at:

1. determining the current level of work locus of control among the head of departments in governmental universities in the Kurdistan Region-Iraq.
2. assessing the frequency and effectiveness of leadership learning practices among the heads of departments in governmental universities in the Kurdistan Region-Iraq.
3. examining the relationship between various types of leadership learning practices (self-managed learning, practice-based learning, and formal leadership development) and work locus of control.
4. identifying the extent to which self-managed learning, practice-based learning, and formal leadership development predict work locus of control among heads of departments in governmental universities in the Kurdistan Region-Iraq.

**Higher Education System in Kurdistan Region-Iraq**

The Ministry of Higher Education and Scientific Research in the Kurdistan Region-Iraq was established in 2006 to supervise the improvement and development of higher education in the Region. It aims to provide high-quality education that meets international standards and prepares students for successful careers in different fields of life.
Currently, numerous public universities are running under the supervision of the Ministry of Higher Education, including, the University of Sulaimani, Salahaddin University, the University of Duhok, the University of Zakho, the University of Koya, the University of Suran, the University of Charmo, University of Halabja, University of Garman, University of Raparin, Erbil Polytechnic University, Duhok Polytechnic University, and Sulaimani Polytechnic University. These universities offer a variety range of academic programs in different disciplines, including engineering, medicine, law, management, economics, and social sciences. They also provide research opportunities for faculty members and students, and they contribute to the overall development and growth of the region (Ministry of Higher Education and Scientific Research, n.d.).

The Ministry of Higher Education in the Kurdistan Region has made significant progress in improving the quality of education and expanding access to higher education in recent years. However, there are still some challenges to be addressed, such as inadequate infrastructure and limited resources. Despite these challenges, these universities are committed to providing good quality education and contributing to the development of the Kurdistan Region.

Literature review

Locus of Control

The phrase "locus of control" refers to a concept introduced by Julian Rotter in his social learning theory in 1954. Locus of control, as introduced in the context of social learning, refers to a generalized expectation about the relationship between personal attributes and observed consequences. It emerges as a result of a series of unique experiences in which people comprehend the causal sequences that occur in their life (NOWICKI & DUKE, 2017). Nowicki, (2016) states that the origin of locus of control is traced back to the influential social learning theory of Julian Rotter in 1954, who is considered one of the true giants of American psychology. However, Rotter (1966) states that research about "chance and skill effects on expectations for reinforcement" by Phares in 1957 made the first attempt to quantify individual variations in believing in external control as a psychological variable. The study found that people with external control believe in chance situations more than skill situations. This means that the idea of externality in terms of controlling behavior was mentioned and researched before (Rotter, 1966).

Although there is no agreement on the definition of the term "locus of control," it has been extensively described and defined by researchers. Generally, an event that is considered a reward or reinforcement by some people may be perceived and responded to differently by others. This is because some individuals believe that their attributes and behaviors are the main determinants of the results they receive in their lives and this belief is named "internal control." While other individuals believe that rewards are not contingent on their behaviors and are instead controlled by external forces, and this belief is named "external control" (Rotter, 1966). Kutans et al. (2011) claim that the sort of attributions that people make for their task successes or failures is characterized as the locus of control. They further added that the significance of this attribution is that it reflects human opinions about the causes of life outcomes and results. Consequently, it can be asserted that locus of control is the sort of justification that one creates for life events.

Similarly, Chinedu and Nwizuzu (2021) define the locus of control as a personal trait that determines the degree to which people feel that their life events are under or out of their control. They state that the locus of control refers to the location of someone's control and is assumed to be positioned either inside or outside the individual. This is why it is referred to as an internal or external locus of control. Added to that, Individuals are described as external when they feel that their failures or successes are unrelated to their actions and behaviors. On the other hand, they are described to have an internal locus of control when they believe that their failures or successes are the results of their actions. Hence, it can be said that both external and internal locus of control have extensive effects on individuals’ attitudes and behaviors as they fall somewhere between these two ways of thinking.

In this regard, Nowicki (2016) illustrates that individuals with an external locus of control have greater feelings of anxiety and depression than those with an internal locus of control. He also added that compared to internally controlled individuals, those with an external locus of control are more likely to have behavioral problems in their lives. Therefore, Infurna et al. (2011) assert that individuals with an internal locus of control live approximately three to seven years longer than those with an external locus of control. Studies related to organizational behavior also identify the importance of locus of control as a work-related attitude. Boone et al. (1996) state that when economic times are difficult, CEOs with an internal locus of control are financially more successful and less likely to bankrupt their enterprises than those with an external locus of control. Similarly, Spector et al. (2002) also state that individuals with an internal locus of control are more successful managers than those with an external locus of control. They further add that internality is one of the best determinants of administrative success in an organization. Heinström (2010) explains that individuals with an internal locus of control maintain their sense of responsibility and autonomy throughout their professional lives. He further adds that the top priority of individuals with an internal locus of control is to learn...
more about their work responsibilities and adapt to their work environment to gain a full understanding of the situation when they start a new job or new position. On the other hand, those with an external locus of control depend on others’ decisions when seeking career opportunities and financial gains.

People's reactions to failure and success experiences vary, depending on whether the outcomes of their activities are attributed to competence or luck. Therefore, several measurements have been developed to assess the locus of control since its inception. Some of these measures have been specifically designed to assess children's locus of control, while others are aimed at measuring specific goal areas or mental health locus of control. However, considering the nature of the current study, it is believed that the "Work Locus of Control Scale" (WLCS) by Spector (1988) is the most appropriate instrument for assessing locus of control. This is because the study will be conducted within the context of organizations, and the WLCS is the only scale that deals with workplace and work-related variables. Additionally, many of the other tools have been developed for general assessment or have been widely criticized for not meeting their objectives. Hence, the WLCS will be utilized to measure the locus of control among the study sample.

Leadership Learning

As defined by Roupnel et al. (2019), leadership learning or development is a process by which facilitators utilize a set of exercises or mental activities intended to encourage members to reflect on their learning experiences. As a result, it enhances the transfer of information and skills to the workplace. In other words, it can be considered a way for facilitators to help groups of people explore their learning experiences and practices using a series of mental activities and exercises. Maheshwari and Yadav (2018) define it as a social process that gives considerable attention to the growth of interpersonal relations and ensures that everyone in the organization is involved. Allen et al. (2014) propose that leadership development is the process of building individuals, groups, and organizational capability to attain organizational objectives.

Accordingly, Roupnel et al. (2019) explain that the collective capacity of individuals can be built through leadership learning programs. They also explain that individuals become more prepared to solve unpredictable issues by involving them effectively in leadership responsibilities and roles. Therefore, it is necessary to make leadership development part of the organizational culture and synchronize it with its daily practices (Dalakoura, 2010). Hence, organizations must have regular learning programs for building current and future leadership capacities. The primary goals of these programs are to create leaders who can make reliable judgments, take strategic decisions, motivate followers, handle difficult situations, and finally reach appropriate conclusions (Roupnel et al., 2019). They further added that these programs should be able to move the leaders from an individual-based identity to a collective-based identity.

In addition, Turner and Baker, (2017) pointed out that for attaining effective leadership learning and development, these programs should go beyond the structured and theoretical-based training programs and focus more on organizational community, support, self-discovery, and practices. This is mainly due to the reason that theory-based methods of leadership learning have been criticized for not being able to allow the trainees to learn from their work and thus enhance their soft skills (Dalakoura, 2010).

According to Hall (2016), there are plenty of factors that might identify the success or failure of leadership learning programs. These include the selection of trainers, who should offer psychological support and show empathy; the selection of participants, who must be committed to the leadership learning program; and the selection of the workplace, which is an important component for effective leadership development.

Despite having different approaches to leadership learning, there is generally a theoretical and statistical similarity between them. However, Scott et al. (2008) developed a leadership development and learning approach that covers almost all the methods of learning and development proposed by other approaches. They divided these methods into three main scales: self-managed learning, practice-based learning, and formal leadership development.

While other approaches and models identified clear methods for leadership learning and development, none of them mentioned self-managed learning activities, which are significant components of the learning process. Therefore, this study will adopt Scott et al.'s (2008) approach to measure the level of leadership learning among the researched sample.

Theoretical Framework and Hypotheses

While several studies have investigated locus of control as a predictor or determinant of other variables, only a few studies have considered it as a dependent variable. This might be due to the reason that locus of control has significant outcomes, such as job involvement, job satisfaction, absenteeism, performance, happiness, work stress, and well-being (Padmanabhan, 2021; Pushpinder Singh & Kaur, 2018). However, it is also important to gain knowledge about the factors that affect locus of control, especially within the context of organizations, where personnel perceptions can affect organizational outcomes.
This knowledge can be helpful to redirect human resources as needed.

Although some studies have evaluated the factors affecting locus of control, only a few of them have been conducted within the context of organizations. According to Latham and Pinder (2004), leadership learning can influence the locus of control in several ways. Firstly, leadership learning programs often focus on building self-awareness, which can help individuals better understand their strengths and weaknesses, as well as their ability to control their outcomes. This can lead to a greater sense of personal agency and an internal locus of control. Secondly, leadership training can help individuals develop a growth mindset, which is the belief that their abilities can be developed through dedication and hard work. This can shift individuals' perceptions of their ability to control their outcomes from external to internal factors. Thirdly, leadership development can also help individuals develop skills such as problem-solving, decision-making, and strategic thinking, which can help them feel more in control of their work environments (Stajkovic & Luthans, 1998).

Furthermore, Howell and Avolio (1993) found that transformational leadership is associated with a higher internal locus of control. A study by Serin et al. (2009) on a sample of trainee teachers and the factors that influence their learning and studying strategies and locus of control, discovered a meaningful relationship between studying aids, motivation, self-test-retest, and locus of control. Another study by Shannak and Al-Taher (2012) noted that employees' level of education, religiosity, gender, and age are associated with work locus of control. Wallace et al. (2012) also observed that a higher level of self-esteem is strongly related to an internal locus of control. Another research by Ahmad, (2014) on "Head nurses' leadership style and their locus of control" found a significant positive correlation between authorization, democratic, directing, delegating, coaching, and facilitating styles of leadership and locus of control. He pointed out that head nurses who gain sufficient knowledge about different styles of leadership are more likely to have an internal locus of control. He also suggested that highly effective leaders can be developed through leadership training and development programs.

Recent studies have further highlighted the significance of understanding the impact of leadership learning on locus of control. For instance, (Tangatarova & Gao, 2021) a positive relationship between transformational leadership and employees' internal locus of control. This in turn was associated with higher levels of psychological well-being. Qurrahtulain et al. (2022) also found a significant relationship between inclusive leadership and internal locus of control, in addition, Paik and Lee (2022) found a strong positive relationship between leader-member exchange and internal locus of control. Byantara et al. (2023) also found that locus of control is a moderator factor between transformational leadership and other work-related variables.

This evidence suggests that locus of control is something that can be changed and developed through appropriate interventions. As mentioned earlier, leadership learning programs are designed to enhance individual capabilities to take responsibility for their actions, build their personalities, increase their self-esteem, and boost their rate of influence. Therefore, it is assumed that these programs may also reorient an individual's locus of control. Therefore, based on the above discussion, it can be hypothesized that leadership learning practices will positively impact work locus of control within organizations.

Research hypotheses

H1: There will be a positive association between leadership learning practices and employees' perception of control over their work. This hypothesis contains the following sub-hypothesis:

H1a: Employees who engage in self-managed learning activities will have a stronger internal locus of control in their work compared to those who do not engage in such activities.

H1b: Employees who participate in practice-based learning activities will perceive a greater sense of control over their work compared to those who do not participate in such activities.

H1c: Employees who participate in formal leadership development will report higher levels of internal locus of control in their work than those who do not participate in such experiences.

H2: Leadership learning practices will collectively explain variance in employees' work locus of control. This hypothesis contains the following sub-hypothesis:

H2a: Self-managed learning will positively affect work locus of control.

H2b: Practice-based learning will positively affect work locus of control.

H2c: Formal leadership development will positively affect the work locus of control.

Theoretical Framework
Methodology

Design

An explanatory study was conducted in higher educational institutions in the Kurdistan Region-Iraq to investigate the impact of leadership learning practices on work locus of control among heads of departments at public universities. The data were collected quantitatively using a survey design via Google form to send a self-administered questionnaire for investigating and measuring the studied variables.

Procedures

Table 1: Demographic factors and personal characteristics of the participants.

<table>
<thead>
<tr>
<th>Categories</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>175</td>
<td>84.5</td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>15.5</td>
</tr>
<tr>
<td>Certificate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ph.D.</td>
<td>133</td>
<td>64.3</td>
</tr>
<tr>
<td>Master</td>
<td>74</td>
<td>35.7</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>104</td>
<td>50.2</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>63</td>
<td>30.4</td>
</tr>
<tr>
<td>10 to 15 years</td>
<td>22</td>
<td>10.6</td>
</tr>
<tr>
<td>More than 15 years</td>
<td>18</td>
<td>8.7</td>
</tr>
<tr>
<td>Scientific title</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant lecturer</td>
<td>46</td>
<td>22.2</td>
</tr>
<tr>
<td>Lecturer</td>
<td>76</td>
<td>36.7</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>73</td>
<td>35.3</td>
</tr>
<tr>
<td>Professor</td>
<td>12</td>
<td>5.8</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1 indicates that the sample consisted of 207 participants, with 84.5% males and 15.5% females. This suggests that there may be a gender imbalance among heads of departments in universities. However, it is important to note that the gender distribution in the sample may not necessarily reflect the gender distribution in the population of heads of departments, and further research would be needed to confirm this.

The educational background of the participants was also of interest, as the role of head of the department in a university typically requires a high level of education. The table shows that the majority of participants (64.3%) held a Ph.D., which is consistent with the expectations for this role. Additionally, 35.7% of the participants held a Master’s degree, indicating that the sample included participants with a range of educational backgrounds.
The length of time that participants had been in their current positions was also relevant for understanding the characteristics of heads of departments in universities. The majority of participants (50.2%) had less than 5 years of tenure, which may suggest that turnover is relatively high among heads of departments. This could have important implications for the management of departments and the continuity of leadership.

Finally, the table provides information about the academic title of the participants, which is relevant for understanding the nature of the sample. The majority of participants (71.9%) held academic positions, with Assistant Lecturers, Lecturers, and Assistant Professors making up the majority of the sample. This is consistent with the expectations for the role of head of the department in a university, as it typically requires an academic background and experience.

Overall, the table provides valuable insights into the demographic and personal characteristics of heads of departments in universities, and the fact that the participants were selected randomly adds to the validity and generalizability of the study findings. However, it is important to note that there may still be biases or limitations in the sample, and further research would be needed to confirm the findings and understand the implications for management and leadership in academic departments.

**Measurement**

Data were collected using a pre-structured and close-ended questionnaire, which was designed based on the theoretical framework and research hypotheses. The questionnaire consisted of three sections: demographic information (4 demographic factors), leadership learning practices including; self-managed learning (6 items), practice-based learning (7 items), formal learning (7 items), and work locus of control (WLOC) (16-items). The participants were required to express their level of agreement or disagreement with each statement based on a five-point Likert scale; (5= strongly agree, 4= agree, 3= neutral, 2= disagree, 1= strongly disagree). In terms of the reliability of the questionnaire, results revealed high reliability for the scales as Cronbach’s Alpha coefficient for leadership learning was (0.90) and locus of control was (0.72). This shows a reasonable level of scale internal consistency.

**Data Analysis**

The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as means, standard deviations, and frequencies were used to describe the demographic characteristics of the participants and the variables of interest. Inferential statistics, including correlation analysis and multiple regression analysis, were used to test the research hypotheses.

Specifically, Pearson correlation analysis was used to examine the bivariate relationships between the independent variable (leadership learning practices) and the dependent variable (work locus of control). Multiple regression analysis was then used to test the research hypotheses by examining the unique effects of the independent variables (self-managed learning, practice-based learning, and formal leadership development) on the dependent variable (work locus of control).

Mathematically, the study is based on using Multiple Linear Regression analysis, where the dependent variable is (Locus of Control) and the independent variables are (self-managed learning, practice-based learning, and formal learning). Therefore, the fitted model can be formulated mathematically as follows:

\[ Y_i = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 \]

Where:

- \( Y_i \): is the dependent variable (Locus of Control)
- \( X_1 \): is the first independent variable (Self-managed Learning)
- \( X_2 \): is the first independent variable (Practice-based Learning)
- \( X_3 \): is the first independent variable (Formal Learning)
- \( B_0 \): is the model intercept
- \( B_1, B_2 \) and \( B_3 \): are the slop of each of the three independent variables respectively.

**Results**

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of Control</td>
<td>3.3753</td>
<td>0.4250</td>
</tr>
<tr>
<td>Self-Managed Learning</td>
<td>3.7923</td>
<td>0.6036</td>
</tr>
<tr>
<td>Practice-Based Learning</td>
<td>3.7930</td>
<td>0.5465</td>
</tr>
</tbody>
</table>

(Dlofan A. Salman, Range M. Nori Dawoda /Humanities Journal of University of Zakho Vol.12, No.1, PP.37-51, Jan.-Mar. -2024.)
Table 2 demonstrates the levels of locus of control (DV) and leadership learning and its three sub-dimensions (IV) among heads of departments in public universities in Kurdistan Region-Iraq. As can be noticed from the above table, all of the mean values are above the midpoint of the 5-point Likert scale. This indicates that heads of departments in the researched universities showed a moderate response to the studied variables. More precisely, the mean value for “Locus of control” was approximately (3.4), since the mean values are above the mid-point of the 5-point Likert scale, it can be asserted that the heads of departments in the researched public universities believe that the results they get are consequences of their previous actions and hardworking and they do not believe in luck and fortune when it comes to work. This means that they tend to have a good degree of internal locus of control.

Regarding leadership learning practices, the empirical results show that the mean values for self-managed learning, practice-based learning, and formal learning were (3.8, 3.8, 3.7, and 3.8). This indicates that the heads of departments in the researched public universities are involved sufficiently in leadership learning practices despite the slight differentiation that can be seen in the level of each practice. Additionally, the standard deviation values for all the studied variables indicate a low level of variation in the answers to the studied variables.

The presented table displays the results of the relationship between three different types of leadership learning practices (IV) and Locus of Control (DV) among the heads of departments in public universities in the Kurdistan Region-Iraq. The table presents Pearson Correlation coefficients, which measure the strength and direction of the association between the studied variables.

As can be seen from the results presented in the above table, there is a positive correlation between all the three types of leadership learning practices and Locus of Control. Self-Managed Learning has a moderate positive correlation with the Locus of Control (r = 0.360**), while Practice-Based Learning and Formal Learning show a stronger positive correlation with the Locus of Control (r = 0.453** and r = 0.465**, respectively). The positive correlation between the studied variables suggests that individuals who engage in leadership learning practices are more likely to have an internal Locus of Control. This means that hypothesis H1 is confirmed.

Furthermore, the table also reveals that all three types of leadership learning practices are positively correlated with each other, with the highest correlation found between Practice-Based Learning and Formal Learning (r = 0.719**) , followed by the relationship between self-managed learning and practice-based learning (r =0.638**). The lowest correlation was between self-managed learning and formal learning (r =0.582**). These findings propose that individuals who engage in one type of leadership learning practice are more likely to engage in other types as well.

In conclusion, the presented table shows a positive relationship between three different types of leadership learning practices and Locus of Control among the heads of departments in public universities in the Kurdistan Region-Iraq. The findings suggest that leadership development programs should promote self-directed learning, practice-based learning, and formal learning to promote a greater sense of ownership and responsibility over one's career growth and development.
Table 4: Regression Analysis: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.497a</td>
<td>0.247</td>
<td>0.236</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Locus of Control
b. Predictors: (Constant), Formal Learning, Self-Managed Learning, Practice-Based Learning

Table 4 shows the model summary of the current study and the analysis found that the independent variables collectively explain approximately $R^2 = 24.7\%$ of the variance in the Locus of Control, with a significant p-value of 0.000 which is less than 0.05. This indicates that the research hypothesis H2 is confirmed.

Table 5: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>9.206</td>
<td>3</td>
<td>3.069</td>
<td>22.242</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>28.009</td>
<td>203</td>
<td>.138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37.215</td>
<td>206</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 illustrates the results of an ANOVA test that was conducted to examine the statistical significance of the regression model. The regression model aimed to predict the (DV), Locus of Control, through leadership learning practices (IV): Self-Managed Learning, Practice-Based Learning, and Formal Learning.

The table shows the division of the total sum of squares into two components: the sum of squares attributed to the regression model, and the sum of squares attributed to the residual (i.e., the unexplained variance). The regression model sum of squares is 9.206, with degrees of freedom of 3 and a mean square of 3.069, while the residual sum of squares is 28.009, with degrees of freedom of 203 and a mean square of 0.138.

The F-value, calculated as the ratio of the mean square of the regression model to the mean square of the residual, is 22.242. The F-value is significant, indicating that the regression model is statistically significant at the p-value (sig. =0.000 < 0.05).

Table 6: Estimated Coefficient Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Std. Error</th>
<th>t. value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>1.906</td>
<td>0.192</td>
<td>9.911</td>
<td>0.000</td>
</tr>
<tr>
<td>Self-Managed Learning</td>
<td>0.045</td>
<td>0.057</td>
<td>0.786</td>
<td>0.433</td>
</tr>
<tr>
<td>Practice-Based Learning</td>
<td>0.169</td>
<td>0.074</td>
<td>2.287</td>
<td>0.023</td>
</tr>
<tr>
<td>Formal Learning</td>
<td>0.176</td>
<td>0.058</td>
<td>3.007</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Based on the above table, the fitted multiple regression model comes with the following regression equation:

$$Y = 1.96 + 0.045X_1 + 0.169X_2 + 0.176X_3$$

The table illustrates the results of a regression analysis that explains the relationship between three (IV), Self-Managed Learning, Practice-Based Learning, and Formal Learning, and a (DV), Locus of Control. The purpose of the analysis is to determine which independent variable has the strongest relationship with the Locus of Control and how much of the variance in the Locus of Control can be explained by the independent variables.

As can be noted from the above table the most significant predictor of Locus of Control was Formal Learning, with a coefficient value of 0.176 and a significant p-value of 0.003. This means that for every one-unit increase in
Formal Learning, the Locus of Control increased by 0.176 units, after controlling the effects of the other independent variables. The second significant predictor of Locus of Control was Practice-Based Learning, with a coefficient value of 0.169 and a p-value of 0.023. This means that for every one-unit increase in Practice-Based Learning, the Locus of Control increased by 0.169 units, after controlling the effects of the other independent variables. However, the weakest predictor of Locus of Control was Self-Managed Learning, with a coefficient value of 0.045 and a non-significant p-value of 0.433. This means that while there was a positive relationship between Self-Managed Learning and Locus of Control, this relationship was weak and not statistically significant.

The intercept \((B_0)\) was 1.906 with a p-value of 0.000, which is the expected value of the dependent variable when the independent variables are not included in the model or when they are equal to zero. This means that the dependent variable would take that value even if the independent variable had no effect on it.

In summary, both tables 5 and 6 show that the regression model is a good fit for the data, as indicated by the significant F-value of 22.242. The tables also show that the regression model explains a significant proportion of the total variability in the dependent variable \(R^2 24\%\), which has also been confirmed by the sum of squares for the regression model 9.206. Finally, the results show that there is still a significant amount of unexplained variability in the dependent variable, as indicated by the sum of squares for the residual error 28.009.

**Figure 2: Data Distribution**

Source: Imported from SPSS

Figure 1 shows the number of participants on the Y-axis and the distribution of respondents' general averages on the X-axis. The general averages of the responses on the X-axis appeared to be normally distributed, despite some outliers (skewed to the left). The figure also revealed that the standard deviation was 0.42 and the overall mean was 3.8. This suggests that the research sample is frequently subjected to the internal locus of control. Additionally, a low level of variance in the responses to the investigated variable is shown by the standard deviation value.

**Table 6: Hypotheses Results**

<table>
<thead>
<tr>
<th>No.</th>
<th>Hypotheses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>There will be a positive association between leadership learning practices and employees' perception of control over their work.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H1a</td>
<td>Employees who engage in self-managed learning activities will have a stronger internal locus of control in their work compared to those who do not engage in such activities.</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1b</td>
<td>Employees who participate in practice-based learning activities will perceive a greater sense of control over their work compared to those who do not participate in such activities.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H1C</td>
<td>Employees who participate in formal leadership development will report higher levels of internal locus of control in their work than those who do not participate in such experiences.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2</td>
<td>Leadership learning practices will collectively explain variance in employees' work locus of control.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2a</td>
<td>Self-managed learning will positively affect work locus of control.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2b</td>
<td>Practice-based learning will positively affect work locus of control.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2c</td>
<td>Formal leadership development will positively affect the work locus of control.</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

**Discussion**

The results of the research provided evidence that leadership learning practices are positively associated with the heads of departments’ perception of control over their work. This finding is consistent with previous research that has demonstrated a positive relationship between leadership development programs and employee outcomes such as self-efficacy and job performance (Ahmad, 2014; Avolio et al., 2004; & Wallace et al., 2012).

Moreover, the research supports the sub-hypotheses of H1, indicating that employees who engage in self-managed learning activities, practice-based learning activities, and formal leadership development have higher levels of internal locus of control in their work. These findings are in line with previous studies that have shown that these types of learning activities can lead to improvements in employee performance and job satisfaction (Baldwin & Ford, 1988; Serin et al., 2009; Shannak & Al-Taher, 2012). The results are also in line with the results of Paik and Lee (2022) who found a strong positive relationship between leader-member exchange and internal locus of control. Qurrahtulain et al. (2022) also found a significant relationship between inclusive leadership and internal locus of control.

It is worth noting that the research found that self-managed learning activities did not have a significant effect on employees' perception of control over their work, contrary to what was hypothesized. This result is inconsistent with some previous research that has suggested that self-directed learning can improve job performance and job satisfaction and locus of control (Saks & Belcourt, 2006). However, it is possible that the measures or sample used in this study differed from those used in previous studies, which could account for the different findings.

In summary, the research contributes to the growing body of literature about the importance of leadership learning practices for enhancing employees' locus of control. The results suggest that organizations can benefit from implementing leadership learning programs that include formal leadership development and practice-based learning activities. However, further studies need to be conducted to explore perspectives into the specific factors that contribute to the effectiveness of these learning programs and to identify strategies for promoting self-managed learning activities in the workplace.

**Limitations, Future research**

In interpreting the results of any research, it’s important to distinguish the limitations of the research and consider them to be avoided by future research. The following are some limitations of the present study:

1. Sample size: The sample size of the study may be relatively small, which could limit the generalizability of the findings. Larger sample sizes can more reliable results by reducing the impact of chance variability.

2. Self-reported measures: The study relied on self-reported measures of leadership learning practices and employees' perception of control over their work, which could be subject to response biases or errors. For example, employees may be more likely to report positively on their participation in learning activities or their sense of control over their work due to social desirability biases.

3. Cross-sectional design: a cross-sectional design was employed in this study, which meant that all the used data were gathered on different occasions. Therefore, this might limit the ability to establish causality between leadership learning practices and employees' perception of control over their work.

4. Limited variables: The study only examined the relationship between leadership learning practices and employees' perception of control over their work, but did not consider other factors that may influence employees’ outcomes. For example, other individual differences, situational factors, or job characteristics could affect employees' sense of control over their work.
5- Limited generalizability: The study was conducted in a specific context or setting, and the findings may not be generalizable to other industries, organizations, or populations.

Therefore, Future studies in this field might take into account these limitations by using larger sample sizes, longitudinal designs, using a mixed-method research, and examining a broader range of variables that could impact employees’ outcomes.

Recommendations

Based on the findings of this research, here are some recommendations forwarded to the Ministry of Higher Education and Scientific Research in Kurdistan Region-Iraq:

1- Encourage self-managed learning activities: The findings suggest that employees who engage in self-managed learning activities perceive a stronger sense of control over their work. Therefore, the Ministry of Higher Education and Scientific Research could promote and support self-managed learning activities, such as online courses, webinars, or self-directed learning opportunities for employees.

2- Emphasize practice-based learning: The study found that practice-based learning activities are positively associated with employees' sense of control over their work. The Ministry of Higher Education and Scientific Research could emphasize practice-based learning in leadership development programs, such as internships, job rotations, or action learning projects, to help employees apply their learning directly to their work.

3- Invest in formal leadership development: The study found that employees who participate in formal leadership development report higher levels of internal locus of control in their work. Therefore, the Ministry of Higher Education and Scientific Research could invest in formal leadership development programs, such as workshops, seminars, or certificate programs, to enhance employees' leadership skills and sense of control over their work.

4- Enhance a culture of continuous learning: The study highlights the importance of creating a culture of continuous learning at universities. The Ministry of Higher Education and Scientific Research could foster such a culture by encouraging managers and leaders to model learning behaviors, providing opportunities for peer learning and collaboration, and recognizing and rewarding employees who engage in learning activities.

5- Conduct further research: The study identifies some important relationships between leadership learning practices and employees' perception of control over their work, however further research is needed to explore these relationships more deeply. The Ministry of Higher Education and Scientific Research could support further research in this area to gain a deeper understanding of the impact of leadership learning practices on employee outcomes.

Conclusion

the study investigated the relationship between leadership learning practices and heads of departments’ perception of control over their work at public universities in the Kurdistan Region-Iraq. It was hypothesized that all leadership learning practices would have a relationship with work locus of control. The empirical results indicated a positive association between leadership learning practices and employees' sense of control over their work. Specifically, self-managed learning activities, practice-based learning activities, and formal leadership development were found to be positively related to the sense of control over work among the researched sample. However, out of three leadership learning practices, only two of them were found to be statistically significant in terms of impact.

These findings have important implications for leadership development and organizational performance in public universities of the Kurdistan Region-Iraq. The study highlights the importance of creating a culture of continuous learning and investing in leadership development programs that provide opportunities for self-managed learning and practice-based learning.

Despite the limitations of the present study, overall, it contributes to the literature on leadership learning. In addition, it provides valuable perspectives for organizational leaders and policymakers in the public universities of Kurdistan Region-Iraq who are interested in enhancing their employees' sense of control over their work through leadership learning practices.

References


أثر ممارسات التعليم القيادي على مسار تحكم العمل لدى رؤساء الأقسام في الجامعات الحكومية في إقليم كوردستان - العراق

المنصช: تهدف الدراسة إلى تقصي أثر ممارسات تعلم القيادة على مسار تحكم العمل بين رؤساء الأقسام في الجامعات الحكومية في إقليم كوردستان - العراق. وشارك في الدراسة ما مجموعه 207 رؤساء الأقسام من مختلف الجامعات الحكومية، وتم استخدام استمارة استبيان مدارة ذاتياً لجمع البيانات الأولية من العينة المبحوثة. تم تحليل البيانات التي تم جمعها باستخدام برنامج SPSS للعلوم الاجتماعية. كشفت نتائج الدراسة عن وجود علاقة ارتباط إيجابية بين ممارسات التعلم القيادي ومسار التحكم في العمل. كما وكشفت نتائج تحليل ارتباط بيرسون أن جميع ممارسات تعلم القيادة الثلاثة (التعلم المدار ذاتياً، والقائمة على الممارس، والتعلم الرسمي) كانت مرتبطة بشكل كبير بمسار التحكم في العمل لدى العينة المبحوثة. كما ودعمت نتائج تحليل الانحدار هذه النتائج وكشفت أن الأبعاد الفرعية الثلاثة لممارسات تعلم القيادة تتنبأ بشكل كبير بمسار التحكم في العمل. حيث أظهرت نتائج الدراسة أن التعليم الفعال ومسارات التعلم الرسمية لها أقوى تأثير إيجابي على مسار التحكم في العمل، ويرجى أيضاً أن الاستثمار في برامج تعلم القيادة الرسمية والقائمة على الممارسات أن تعتبر بشكل إيجابي على مسار تحكم الفرد في مكان العمل، والذي يمكن أن يكون له تأثير كبير على التطور الشخصي والمهني أيضاً.

الكلمات المفتاحية: مسار التحكم في العمل، التعليم القيادي، الجامعات الحكومية، إقليم كوردستان العراق.