

The Role of Faculty Deans in Enhancing Creativity among Staff Members and its Relevance to their Performance at Jordanian Universities in Irbid Governorate

Mohammad Nayef Abu-Al-Kishik^{*}, Saleh Salameh Barakat^{**} and Khalifeh Mustafa Abu-Ashour^{***}

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Abstract: The present study aims to investigate the role of Jordanian universities (Yarmouk, Science & Technology, and Jadara) deans in enhancing the creativity of faculty staff members. A descriptive study design was used following a quantitative approach. To achieve the aim of the study, the study tool (a survey questionnaire) was developed as entailing 50 statements. Upon following reliability and validity measures, the survey was applied to a sample of 327 (deans, heads of departments and faculty members) in the universities of Irbid Governorate. The of the study shows the role of the college deans was moderate and faculty members' creative development has a statistically significant positive relationship with their performance. The role of faculty deans in the creative development of faculty staff members at the faculty level differs statistically significantly from that of academic department heads, with no statistically significant differences due to gender.

(Keywords: Creativity, Faculty Staff, Heads of Departments, Jordanian Universities, University Deans)

Introduction

Higher education institutes (HEIs) are viewed as learning organizations with potential for sustainable visions, leaders' skills, and viable solutions for the emerging challenges (Abu Al Haj, 2019; Abu Godeh, 2017; Abu Shuldoum, 2014). Al-Mansoori et al. (2019) report that investment in human capital development leads to attainment of quality higher education and sustainable development. Leal et al. (2018) study on six different countries showed that education sustainability and learning innovation are fostered through transforming leadership. It emphasized the execution of creative strategies for developing the necessary innovative skills of the students essential for sustainable growth.

Given the co-existence of creativity with innovation, these assist in developing the student's skill set and competitive edge in the market (Gaspar et al., 2015; Amabile et al., 2016; Perry-Smith et al., 2017). Cho et al. (2019) indicate that administrative innovation is a useful phenomenon, in which institutes must invest.

دور عمداء الكليات في الجامعات الأردنية في محافظة اربد في تنمية الإبداع لدى أعضاء هيئة التدريس وعلاقته بآدائهم

محمد نايف أبو الكشك، جامعة جرش الأهلية، الأردن.

صالح سلامة بركات، جامعة البلقاء التطبيقية، الأردن.

خليفة مصطفى أبو عاشور، جامعة اليرموك، الأردن.

ملخص: هدفت الدراسة التعرف على دور عمداء الكليات في الجامعات الأردنية (اليرموك والعلوم والتكنولوجيا وجامعة جدارا) في تنمية الإبداع لدى أعضاء هيئة التدريس، تم استخدام المنهج الوصفي الكمي لتحقيق أهداف الدراسة وتم تصميم أداة الدراسة (الاستبانة) تكونت من (50) فقرة وتطبيقها بعد التأكد من إجراءات الصدق والثبات على عينة عشوائية مكونة من 327 فردا (عميد كلية ورئيس قسم وعضو هيئة تدريس). توصلت نتائج الدراسة أن هناك دور متوسطا لعمداء الكليات في تنمية الإبداع لدى أعضاء هيئة التدريس وان هناك علاقة موجبة دالة إحصائيا بين تنمية الإبداع لدى أعضاء هيئة التدريس وبين أداءهم، كذلك وجود فروق دالة إحصائيا في دور عمداء الكليات في تنمية الإبداع لدى أعضاء هيئة التدريس في الدرجة الكلية لتنمية الإبداع لصالح عمداء الكليات على رؤساء الأقسام الأكاديمية، وعدم وجود فروق دالة إحصائيا تعزى لمتغير الجنس.

(الكلمات المفتاحية: الجامعات الأردنية، الإبداع، عمداء الكليات، أعضاء هيئة التدريس، رؤساء الأقسام الأكاديمية، محافظة اربد)

Despite the significant role of creativity and dean in the academic institutes, the literature concerning it has remained limited. (Otarra & Alfred, 2015; Al Haj, 2019; Floyd et al., 2018). Previous study analyses also highlight the lack of studies and research on creativity, especially in universities, colleges, and institutes, as creativity is the basis for the development and progress of nations and peoples (Al Haj, 2019; Marquis et al., 2017). For instance, Zacher et al. (2015) state that although attention on leadership and creativity is mounting, the empirical research on it remains limited. Brahma (n.d.) indicates that this is particularly true for the higher education institutes where the impact of the leadership on creative development is rarely investigated. It's also clear that there are very limited studies on the role of academic leaders and creativity in the Jordanians higher education institutions. Earlier research by Sharma et al. (2016) also highlights the deficiency concerning the impact of leadership on creative development in higher education.

* Jarash University, Jordan.

** Balqa Applied University Jordan.

*** Yarmouk University, Jordan.

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Therefore, to bridge this gap, this study highlights the role of deans of faculties in the development of creativity among faculty members in Jordanian universities in Irbid governorate. The main motivation behind this study is the lack of interest in the educational leaders in the third world concerning administrative innovation. The problem identified includes the absence of researchers and the lack of experts and specialists for administrative creativity and innovation. Another problem identified include the major focus of the academic institutes on cognitive skills based on conservation, remembering, and understanding, and less on application skills, analysis, synthesis, assessment, and creativity (Yadav & Dishka, 2019). Also, previous research highlighted in the observation of the researchers, the lack of experts and specialists in the field of creativity and innovation, and the lack of specialized units for creativity in educational institutions, universities, colleges, schools (Rababah et al., 2017; Al-Karasneh et al., 2013).

The primary focus is on the role of the dean because of his central role in the management of the institute. Although, the organizational effectiveness and leadership behaviour are emphasized in the school system (Brahma, n. d.; Vilkinas et al., 2011), the role of the dean is rarely studied. Thereby, this study investigates the dean's role in the development of creativity in Jordanian universities in Irbid governorate. This is also necessary as it helps to effectively use the internally produced knowledge.

The findings of this study would enable faculty members to devise effective decisions, actions and leadership processes that help foster creativity, and train faculty members on creative educational strategies, in line with the developments of the time. It helps to clarify the problem, so that university presidents, vice presidents and deans of colleges can address deficiencies and make appropriate decisions for skill development. It also helps introduce the deans and relevant authorities to creative strategies, which are reflected in the performance of students, and the performance of universities in a creative way, in order to advance the country and develop its institutions.

Problem and Study Questions

The problem of this study lies in the lack of interest of educational leaders in the third world in administrative creativity, and the lack of studies and research on creativity, especially in educational institutions, universities, and colleges, as creativity is the basis for the development and progress of nations and peoples. The problem of this study also arises in the researcher's observation of the lack of experts and specialists in the field of creativity and innovation, and the lack or absence of specialized units, for creativity in educational institutions, universities, and colleges. The problem of the study is also evident in the low degree of creativity development among subordinates in educational institutions, universities and schools. Therefore, this study came to know the role of deans of faculties in developing creativity among faculty members in Jordanian universities in Irbid Governorate, by answering the following questions:

Question (1): *What is the role of deans of colleges in the Jordanian universities in Irbid governorate in the development of creativity among faculty members?*

Question (2): *Are there statistically significant differences at the level of the function ($\alpha=0.05$) in the role of deans of colleges in Jordanian universities in Irbid governorate in the development of creativity among faculty members due to the variable of job status (Dean, Head of Department, faculty member)?*

Question (3): *Are there significant differences at the level of significance ($\alpha=0.05$) in the role of deans of colleges in Jordanian universities in Irbid governorate in the development of creativity in faculty members due to the gender variable (male, female)?*

Question (4): *Is there a statistical correlation between the role of deans of colleges in the Jordanian universities in Irbid governorate in developing the creativity among faculty members, the encouraging work environment and the leadership behavior that encourages creativity, and between the performances of faculty members)?*

Study Goals

This study aimed at the following:

- To identify the role of deans of colleges in the Jordanian universities in Irbid governorate in the development of creativity among faculty members.
- To identify the statistical differences in the role of deans of the colleges in the Jordanian universities in Irbid governorate, in developing the creativity among the faculty members due to the variable of the job status (Dean, Head of Department, faculty member).
- To identify the statistical differences in the role of deans of colleges in the Jordanian universities in Irbid governorate, in the development of creativity among faculty members due to the gender variable (male, female).
- To identify the correlation between the role of deans of colleges in Jordanian universities in Irbid governorate in developing creativity among faculty members, and between the work environment that encourages creativity and the leadership behavior that encourages creativity and the performance of faculty members.

Literature and Review of studies

Al-Amri (2002) studied time management and its relation to the creative leadership of the deans of the faculties of Balqa Applied University in Jordan. The objectives of this study were to identify the time management of the deans of the faculties of Balqa Applied University and their relation to their creative leadership concerning the point of view of deans and supervisors. The study was applied to a randomly recruited sample of 237 individuals. The results of this study were that the degree of application of the deans of creative leadership in the faculties of Al-Balqa Applied University from the viewpoint of the occupants of the supervisory posts was at a very good level.

Al-Ajami (2006) also examined the impact of the leadership style among the principals of public schools in the Mubarak Al-Kabir area in the State of Kuwait. It particularly evaluated their managerial creativity from the point of view of teachers. The results of the study showed that the degree of practicing public school principals in the Mubarak Al-Kabir region in the State of Kuwait for administrative creativity was very high on all

sections of the study instrument. It also showed that there were no statistically significant differences in degree Practicing managers of the field Government in Mubarak Al-Kabeer area of administrative creativity due to the variable sex.

Al-Farih (2008) also examined the role of government principals in developing the creativity of teachers in Al-Jowf region in Saudi Arabia. From the point of view of teachers, one of its objectives was to reveal the role of public-school principals in developing creativity among teachers. The results of this study showed the role of school principals in developing teachers' creativity in the fields of social relations, management, thinking, expression, dialogue, and discussion was significant. It also showed that the role of principals in developing creativity among teachers. The results showed that there were statistically significant differences in the role of principals in developing teachers' creativity due to the gender variable in favour of females.

Kampylis et al. (2009) examined the perspective of workers and teachers on the concepts of innovation and creativity. The objectives of this study were to identify the views of teachers and their attitudes towards creative concepts. A questionnaire was developed and distributed to a random sample of 132 individuals in Greek schools. The results showed that teachers had a great role in developing the creativity of students in schools. It was also observed that teachers were not sufficiently equipped for their role in developing creativity and innovation among students. A major part of the sample found that creativity is an important factor for the survival and development of educational institutions, and economic growth. It showed that social culture and environmental factors affect the creative performance of students and subordinates. The sample also showed that teachers' roles and services affect the development of creativity instudents' individual creativity. It concluded that the school is the best environment for students to develop their creativity and that the subjects taught in schools were good.

Ferrari et al., (2009) also investigated creativity and innovation in education. It studied nurturing and developing creativity and education among students in educational institutions in the European Union. The objectives of this study were to identify the degree of creativity and innovation in educational institutions. The results indicate that

there has been increasing interest in creativity in the 21st century as it leads to competition in European institutions. It also creates a rich environment that encourages creativity and helps learn and understand creative ways and approaches. It concludes that the development of creative methods to find new ways, new and innovative educational solutions, and encouraging creativity in education is an important element in education.

Magadela (2009) studied the organizational culture and administrative creativity in the colleges of training Arab teachers within the Green Line from the point of view of the lecturers. The objectives of this study were to know the organizational culture levels prevailing in the teacher training colleges within the Green Line. It developed a study tool and randomly distributed it to 197 individuals. The results showed that managerial creativity prevailing in teacher training colleges was high in all fields.

Al-Shamrani (2009) also studied the indicators of the practice of creative management at King Saud University in Saudi Arabia and its obstacles from the perspective of faculty members and students. It aimed to reveal the indicators of creative management practice at King Saud University. For this, it recruited a sample of 47 faculty members and 363 students from King Saud University. The researcher also developed a questionnaire consisting of 34 paragraphs. The results revealed that the practice of creative management at King Saud University was intermediate. It also showed no statistically significant differences in the degree of management practice at King Saud University career centre concerning creativity.

Al-Jamal (2010) studied the relationship between the leadership style of secondary school principals and their creative behaviour from the point of view of teachers. The aim of the study was to identify the relationship between the leadership style of secondary school principals and their creative behaviour. A random sample consisting of 416 teachers was selected. The findings showed that the democratic pattern was the predominant pattern among high school principals in the Irbid governorate as per the teachers.

Barret and Bob (2011) examined the creativity and innovation in universities through the development of curricula and education. The aim

of this study was to identify the role of universities in the development of creativity among late graduates in universities. It further aimed to understand how university degrees help them move to careers. The results showed that new programs, specializations and new courses in communication and human relations played a role in improving graduates' competence and creativity.

Goujin and Chen (2011) also examined the educational plan for creativity and innovation, and the ability to develop the abilities of creative students at the university. Its objectives were to learn the educational plan for creativity and innovation and to develop the abilities of students. The results indicated that it is necessary for universities and engineering institutes to introduce creativity and innovation in their programs. It shows that these programs increase the capacity of creativity among students. It showed the effectiveness of the university developed training programs and plans, creative classroom management, innovative educational programs and focus on creative education in university classrooms. The results show that these development programs improved the performance of universities and students' creative performance.

Abu Godeh (2017) conducted a study on the role of educational supervisors in developing administrative creativity among secondary school principals in the Negev Educational Zone, and one of its objectives is to know the role of supervisors in developing creativity among school principals, the study sample consisted of 42 school principals, to whom the study tool consisting of 45 items was applied, and one of its results is that the role of educational supervisors in developing administrative creativity among principals was high.

Al-Tal (2017) study was about Factors of Innovation Development among Arab University Students from the Point of View of the Faculty. The study sample consisted of 78 faculty members who specialize in educational sciences from 10 Arab universities. The study tool consisting of 57 items was applied. The results show factors of developing creativity among Arab university students were very large, and there were no statistically significant differences for the development of creativity among students in Arab universities attributed to the gender variable.

Abu Al Haj (2019) also conducted a study on the degree to which teachers use the skill of thinking beyond knowledge in the Directorate of Education in the university district in Amman and its relationship to excellence and academic creativity, one of its objectives was to know the degree of teachers' use of metacognitive thinking skills and its impact on the

degree of academic creativity of students, the study sample consisted of 347 teachers, data was collected by questioner consisting of 54 items to measure thinking skills, the second part of 48 paragraphs to measure the degree of excellence and academic creativity, the results were that the degree of academic excellence and creativity of students was average, and there were statistically significant differences in the degree of excellence and academic creativity of students attributed to the gender variable in favor of females.

Al-Harhasha and Al-Shammar (2019) also conducted a study on the organizational culture prevailing among directors and heads of departments at the Saad Al-Abdullah Academy for Security Sciences in the State of Kuwait and its relationship to their creativity, the study sample consisted of 50 faculty members, questioner was applied to them and the first part was the practice of organizational culture of 48 items, and the second part to measure the degree of administrative creativity of 34 items, the results was the degree of practice of administrative creativity was high in all fields, and the existence of a positive relationship statistically significant between the degree of organizational culture prevailing and administrative creativity among managers and heads of Kuwaiti academic departments.

Al-Ahmadi (2023) Study was aimed at conceptualizing a proposal to the role of Saudi universities in developing a creative culture in consideration of some countries' experiences, through

Table (1)

Research Population.

S.no	University	Number of Individuals
1	Yarmouk University	978
2	Jordan university of science and Technology (JUST)	935
3	Jadara University	160
Total		2073

The final sample of the study consisted of 327 which was purposively recruited as per the determined criteria. The inclusion and exclusion criteria required the participants to be aged above 18 years. It required the deans to be associated

standing on the reality of the creative culture at universities in developed and developing countries in the scope of education and scientific research. Three universities were described, one international (Harvard), two Arabic universities (King Abdulaziz University, United Arab Emirates University). The results of the study: Included universities showed a great interest in developing a creative culture in the scientific research and the education scopes, which was manifested by including a creative culture in scientific research through its strategic plans.

Methodology

Research Design

The descriptive study design is employed in the research for investigating the role of the dean of higher education on the development of the creative skills of the staff in Jordan.

Research Population and Sample

The study population is composed of the deans, department heads, and teaching staff at the Jordanian universities in the governorate of Irbid. Table (1) presents the overall study population recruited from three institutes (Yarmouk University, Jordan University of Science and Technology (JUST), Jadara University).

with the institute for a minimum of 3 years, heads of the department format least two years and faculty members for at least 6 months. Table (2) presents the characteristics of the study sample.

Table (2)

Study Sample.

	Categories	Number	percentage
Status	Dean	20	6.1%
	Head of the Department	44	13.5%
	Faculty member	263	80.4%
	Total	327	100%
Sex	Male	249	76.1%
	Female	78	23.9%
	Total	327	100%
University	Yarmouk University	152	47 %
	JUST	145	45%
	Jadara University	30	8%
	Total	327	

Data Collection

The data was collected through a descriptive survey. This survey was based on a closed-ended questionnaire, where participants were required to respond as per their degree of acceptance.

Research Instrument Validity and Reliability

Validation of the tool was verified by presenting it to a committee of expert arbitrators consisting of (15) members of the teaching staff in the educational administration, business administration and public administration in the universities. The final form of the questionnaire consisted of fifty paragraphs divided into four main areas, as the tool became valid for what was prepared for measuring. Concerning the stability of

the tool, the researcher took the stability coefficient of the study tool midterm and obtained a correlation coefficient of 97%, which is very high, and then extracted coefficient of internal consistency (Cronbach alpha) of the study tool, and received a high correlation coefficient also of 98%.

The length of the category = the upper limit _ the minimum on the number of practice levels = 5 - 1 / 5= 0.8 Accordingly, the following criterion was adopted to determine the role of deans of colleges in Jordanian universities. In the governorate of Irbid, the development of creativity among faculty members lies as per the score determined in Table (3).

Table (3)

Weighted Mean.

Weighted mean	Verbal Appreciation of the Training Degree
1-1.8 (from 1 to less than 1.8)	Very low
1.8 - 2.6 (1.8 to less than 2.6)	Low
2.6- 3.4 (From 2.6 to less than 3.4)	Medium
3.4 - 4.2 (from 3.4 to less than 4.2)	High
4.2- 5 (from 4.2 to less than 5)	Highest

Ethical Considerations

Prior to conducting the study, an ethical approval was obtained from the Institutional Review Board (IRB) of the university. The selected participants were also communicated about the study scope, its objective and its contribution. The researchers ensured that every participant was aware and informed of his/her rights to withdraw at any point in the study. A written consent form was obtained from the participants to ensure their willingness and voluntary participation.

Data Analysis

The data were statistically analysed using IBM SPSS (Statistical Package for Social Sciences) Version 23.0. Arithmetical averages (AM), standard deviations (S.D.), the mono-variance analysis, and the post-Schiff test were used for analysis. Question (3) was analysed using arithmetical averages, the standard deviations, and the T-test, while question (4) results were computed using the Pearson correlation coefficient. Apost-Schiff test was also computed for question (5). The significance value was determined at p-value < 0.05.

Results

Table (4) presents the results for the first question, which assessed the dean's role in the development of creativity among faculty members. The findings show that the role of the dean was average concerning the faculty members' creative development. The total score for the arithmetic average concerning creativity development reached 3.13 with an S.D. of 0.93. On the field basis, originality was highest (3.33 ± 1.016), while it was lowest for the forecasting field (2.88 ± 1.011). These findings show that the faculty members were competent, had the necessary knowledge, as well as experience for improving the creativity potential in the academic institutes. The results also show that the deans of colleges in universities are not aware of the importance of developing creativity among faculty members. Some deans of colleges in some universities are accustomed to traditional practices and methods.

Table (4)

Role of Colleges Deans in Development of Staff Creativity.

S.no	Fields of Creativity	AM	S.D.
First	Authenticity	3.33	1.01
Second	Fluency	3.04	1.07
Third	Flexibility	3.23	1.00
Fourth	Sensitivity to problems	3.22	1.08
Fifth	Evaluation	3.17	1.02
Sixth	Forecasting	2.88	1.01
Seventh	Composition	3.05	1.06
Overall Degree of Faculty's Creative Development		3.13	0.93
First	An environment that encourages creativity	3.12	0.83
Second	Promising leadership behavior for creativity	3.59	0.93
Third	Performance of faculty	3.27	0.78
Total tool		3.24	0.83

Table (5) shows the variance results for the dean, head of department and faculty members. It shows the dean's primary role in the career status of the staff, with the highest average of 4.10 and S.D. of 0.31. The lowest role was for the faculty members with a mean of 3.00 and S.D. of 0.94. The difference concerning the functional and career status was apparent from the arithmetical

The present study results for the second question concerning providing an environment conducive to creativity showed average results with a mean (S.D) of 3.12 (0.83) (Table 4). This shows that the college deans are busy with administrative and academic matters and are not keen to provide a more encouraging environment for creativity. The performance of faculty members for their assignments was at an average level of 3.27 and an S.D of 0.78. This may be due to the deans' lack of awareness of the university faculties. Concerning the role of deans of colleges in the Jordanian universities in the governorate of Irbid for the leadership, the behaviour was at a high degree. It shows that encouraging the creativity of faculty members was to a high degree, having obtained an average of 3.59 and a standard deviation of 0.93, which may be due to the belief of the deans of the colleges that the faculty members are highly efficient.

averages of the deans in the faculty creativity development in each field (authenticity, fluency, flexibility, sensitivity to problems). There are significant differences at the level of significance ($\alpha = 0.05$) in the role of deans in the development of creativity among faculty members attributed to the functional variable.

Table (5)

Role of the deans in the development of creativity among faculty members based on career and functional status.

S.no	Fields	DEAN		Head of the Department		Faculty member		F Values	P Value
		M	SD	M	SD	M	SD		
1	Authenticity	4.35	0.308	3.57	0.62	3.21	1.054	14.215	0
2	Fluency	4.03	0.239	3.38	0.898	2.91	1.02	15.342	0
3	Flexibility	4.14	0.450	3.53	0.733	3.11	1.029	13.033	0
4	Sensitivity to problems	4.05	0.583	3.7	0.787	3.08	1.102	13.44	0
5	Evaluation	4.07	0.525	3.73	0.709	3.01	1.028	19.664	0
6	Forecasting	3.97	0.639	2.92	1.001	2.79	0.989	13.535	0
7	Composition	4.08	0.381	3.39	0.976	2.92	1.058	14.587	0
	Total	4.10	0.319	3.45	0.705	3.00	0.949	17.306	0

Table (6) presents the functional status of the differences using the post-Schiff test. It showed significant differences ($\alpha = 0.05$) in the role of deans in each field alone for the development of creativity attributed to the functional status. The deans and the opinions of the faculty members were in favour of the dean with the highest mathematical averages (Table 6). This may be due to the dean's consideration that they develop creativity as faculty members have limited knowledge or to enhance their performance. It also

showed a significant difference ($\alpha = 0.05$) in deans of colleges in the Jordanian universities (originality, fluency, forecasting, and composition). The development of creativity attributed to the variable functional position between the views of heads of departments and faculty members showed a favourable view for the heads of departments with higher arithmetic averages. It might be because heads of departments are more informed than faculty members to develop creativity.

Table (6)

Post-Schiff test for Functional Status.

S.no	Field	SMA	Career status	Dean	Head of the Department	Faculty member
1	Authenticity	4.35	Dean			
		3.57	Head of the Department		0.13*	0.000*
		3.21	Faculty member			
2	Fluency	4.03	Dean			0.000*
		3.38	Head of the Department		0.047*	0.014*
		2.91	Faculty member			
3	Flexibility	4.14	Dean			0.00 *
		3.53	Head of the Department			0.029*
		3.11	Faculty member			
4	Sensitivity to problems	4.05	Dean			0.000*
		3.70	Head of the Department			0.001*
		3.08	Faculty member			
5	Evaluation	4.07	Dean			0.000*
		3.73	Head of the Department			0.000*
		3.01	Faculty member			
6	Forecasting	3.97	Dean			0.000*
		2.92	Head of the Department		0.000*	
		2.79	Faculty member			
7	Composition	4.08	Dean			0.000*
		3.39	Department Head		0.045*	0.021*
		2.92	Faculty member			
8	The overall role of deans in the development of creativity	4.10	Dean			0.000 *
		3.45	Head of the Department			0.010 *
		3.00	Faculty member			

Table (7) presents the difference in gender roles. It shows increased creativity development in males as compared to females. It is because males obtained a higher mean of 3.14 and deviation (0.969), while the lowest of the females who obtained the lowest (S.D.) mean is 3.11 (0.836).

However, the results also showed no statistical significance for developing creativity among faculty members based on their gender. The reason may be that the knowledge level of male and female faculty members is equal because they communicate with one another.

Table 7

T-test Results for Faculty Members' Creativity Based on Gender.

S.no	Fields	Male		Female		T Values	P value
		AM	S. D.	AM	S. D.		
1	Authenticity	3.35	1.007	3.026	1.048	0.641	0.522
2	Fluency	3.07	1.046	2.94	0.918	0.995	0.322
3	Flexibility	3.23	1.046	3.21	0.865	0.129	0.897
4	Sensitivityto problems	3.21	1.112	3.28	0.976	-0.536	0.592
5	Evaluation	3.17	1.063	3.17	0.886	0.005	0.996
6	Forecasting	2.89	1.027	2.87	0.961	0.110	0.913
7	Composition	3.04	1.068	3.11	1.045	-0.521	0.603
8	Total	3.14	0.969	3.11	0.836	0.249	0.804

It is clear from Table (8) that there is a statistically significant correlation at the level of ($\alpha = 0.01$) between the role of deans of colleges in universities in developing creativity among faculty members. It also shows a significant correlation between the work environment and leadership behaviour concerning creativity encouragement. It is because the deans of the colleges believe that the

provision of a positive work environment is necessary to provide an appropriate educational atmosphere. They also believe that leadership democratic behaviour commensurate with faculty members because they are aware and educated about it. It also shows that their responsibility plays a critical role in creativity development.

Table (8)

Dean's Role Correlation among the Teaching Staff, Encouraging Work Environment, and Leadership Behaviour.

Variable	Work environment	Leadership behavior	Faculty Member Creativity Development	Faculty member's Performance	Total score
Work environment	_____	0.769 **	0.795 **	0.605 **	0.855 **
Leadership behavior	_____	_____	0.849 **	0.592 **	0.910 **
Faculty Member Creativity Development	_____	_____	_____	0.675 **	0.981 **
Faculty member's Performance	_____	_____	_____	_____	0.747 **

Discussion

The study assessed the role of the deans for the development of creative skills among the faculty members. Through a descriptive study design and questionnaire-based survey, it established the significance of the dean's role on creativity development in the Jordan institutes. These findings are consistent with the results of the earlier research. Such as, the study Al-Shamrani

(2009) showed a medium level of practice for creative management at King Saud University. Similarly, the study results of Abu Al-Haj (2019) showed that the level of creativity among students was based on the level of academic excellence. It showed a medium level of creativity, which is contrary to the results of Goujin (2011), which showed a high level of creativity. Magadela's (2009) results showed that the level of

administrative creativity prevailing in teacher training colleges was high as a whole as well as in all fields. It also differs from the results of the study (Al-Amri, 2002), whose results showed that the degree of the practice of school principals of the creative was very high. Also, the results of the Abu Toamah (2016) study showed that the role of school principals in the development of teachers' creativity was very high, as well as the results of the study of Abu Godeh (2017), which showed that the factors of innovation development among Arab university students to a very large extent.

The findings of the study are also endorsed by the study of Harahsheh and Al-Shammari (2019). The previous study showed that the degree of managerial creativity in managers for the Academy of Saad Al-Abdullah Academy for Security Sciences in the State of Kuwait was of a high degree. These results differ from the results of the Kampylis et al., (2009) study, which showed that environmental factors affect the creative performance of students and subordinates. Accordingly, the study of Ferrari et al., (2009) showed that the rich environment encourages creativity and leads to the development of students' learning in creative ways.

This shows that the college deans are busy with administrative and academic matters and are not keen to provide a more encouraging environment for creativity. These results differ from the outcomes of the Kampylis et al., (2009) study, which showed that environmental factors affect the creative performance of students and staff. Another study by Ferrari et al., (2009) indicated that a rich environment encouraging creativity leads to the students' development and learning in creative ways.

Concerning the role of deans of colleges in the Jordanian universities in the province of Irbid in the field of leadership behaviour encouraging the creativity of faculty members was at a high degree, having obtained an average of 3.59 and a standard deviation of 0.935, maybe due to the deans of the colleges believing that faculty members are highly efficient. The results are consistent with the results of Al-Ajami (2006) study, which showed that the prevailing democratic leadership among the principals of public schools and in Kuwait has achieved a high degree of practice.

The study shows the substantial role of deans for the creativity development. Several other researchers have endorsed the study findings as achieved by the current study. For instance, the study of Brahma (n.d.) showed that leaders such as the dean attribute to the effective creative performance of the academic institute. However, these findings differ from some of the earlier studies. For instance, the current results differ from the results of the study (Magadela, 2009), which showed no statistically significant differences in the degree of practice in Creative Management at King Saud University is due to the variable of the career centre. Similar to this research, Assaad et al., (2018) also endorse the impact of the leadership creative development on the potential and competence of the students concerning their career development.

As a whole, attributed to the variable functional status, the views of the deans of the colleges and the views of the heads of departments were in favour of the views of the deans of colleges with the highest mathematical averages. This might also be the reason that the deans of the colleges know more than heads of departments in other colleges and other universities in the development of creativity among faculty members as they conduct meetings with the deans at the university, and with the deans at other universities. The functional capacity is also similarly viewed by previous studies supporting the substantial role of the dean on the development of the institute (Hendon & Julia, 2016; Guo et al., 2016).

The study found no statistical difference concerning the role of dean for the male and female gender. These results are corroborated with the results of Abu Godeh (2017) study, which showed that there are no statistically significant differences in the role of educational supervisors in the development of creativity among school principals due to the gender variable. The similar results are endorsed by the study of Al-Tal (2017) which showed no statistically significant differences in creativity development among Arab university students on the basis of the sample gender. Likewise, the results of the study of Abu Shuldoum (2014) showed that there were no statistically significant differences in the degree of educational leaders' practice of managerial creativity in the tool as a whole and in all fields of study due to gender variable.

However, the findings of the research of Abu Al-Haj (2019) showed the results that differed from the present study. Such as it showed statistically significant differences in the degree of excellence and academic creativity of students for the benefit of females. Similarly, Al-Farhi (2008) also reported contrary findings, as it found statistically significant results for the role of school principals in the development of creativity among teachers, where the principal's efforts proved beneficial for females. Accordingly, another study results by Abu-Toamah (2016) showed that there were statistically significant differences in the development of creativity in the areas of fluency and sensitivity in favour of males.

The findings of the present research showed that the individual pattern of the study as per Al Jamal (2010), showed a positive correlation between the democratic leadership style and the creative practices. These are also in-line with the results of the study by Magadela (2009) which showed a positive correlation between the prevailing organizational culture levels and the levels of creativity prevailing in Arab teacher training colleges. Similar to the current study findings, the results of the Ferrari et al. (2009) study, showed a positive relationship between the rich environment that encourages creativity and the development of creativity. Another study by Kamylylis et al., (2009) showed that social-cultural and environmental factors affect the creative performance of students and subordinates. Overall, the findings highlight that universities seek leadership institutions to expose the capabilities and creativity of young people. It directs students and emphasizes to make the best investment for their creative development as it assists to contribute to the advancement of all economic, service, social and educational sectors.

The findings of the study are, however, limited given its inclusion of participants from a single country. The use of descriptive study design and quantitative approach also affects the generalizability of the study results. To improve and expand the research area further, future research is suggested to replicate the current objectives in other regions following different research design. Such as interviews with the deans and faculty members can be held for a

comprehensive understanding of the difficulties, challenges as well as benefits related to their creative development.

In light of current findings, discussed and interpreted in this study, the researchers recommend the need to train educational leaders at all levels in universities, deans of colleges and heads of departments, and faculty members on methods and strategies for the development of creativity. The findings also highlight the need to include modules or courses on creativity and administrative creativity in the graduate programs in Jordanian universities in all disciplines to prepare future leaders in the universities concerned with the development of creativity among subordinates and students.

The results derived are meaningful and effective for drawing valuable findings and recommendations for the academic community as a whole. The findings highlight the need that the deans of the Jordanian universities must identify their role as the primary creators of the knowledge for the educational institutes. They must also identify that they can neither create new knowledge or make any valuable contribution unless the institute staff possesses the necessary capabilities for practicing creativity. This requires them to encourage and train their staff to empower their creative capabilities as well as practices.

The institutes must also identify their role in the creative development and should introduce activities that help improve the social capital of the employees, as well as motivate them to innovate and learn new techniques that foster creativity. Different teamwork and group interventions can be assigned where a collaborative environment for practicing creative skills is encouraged. Also, the knowledge-creating culture should be cultivated by the institutes along with the appropriate structure that helps advance the positive change and innovation among the institutes. The university management should also engage in personal as well as collective interactivity sessions with the dean, faculty members and department heads to exchange information, and knowledge. This session also helps identify the need that is integral for their creative development.

Conclusion

The study substantially contributes to the creativity development among the higher educational institutes in Jordan. It highlighted the importance of creativity in the era of information, electronic and communication revolutions. Innovation and innovation are the mainstays of any invention, discovery or emergence of anything new, especially in the higher education institutions, which prepare and qualify academics, specialists, in building and developing community sectors. The findings also assisted in identifying the level of creative environments available in Jordanian universities, and also to know the level of leadership behaviour of deans of colleges encouraging creativity. The results also help to recognize the role of deans of colleges in the development of creativity among faculty members so that university presidents and their deputies and deans can take measures accordingly. This understanding helps to make the appropriate

decisions in providing the most innovative university environments and to develop leadership behaviours that encourage and inspire creativity, nurture and develop creatively. Thus, the study contributed to the building of the nation and the progress of its institutions in an innovative manner compatible with the era of development. The study provided the following recommendations:

- 1- The need to train educational leaders at all levels in universities, deans of faculties, heads of departments and faculty members on the methods and strategies of developing creativity.
- 2- The need to include study units or courses on creativity and administrative creativity in graduate programs in Jordanian universities in all disciplines, to prepare future leaders in universities concerned with the development of creativity among subordinates and students.

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