The role of the university staff members at Al Balqua Applied University in developing creative thinking of the students, from the perspective of the university staff members, and the students themselves.

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#### **Abstract**

This study aimed at identifying The role of the university staff members at Al Balqua Applied University in developing creative thinking of the students , from the perspective of the university staff members, and the students themselves .The study sample consisted of (79)Staff members, and (183) students, The instrument developed by the researcher was a questionnaire consisted of (39) items which has been proven sufficiently reliable and valid for the aim of this study. The questionnaire being distributed among (30) out of the study sample, and analyzed by using (test – retest) Person correlation factor which was (89.5%). This study showed that the staff members self evaluation resulted in a high assessment rating for their role in developing creative thinking of the students . The students assessment of the staff members at AlBalqua Applied University was moderate in all of the items . The results also showed there were not statistically significant difference regard to variables of the study from the perspective of the staff members themselves, while there was a statistically significant difference showed according to sex variable by male students.

Key Words: Creative Thinking,. Staff members, AlBalqua Applied University.

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#### Introduction

Education aimed at developing and changing in the communities to raise the level of the individual and the level of his thinking, so the role of the staff member in the developing of creative thinking of the students is very important role because of the tremendous development in high speed that is happening in the whole world.

Creative as a concept is to keep pace with youth development. Where creativity is the ability to innovate, methods, useful ideas which motivate the students to release the students' abilities ,and their creativity to attain the objectives.

(Sheikhly, 1997, p204) said creative thinking is a process that includes sensitivity to the problems, , then configure some assumptions ,and ideas that treat the biggest problems or each results for others.

(Feldhusen ,1998,p 223) said thinking is cognitive activity which includes development, use of a huge base of knowledge , thinking skills, decision-making, and cognitive control for over operations

(Feldhusen, Treffinger, 1980,p32) provided several recommendations for establishing a classroom environment conducive to creative thinking:

- 1. Support and reinforce unusual ideas and responses of students.
- 2. Allow time for students to think about and develop their creative ideas. Not all creativity occurs immediately and spontaneously.
- 3. Create a climate of mutual respect and acceptance between students and between students and teachers, so that students can share, develop, and learn together and from one another as well as independently.
- 4. Encourage divergent learning activities. Be are source provider and director.
- 5. Listen and laugh with students. A warm, supportive atmosphere provides freedom and security in exploratory thinking.
- 6. Allow students to have choices and be a part of the decision-making process. Let them have apart in the control of their education and learning experiences.
- 7. Let everyone get involved, and demonstrate the value of involvement by supporting student ideas and solutions to problems and projects.

Even though university professor can perform its role in promoting positive thinking for his students has requested to Studies have confirmed that dealt with creativity as a necessary skill for staff members at universities, and colleges. Creative thinking helps smart to deal with the challenges, and the opportunities, so we must recognize as experts how the creativity, innovation help to achieve greater success, and excellence in all areas of operations life.

The interest appeared to think recently evident in the different teaching strategies, such as brainstorming and learning survey or expletory learning, collaborative learning, and creative thinking is one of these modern strategies that represent mental, physical active, and have meaningful solutions which are not known in the past.

## The statement of the Problem

The systems and procedures at AlBalqua Applied University keep heavily on stereotypical thinking that leads to confirm the routine, maintain it, resistance to change, and innovation. This situation may hinder development. The development of creative thinking among students invest for the mind to break the deadlock, developing ideas, analysis, implementation, and evaluation.

### The importance of the study

The importance of this study is in searching on the subject of creativity. Creativity is the basis of any institution that seeks to progress and development, as it will reveal the role of staff members at Al Balqua Applied University in developing of creative thinking of the students. This study adds new findings to the theoretical literature, and previous studies that reached to support scientific research, and put in front of the Ministry of Higher Education decision makers clear image how to develop the creative thinking at AlBalqua Applied University.

# **Questions of the study**

- 1. What is the role of the staff members at AlBalqua Applied University in developing of the students' creative thinking from the staff members point of view?
- 2. What is the role of the staff members at AlBalqua Applied University in developing of the students' creative thinking from the students point of view?

## **Hypotheses**

- 1.Are there any significant differences at the level of significance (0.05) in the role of the staff members at AlBalqua Applied University in developing of the students' creative thinking from the staff members point of view due to the variables (six, faculty type, experience)?
- 2.Are there any significant differences at the level of significance (0.05) in the role of the staff members at AlBalqua Applied University in developing of the students' creative thinking from the students point of view due to the variable (sex)?

## **Limitations of study**

1. This study was limited of the staff faculties members at Al Balqua Applied University for academic year (2012-2013) in Irbid Governorate.

2. This study was limited to first-year students(fresh students) of AlBalqua Applied University faculties for academic year (2012-2013) in Irbid Governorate.

#### **Definitions**

Role: is the degree of contribution of the staff faculties members at Al Balqua Applied University in the development of creative thinking of the students .

Creative thinking: is thinking which is characterized by fluent language, flexibility, originality and sensitivity to the problems.

AlBalqua Applied University: is a Jordanian government university. The headquarter is in Salt city. A university faculties was scattered ,then merged by royal decree in 1997.

#### **Previous studies**

The previous studies addressed the creative thinking in different levels and places, but it is lack in university faculties.

(Robbins ,1998) held a study aimed to model selection creative behavior in the product development attic technical in America . He has used KAI, and the determinants of creative behavior. The sample consisted of (81) Single distributed into five groups. The study found the presence of diversity in the determinants creative behavior of the groups.

(Hamza and Farrow,2000) had a study to test the teaching models for a sample of professors at Community College, Texas, to identify the qualities common value that can help teachers to develop creative thinking and problem solving to their students, the study found that there are several ways for the development of creative thinking among students, and the staff members had different methods of teaching.

(caeeve,2003) study aimed to investigate the relationship between the characteristics of the teacher and his methodology, student performance, and achievement on Torrance test for creative thinking. The sample consisted of (20) American teachers who teaches(250) students in the intermediate stage in Louisiana. Lectures and activities have been recorded for teachers in the classroom on videotapes, then the grades of students calculated regard to Torrance test of creative thinking, and the study showed that the properties of teachers associated with high levels of creative thinking is to use groups, the scientific application of the theory, and ability to learn thinking skills.

(Edith,2004) study aimed to identify the perceptions of teachers in the city of Ontario Canadian for creative thinking skills of their talented students, and the factors which influencing them. To achieve the goal of the study, the researcher followed the methodology of qualitative research, where depth quality interviewed with (20) teachers teaching primary stage. The study found that characteristics of the students are perseverance, the ability to express themselves, work more freely and explode their creative properties, such as, innovation and brainstorming when they learn individually, also teachers support programs and enrichment activities uniformly for the gifted and talented in the classroom because it of the most important factors in the development of creative thinking skills.

(Abu Raya ,2004) study in the Galilee region aimed to reveal the role of the teacher in the development of creative thinking of students at the primary stage. The sample consisted of (140)

teachers (m,f). The results showed that the role of teachers in the development of creative thinking to their students were moderately from their point of view ,there weren't statistically significant differences due to the variables experience and qualifications, while found the impact of the variable of sex in favor of females .

(Hawamdeh ,2006) study aimed to investigate the effect creativity administrative for the educational leaders in the education directorates in Jordan . Identifying the impact of some of the independent variables (experience, qualification, region), the results showed that the level of creativity of leaders in the field of problems solving , communication and encouraging innovation due to qualification and in favor of PhDs, also showed There are differences in the spirit of the risk to the variable region for the benefit of the middle, and in the field of communications for the benefit of the north.

(Alawafi,2006)conducted a study aimed to identify the extent of the application of administrative innovation methods in dealing with crises from the heads of academic departments and administrative at the university, the study found the following results: the degree of heads of departments of the methods absolute in the study high, creative administrative able to develop creativity of individuals. there weren't there statistically significant differences due to type of department, and qualification, there were statistically significant differences due to the variable experience.

## Methodology

# The population of study

The population of study consists of (215) staff members at the Balqua Applied University faculties in Irbid Governorate, (1830) students from the first year level(fresh students) for the academic year2012-2013.

# The sample of study

The sample was limited to the staff members of Al Balqa Applied University faculties in Irbid region which was (79) members, and (183) student, both of them has been selected randomly.

Here are the following variables: sex ( male-female)

Faculty type(government- private)

Experience(1-5 years)

(6-10years)

# The instrument of study

The researcher reviewed the theoretical literature and previous studies related to the subject of the study, where preparing preliminary the questionnaire which consisted of (47) items on the role of university staff members at Al Balqua Applied University in the developing of students' creative thinking from perspective of University staff members and the students themselves .

# **Validity**

The researcher checks the validity of the instrument through the presentation to the group of referees to express their views about the safety of the language, and the appropriate of the items, regarding some items were deleted, and propose new items, finally the instrument consisting of (39) item.

# Reliability

The researcher verify the reliability of the instrument through the application of a random sample from outside of the study sample which was(30), (test-retest) used to calculate Pearson correlation coefficient which was (89.5).

#### **Statistical Treatment**

To answer questions of the study, the researcher using the appropriate statistical analysis : means and standard deviations ,

Three -Way Anova test, and (t-test).

Pearson correlation coefficient( Test-retest)

# The results of the study and discussions

1. What is the role of the staff members in AlBalqua Applied University in developing of students' creative thinking from the staff members point of view ?

To answer this question means and standard deviations used for the instrument of the study. Table (1) showed that.

Table (1)
means and standard deviations for the staff faculties members responses in descending order.

No	Items		M	Sd
32	The staff member takes in his account the individual differences of the students	1	4.66	0.70
29	The staff member seeks to develop the students' self-confidence	2	4.65	0.95
7	The staff member allows the students to chose the activities that they want	3	4.59	2.31
1	The staff member focuses on higher mental processes (synthesis, evaluation)	4	3.57	0.75
16	The staff member engages the students to develop their creative thinking attitudes	5	4.56	0.75
15	The staff member focuses on research and surveying	6	4.53	0.86
30	The staff member gives the students enough time to	7	4.49	0.90

	think about the educational activities			
3	The staff member asks creative thinking questions	8	4.42	0.99
22	The staff member provides the feedback to the	9	4.39	0.99
	talented students		1.37	0.77
36	The staff member gives ideas to the students about	10	4.38	1.05
	the importance of the creative			
31	The staff member asks the students divergent	11	4.32	0.95
	questions have several correct answers			
5	The staff member uses the solving problems	12	4.14	0.81
	approach in his teaching			
26	The staff member encourages the students	13	4.10	0.82
	discussions			
35	The staff member helps the students in the search	14	4.09	0.77
	for relevant concepts and understand them			
28	The staff member values the students ideas which	15	4.09	0.85
	are valued ideas			
21	The staff member seeks all the new of his	16	4.09	0.85
	specialization			
18	The staff member directs the students to take	17	4.06	0.66
	advantage of their free time			
37	The staff member saves psychological security and		4.05	0.84
	mental freedom in the classroom			
34	The staff member conducts the students to the real	19	4.04	0.68
	problems			
8	The staff member develops the students' curiosity	20	4.01	0.67
33	The staff member takes in his consideration the	21	4.01	0.73
	new and unique ideas that come from students			
2	The staff member allows of the self-learning	22	3.99	0.69
22	opportunities for students	20	2.00	0.50
23	The staff member encourages the students to ask	23	3.99	0.78
27	questions and different ideas	2.4	2.05	0.76
27	The staff member puts his students in the positions	24	3.95	0.76
10	which require creative thinking  The stoff mamber introduces activities to the	25	2.05	0.72
19	The staff member introduces activities to the students takes in his account their abilities and their	25	3.95	0.72
12	potential  The staff member saves a healthy advectional	26	2.05	0.97
12	The staff member saves a healthy educational climate to the students feel freedom and love	26	3.95	0.87
25		27	2.05	0.92
25	$\epsilon$		3.95	0.82
17	exchange ideas about different issues  The staff member seeks to invest creative energies	28	3.92	0.66
1/	The staff member seeks to invest creative energies of students	28	3.92	0.00
24		29	3.90	0.79
_ <del> </del>	The staff member guides his students for a requested imagination and creativity		3.50	0.79
20	students The staff member gives the creative	30	3.85	0.92
20	opportunities to help the weak colleagues	30	3.03	0.72
L	opportunities to help the weak concagues	1		1

38	The staff member seeks to detect creativity	31	3.82	0.72
	obstacles of his students			
10	The staff member accepts of the extraordinary	32	3.80	0.78
	questions from his students			
39	The staff member seeks to the develop the students	33	3.72	0.97
	self-confidence			
11	The staff member introduces material and moral	34	3.72	0.97
	incentives for innovators			
13	The staff member conducts the students how to take	35	3.70	0.80
	advantage and use of the information			
4	The staff member accept unfamiliar ideas	36	3.52	0.71
9	The staff member provokes the students to generate	37	3.52	0.80
	new ideas			
14	The staff member raises controversial issues require	38	3.48	0.85
	discussion			
6	The staff member develops adventurous spirit of	39	3.42	0.84
	the students			
	Average		4.06	0.51

Table (1) showed that the means ranged between (3.42 - 4.66) item twenty thirty "the staff member takes in his account the individual differences of the students" has got the highest score mean (4.66) with a standard deviation (0.70), either the sixth item " the staff member develops adventurous spirit of students" has got the lowest score mean(3.42), with a standard deviation (0,84), it is clear from table (1) the means of the sample as a whole responses was (4.06) with a standard deviation of (0.51).

Items(15,16,1,7,29,32) has got the highest mean scores ranging from (4.66-4.53) which indicted that giving the students duties regarding to their mental abilities developed their creative thinking skills, in terms of the talented students for example, did not accept the same level or kind questions, and duties which are provided to the lowest achievement students. Focusing on the mental processes, which is related to synthesis, and evaluation increased creative thinking skills as originality, while items(16,14) has got the lowest two means(3,48-3,42), the staff members raises controversial issues require discussion, and the staff members develops the spirit of adventurous of the students. Because of the nature of some subjects did not contain with them a controversial issues, or that the staff members themselves did not have these skills.

2. What is the role of the staff members in Al Balqua Applied University in developing of the students' creative thinking from the students point of view?

To answer this question means and standard deviations used for the students' responses, and Table (2) shows that.

 $Table \ (2)$  means and standard deviations for the students responses on the items, in descending order.

No		Rank	M	Sd
13	The staff member conducts the students how to		3.43	1.12
	take advantage and use of the information			
9	The staff member provokes the students to	2	3.43	1.15
	generate new ideas			
29	The staff member seeks to develop the students'	3	3.34	1.40
	self-confidence			
35	The staff member helps the students in the search	4	3.32	1.23
	for relevant concepts and understand them			
21	The staff member seeks all the new of his	5	3.28	1.20
	specialization			
31	The staff member asks the students divergent	6	3.27	1.21
	questions have several correct answers			
26	The staff member encourages the students	7	3.23	1.22
	discussions			
25	The staff member encourages the students to	8	3.21	1.27
	exchange ideas about different issues			
23	The staff member encourages the students to ask	9	3.20	1.22
	questions and different ideas			
3	The staff member asks creative thinking	10	3.19	1.22
	questions			
18	The staff member directs the students to take	11	3.17	1.24
	advantage of their free time			
6	The staff member develops adventurous spirit of	12	3.17	1.41
	the students			
17	The staff member seeks to invest creative energies	13	3.16	1.21
	of students			
14	The staff member raises controversial issues	14	3.14	1.19
	require discussion			
28	The staff member values the students ideas which	15	3.14	1.29
	are valued ideas			
1	The staff member focuses on higher mental	16	3.14	1.04
	processes (synthesis, evaluation)			
32	The staff member takes in his account the	17	3.12	1.28
	individual differences of students			
2	The staff member allows of the self-learning	18	3.12	1.07
_	opportunities for students			
33	The staff member takes in his consideration the	19	3.11	1.25
	new and unique ideas that come from students			
12	The staff member saves a healthy educational	20	3.09	1.20
_	climate to the students feel freedom and love			
8	The staff member develops the students' curiosity	21	3.08	1.27
5	The staff member uses the solving problems	22	3.07	1.10

	approach in his teaching			
30	The staff member gives the students enough time		3.06	1.25
	to think about the educational activities			
36	The staff member gives ideas to the students		3.05	1.32
	about the importance of the creative			
16	The staff member engages the students to develop	25	3.05	1.19
	their creative thinking attitudes			
34	The staff member conducts the students to the	26	3.00	1.25
	real problems			
15	The staff member focuses on research and	27	2.97	1.18
	surveying			
27	The staff member puts his students in the	28	2.90	1.25
	positions which require creative thinking			
22	The staff member provides the feedback to the	29	2.87	1.26
	talented students			
37	The staff member saves psychological security	30	2.85	1.47
	and mental freedom in the classroom	31		
10			2.85	1.32
	questions from his students			
24	The staff member guides his students for a	32	2.81	1.16
	requested imagination and creativity			
38	The staff member seeks to detect creativity	33	2.80	1.35
10	obstacles of his students		2.70	
19	The staff member introduces activities to the	34	2.78	1.22
	students takes in his account their abilities and			
20	their potential	25	2.77	1.20
20	students The staff member gives the creative	35	2.77	1.30
	opportunities to help the weak colleagues	26	2.76	1.24
7	The staff member allows the students to chose the	36	2.76	1.34
20	activities that they want	27	2.72	1.20
39	The staff member seeks to the develop the	37	2.73	1.38
1	students self-confidence	20	2.60	1.20
4	The staff member accept unfamiliar ideas	38	2.69	1.30
11	The staff member introduces material and moral	39	2.49	1.36
	incentives for innovators		3.05	0.73
	Average		5.05	0.73

Table (2) showed that the means ranged between (2.49 - 3.43) with standard deviations (1.07 - 1.47), item (13)has got "the staff member conducts the students how to take advantage and use of the information" has got the highest score mean of (3.40) with a standard deviation (1.12), either item (11) "The staff member introduces material and moral incentives for innovators" has got the lowest score(2.49) with a standard deviation (1.36).

Also this table showed that the mean of the sample as a whole responses was(3.05) with a standard deviation (0.73), this indicated that the role of staff members at Al Balqua Applied University in the developing of students' creative thinking from the students point of view has got moderate score, this means that staff members did not possess the skills of creative thinking significantly this may be also to the lack of materials and methods inside of the class rooms which

create a creative atmosphere, and the lack of attention to the needs of students and their desires works to kill creativity of students, results also showed that item(11)has got the lowest mean(2.49)" the staff member introduces material and moral incentives for innovators" this may be due to the weakness of the staff members in determining the creative skills of the students, therefore, they did not motivate them.

3. 1.Are there any significant differences at the level of significance (0.05) in the role of the staff members in AlBalqua Applied University in developing of students' creative thinking from the staff member point of view due to the variables (six, faculty type, experience)?

To answer this question means and standard deviations was used in the estimates of the study sample (staff members) in the role of the staff members in developing of creative thinking of students at Al Balqua Applied University in Irbid due to the variables

(sex, faculty type, experience). Table (3) showed that.

### Table (3)

Means and standard deviations of the study sample (staff members) in the role of the staff members in developing of creative thinking of students at Al Balqua Applied University due to the variables (sex, faculty type, experience)

Variable	Rank	No	M	Sd
Sex	M	43	4.117	0.57
	F	36	3.900	0.57
Faculty	government	38	3.978	0.64
	Private	41	4.039	0.56
Experience	1-5years	11	3.836	0.51
	6-10years	31	4.201	0.46

Table (3) explained that there were appearnt differences in the estimates of the staff members on all the items of the study. Malty variance analysis was used, if there any significant differences between the estimates of the staff members on the items of study according to the variables (sex, faculty type, experience). Table (4) showed that.

# Table (4)

The results of three – way anova of the instrument of the study due to the variables (sex, faculty type ,experience).

Source of	Sum of	Df	Mean	F value	Significant
variance	squares		squares		level f
Sex	0.824684	1	0.824684	3.47362	0.066
Faculty type	0.062898	1	0.062898	0.264929	0.608
Experience	1.356853	2	0.678427	2.857574	0.064
Error	17.5686	74	0.237414		
Sum	20.045	78			

Findings revealed that there were not any statistically significant differences at the level of significance (a = 0.05) due to the variables (sex, faculty type, experience). This means that the staff

members of different variables( sex ,faculty type ,experience) agree that they were developing the creative thinking moderately.

2.Are there any significant differences at the level of significance (0.05) in the role of the staff members at AlBalqua Applied University in developing of students' creative thinking from the students point of view due to the variable (sex)?

To answer this question (T- test) were used in the estimates of the students in the role of the staff members in developing of creative thinking of students at Al Balqua Applied University due to the variable (sex). Table (5) showed that .

## **Table (5)**

The results of (t-test) in the estimates of students in the role of the staff members in developing of creative thinking of the students

variable	rank	No	M	sd	T value	Significant level f
Sex	M	43	4.17	0.32	2.04	0.042
	F	36	3.94	0.65		

Table (5) explained there were apparent statistically significant difference at the level of significance (0.05) in the estimates of students' at the instrument items ,and the difference was in favor of males mean (4.17) compared to (3.94) for females, because good, great communication between the staff member and his students males inside and outside the faculty which affects the appreciation of the role of the staff member from males .

#### Recommendations

- 1-holdind sessions and workshops for faculty members of AlBalqua Applied University on how to develop the creative thinking skills of students .
- 2- The necessity of staff members in adopting the principle of moral and physical incentives for creative students to increase the motivation of students .
- 3- Further studies on the development of creative thinking in university faculties.
- 4-a viability a special programs for creative and talented students.
- 5- Reduce the number of students in the classroom, so that the opportunity for more interactions between staff members and their students .
- 6- Universities, colleges, and community colleges reconsider the curricula and courses which aimed to include topics and exercises in the field of creativity.
- 7- Concentration from the Ministry of Higher Education to develop the capabilities of the staff members and give creative opportunities time for experimentation and implementation .

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