Barriers to Creativity in universities from the point of view of postgraduate students

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Abstract

Purpose- The purpose of this study is to identify the most crucial barrier to creativity as experienced by the Palestinian graduate students.

Design/methodology/approach – The questionnaire was used as a tool to collect data from graduate students (Master's and Ph.D.).. This study used a descriptive analytical approach and took place in the "university of al Azhar" (Gaza,palestine).

Findings: The findings revealed that barriers related to task achievement are the most critical barrier to creativity. Meanwhile, the results also showed that there is no significant different among students from different universities in relation to the level of severity of creativity barriers. Similarly, it revealed that there is no significant different among students from different faculties in relation to the severity of creativity barriers. The discussion addresses future research direction. Keywords: barrier, creativity, Malaysian, undergraduate, students Research limitations/implications – Questioners has been the single used source.

Originality/value – This study provides a greater understanding of the obstacles to creativity in higher education from the point of view of graduate students.

Key Words: Creativity, University education, Creativity in Higher Education, Barriers to Creativity,

Introduction

Creativity in the education process is a behavior that has the ability to learn, train and qualify, and therefore must focus and pay attention to the idea of meaningful and constructive creativity and is a characteristic of contemporary and modern education, since a successful university is based on encouraging the person to develop, renew and modernity, and is based on providing the right atmosphere for giving and creativity, The successful learning process is based on rooting innovation and creativity among educated people so that it should be based on advanced educational curricula, based on new rather than traditional methods, through the absorption, production, use and application of information in a way that helps to eliminate traditional methods of thinking, education, planned curricula, methods and means, This generates and provides creativity and innovation among educated people and is viewed after them by creative people.

Background of the Study

Since creativity has been considered a critical element for the survival of many corporations, its importance has been increasingly recognized by academics and professionals in different areas (ROBINSON, 2013)

Creativity is important, and students need to possess the ability to gain creative insights. It involves an ability to come up with new and different viewpoints on a subject. Creativity is the ability of the person to create and produce new ideas and solutions and get out of what is prevalent and traditional, Therefore, the process of creativity depends on overcoming the traditional, well-governed way of thinking with personal and societal constraints, and Restrictions imposed by educational institutions.

Promoting educational creativity through the development and modernization of learning curricula and programs is a key requirement for the purpose of promoting universities, increasing their competitiveness and keeping pace with the demands of today's labor market,.

Although universities contribute positively to the development of science and knowledge, they suffer from many problems and difficulties in achieving their desired goals, Universities in general and in Palestine in particular focus on three main themes: teaching, scientific research and community service and trying hard to provide their best, However, the outputs remain below expectations and do not live up to the required level, especially since the focus of universities is limited only to teaching, and the interest in creativity, development and improvement remains lagging behind their counterparts from the world's advanced universities.

Statement of the Problem:

Research questions:

1. What are the most common innovation barriers among graduates students at Al-Azhar University؟
2. What are the severity of the various innovation barriers among students at Al-Azhar University؟
3. Are there statistically significant differences in the types of innovation barriers among students at Al-Azhar University؟

Research Objectives:

1. To learn about the barriers of creativity among graduate students in al azhar university- Palestine
2. Comparing the barriers of creativity of the students who participating in the research is in light of their awareness of these barriers.
3. Make some recommendations to overcome the barriers of creativity among graduate students in al azhar university- Palestine.

Significance of the Study:

Research methodology:

This study falls under the type of descriptive studies based on data collection from Purposive samples, using a questionnaire designed for this The purpose is to identify the most important barriers to creativity among graduate students at Al-Azhar University And propose solutions to these barriers with the aim of developing the best in universities،

Literature Review:

1. Definition and Essence of Creativity:

Creativity is generally defined as the ability to produce new ideas or new ways that have analyzed the problems, The American Dictionary of Psychology (2009) defined it as: "The ability to produce or develop original work, theory, techniques or ideas..

2. Creativity in Higher Education:

We can talk about the importance of scientific institutions and their effective and vital role in the development and creation of creativity among students and this is what stressed by(AMARAL; MARTINEZ, 2006)he said: it is important to consider the educational institution as one of the fundamental spaces for the development of students' creativity.

3. Barriers to Creativity:

1.3. Barriers of Creativity There are countless barriers that make it difficult for individuals to take advantage of their potential to create. Some of them are eminently personal, and here we could refer to emotional, perceptual and intellectual barriers. Others are of a social nature, being directly linked to values, norms and assumptions cultivated in society and that contribute to keeping the potential to create dormant (ALENCAR, 1999).

According to Zigey (2016, p.132) model, there are four barriers to creativity from the students' point of view:

Barriers related to the student:

There are many barriers to creativity in higher education, including those related to the student, such as: The personality of the student and how it affects the level of educational creativity And what his personality traits reflect in his pattern of behavior within the educational context, Motives can also clearly affect the level of creativity of students and their internal forces affecting their behavior and creativity, Also, the knowledge level that a student has a lot of influence on his creativity, the more students know, the more they need to be creative about what they do, The social impacts on students' behaviors cannot be forgotten as it can be said that students' creativity is linked to the degree to which their communities influence them, Finally, the level of self-confidence enjoyed by students and their ability to deal with criticism and fears can be added, And that's perfectly consistent with Alencar and Sobrinho (2017) who mentioned that "the lack of self-confidence and self-esteem, the fear of questioning and the apprehension of being criticized are as a barriers of creative expression", It can be noted that (Sahlberg, 2009) who said "the negative interaction between social influence and personal attributes in relation to creative skills in an educational context are pressures on those who deviate from the norms, towards behaviors that imply lack of confidence and cooperation".

Barriers related to the lecturer:

Nowadays, in all aspects of human beings, creativity is obvious. Researchers and professionals from different fields have recognized the significance of creativity as a critical element for the survival of many organizations (Coromina& Poole,2020). Besides, the old, teacher-centered, transmission model of learning adopted by sages on the stage has evolved into a more facilitative approach to teaching that is learner-centered and where the teacher converts the guide on the side. With the shift from an instructional paradigm to learning, the role of higher education will change from a place where instruction happens to one where learning happens (Beloyianni & Zbainos,2021, Hensley,2020).

Whereas universities considered to be creative are those in which creativity manifests itself in teaching, learning, research, generated knowledge, and the environment, ultimately resulting in students' cognitive capacity to be creative (Sole &Coromina,2020)

Likewise, Adam (1999) in his book discusses, the barriers of creativity and offers a solution to them. A variety of blocks are discussed, such as perceptual barriers, emotional barriers, cultural and environmental barriers, cognitive and expressive barriers, and alternative thinking languages. later he indicated the types of the above-mentioned blocks .Generally, blocks are closely related to others that face teachers, although he does not realize it, every individual has conceptual blocks, but the magnitude and intensity can differ from individual to individual (Nordin& Malik,2015; Hilal et al,2013; Martins& Terblanche,2003).

Furthermore, as a barrier, nervousness, and shyness are both identified as obstacles, where shyness is defined as "the feeling of incapacity, the fear of failure in front of others, the fear of judgment, the fear that they will make mistakes or that they won't be understood (Ramos et al.2020).

As known, the traditional method of teaching (a method of preaching) ،is the process of conveying information from the beginning of the lecturer to the beginning of the game, and that takes away the calculus extreme and ability to develop soft skills needed for students' creativity (Meng Yia، & Congjian,2018; Gaspar& Mabic,2015).

Hiep et al., (2020) stated that in the 21st century higher education is about more than obtaining knowledge from a single discipline. In today's globalized world, higher-order skills such as critical thinking, creative problem-solving, teamwork, and communication have become even more valuable. Researchers identified several barriers to creativity in higher education, including excessive workloads, inadequate time to prepare lessons, large class sizes, insufficient contact time with students, and inadequate resources (Robinson &. Schaap,2018; Alencar & Pereira,2017;)

Barriers related to the university environment:

Nevertheless, in many schools, there is a lack of reflection during the teaching and learning process, regrading a resistance, differences, and diversity of students, there is an absence of challenges and activities that encourage creativity. It is apparent that a lack of challenges and activities to enhance intellectual growth, a lack of recognition by education

professionals regarding the high abilities of their students, are some of the factors that can delay the identification of students' creativity (Mercader& Gairín,2020; Piske et al,2016).

Moreover, the challenge of low intrinsic motivation for creativity continues to be a major challenge for teachers and educational psychologists, since it cannot be effectively improved by material or verbal reinforcement. Besides many contextual factors, along with individual barriers, have been cited as "environmental" obstacles to creative expressions, such as lack of resources, stiff deadlines, lack of leisure, heavy workloads, and little opportunity to express oneself (Beloyianni &Zbainos,2021).

Research findings indicate that several barriers exist in higher education, including excessive workloads, inadequate time to prepare lessons, large class sizes, and lack of contact time with students while digital technologies are not used more widely, especially among young teachers (Marcelo et al. 2015).
Cuhadar (2018) illustrates that teachers use digital technologies in their personal lives, but that when applied in classrooms, they encounter serious technical logistical, and pedagogical problems.
so that when teachers' technological competency level is intermediate or lower affects the underuse of digital technologies or their mechanical and educationally pointless use in the form of problems stemming from their integration at the personal level.

On the other hand, the Covid pandemic affect the education process in all aspects, teachers at university should be ready to use electronic tools to organize and conduct online educational and research activities of students, to assess and control students' online educational activities, and to hold online conferences and webinars that make more barriers

In higher education (Almazova et al,2020).

Nevertheless, the university culture promotes creativity through efforts such as open communication between employees and students, as well as pride and faith in people's abilities, including that the physical environment plays a key role in supporting or hindering creativity (Singh & Chaudhary, 2018).

Barriers related to the courses:

Reviewing the literature, Scholars have pointed out that, although students are often expected to be creative, creativity is rarely a core objective of college courses while there is a lack of creativity in teaching practices among many university faculties, as well as a lack of literature on how to foster it in educational settings (Morais & Almeida,2019). Consequently, poor knowledge content in textbooks and learning tools can bury creativity, along with a lack of time and opportunities in handling huge amounts of data and tasks (Beloyianni & Zbainos, 2021)

Moreover, there were studies that indicated that curriculum reform alone was not always sufficient to modify teachers' meanings and practices and that pedagogic development and changes of beliefs, habits, roles, and power structures were desired. Indeed, traditional pedagogic methods like teaching methods make student teachers passive; incompetent educators of student teachers, separation of theoretical and practical studies, student teachers' own passivity, and lack of metacognitive skills put the educational process under great pressure (Bridgstock & Cunningham, 2016; Jackson,2014).

Whilst programs on sustainability in higher education usually lack the foundational attributes of sustainability, such as philosophical debates, pedagogy, and personal values, as well as inherent complexity, another challenge may face the higher education leader when preparing learners for a very complex ،uncertain, and ever-changing world, people who believe that there is no need to change to change something that has worked perfectly well for them in the past (Mendoza, et al.,2019)

Furthermore, teachers' social roles provide specific experiences and shape appropriate attitudes, beliefs, and assumptions about teaching and learning processes, which can inhibit creativity development among learners and teachers, consequently, It creates those experiences and beliefs by giving pressure to teachers to conform to external standards, programs, evaluations, and teaching methods, which do not include creativity as a learning outcome or standard(Shubina & Kulakli,2019).

The lack of established creativity strategies in the curriculum, heavy workload, and bureaucracy affect the method of teaching in higher education, causing additional barriers to creativity. Several barriers to e-learning were identified, such as lack of administrative and technical support, imbalance of technical and cognitive skills, inadequate and outdated material, and delays in response time from instructors, all of which resulted in high levels of student frustration (Mendoza et al.,2019; Alencar & Pereira,2017). Bidabadi et al, (2016) clarified that the best teaching approach is the mixed method (student-centered together with teacher-centered) plus educational planning and previous readiness. The teachers, however, face certain barriers when utilizing this teaching method.

Third: the applied study
1. **Study population:**
The study population is represented by the students of Palestinian universities in the Gaza Strip, where the researcher identified the two universities (Al-Azhar and Islamic universities) from the point of view of the postgraduate students, and it consisted of (70) male and female students, The researcher followed the census method in distributing the questionnaires due to the small size of the study population, and after the questionnaires were distributed, (59) questionnaires were recovered out of (70) with a recovery rate of .(%84.3)

2. **The content of the questionnaire (the study tool):**

The questionnaire consists of two main sections, where the first section represents the personal and functional variables (gender, educational qualification, place of study), while the second section represents the study variables (barriers to education in universities: the first dimension "barriers related to the student within the educational context, the dimension The second dimension is "barriers related to lecturers within the educational context," the third dimension "barriers related to the university environment," the fourth dimension, "barriers related to educational curricula").

3. The scale adopted in the questionnaire (the approved scale):

The researcher relied on five-point Likert scale for the levels of approval of the study's items and dimensions, the researcher relied on the scale based on the use of mean and relative weight, and the table (1) below shows the levels of approval based on five levels.

Table (1): It shows the scale adopted in the questionnaire.

Scale	Mean	relative weight	approval level
Strongly Disagree=1	1 less than 1.8	20% less than 36%	very low
Disagree= 2	1.8 less than 2.60	36% less than 52%	Low
Neutral= 3	2.60 less than 3.40	52% less than 68%	Average
Agree= 4	3.40 less than 4.20	68% less than 84%	High
Strongly agree=5	4.20 less than 5	84% less than 100%	very high

4. Validity and reliability:

Convergence validity through factor analysis (outer loading):

Table No. (2) shows the results of convergent validity for all items of the study dimensions and their variables, which represent the percentage of contributions of each item in the dimension to which it belongs. After conducting the analysis, it was found that there were no item less than the minimum permissible for their presence within the model (outer loading = 0.30) (Tegra, 2017), where it reached the lowest degree of outer loading for the fifth item and falls under the first dimension "barriers related to the student within the educational context" (**outer loading** = 0.300 All test results are acceptable and reliable in the study results.

Table (2): shows the results of convergent validity (outer loading) for the dimensions of the study and its variables.

Student-related barriers within the educational context		Lecturer-related barriers within the educational context		Barriers related to the university environment		Curriculum Barriers	
Item	**outer loading**	**Item**	**outer loading**	**Item**	**outer loading**	**Item**	**outer loading**
Item 1	0.824	Item 1	0.656	Item 1	0.747	Item 1	0.773
Item2	0.610	Item2	0.334	Item2	0.700	Item2	0.773
Item3	0.735	Item3	0.849	Item3	0.754	Item3	0.783
Item4	0.468	Item4	0.881	Item4	0.819	Item4	0.543
Item5	0.300	Item5	0.896	Item5	0.662	Item5	0.685

Source: prepared by the researcher based on the outputs of the statistical program spss v25

5. The reliability:

Alpha Cronbach and Weighted Omega:

Where the values of the Alpha Cronbach coefficient index for the questionnaire as a whole "barriers to creativity in education in universities" = 0.830, while the weighted omega index was 0.835, and these results indicate a high degree of reliability in the study tool collected from the members of the study community, and therefore we can rely on the tool that study used, its analysis, interpretation and generalization of its results, and Table No. (3) shows the results of the reliability tests for the study's variables and axes.

Table (3): Results of reliability tests for the dimensions of the study.

Study variables	**Alpha Cronbach**	**Weighted Omega**
Barriers to education in universities	0.830	0.835

Source: prepared by the researcher based on the outputs of the statistical program spss v25

6. The statistical methods used in the study:

The researcher relied in analyzing data through the statistical program "Statistical Package for Social Sciences" (Spss v25), where the researcher used a set of statistical tests, including factor analysis to measure convergent validity, Alpha Cronbach's weighted omega index to measure reliability, and the use of frequency and percentages to measure description of personality variables. The functional of the study population, in addition to the descriptive measures (mean, standard deviation and relative weight), t-test for two independent samples.

7. Descriptive analysis of personal and functional variables:

Statistical description of the study population according to personal and occupational variables:

The number of respondents in filling out the study questionnaire was (59) respondents from graduate students in Palestinian universities, and Table No. (4) shows the statistical description of the study population according to the personal and occupational variables in the study as follows:

Table (4): Statistical description of the study population according to personal and occupational variables (n = 59).

Variable		N	%	Variable		N	%
Gender	Male	34	57.6	Place of study	Al Azhar university	41	69.5
	Female	25	42.4		The joint program between Al-Azhar and the Islamic	18	30.5
Qualification	Master student	41	69.5				
	PhD student	18	30.5				

8.   Analysis Results of the study dimensions in general:

Table No. (5) shows dimensions descriptive measures of educational barriers in Palestinian universities in the Gaza Strip from point of view of graduate students, where the mean of the first dimension was "the barriers related to the student within the educational context = 3.93 out of 5 with a relative weight of 78.6%", while it was Arithmetic mean and relative weight of the second dimension "barriers related to the lecturer within the educational context" (4.03 out of 5, 80.6%), the third dimension "barriers related to educational curricula" (3.82 out of 5, 82.6%), and finally the fourth dimension "barriers related to educational curricula". (4.13 out of 5, 82.6%), and these results indicate a high degree of agreement. With regard to educational barriers in universities in general, the mean was (3.98 out of 5) with a relative weight of (79.6%) and this result indicates a high degree of agreement, that is, the presence of Barriers to education in Palestinian universities in the Gaza Strip from the point of view of postgraduate students. This confirms these results through a one-sample t-test, where it was tested at the mean value of 3, where the results of this test indicate a positive (high) agreement and statistical significance at the 0.05 level.

Table (5): Results of the statistical analysis of the study dimensions.

Axis	Statistical descriptive measures of the study variables				
	Mean	relative weight	standard deviation	T. test	Rank
Student-related barriers within the educational context	3.93	%78.6	0.54	**13.2	3
Lecturer-related barriers within the educational context	4.03	%80.6	0.76	**10.4	2
Barriers attached to the educational environment	3.82	%76.4	0.75	**8.3	4
Curriculum Barriers	4.13	%82.6	0.62	**14.0	1
Barriers to education in universities	3.98	%79.6	0.46	**16.1	

**Statistically significant at level 0.01.

The analysis results of the first dimension: "Student-related barriers within the educational context" showed a high positive agreement level of the aspects of this dimension. The researcher attributes this to the presence of major obstacles related to the self-confidence of university students due to the general family and societal environment that is characterized by cruelty and authoritarian treatment within the family and schools and this not motivating students to be creative, which leads them to poor achievement, especially because there is a strong positive relationship between self-confidence and achieving success and creativity.

While the analysis results of the second dimension: " Lecturer-related barriers within the educational context", showed that there is a high degree of agreement to this dimension, The researcher attributes this to the lecturer's great focus on the traditional teaching style due to the large numbers of students, which makes the lecturer spend most of his time teaching and preparing for teaching, and so he does not have enough time for reading, scientific research, following up students skills, or thinking about how to enhance their creative abilities to produce new knowledge and to motivate creativity in students.

The analysis results of the third dimension: "Barriers attached to the educational environment", showed that there is a high degree of agreement towards this dimension. The researcher attributes this to the fact that the educational curricula do not contain a special system for developing students' performance or skills, it depends on memorizing information and focusing on tests, exams, and various assessment processes that measure the strength of students' memory, and therefore the educational curriculum does not enhance students' problem-solving skills and does not focus on self-learning skills or enhancing students' critical thinking.

The analysis results of the fourth dimension: " Curriculum Barriers", showed that there is a high degree of agreement towards this dimension. The researcher attributes this to the design of the educational curriculum focuses on education and does not stimulate students' thinking. Thus, the educational curriculum not allowing them to think outside the box. The educational curriculum focuses on the accumulation of theoretical information and therefore it does not

allow students to think or develop, but rather it depends on the method of preserving information without analyzing this information or developing their own knowledge.

9. Results of study's hypotheses analysis:

The first main hypothesis, which states that "there is a high level of at least 68% about the existence of educational barriers in Palestinian universities in the Gaza Strip from the point of view of graduate students".

Researcher verified the hypothesis by using the descriptive tests represented by the mean and relative weight, where the results shown in Table (5) indicate a high level of approval of educational barriers in universities, and the arithmetic mean (3.98 out of 5) with a relative weight (79.6%), To confirm the high agreement result, the researcher used a one-sample t-test, and the test value was (t = 16.1, with a significance level of 0.000).

The results of the analysis of the first main hypothesis proved the existence of a high level of educational barriers in Palestinian universities in Gaza Strip from the point of view of graduate students, The reason for this result is due to the existence of a set of educational barriers facing the higher education sector, where most of these barriers are based on the mechanisms of building higher education, due to the weakness in defining the form and content of the higher education system, in addition to the weak parallels to encourage postgraduate students to carry out scientific research, which led to weak students' skills and weak creative abilities.

The second main hypothesis, which states that "there are statistically significant differences at the level (0.05≥α) about the average responses of the respondents to the barriers to education in universities due to personal and occupational variables (gender, educational qualification, university location)".

The researcher verified the hypothesis through a t-test for two independent samples, where the results indicate that there are no statistically significant differences about the average responses of the respondents to the educational barriers in universities due to the personal and functional variables represented by (gender, educational qualification, place of study) because the value of the significance level greater than 0.05 and Table (6) shows this.

Table (6): shows the results of the second main hypothesis.

Variables	test	Significance	The result
Gender	T= -0.377	0.708	There is no difference
Qualification	T= 1.241	0.220	There is no difference
Place of study	T= 1.241	0.220	There is no difference

The results of the analysis of the second main hypothesis showed that there were no statistically significant differences in the respondents' responses to the barriers of education

in universities due to personal and occupational variables (gender, educational qualification, university location), This result indicates that there is a consensus in the respondents' responses, a consensus in their actual perception, and a consensus regarding their estimates towards the existence of barriers of education in universities, despite the presence of personal and professional differences, whether related to gender, educational qualification and university location, as these differences did not affect the respondents' attitudes, which confirms that There are significant barriers of education at Palestinian universities

Results:

1. The results showed that there is a high level of educational barriers at universities in general from the point of view of graduate students, as it obtained a relative weight (79.6%).

2. The results showed a high levels of the dimensions of Barriers to education in universities, where the dimension of " Curriculum Barriers came first with a relative weight (82.6%), and the dimension of "Lecturer-related barriers within the educational context" came at the second place with a weight relative (80.6%), and the dimension of "Student-related barriers within the educational context" came at the third place with a relative weight of (78.6%), while at the fourth place came the dimension of "Barriers attached to the educational environment", with a relative weight of (76.4%).

3. There were no statistically significant differences in the respondents' responses to the barriers of education in universities due to personal and occupational variables (gender, educational qualification, university location).

Recommendations:

1. The research recommended the Palestinian universities to encourage and stimulate creativity and urge students to practice it through educational programs prepared for this purpose and applied it at all educational levels at the university

2. The necessity of preparing interactive educational activities at the university in a way that increases the level of its impact in stimulating creative thinking among students.

3. Providing a safe, interesting and stable educational environment that works to achieve creativity and develop creative thinking among students.

4. Providing a social educational climate between lecturers and students that facilitates the process of communication and encourages the development of creativity among students.

5. The necessity of implementing training workshops for lecturers in Palestinian universities about the strategies of developing students' creative abilities

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