

# The Application of the Principles of the Creative Environment in the Technical Colleges in Palestine

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**Abstract:** *The study aimed to identify the creative environment of the technical colleges operating in Gaza Strip. The analytical descriptive method was used through a questionnaire which was randomly distributed to 289 employees of the technical colleges in Gaza Strip with a total number of (1168) employees and a response rate equal to (79.2%) of the sample study.*

*The results confirmed the existence of a high degree of approval for the dimensions of the creative environment with a relative weight of (75.19%) according to the perspective of the employees of the technical colleges in Gaza Strip. The results of the study showed a high level of creative environment (fluency, flexibility, originality, sensitivity to problems) in the technical colleges in Gaza Strip, where the field (fluency) ranked first and relative weight (76.86%), in the second place came the area (sense of problems) and relative weight (74.89%). The field of elasticity came in third place with a relative weight of (74.59%). Finally, the field of originality came in fourth and final rank with a relative weight of (74.41%). The results showed that there are differences between the technical colleges in the principles of the creative environment in all fields and the overall degree except for the field of flexibility. The most available colleges in these principles were the university college of applied sciences, and that was the least of the Faculty of Al-Aqsa Society. The results showed that there were differences according to the age variable in the areas of creative environment only in the sense of problems for age groups (less than 30 years) and (from 40 to 50 years).*

*The researchers suggested a number of recommendations, the need to enhance the dimensions of the creative environment in technical colleges by working to improve the faculties of fluency, flexibility, originality and sensitivity to problems. The need to work on continuity and improve aspects of the creative environment of the colleges and the creation of new and innovative ways to support and develop and support these aspects combined. Necessity of technical colleges to continue to develop the creative environment (fluency, flexibility, originality, sensitivity to problems) for employees by engaging them in specialized training courses for creative thinking and problem solving. Developing work procedures with new innovative methods that will accomplish the various tasks quickly and accurately, and provide the effort, time and costs. The researchers urged more future studies that address the same variables of the current study in the field of creative environment and applied to other sectors.*

**Keywords:** Creative environment, sensitivity to problems, originality, flexibility, fluency, technical colleges.

## 1. INTRODUCTION

Studies and literature emphasize that the efficiency and effectiveness of any organization's performance is closely related to the effectiveness of the administration, which requires the improvement of its capabilities and the provision of the necessary care for it, and providing the appropriate environment in which the managerial creativity of the organization that embraces it is achieved with employees of all types of organizations (Abu Amuna et al., 2017). The roles and responsibilities of facilitating learning processes have been changed by stimulating creative thinking, overcoming academic failure, motivating learning, caring for students' needs and ambitions, engaging them in decisions about their educational activities and taking into account diversity in their cognitive characteristics (Abu Naser et al., 2016). Creativity, and the organization must encourage its employees and motivate them to innovate, the organization may lose its competitive edge because of the lack of creativity and innovation in its work (Rowe, 2004).

The university administration is responsible for the development of education. If there is no university administration that is highly competent in the mechanisms and techniques of the era and responsible for the development of society and confronting the variables, it will be an obstacle to any fundamental development. Therefore, a successful and creative university administration necessarily means a successful and developed society (El-Khatib and Maaayeqah, 2006). The role of the organization is to work creatively to find solutions to existing problems, whether internal or external, today's organizations face changing environmental conditions and complex, which requires the need for institutions to possess the energies and potentials are capable of coping with influential factors in order to continue and grow, there is a need for leadership in the institution that is able to achieve its desired goals and to continue to be distinguished and successful by seeking to abandon the traditional concept of leadership and adopt new patterns. Perhaps this obvious interest in management has begun to take its natural status as an important element to achieve the objectives of economic and social growth, where creative thinking is one of the most important factors in the success of daily life in general, and hence the interest in creativity is one of the

most important goals sought by the human societies advanced, which sees the creative children as the foundation of its wealth for a development in all social, scientific and technical fields.

## 2. THE GENERAL FRAMEWORK OF THE STUDY

### 2.1 PROBLEM STATEMENT

The current business environment requires all organizations, including small and medium enterprises, to adopt creative ideas in order to ensure stability. Hence, innovation is a viable one. Creativity is linked to an appropriate creative environment. However, the efficiency and effectiveness of the performance of any organization is closely linked to the effectiveness of management, which requires the enhancement of its capabilities and the provision of the necessary care, (Abu Naser et al., 2016).

The problem of the study is the exceptional circumstances that Gaza Strip suffers from siege and wars, and the consequent increase in the number of universities and colleges in Gaza Strip, which in turn reflected the ability of universities and colleges in Gaza Strip continuing to keep up with the international universities and colleges in all fields. The topic of the creative environment is one of the modern topics as it is one of the modern methods and techniques in management and the important mechanisms through which organizations can achieve a sustainable competitive advantage in the business environment characterized by rapid changes in technology, diversity of needs and desires of beneficiaries and increased competition among organizations. This is what preoccupies the thinking of the departments of contemporary organizations that seek to improve performance in their operations and to achieve competitive advantage. Hence, the researchers chose this topic as a starting point in the problem of study. To examine the variables of the study of the "creative environment" in the Palestinian environment, especially in technical colleges, and that the basic problem of research revolves around the "creative environment" and therefore the problem of the study can be expressed through the following study questions:

**Q1:** What are the dimensions of the creative environment in the technical colleges in Gaza Strip?

### 2.2 RESEARCH OBJECTIVES

The study aims to uncover the reality of applying the principles of the creative environment in technical colleges in Palestine by achieving the following objectives:

1. Examine the level of achievement of the dimensions of the creative environment in the technical colleges in Gaza Strip.
2. To identify the differences in the application of the dimensions of the creative environment among the Palestinian technical colleges operating in Gaza Strip.
3. Identify the differences in applying the dimensions of the creative environment according to the age variable.
4. The conclusion of the conclusions and recommendations of the administrative leaders in the higher education institutions in general and the technical colleges in particular, may contribute to improving their performance and stimulate them to enhance the creative environment, which contributes to the development of technical education.

### 2.3 RESEARCH IMPORTANCE

1. Most of the studies related to the concept of the creative environment were concentrated in Western environments, where administrative concepts and tools for measuring performance and standards were developed rapidly, while the current study dealt with the Arab environment and specifically the Palestinian environment.
2. To enrich the Arab academic arena with new research studies and partnerships in the fields of administrative development.
3. Emphasis on enhancing the creative environment and following up its development in technical colleges.
4. The importance of this study stems from the fact that this study is considered one of the few if not the first studies conducted on technical colleges in Gaza Strip.

### 2.4 RESEARCH HYPOTHESIS

The study seeks to test the validity of the following hypotheses:

**Ho 1:** There is a high level of creative environment in the technical colleges in the Gaza Strip.

**Ho 2:** There are statistically significant differences at the level of a  $\leq 0.05$  in the dimensions of the creative environment depending on the macro variable.

**Ho 3:** There are statistically significant differences at the level of a  $\leq 0.05$  in the dimensions of the creative environment depending on the age variable.

## 2.5 TERMINOLOGY OF STUDY

- **Technician:** A person who occupies a middle position between the engineer and the technologist on the one hand and the skilled worker on the other. He has the task of applying the technical practices. He has the scientific knowledge, professional skills and technical expertise that helps him to diagnose the problems and develop the details. He is responsible for transforming the engineer designs into an integrated production process (Al-Shahry, 1995). The task of the technical team is the middle jobs in the production sites and intermediate administrative works and they form the mainstay of the production and service process because they are professionally considered as the operational working link between the various categories of specialists of engineers, trade and others and among the categories of technical workers who work in all the institutions on which the economy is based (Al-Saeed, 2006).
- **Technical colleges:** are regular educational institutions with duration of between 2-3 years after high school and without first-degree students (Mustafa, 2001). Technical colleges have recently been interested in analytical abilities and innovative skills as well as more Modern technologies, adaptation, operation and maintenance, and the training of technicians to absorb the rapid and complex transformations in order to meet the needs of the production and service sectors. Hence, many countries have started to award university degrees and masters and doctorate degrees such faculty's High technology in the United Arab Emirates, which grants bachelor's degree in Engineering Technology (Al-Issa, 2004).
- **Technical Education:** This is the type of formal higher education that includes educational preparation and imparting the skills and technical knowledge that are carried out by regular educational institutions not less than two years after secondary school to prepare a workforce in different disciplines (Al-Abd, 2001).  
**The researchers defines technical education as:** education that earns individuals the knowledge, skills and trends that qualify them to join the labor market in a technical work and study two years after high school.
- **The Creative Environment:** The creative environment, says Alexandre Rocca in his book Public and Private Creativity, means the direct, social, psychological, economic, cultural and educational influences that stimulate creativity. This is confirmed by D. Mohamed Abd Elghani Helal in his book "Innovative Thinking Skills", in which he said that the creative environment helps us to go away from everything that is normal and familiar, and try to answer the traditional everyday questions we ask ourselves or ask others for unusual answers (<http://www.afkaaar.com/html/article760.html>)
- **Fluency:** It means the ability to produce as many creative ideas as possible about a particular subject in a specific time period, namely the process of remembering, recalling and choosing information, experiences, or concepts already learned (Abdul Aziz, 2006).
- **Flexibility:** The ability to generate a large number of diverse ideas never before, or the ability to generate alternatives, synonyms, ideas, problems and uses when responding to a particular stimulus, and the speed of response and change with a given position (Jarwan, 2002).
- **Originality:** The ability to produce new ideas that are unfamiliar with the meaning of innovation and uniqueness focuses on creative products as a lesson because they are absolute but specific in the framework of one's own experience (Abdul Aziz, 2006).
- **Sensitivity to problems:** the ability of the individual to see the problem in a manner and to identify the size and aspects of the precise and clear and specificity and dimensions and effects to know the weaknesses or lack of phenomenon or a specific situation. Because it is the saturation of the problem that inspires creativity. The more one tries to study the problem, the greater the chances of reaching new ideas (Al-Tayeb, 1998).

## 2.6 RESEARCH LIMITS AND SCOPE

1. **Subject Limit (Academic):** The objective of the study was to study the reality of applying the principles of the creative environment in the technical colleges in Palestine
2. **Human Limitation:** This study is limited to the responses of the workers in the technical colleges in question.
3. **Institutional Limit:** This study is limited to the major technical colleges in the Gaza governorates.
4. The study was conducted in the State of Palestine and was limited to technical colleges in the Gaza Strip (Palestine Technical College - Deir Al Balah, University College of Science and Technology, GTC), Al-Azhar College of Intermediate Studies).

5. **Time Limits:** This study was applied to collect the preliminary data on the technical colleges and conduct the statistical analyzes in the year 2018, so it represents the reality at this time.

### 3. LITERATURE REVIEW

- Study of (El Talla et al., 2017) aimed to identify the reality of technical education in Palestine. The analytical descriptive method was used in the study. A questionnaire which consisted of 41 paragraphs was distributed randomly to the technical colleges in Gaza Strip. Random sample of (275) employees of these colleges were used, and the response rate was (74.5%). The results showed a high degree of approval for the dimensions of technical education with a relative weight of 76.07%. The ranking and relative weight was as follows: Technical education institutions: 79.51%, graduates of technical education 75.75%, Labor market and local community 72.96%. The researchers propose a number of recommendations, the most important of which is: the need to pay attention to technical education in line with the National Strategic Plan for Higher Education by moving towards technical education. The importance of offering special courses in all technical education programs in these colleges. The researchers urged more future studies that address the same variables as the current study and apply them to other sectors.
- Study of (El Talla et al., 2017) aimed to identify the creative environment and its relation to the graceful management of the technical colleges operating in Gaza Strip. The analytical descriptive method was used through a questionnaire which was randomly distributed to 289 employees of the technical colleges in Gaza Strip with a total number of (1168) employees and a response rate equal to (79.2%) of the sample study. The results showed a high degree of approval for the dimensions of the creative environment with a relative weight of (75.19%). It also showed a high level of creative environment where the ranking and relative weight was as follows: Fluency (76.86%), Sensation of problems (74.89%), Flexibility (74.59%) and originality (74.41%). The results showed that the technical colleges achieved a high level of agile management with a relative weight of 76.69% and a high level of agile management. (79.56%), responding to customer requirements (79.14%), reducing costs (75.68%), maximizing competitiveness and profitability (74.59%), Improve service (74.52%), and the results showed a statistically significant difference relationship between the dimensions of the creative environment and management in agile technical colleges in Gaza Strip. The researchers suggested a number of recommendations, the most important of which is the need to enhance the dimensions of the creative environment by working to improve the abilities of the faculties in fluency, flexibility, originality, sensitivity to problems and the importance of increasing attention to the dimensions of achieving the graceful management because of their role in the development of technical education departments and sustainability. Develop agile management mechanisms and applications in terms of reducing waste, reducing costs, improving service, responding to customer requirements, and maximizing competitiveness and profitability, commensurate with the capabilities of these colleges.
- Study of (Abu Naser et al., 2017) aimed to identify the technical education and its role in promoting entrepreneurship in Gaza Strip. The analytical descriptive method was used in the study. A questionnaire was composed of (41) items and distributed randomly by the technical colleges in Gaza Strip using stratified random sample of (275) employees from the mentioned colleges, and the response rate was (74.5%). The results showed a high degree of approval for the dimensions of technical education with a relative weight of 76.07%. The ranking and relative weights were as follows: Technical education institutions: 79.51%, graduates of technical education 75.75% Labor market and local community 72.96%. The results of the study showed that the technical colleges achieved a high level of promotion of entrepreneurship with a relative weight of 73.45%. Where the ranking and relative weights were as follows: competitive assault (76.65%), creative orientation (74.96%), preparedness (74.07%) and risk (68.39%). The results also confirmed a statistically significant relationship between the dimensions of technical education and the promotion of entrepreneurship in technical colleges in Gaza Strip. The results also confirmed a statistically significant impact of technical education on the promotion of entrepreneurship in the technical colleges in Gaza Strip. The researchers proposed a number of recommendations, the most important: the need to go to technical education because of its role in the promotion of entrepreneurship, the importance of linking technical education and promoting entrepreneurship to the Palestinian society in general and the Gaza Strip in particular, the need to pay attention to technical education in line with the National Strategic Plan for Higher Education by moving towards technical education, and the importance of urging decision-makers in technical colleges to promote interest in leadership and to put their own courses in all technical education programs in these colleges. The researchers urged further studies of the same variables as the current study of entrepreneurship and their application to other sectors.

- Study of (Abu Naser et al., 2017) aimed to identify the social networks and their role in achieving the effectiveness of electronic marketing for technical colleges in the Gaza Strip, which included variables of social networks and their role in electronic marketing, as well as the recognition of the existence of differences of statistical significance in the attitudes of respondents towards the variables of the study, and using a descriptive analytical approach in the study. A questionnaire of 50 items was randomly distributed among the technical colleges in Gaza Strip. The sample of the study was composed of (275) employees of these colleges. The response rate was 74.5%. The results showed a high degree of approval for the dimensions of social networks and a relative weight (74.15%). There is a high level of social networking areas (site management (74.91%), content of the site: (73.38%)). The technical colleges achieved a high level of use of electronic marketing, where the total relative weight (70.24%). There is a high level of e-marketing (Electronic advertising (71.75%), electronic promotion (74.75%), news groups (66.03%), and communication with the audience (student) (68.73%)). There is a statistically significant relationship between the organization's smart dimensions and sustainability in the technical colleges in Gaza Strip. The results also confirmed that there is a statistically significant impact of social networks in e-marketing in the technical colleges in Gaza Strip. The researchers proposed a number of recommendations, the most important of which are: Adopting dealing with the various social media sites as a reality on the Palestinian and Arab technical colleges, using them in accordance with the objectives of the technical colleges. The need to direct marketing through social networks and the exploitation of this network in marketing through them, the follow-up of the pages of the colleges and open the door of dialogue, communication, and respond to all inquiries. Technical colleges should put electronic marketing in their strategic marketing plan.
- Study of (El Talla et al., 2017) aimed at identify technical colleges as smart organizations and their relation to sustainability. The variables of smart organizations included: "Strategic vision, culture of merit and excellence, incentive system" and its relation to sustainability, which included three main dimensions (innovation, processes, and environmental aspects of the community). The questionnaire was composed of (39) items, which were randomly distributed to the technical colleges in the Gaza Strip. The sample of the study consisted of 289 employees from the mentioned colleges. The response rate was (79.2%). The results showed a high degree of approval for the dimensions of the smart organization and relative weight (71.42%) according to the perspective of the employees of the technical colleges in the Gaza Strip. Where the field (culture of merit and skill) ranked first and with relative weight (73.76%), followed by strategic vision and relative weight (72.62%), and finally came the area (incentive program) in the third and last place and a relative weight (67.91%). The results of the study showed that the technical colleges achieved a level high in sustainability in its operations with total relative weight (73.33%). Where the field (environmental aspects of society) came first and with relative weight (73.97%), followed by innovation and relative weight (73.10%), and finally came the field (operations) ranked third and last and relative weight (72.92%). The results confirmed a statistically significant relationship between the organization's smart dimensions and sustainability in the technical colleges in the Gaza Strip. The researchers propose a number of recommendations, the most important of which are: to enhance the dimensions of the smart organization in the technical colleges by improving the incentive program, developing the strategic vision and then supporting the culture of merit and skill. And increasing attention to the dimensions of achieving sustainability because of their role in the development and sustainability of technical education through the promotion and improvement of operations in technical colleges. He urged senior management and decision-makers to work in technical colleges to create, innovate and reward and support their creators.
- Study of (Abu Naser et al., 2017) which was aimed at identifying the technical education and its role in promoting entrepreneurship in Gaza Strip. The analytical descriptive method was used in the study. A questionnaire of 41 items was randomly distributed to the technical colleges in the Gaza Strip. Using a random sample of (275) employees from the mentioned colleges, the response rate was (74.5%). The results of the study showed that the technical colleges achieved a high level of promotion of entrepreneurship with a relative weight of 73.45%. Where the ranking and relative weight were as follows: competitive assault (76.65%), creative orientation (74.96%), preparedness (74.07%) and risk (68.39%). The results also confirmed a statistically significant impact of technical education in promoting entrepreneurship in technical colleges in Gaza Strip. The researchers suggested a number of recommendations, the most important: the need to go to technical education because of its role in promoting entrepreneurship. The importance of linking technical education and promoting entrepreneurship to the Palestinian society in general and the Gaza Strip in particular.
- Study of (Sweidat and Sheikh, 2017) which aims to identify the impact of creative thinking on its various dimensions (fluency, flexibility, originality, expansion and sensitivity to problems), on the effectiveness of the decision making process in the insurance companies operating in Jordan. (24) Insurance companies have been

contacted of (28) of the study society, and distributed (270) questionnaire on the employees of these companies from the level of senior and middle management and retrieved (218) valid questionnaire for statistical analysis. The study found that there is a high level of statistical significance at the level of ( $\alpha \leq 0.05$ ) for the availability of creative thinking in its five dimensions in the insurance companies operating in Jordan. It also found a high level of statistical significance at the level of significance ( $\alpha \leq 0.05$ ) for the efficiency of administrative decision- Insurance companies operating in Jordan. In light of these results, the study reached a number of recommendations, including the continued development of creative thinking skills for managers, to inform them of the latest technologies in these areas, as well as to involve different levels of management in the decision-making process and to inform the staff of the developments; Reduces the degree of opposition to them and the speed of acceptance and application directly without any future obstacles.

- Study of (Mustafa, 2016) the objective of this study was to determine the effect of the organizational climate on administrative creativity in the clinic of light, in light of some variables which are the dimensions of the organizational climate (organizational structure, incentive system, leadership style, employee participation). The independent variable on the dependent variable through the field study. The study population consisted of the clinic staff. The researcher used the questionnaire. The researcher also relied on the analysis of the data in the questionnaires on the SPSS program. The study found that there are high trends towards the dimensions of the organizational climate prevailing in the clinic of light from the point of view of its employees and there is a positive trend towards administrative innovation in the clinic of light from the point of view of workers.
- Study of (Nasir and Al-Azzawi, 2011) aimed to identify the effect of administrative innovation in Jordanian commercial banks on improving the performance of human resources. The study has reached several results, the most important of which are: The banks honor the creative employees periodically and continuously, and this is evidence of the interest of banks to motivate creative employees to work; bank managers provide rewarding rewards to qualified employees, and also the promotion of employees is linked to their level of performance; and bankers are highly creative, although encouraging innovation is limited.

#### **Comment on previous studies**

The subject of the creative environment was of great interest to the researchers, but in light of the changes and changes in all fields and the general orientation set by the Ministry of Higher Education in the direction of technical education, the study sought to study the reality of applying the principles of the creative environment in the technical colleges in Palestinian Palestine.

**In terms of the objective of the study:** The research trends of previous studies, such as Sweidat and Sheikh (2017), aimed at identifying the impact of creative thinking on its different dimensions (fluency, flexibility, originality, amplification and sensitivity to problems) and the study of (Mustafa, 2016) aimed at knowing the effect of organizational climate on administrative creativity in the clinic of light, in light of some variables, which are the dimensions of the organizational climate (organizational structure, incentive system, leadership style, participation of employees), and study (Nasir and Al-Azzawi, 2011) aimed at identifying the impact of creativity Management in Jordanian commercial banks to improve the performance of human resources level.

In addition, most of the studies focused on the viewpoint of senior and middle management, economic institutions and health institutions, as well as human resource managers. The current study covered all dimensions of the creative environment: fluency, flexibility, originality and sensitivity to problems.

**In terms of the variables of the study:** Most studies focused on the following variables: (fluency, flexibility, originality, upheaval, and sensitivity to problems).

The current study dealt with all dimensions of the creative environment: (fluency, flexibility, originality, sensitivity to problems). The current study also differed from previous Arab and foreign studies in terms of the sectors studied the analysis, the time period and the nature of the sample.

#### **4. THE THEORETICAL FRAMEWORK OF THE STUDY**

##### **Creative environment**

Creativity is the result of interactions between the individual and the environment. The creative environment is the environment which is characterized by sufficient freedom, security and stability to be an incentive for the production of creative works. The acceptance of society for the individual and the absence of criticism are prerequisites for encouraging creativity. Thus, it is clear that the development of creativity among school students requires an encouraging school environment and requires the provision of elements of an effective educational environment, which is a creative teacher, content, activities, training, teaching strategies and assessment methods that work in a single framework aimed at stimulating the creative abilities of students Auoda, 2000). The creative environment or the creative climate in its broad meaning means the direct medium and the social, psychological, economic, cultural

and educational influences that stimulate creativity (Rocca, 1989). Creativity is the hallmark of entrepreneurship and the foundation for the success of entrepreneurial projects and their competitive advantage. Innovation and creativity are often blended as synonymous, although their mechanisms differ. Creativity is dealing with creative ideas, activities and experiences through excellence in product or service, while innovation is the process of finding and developing a new product or service (Salman and Al-Naciri, 2016).

#### **The cornerstones of the creative environment**

The literature differed in the enumeration of these elements. Torrance (1974) points out that creative thinking can be measured by multiple skills, including fluency, flexibility, originality, sensitivity to the problem and additionally (Guilford, 1970). Collectively, Davis (1996) and Mansi (2002) have a number of fundamental elements: fluency, development of interpretations, flexibility, assessment, visualization and imagination, focus, intuition towards problems, originality, and redundancy.

1. **Fluency:** The ability to generate the largest number of alternatives, convulsions, ideas, problems or uses when responding to a given stimulus, and the speed with which they are generated. It is essentially a process of remembering and recalling previously learned information or experiences. Fluency is divided into several types of fluency:
  - **Verbal fluency or fluency of words:** The intended ability to give the most number of correct words.
  - **Fluency of meanings or intellectual fluency:** the ability to give the greatest number of meanings and interpretations and the consequences of a change or the emergence of problems that can occur.
  - **Fluency of shapes and drawings:** the ability to quickly draw a number of visual examples and details or modifications in response to a situational or visual.
  - **Expressive Fluency:** The ability to quickly formulate ideas correctly and in useful terms.
2. **Flexibility:** The skill of flexibility reflects the ability of the individual to generate the largest number of ideas other than those expected or common in the individual or the environment in which he lives. Flexibility is the opposite of the mental inertia which means the adoption of predetermined mental patterns. Flexibility is divided into two parts:
  - **Automatic flexibility:** the ability of the individual to provide a number of different ideas that relate to a particular situation
  - **Adaptive flexibility:** the ability of the individual to change the mental interface through which the solution to a problem or to face any situation in the light of the feedback received in that situation.
3. **Originality:** It means novelty and uniqueness, which is the common denominator of most definitions that focus on creative products as a way to judge the level of creativity. The skill of originality is one of the most important abilities that contribute to the emergence of creative performance in individuals because creativity indicates that work is universal and new, and there is a creative agreement must have the originality and modernity, even with the use of old ideas in new relationships and new, and (Mansi, 2002) see the ability of the individual as to give the repercussions and strangeness.
4. **Sensitivity to problems:** An individual's ability to see, discover, and investigate problems or problems in objects, equipment, systems, and society. Creators are faster than others in the discovery of the problem and put in place for such observations and solutions.

#### **5. FIELD STUDY**

##### **First- Methodology of the study:**

This study is based on the analytical descriptive approach to describe the phenomenon to be studied as it exists. In fact, researchers in this approach are considering the study of tools, phenomena and practices existing and available for study and measurement as they are, without the intervention of the researchers in their course, and researchers can interact with them, describe and analyze them scientifically and objectively.

The study relies on two basic types of data:

1. **Initial Data:** The study was carried out in the field by distributing questionnaires to study the vocabulary of the study and to collect and compile the necessary information in the subject of the study, and then unloading and

analyzing it using the statistical program and using the appropriate statistical SPSS tests in order to arrive at indications of value and indicators that support the subject of the study.

Some interviews conducted by researchers with stakeholders to obtain some unedited data in writing and to clarify some views.

2. **Secondary data:** through the review of books, periodicals, special publications, scientific and professional journals related to the subject of the study, and any references contribute to enrich the study in a scientific way, and the researchers through the use of secondary sources in the study to identify the foundations and scientific methods sound in writing studies, A general overview of the latest developments that took place in the field of study.

**Second- Study Population:**

The study population consists of all the staff in the technical colleges in Gaza Strip (Palestine Technical College - Deir Al Balah, University College of Science and Technology, Gaza Community Training College, Al-Azhar College of Applied Studies, Al-Azhar, University College of Applied Sciences and Al - Aqsa Society College) of the (1168) employees of the technical colleges under studies as follows:

**Table 1:** illustrates the study population

The college	Number of employees	The ratio%
Palestine Technical College - Deir Al Balah	193	%16.52
University College of Science and Technology	204	%17.47
Gaza Community Training College	119	%10.19
The Faculty of Intermediate Studies- Al-Azhar	184	%15.75
University College of Applied Sciences	335	%28.68
Al - Aqsa Society College	133	%11.39
<b>Total</b>	<b>1168</b>	<b>%100</b>

**Source:** Prepared by researchers by reference to the statistical book and the annual statistical guide for Palestinian higher education institutions, Ministry of Education and Higher Education, (2016).

**Third- The study sample:**

1. A survey sample was used by the researchers to verify the validity and stability of these tools and the sample size reached 32 workers.
2. The sample of the study was random sample and consisted of (289) employees of the mentioned colleges. The response rate was 79.2%.

**Table 2:** shows the distribution of respondents of the sample of the study

Personal data	Category	The number	The ratio%
Age	Less Than 30 Years	36	%15.7
	30 And Under 40 Years	136	%59.3
	40 And Less Than 50 Years	37	%16.15
	50 Years And Above	20	%08.7
	<b>Total</b>	229	%100
The college	Palestine Technical College- Deir Al Balah	30	%13
	University College of Science and Technology	22	%10
	Gaza Community Training College	31	%13.5
	The Faculty of Intermediate Studies- Al-Azhar	48	%21
	University College of Applied Sciences	46	%20
	Al - Aqsa Society College	52	%22.5
	<b>Total</b>	229	%100

Table 2 shows that: (15.7%) of the sample had an average age of less than 30 years, and (59.3%) were aged 30-40 years and the highest category was (16.15%) of those aged 40-50 years. (08.7%) are aged 50 and over. This indicates that the technical colleges in Gaza Strip are new colleges and that they attract the youth group to work and that they support the young people.

As for the college variable, Al-Aqsa Community College came in first place with (22.5%) as it is a government college. Among the general orientations of the Ministry of Education is the orientation towards technical education. Therefore, there is keenness from the ministry to provide government colleges with their needs. The Faculty of



Intermediate Studies- Al-Azhar was ranked second (21%), the University College of Applied Sciences was ranked third with (20%). Followed by Gaza Training Society College (13.5%), followed by Palestine Technical College which received (13%), thus, the University College of Science and Technology ranked last with (10%).

**Fourthly- Study tool**

Since the nature of the hypotheses and the variables included in them are the ones that control the choice of the appropriate tool, accordingly, the researchers have prepared a measure for that study commensurate with its objectives and hypotheses. The process of designing and preparing the study scale has gone through several stages and steps:

1. See the literature of the creative environment, and previous studies related to the subject of the present study.
2. Collect and define scale paragraphs.
3. Formulation of the standard expressions according to the study sample.
4. Set the meter instructions.
5. How to correct the meter.
6. Conduct a study of stability and honesty of the scale.

**How to correct the Measure:**

The five-dimensional Likert scale was used to measure respondents' responses to the questionnaire sections according to the following table:

**Table 3:** The degrees of the five-dimensional Likert scale

Response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Class	1	2	3	4	5

**Validate the measure:** The researchers calculated the validity of the meter in the following ways:

1. **Virtual honesty:** The researchers verified the authenticity of the tool ostensibly by presenting it to a group of PhD holders in Business Administration (8). The apparent honesty indicates the general appearance of the test in terms of its relevance to the subjects, the relevance of the phrase to the field, and the clarity of the wording and instructions.
2. **Internal consistency:** The researchers calculated the validity of the internal consistency of the scale by finding the correlation coefficients between each field and the total score of the scale. The researchers conducted honesty and persistence on a sample of 32 employees by finding correlation coefficients for each paragraph in the field to which they belong. The following tables:

**Table 4:** Validity coefficients for each paragraph with the total score of its field in the creative environment scale

Paragraph number	Fluency		Flexibility			Authenticity			Sensation of problems		
	Honesty coefficient	Level of significance	Paragraph number	Honesty coefficient	Level of significance	Paragraph number	Honesty coefficient	Level of significance	Paragraph number	Honesty coefficient	Level of significance
1	0.542	0.01	1	0.760	0.01	1	0.855	0.01	1	0.851	0.01
2	0.794	0.01	2	0.786	0.01	2	0.867	0.01	2	0.828	0.01
3	0.773	0.01	3	0.890	0.01	3	0.815	0.01	3	0.837	0.01
4	0.649	0.01	4	0.782	0.01	4	0.877	0.01	4	0.822	0.01

**Stability of the scale:**

The concept of stability means the ability of the test to give the same grades or values to the same individual or individuals if the measurement process is repeated. To ensure the stability of the scale, the researchers used the following methods:

1. **The method of split-half:** by calculating the correlation coefficient between the individual questions and marital questions, and obtained the stability coefficients shown in the following table.

**Table 5:** Stability coefficient of the creative environment scale

No.	Field	Number Of Item	Correlation Coefficient Before Adjustment	Correlation Coefficient After Adjustment	Level Of Significance
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No.	Field	Number Of Item	Correlation Coefficient Before Adjustment	Correlation Coefficient After Adjustment	Level Of Significance
1.	Fluency	4	0.355	0.524	Sig. at 0.01
2.	Flexibility	4	0.708	0.829	Sig. at 0.01
3.	Authenticity	4	0.724	0.840	Sig. at 0.01
4.	Sensation of problems	4	0.691	0.817	Sig. at 0.01

From the previous table, it is clear that the stability coefficients in all half-split way were high, indicating that the questionnaire has a high degree of stability.

2. **Alpha Cronbach's coefficient of persistence:** The researchers performed alpha-cronbach's persistence coefficient between the terms of each field separately, as shown in the following table:

**Table 6:** shows the coefficients of the Alpha Cronbach for each dimension of the creative environment scale

No.	Field	Coefficient Of Alpha-Cronbach Stability
1.	Fluency	0.643
2.	Flexibility	0.817
3.	Authenticity	0.873
4.	Sensation of problems	0.850

The above table shows that all Alpha-Cronbach coefficients are high, indicating that the questionnaire has a high degree of stability. The overall correlation coefficient is (0.933), which is a high stability coefficient, indicates the strength and validity of the scale. The researchers observed that the results of Pearson correlation coefficients were consistent with the results of the Alpha-Cronbach persistence coefficient.

**Fifthly- Statistical Methods:**

The computer was used in the statistical processing, especially the statistical packages program (SPSS), where all the data obtained by the researchers and then the results were extracted through the scientific equations necessary for this and the most important used in this study:

1. Averages, frequencies, standard deviations and percentages.
2. Spearman Brown's correlation coefficient for the equal half - division, and the Cronbach alpha factor to determine the stability of the resolution.
3. Pearson correlation coefficient to measure the relationship between variables.
4. T test for differences between averages.
5. One way Anova test

**Test the study hypotheses**

To evaluate the study hypotheses and where the five-likert was used in the preparation of the study instrument, the study adopted the following table to judge the trend when using the pentagram.

**Table 7:** Scale of measurements used in this study

The Level Method	Very Low	Low	Medium	High	Very High
<b>SMA</b>	Less than (1.80)	From (1.80): (2.59)	From (2.60): (3.39)	From (3.40): (4.19)	Greater than (4.20)
<b>Relative weight%</b>	Less than 36.00%	From 36.00: 51.90%	From 52.00: 67.90%	From 68.00: 83.90%	Greater than 84.00%

This indicates that the averages of less than (1.80) indicate a very low degree in the elements of the field. The averages of (1.80: 2.59) indicate a low degree of availability of field elements, while averages ranging from (2.60:3.39) indicate that there is a medium degree in the elements of the field, and the averages ranging from (3.40:4.19) indicate that there is a large degree in the elements of the field. More than (4.20) indicate that there is a very large degree in the field elements, on the scale used in the study shown in the previous table.

**Testing the first hypothesis: There is a high level of creative environment in the technical colleges in Gaza Strip.**

To test this hypothesis, the researchers resorted to frequencies, averages, standard deviation, percentages, order and value of "T". The results were as shown in the following tables:

**Table 8:** Frequency, Mean, Standard Deviation, Percentages, Order and Value of "T" of Sample Responses in Fluency

No.	Item	Arithmetic Mean	Standard Deviation	"T" Value	Relative Weight%	Item Order	Morality P- Value
1.	The College offers new programs to meet the changing needs of the labor market	4.08	0.834	19.571	81.60%	1	0.000
2.	The College continuously promotes research and development efforts to develop its services	3.69	0.939	11.120	73.80%	4	0.000
3.	The college develops its programs based on studies of the labor market	3.83	0.888	14.217	76.60%	2	0.000
4.	Employees have the ability to deliver more than one idea in a short time	3.77	0.770	15.046	75.40%	3	0.000
<b>Total Domain</b>		3.8428	0.69092	18.459	76.86%		0.000

The tabular value of "T" is at a degree of freedom (228) and at the level of significance (0.05) = 1.65

The tabular value of "T" is at the degree of freedom (228) and at the level of significance (0.01) = 2.34

Table (8) shows that all the paragraphs of the fluency field have a value of calculated "T" greater than the tabular value of "T". Thus, there is a statistical significance of the relative weight of the fluency field. The paragraph (the college provides new programs to meet the needs of the changing labor market) ranked first with a relative weight of (81.60%), which shows the strong impact of this paragraph, while the second paragraph (the college continuously promotes research and development efforts to develop its services) ranked last with a relative weight (73.80%). The total score of the field obtained a relative weight and its value (76.86%) which is high, that is, there a high level of fluency in technical colleges.

The researchers attributed this result to the high degree of competitiveness in technical colleges as a result of the increase in the number of these colleges significantly in previous years, at a time when the number of enrollments in these colleges and the market is limited to compete with these growing numbers of technical colleges and branches. These colleges are thus creating a competitive advantage by introducing new programs to meet changing labor market needs.

This result is consistent with the study of Abu Obeid (2016), which confirmed that there is agreement on the positive impact of adopting new administrative methods and the successful implementation of the administration, as well as the study of Bn Warth and Jabah (2016). The study found that these institutions are represented in the senior management and are committed to providing all the necessary resources to implement this method.

**Table 9:** Frequency, Mean, Standard Deviation, Percentages, Order, and Value of "T" of Respondents' Responses to Flexibility

No.	Item	Arithmetic Mean	Standard Deviation	"T" Value	Relative Weight%	Item Order	P- Value Morality P- Value
1.	Employees have the skill to change existing work patterns	3.85	0.764	16.875	77.00%	1	0.000
2.	Workers change their view to solve a particular problem if necessary	3.77	0.745	15.636	75.40%	3	0.000
3.	Employees have the ability to make a deliberate change in their thinking to solve problems	3.79	0.822	14.556	75.80%	2	0.000
4.	Employees are keen to take	3.51	01.050	7.366	70.20%	4	0.000

	advantage of others' criticism of them					
<b>Total Domain</b>		3.7293	0.71048	15.533	74.59%	0.000

The tabular value of "T" is at a degree of freedom (228) and at the level of significance (0.05) = 1.65

The tabular value of "T" is at the degree of freedom (228) and at the level of significance (0.01) = 2.34

It is clear from Table (9), and through the test of the related samples, that all the areas of elasticity were calculated as "T", which is greater than the tabular "T" value. Thus, there is a statistical significance of the relative weight of the paragraphs of this field. Change the existing work patterns) to the first place with a relative weight of (77.00%), which shows the extent of the strong impact of this paragraph, While the fourth paragraph (employees are keen to benefit from criticism of others) in the last place with a relative weight (70.20%). The total score of the field obtained a relative weight and its value (74.59%) which is high, that is, there is a high level of flexibility in technical colleges.

The researchers attribute this finding to the difficult circumstances faced by the technical colleges in the Gaza Strip, rather than the great competitiveness. This led to the serious and deep thought of the management of these colleges to seek more flexibility in dealing with the rapidly changing circumstances through providing skills in changing existing work patterns, and training employees to make a deliberate change in their thinking to solve problems.

This result is consistent with the study of Bn Warth and Jabah (2016), which stressed that these institutions are represented by senior management and are committed to providing all the necessary resources for the application of this method. The training policy followed is consistent to some extent with the basic requirements; however, the prevailing culture in these institutions, especially the absence of a spirit of cooperation between management and workers, remains the major obstacle to the application of this administrative philosophy.

**Table 10:** Frequency, Mean, Standard Deviation, Percentages, Order and Value of "T" of Sample Responses in the Field of Authenticity

No.	Item	Arithmetic Mean	Standard Deviation	"T" Value	Relative Weight%	Item Order	P- Value Morality P- Value
1.	The work is done in a new and sophisticated manner	3.86	0.815	15.969	77.20%	1	0.000
2.	Opinions are expressed even if they are contrary to the heads of labor	3.51	1.050	7.302	70.20%	4	0.000
3.	Employees have the skill to convince their clients	3.81	0.778	15.657	76.20%	2	0.000
4.	New methods of action are being proposed for some consideration	3.71	0.872	12.276	74.20%	3	0.000
<b>Total Domain</b>		3.7205	0.71670	15.214	74.41%		0.000

The tabular value of "T" is at a degree of freedom (228) and at the level of significance (0.05) = 1.65

The tabular value of "T" is at the degree of freedom (228) and at the level of significance (0.01) = 2.34

Table (10) shows that all the items in the field of originality have a calculated "T" value greater than the tabular "T" value. Thus, there is a statistical significance of the relative weight of the paragraphs of this field (70.20%). The second paragraph (opinions are expressed even if they are contrary to the heads of labor) is ranked in the last position with a relative weight (70.20%). (74.41%), which is a high degree, ie there is a level of authenticity Benefit in technical colleges. The first paragraph (the work done in a new and developed manner) achieved the first place with a relative weight of (77.20%) which shows the extent of the strong influence of this paragraph, while the second paragraph (opinions are expressed even if they are contrary to the heads of work) in the last place with a relative weight (70.20%), the total score of the field obtained a relative weight and its value (74.41%). This is a high level, ie, there is a high level of authenticity in technical colleges.

The researchers attributed this result to the need for technical colleges to use new and modern methods of work, to cope with rapid changes, and competition is intense, so that the work is done in a new and evolving, which is enough skill to convince the target group to join these colleges.

This result is consistent with the study of Abu Obeid (2016), which confirmed that there is agreement on the positive impact of adopting new management methods and the successful implementation of management, and study (Mustafa, 2016), which found that there are high trends towards the dimensions of the organizational climate prevailing in the clinic of Diaa from the point of view of its employees.

This result differs with the study of Bn Warth and Jabah (2016), which reached the absence of a spirit of cooperation between management and workers, which remains the major obstacle to the application of this administrative philosophy.

**Table 11:** Frequency, Mean, Standard Deviation, Percentages, Order and Value of "T" of Responses of Sample Members in the Field of Sensation of Problems

No.	Item	Arithmetic Mean	Standard Deviation	"T" Value	Relative Weight%	Item Order	P- Value Morality P- Value
1.	Quick solutions are proposed to address business problems	3.90	0.824	16.527	78.00%	1	0.000
2.	New methods are applied to solve any problems facing the college	3.71	0.808	13.325	74.20%	2	0.000
3.	Workers can often anticipate work problems	3.69	0.906	11.529	73.80%	3	0.000
4.	Employees are keen to know the shortcomings and weaknesses in their work	3.68	0.925	11.046	73.60%	4	0.000
<b>Total Domain</b>		3.7445	0.72602	15.519	74.89%		0.000

The tabular value of "T" is at a degree of freedom (228) and at the level of significance (0.05) = 1.65

The tabular value of "T" is at the degree of freedom (228) and at the level of significance (0.01) = 2.34

Table (11) shows that in the T test, all the elements of the sense area were calculated as T, which is greater than the tabular T value. Thus, there is a statistical significance of the relative weight of the paragraphs of this field.

The first paragraph (quick solutions to address labor problems) was ranked first with a relative weight of (78.00%) which shows the extent of the strong impact of this paragraph, while the fourth paragraph (workers are keen to know the shortcomings and weaknesses in their work) ranked last relative weight (73.60%), the total score of the field obtained a relative weight and its value (74.89%) which is a high degree, that is, there is a high level of sense of problems in technical colleges.

The researchers attribute this finding to the difficult and difficult circumstances faced by technical colleges in the Gaza Strip. Technical colleges face many problems due to the weak economic situation of the Palestinian society in the Gaza Strip. To cope with the problems of work and that technical colleges apply new methods to work to solve any problem.

This result is consistent with Abu Obeid (2016), which emphasizes the need to assess and determine the strengths and weaknesses of these factors in order to develop them. The impact of this development should be assessed by reviewing performance indicators.

**Table 12:** Frequency, Mean, Standard Deviation, Percentage, Order, and Value of "T" of Responses of Sample Members in All Areas and Degree of College of Scale

No.	Item	Arithmetic Mean	Standard Deviation	"T" Value	Relative Weight%	Item Order	P- Value Morality P- Value
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1.	Fluency	3.8428	0.69092	18.459	76.86%	1	0.000
2.	Flexibility	3.7293	0.71048	15.533	74.59%	3	0.000
3.	Authenticity	3.7205	0.71670	15.214	74.41%	4	0.000
4.	Sensation of problems	3.7445	0.72602	15.519	74.89%	2	0.000
<b>Total degree of creative environment</b>		3.7593	0.61110	18.802	75.19%		0.000

The tabular value of "T" is at a degree of freedom (228) and at the level of significance (0.05) = 1.65

The tabular value of "T" is at the degree of freedom (228) and at the level of significance (0.01) = 2.34

It is clear from Table (12), the "T" test for the related samples showed that all fields with calculated "T" values is greater than the tabular "T" value. Thus, there is a statistical significance of the relative weight of these fields. The first field (fluency) ranked first with a relative weight (76.86%), while the area of "sense of problems" ranked second with relative weight (74.89%), followed by (elasticity) in third place with relative weight (74.59%), then the field (authenticity) in fourth and last place with relative weight (74.41%). The overall degree of creative environment has a relative weight and value (75.19%) which is a high degree, that is, there is a high level of creative environment in the technical colleges under study, and this indicates the validity of the first hypothesis.

**The second hypothesis test: There were statistically significant differences ( $\alpha \leq 0.05$ ) in the dimensions of the creative environment in the technical colleges in the Gaza Strip according to the college variable.**

**To test this hypothesis, the analysis of mono-variance was used as in the following table:**

**Table 13:** Analysis of the single variance One Way Anova to find differences in the dimensions of the creative environment depending on the macro change

		Sum of Squares	Df	Mean Square	F	Sig.
<b>Fluency</b>	Between Groups	28.803	5	5.761	16.050	.000
	Within Groups	80.037	223	.359		
	<b>Total</b>	108.841	228			
<b>Flexibility</b>	Between Groups	5.209	5	1.042	2.114	.065
	Within Groups	109.880	223	.493		
	<b>Total</b>	115.089	228			
<b>Authenticity</b>	Between Groups	9.271	5	1.854	3.834	.002
	Within Groups	107.842	223	.484		
	<b>Total</b>	117.114	228			
<b>Sensation of problems</b>	Between Groups	5.968	5	1.194	2.330	.043
	Within Groups	114.213	223	.512		
	<b>Total</b>	120.181	228			
<b>Total degree of creative environment</b>	Between Groups	9.756	5	1.951	5.771	.000
	Within Groups	75.389	223	.338		
	<b>Total</b>	85.144	228			

The following table shows the existence of statistically significant differences according to the college variable in the dimensions of the creative environment in all dimensions and the overall degree except after the elasticity. This confirms the validity of the hypothesis in general, and to know the direction of the differences, the post-Schiff test was used as follows:

**Table 14:** The results of the Scheffe Test for the direction of differences and their significance after the fluency due to the macro variable

College	CIS=3.7812	UCAS=4.4021	CCA=3.3269	PTC=3.9500	GTC=3.8790
<b>CIS=3.7812</b>	-				
<b>UCAS=4.4021</b>	0.620924*	-			
<b>CCA=3.3269</b>	-0.454327*	-1.075251*	-		
<b>PTC=3.9500</b>	0.168750	-0.452174	0.623077*	-	

College	CIS=3.7812	UCAS=4.4021	CCA=3.3269	PTC=3.9500	GTC=3.8790
<b>GTC=3.8790</b>	0.097782	-0.523142*	0.552109*	-0.070968	-
<b>CST=3.8295</b>	0.048295	-0.572628*	0.502622	-0.120455	-0.049487

\* Sig. at level of significance (0.05)

From the previous table, there are differences in the field of fluency between the University College of Applied Sciences (UCAS), the CIS, the CCA, the GTC and the UCAS. The results showed that there were differences between CIS and CCA for CIS and differences between PTC and CCA in favor of PTC, GTC and CCA differences were also found in favor of GTC.

**Table 15:** Results of the Scheffe Test for the direction of differences and their significance after the originality due to the macro variable

College	CIS=3.7395	UCAS=3.9239	CCA=3.4711	PTC=3.9833	GTC=3.7661
<b>CIS=3.7395</b>	-				
<b>UCAS=3.9239</b>	0.184330	-			
<b>CCA=3.4711</b>	-0.268429	-0.452759	-		
<b>PTC=3.9833</b>	0.243750	0.059420	0.512179	-	
<b>GTC=3.7661</b>	0.026546	0.026546	0.294975	-0.217204	-
<b>CST=3.4204</b>	-0.319129	-0.503458	-0.050699	-0.562879*	-0.345674

\* Sig. at level of significance (0.05)

From the above table, there are differences in originality between the Palestine Technical College (PTC) and the University College of Science and Technology (CST) for PTC. The results also showed no differences between the other faculties in the field of authenticity.

**Table 16:** Scheffe Test results for the direction of differences and their significance in the sense of problems due to the macro variable

College	CIS=3.6614	UCAS=3.9836	CCA=3.5769	PTC=3.9000	GTC=3.7822
<b>CIS=3.6614</b>	-				
<b>UCAS=3.9836</b>	0.322237	-			
<b>CCA=3.5769</b>	-0.084535	-0.406773*	-		
<b>PTC=3.9000</b>	0.238542	-0.083696	0.323077	-	
<b>GTC=3.7822</b>	0.120800	-0.201438	0.205335	-0.117742	-
<b>CST=3.5568</b>	-0.104640	-0.426877	-0.020105	-0.343182	-0.225440

\* Sig. at level of significance (0.05)

From the previous table, there are differences in the sense of problems between the UCAS and the CCA for UCAS. The results showed no differences between the other faculties in the sense of problems.

**Table 17:** The results of the Scheffe Test for the direction of differences and their significance in the total degree of the creative environment due to the macro variable

College	CIS=3.7083	UCAS=4.0665	CCA=3.4855	PTC=3.9083	GTC=3.8165
<b>CIS=3.7083</b>	-				
<b>UCAS=4.0665</b>	0.358243	-			
<b>CCA=3.4855</b>	-0.222756	-0.580999*	-		
<b>PTC=3.9083</b>	0.200000	-0.158243	0.422756	-	
<b>GTC=3.8165</b>	0.108199	-0.250044	0.330955	-0.091801	-
<b>CST=3.5909</b>	-0.117424	-0.475667	0.105332	-0.317424	-0.225623

\* Sig. at level of significance (0.05)

From the above table, there are differences in the total degree of creative environment between the University College of Applied Sciences (UCAS) and the College of the Far Society (CCA) in favor of UCAS. The results also showed no differences between the other faculties in the total degree of the creative environment.

**The third hypothesis test: There are statistically significant differences ( $\alpha \leq 0.05$ ) in the dimensions of the creative environment in the technical colleges in the Gaza Strip according to the age variable.**

**To test this hypothesis, the analysis of mono-variance was used as in the following table:**

**Table 18:** Analysis of the single variation One Way Anova to find differences in the dimensions of the creative environment depending on the variable age

		Sum of Squares	Df	Mean Square	F	Sig.
<b>Fluency</b>	Between Groups	2.453	3	.818	1.729	.162
	Within Groups	106.388	225	.473		
	<b>Total</b>	108.841	228			
<b>Flexibility</b>	Between Groups	1.352	3	.451	.891	.446
	Within Groups	113.737	225	.505		
	<b>Total</b>	115.089	228			
<b>Authenticity</b>	Between Groups	3.173	3	1.058	2.089	.103
	Within Groups	113.941	225	.506		
	<b>Total</b>	117.114	228			
<b>Sensation of problems</b>	Between Groups	4.725	3	1.575	3.070	.029
	Within Groups	115.455	225	.513		
	<b>Total</b>	120.181	228			
<b>Total degree of creative environment</b>	Between Groups	2.559	3	.853	2.324	.076
	Within Groups	82.585	225	.367		
	<b>Total</b>	85.144	228			

In the previous table, there are no statistically significant differences according to the age variable in the dimensions of the creative environment in all dimensions and the overall degree, except after feeling the problems. This confirms that the hypothesis is not correct in general, and to know the direction of differences in the sense of problems, the Schiffe test is used as follows:

**Table 19:** The results of the Scheffe Test for the direction of differences and their significance in the sense of problems due to the macro variable

Age	Less than 30=3.9097	30-40=3.7132	40-50=3.89864	More than 50=3.3750
Less than 30=3.9097	-			
30-40=3.7132	-0.196487	-		
40-50=3.89864	-0.011074	0.185413	-	
More than 50=3.3750	-0.534722*	-0.338235	-0.523649*	-

\* Sig. at level of significance (0.05)

In the previous table, there were differences in the age group (aged > 50) and age groups (<30 years) and (40-50 years) for the last two groups. The results did not show differences between the other groups.

## 6. CONCLUSIONS

1. The results confirmed the existence of a high degree of approval for the dimensions of the creative environment with a relative weight of (75.19%) according to the perspective of the employees of the technical colleges in Gaza Strip.



2. The results of the study showed a high level of creative environment (fluency, flexibility, originality, sensitivity to problems) in the technical colleges in Gaza Strip, where the field (fluency) ranked first and relative weight (76.86%), in the second place came the area (sense of problems) and relative weight (74.89%). The field of elasticity came in third place with a relative weight of (74.59%). Finally, the field of originality came in fourth and final rank with a relative weight of (74.41%).
3. The results showed that there are differences between the technical colleges in the principles of the creative environment in all fields and the overall degree except for the field of flexibility. The most available colleges in these principles were the university college of applied sciences, and that was the least of the Faculty of Al-Aqsa Society
4. The results showed that there were differences according to the age variable in the areas of creative environment only in the sense of problems for age groups (less than 30 years) and (from 40 to 50 years).

## **7. RECOMMENDATIONS**

According to the contents of the study, and in light of what is based on the results of the findings recommend the following:

1. The need to enhance the dimensions of the creative environment in technical colleges by working to improve the faculties of fluency, flexibility, originality and sensitivity to problems.
2. The need to work on continuity and improve aspects of the creative environment of the colleges and the creation of new and innovative ways to support and develop and support these aspects combined.
3. Necessity of technical colleges to continue to develop the creative environment (fluency, flexibility, originality, sensitivity to problems) for employees by engaging them in specialized training courses for creative thinking and problem solving.
4. Developing work procedures with new innovative methods that will accomplish the various tasks quickly and accurately, and provide the effort, time and costs.
5. The researchers urged more future studies that address the same variables of the current study in the field of creative environment and applied to other sectors.

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