A Review of the Experts' Views/Opinions about Creativity and Strategies for Its Elevation in Teachers and Principals

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ABSTRACT: In this review, a number of experts' ideas about creativity and strategies to enhance the creativity of teachers has been investigated to come a fairly comprehensive conclusion. Managers and their management styles have a significant impact on the creativity of students and teachers. In the other word, creative people should have creative leaders. Creativity of a principal is considered as necessity for the creativity of staff and students. Nowadays, it has been proved that if knowledge is power, so the empowering people in the organization means sharing knowledge with them. The manager who gives, knowledge, information, and new ideas to his staff and students, forces their minds/make them to explore and provides the ground for their creativity. Principals' expectations, beliefs and management styles not only can affect their behavior, but also their students and teachers' behavior and creativity as well. Manager who is supportive and tries to support thoughts and actions of people and prepares ground for them, undoubtedly affects the creativity of students and teachers. Nowadays, education experts consider creativity as one of the most prominent features of principals and believe that creative principals can provide the context for the emergence of talent in students and teachers. Creativity is included among issues about which i.e., its nature and definition, there is not any strong agreement between researchers and psychologists. Since, everyone has considered creativity from different dimension, variant definitions of creativity have been offered. While some definitions consider the personality characteristics of creative people, the others are attentive to process or product of creativity. So, obtaining comprehensive definition of creativity seems to be difficult. The overall result of the study showed that educational principals should give priority to educational leadership duties over administrative duties and main responsibility of a school principal is to create an environment that flourishes teachers' talents and fosters their creativity, so that they can be creativity trainers to train the creative trainers.

Key words: Teachers Creativity, Elevation, Principals, Education, Manager

REVIEW ARTICLE

INTRODUCTION

Growth and expansion of education system is a characteristic of our age's communities. especially in recent decades, it has become an important issue in developing countries .The consequence of this growth is changing educational system into a huge and comprehensive organization that deals with a large number of students, performs numerous and varied tasks, employs great number of teachers and staff with diverse knowledge and skills, consumes enormous financial and material resources, and on the whole brings extensive results and consequences. Such organization's workflow, undoubtedly, depends on smart goal setting and planning and deliberate organizing. And the result of its sensitive, critical activities and services requires effective leadership and management (Alagheband, 2002). Manager needs to know that creativity and the innovation does not often happen suddenly and without any record. On the contrary, often a gradual adjusting change in the direction of activities, product and processes or tools produces and ultimately leads to the initiation of creativity and innovation. However, sometimes in the course of inquiry and research in a field, human

coincidentally finds innovations that had no previous program for it. In this connection, management of creativity and innovation can direct and accelerate modification and improvement of the situation and can lead to the creativity and innovation. Mr. Ohinno (Director of Toyota Automobile Company) quotes, there are new creative ideas everywhere,

But those are good managers who are like a professional fisherman as well and know how to catch the new ideas. The main issue is how to create favorable conditions for the crystallization of thought and directing it toward the needs and take advantage of it. With this definition, the principal in addition to the usual tasks including goal setting, planning, organizing, controlling and monitoring, has an important task which is to create and foster an environment conducive to the emergence of creative ideas. It can be said that, the last duty has the pivot role among the other outlined tasks (Sam Khanian, 2002).

Since the development of teachers is achieved through measures that courage them to exercise their inherent powers and forces. This

exercise of power is manifested by stating problems, providing relevant solutions, sharing in decisions, and taking responsibility of the decisions. The school principal shall take certain measurements to make such an appropriate organization. Director of the Institute will strive to create an environment where innovation is a value and the difference between ideas is considered as a fortune. The manager should create a situation in which every member of the group feels that he is valuable and honored due to his offering services. Principals of schools shall establish such relationships that people listen to opinions and beliefs of everybody and respect each other's emotions. A principal should prepare an understanding to leadership and management be achieved and the result of individual members' services should be known in the way of determination and implementation of systems' goals.

Theoretical definitions of the terms:

Creativity: Torrance (1979) considers creativity as a process which includes sensitivity to problems, deficiencies, limitations and inconsistencies; the sensitivity rises after diagnosing a problem or problems and it is followed by seeking solutions, planning hypotheses to solve the problem starts afterward, next hypotheses are tested and adjusted, and the final results are obtained.

Educational Management: Educational management is a social process utilizes the scientific, technical and artistic skills, organizes all human and material sources and provides the ground for motivation and nurturing by satisfying reasonable individual and group needs of teachers, students, and staff to reach training and education goals in a parsimonious way (Mir Kamali, 2003).

Education department: general pattern of formal institutions, organizations and departments by which the transfer of cultural heritage, education of science and technology, and personal and social developments are possible (Alagehband, 1994).

In the paper, we're trying to study comments of a few experts in the related issues and reach a fairly comprehensive conclusion (Table 1).

If we extract theoretical foundations, key points, common grounds of the creativity definitions and compare them, we will reach a few obvious features of creativity. Here some of these features are listed.

1. Creativity is a mental process.

2. The Product of creativity can emerge in the shape of a work, an idea, a solution, an object, or anything else.

3. The product of creativity not only should be novel, but also valuable as well.

4. It is possible to foster the creativity and creativity is in correlation with social environment and culture (Soleimani, 2002).

The process of creativity has several stages, and many theories have been proposed by experts in these stages, here, we refer to some of them.

Wallace (2003) point of View about creativity:

A. Preparation: An artist or a scientist should be familiar with different dimensions of his job before creating a work. He should be proficient in rudiments and generally be prepared in the different aspects of the job. Also in this stage, he should clarify the issue and analyze it based on the previous studies and their experiences.

B. Incubation: In the stage, person does not seem to do anything and among the several solutions that comes to his mind, he cannot choose an appropriate solution. Also in this phase, he also does not do any effort to get the results, but the problem has not been completely abandoned and the mind unconsciously will follow it.

C. Illumination: This stage of creativity has prime importance due to the formation of the thought in that. Most of the experts believe that the illumination occurs abruptly and all obstacles are gone away.

D. Verification: In verification stage, person tests the obtained solution, reexamines it and investigates the testimonies once more and studies it from logical view. Also, in order to make his work perfect he can use others experiences.

Creativity from Osborn's point of view (1966):

A. Fact finding: It means to know what we want to do and what we are looking for, what the issue or problem is? In this stage, person gathers data, analyzes them and consequently, gains new experiences. This stage involves problem defining and preparation.

B. Idea finding: in this stage, multiple new ideas are represented and making association plays essential role. Imagination and memory connection makes possible leading one idea to another idea. For generating of new ideas, the barriers that keep mind closed should be set aside and useful idea generating factors effectively should be strengthened.

C. Solution finding: This stage involves the evaluation of previously generated ideas and finally selection of the final solution. Because most of the time, final solution is achieved by a combination of several ideas. It should be mentioned that the creative process from the perspective of Osborn is same as John Dewey's process of problem solving with the difference that here creativity's spark role in problem solving is more important.

Table 1 - Experts' views about creativity

Quoting source	Quoted	Quotation
(Soleymani, 2001)	(Eysenck,1979), (Mansour,1993)	Creativity is a mental process that leads to problem solving, concept formation, conceptualization, and creation of artistic forms, theories and products that are novel and unique.
	Weber's cultural psychology	Creativity is a capacity to notice new relationships, creating unusual ideas and getting away from traditional patterns of thinking.
	Torrance (1979)	Creativity is a process which includes sensitivity to problems, deficiencies, limitations and inconsistencies; the sensitivity rises after diagnosing a problem or problems and it is followed by seeking solutions and planning hypotheses to solve the problem starts afterward, next hypotheses are tested and adjusted, and the final results are obtained.
	Cultural psychology Sillamy; Khanzadeh (1979)	Creativity is desire and greed to create which all people in all ages potentially possess it. Creativity has a direct and close continuity with the social and cultural environment. An appropriate environment is necessary to fulfill the natural tendency to self-actualization.
	Weisberg (1992)	Creativity means to bring new and valuable achievements on the kind of thinking that all men, more or less have.
	Vernon (1989)	Creativity is a person's ability to create innovative ideas, theories, views or new objects and reconstruction in science and other fields, and as a phenomenon in terms of innovative and science, aesthetics, technology and social is known a value by the experts.
(Ghasemzadeh, 2002)	(Anderson, 1964)	1. Creativity is digging deeper. 2. Creativity is looking twice. 3. Creativity is crossing out mistakes. 4. Creativity is talking and listening to a cat. 5. Creativity is getting in deep water. 6. Creativity is getting out from behind locked doors. 7. Creativity is plugging in the sun. 8. Creativity is wanting to know. 9. Creativity is being happy. 10. Creativity is building sand castles. 11. Creativity is singing in your own way. 12. Creativity is shaking hands with the future.
Definition of creativity with respect to "Process of creative thinking"		
Kaiser (1968) Rezaeian (2005)	Herbert fox	"The Creative process is any thinking process which solves a problem in an original and useful way."
	George J. Seidel	"The ability to relate and connect the threads is a part of discussion about the creative use of the mind, of course, no matter in what field or background."
	Erich Fromm	"Creativity, is ability to see (know) and answer."
	Maslow	"I learned from a businessman that holding a business organization can be a creative activity; I learned from a young athletes that effective attack (in the game) can be beautiful same as producing a product or saying a poem and it should be dealt with a creative spirit."
	Kaiser (1968)	"Creativity is utilizing mental powers to create a new concept or idea."
	Mednick (1962)	"The formation of associated elements into new combinations which either meet specified requirements or are in some way useful"
(Mirkamali, Khorshidi, 2009)	Taylor (1989)	Creativity is shaping experiences in a new order.
	Steen (1974)	He perceived the creativity as a process that its result is a new work which is accepted as a useful thing and an accomplishment by a group at one time.
	Ausubel (1999)	Knows creativity as one of the most enigmatic and confusing terms in psychology and education.
	Mayer (1989) Weisbery (1993)	Creativity is a problem-solving ability that person has not previously learnt.
(Pirkhaefi, 2005)	Morgan (1953)	Released 25 definitions for creativity and expressed that a consensus of these definitions represents the fact that creativity involves creating something "unique".
	Baron (1969)	Emphasizes the novel element and says, since people are not able to make something out of nothing, human creativity always requires deformation of a specific materials.
	Guli ford (1959)	Defines creativity as a new idea which has 3 divergent and 1 convergent components.
	Stranborg (1990)	Creativity is the symbol of new and different thinking.
	Amabili (1987)	Amabili believes that in the process of creativity, motivation is essential and on this basis, he states the creativity's intrinsic motivation principle and believes that intrinsic motivation causes creativity.

Creativity from the perspective of Fildman (1987):

A: Preparation stage: In this stage, the person feels there is a problem and tries to understand it. Usually if the problem is simple, the stage overs fast, but difficult problems take a lot of time. In this stage, the person thinks about possible solutions and also considers their limits and outcomes.

B. Production stage: At this stage, the mind tries to find and develop possible and available solutions.

The person uses his all memory and experiences in order to predict the solution. It is necessary to state that the more creative mind, creates the more novel solutions.

C. Arbitration stage: In this stage, the proposed solutions are explored and compared. One puts them together and compares and selects the more reasonable solutions.

Creativity in view of Stein (1974):

A. Making assumptions: This stage is accomplished based on the individual's goals which are parallel with creativity. Stein believes for better hypothesis making, creative people need better work conditions. In the creative process, especially in this period tranquility is important. During this period, it seems that people leave work, but they still continue working on their subconscious level.

B. Testing hypotheses: At this stage, hypothesis or opinion is evaluated based on whether the hypothesis or belief will lead to creative results. Or not. During this stage a private experience becomes a public experience and what may have been within a creative person, now he looks it from outside.

C: Transfer results: In the creative process personal transition is not enough and what is obtained (creative product) should be transferred to others.

Creativity from the perspective of Amabile (1983 and 1993):

A: Presenting problem or work
B. Readiness
C. Solution making
D. Proof solution

Graph 2 - the creative process (Hosseini, 1997)
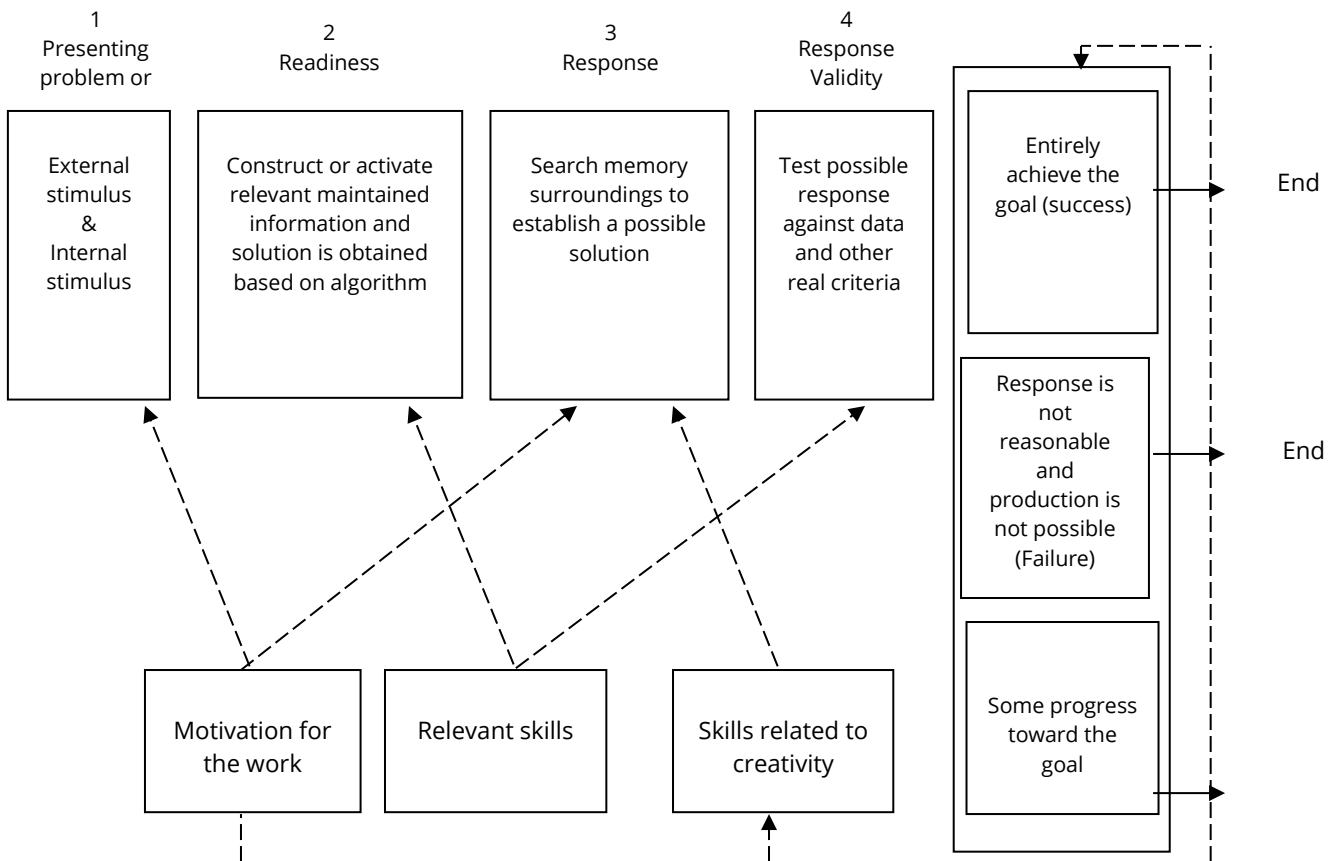
Creativity Elements:

Creativity involves the cognitive, motivation and personality components.

Cognitive components of creativity

1. **Intelligence**: Guilford believes that creativity is a divergent thinking. In his view, this thinking is one of the structural components of intelligence, or in the other words, creativity is assumed to be related to intelligence.

2. **Fluency**: Fluency refers to the flow of mind or thought and Torrance (1974) believes fluency is capable of producing multiple ideas and causes the individual to be able to produce many thoughts and ideas.

3. **Flexibility**: Flexibility means diversity of the mind. This ability is closely associated with the fluency. Flexibility makes the diversity of the produced thoughts and they won't be same and uniform.

4. **Originality:** It originally means unique thought. This type of thinking comes to mind exceptionally. The ability to innovative causes thought possesses novelty and uniqueness.

5. **Elaboration**: the meaning is paying attention into detail and intricacies. The elaboration of the thinking element must be balanced. If the elaboration is very high it prevents the initiative thoughts but it's an optimum and balanced function will refine the innovative thinking and make it relevant and true.

6. **Combination:** Combining is the ability to share experiences, phenomena, events, articles and the like that are unrelated to each other. Here, creative person relates new and old thoughts and creates new thoughts. The combining component is influenced by fluidity, flexibility and innovation and its hybrid with the diversity and innovation will lead to better results.

7. **Fantastic:** fantastic literally means something that does not fit with the facts and is fictional. But in terms of psychological science, imagination isn't such a simple term. Psychology differentiates between controlled and uncontrolled fantastic. In the creative thinking, we deal with he controlled imagination. In controlled fantastic thoughts are authorized by the person who forms it into various shapes.

Emotional and motivational components of creativity:

1. **Motivation**: Motivation is an internal factor that changes a person's attitude toward a subject or object. Many of human's daily activities require mental stimulations. The activity will be continued if such activities be efficient, i won't. The stimuli called motivation.

2. **Emotion**: it is a kind feeling and sympathy of people toward their favorite topics. The emotion includes a sense of affection or love. However, at times it changes into hate and dislike. Therefore, it is sometimes positive and otherwise negative. Characteristics of positive emotion is motive and constructive but negative emotion's features are slowdown in activity and sadness.

Personality components of creativity:

1. **Self-confidence**: self-confidence is an ability which is focusing and organizing a person's forces. In other words, self-confidence leads to more coherent self-knowledge. In this case, the person won't look to his abilities with skepticism, on the contrary he sees himself reasonably capable.

2. **Independent determination**: creative individuals often act independently in the field of thought and behavior. He sees himself as an intellect and decision-maker, He/she knows choosing as a right for himself and doesn't accept subordination and blind obedience.

3. **Risk acceptance**: Entering into many new situations and locations which usually are unknown and uncertain and asking sensitive questions associate with risk. That is why in general belief, creative person is called "stubborn". As a general principle, it can be stated that creative people are embracing a moderate risk.

4. **Experience accepting**: the role of experience in the creative evolution of the human personality is so important that many experts know the experience as a principal in creativity. A creative person sometimes has bizarre thoughts in the mind and imagination or experiences exciting behaviors and sometimes welcomes accidents and events. The experience of such situations can occur backgrounds to create innovative ideas.

5. **Embracing ambiguity**: Creative thinking is always towards the unknowns and tries to keep distance from what is known and unknown. He is always looking for strange things. This character takes the creative person to places and locations that the others have rarely experienced.

6. **Stamina**: This feature makes creative person think that he can fight and debate. In such situations creative person doesn't change by the others' simple descriptions. His or her mind starts to ask numerous questions and doesn't accept simplicity and formalities. In fact, the creative person experiences an intellectual and behavioral struggle. (PirKhaefi, 2005)

Creating and nurturing creativity factors:

There are several theories about the creativity factors and situations to facilitate creativity. Here, we can mention a few of the most important ideas

A. Creative atmosphere: creating an appropriate environment to facilitate creativity is an important way to innovate initiation. It means that administration should always be ready to listen new ideas of everybody in the organization. However, administration should look for new idea since, to wait merely for new ideas won't be enough.

B. Time for creativity: Deviant issues in work prevents most managers and staff from being creative. Dealing with immediate and fatal issues may take most of a daily work time. Often, there is little

time or no time for creative thinking. To solve this problem, it needs to take time away from all the worries and preoccupations just for thinking, reflection and inquiry on a problem to find creative solutions for it.

C. Establishing propositions system: One of the ways to encourage creativity is establishing a proposition system and making a way to receive suggestions. making suggestion boxes and placing them in every office, preparing suggestion forms and allocating prices or giving recommendation letters for constructive suggestions are effective ways to encourage creativity but isn't enough. Staff should be known that their suggestions are important and valuable for the management and they will use suggestions in proper ways.

D: Create a special unit of Creativity: Sometimes certain groups of employees are hired for innovation and creativity and in some organizations, this group is called research and development unit. These kinds of units spend their time finding new ideas to provide the service or product they make and sometimes research, their work is very useful and valuable (Rezaeian, 2005).

Factors and barriers that affect creativity:

The creation and development of creativity is involved various factors, in same way, there are several factors and barriers in the way of people to use their creativity. Recognizing these barriers and factors to remove or minimize them is very important.

Historical obstacles: Historically, there are examples such as the following ones which may cause the individual or society accept them as reasons not to do creativity and innovation, and convince themselves not to search new solutions for their own problems. In ancient Greece, Plato believed that "history is repeating" and civilizations come after other. It made many people believe that their attempts to make changes truly are worthless. And it is obvious that believing that such ideas could have destructive results.

B. Biological Obstacles: Some scientists from the biological aspect believe that creative talents are hereditary, while others consider environmental factors as the main factors. It is obvious that the genes are responsible and have the essential role in intelligence. However, about creative intelligence genetic factors and inheritance as a only reason is often a pretext and not a reality.

C. Psychological obstacles: Psychological Barriers may occur due to a physiological injury from different brain diseases and accidents or person may have a physical disability which hinders his creative work. Despite this facts, John Milton, the English poet, was blind and Beethoven was deaf.

D: Social obstacles: one of the issues in which creativity plays an important role, is social environment. Every society has certain customs and by means of a series of activities, interests and social behavior are distinguished from other communities. Views of the majority in the community affects its people's creativity. Insubordination usually, a member who act in contrary of the recognized patterns of the society will be chastised and rejected by the society. Therefore monopolistic behaviors such creative behavior if they want to make changes will be perceived as detrimental to the security and stability of others. Eventually, person to be accepted by the community will withdraw from his creative activity and this possesses damaging consequences.

E. Psychological obstacles: psychological barriers are the most important and common obstacles in the way of creative thinking. That its significance is far greater than the obstacles mentioned. Those obstacles that have been discussed till now so much all are the external factors that are often imposed on the individual from outside, and a number of them for those who are looking for an excuse for their lack of creativity are the good reasons. Some of people persuade themselves that the external factors have never let them show their creativity. it is a excuse that by itself is considered a psychological barrier.

External obstacles to creativity are:

1. Laws
2. Job
3. Customs
4. Fear of lack of interest
5. Match

Characteristics of creative and innovative people:

As mentioned in the definition of creativity, we can say that creativity is a mental ability that leads to the production of creative works and the most important characteristics of creative people is divergent thinking. Guilford in his *mind structure* theory says that the main aspect of a creative mind is divergence. He generally divides the way mind works into two categories consisted of divergent and convergent. In Guilford's theory, the convergent and divergent thinking in making the mental concept have major roles, but the main difference between them is that the convergent thinking is the result of a foregone thought and always has a "true" or "wrong" answer. But there is no definitive answer on divergent thinking and there are a large number of answers that logically it is possible for any one of them to be correct. As well, Guilford specified divergent thinking with three properties of plasticity or flexibility, originality and fluency (Stein, 1974) examined the characteristics of

creative people and come to the conclusion that creative people have following features:

1. High motivation for progression
2. Great curiosity
3. Great interest in tidiness at work
4. Assertiveness power and self-sufficiency
5. Unconventional personality, informal and prosperous
6. Perseverance and discipline in work
7. Independence
8. Critical thinking
9. High motivation and broad knowledge
10. The enthusiasm and sense of fullness
11. Beauty and artistic interests
12. Little interest in the social relationship and sensitive to social issues
13. Intuitive thinking
14. Power to influence other

In addition, in the studies of Asteitz (1965), Boron (1969) and Clark (1979) the following traits are stated as characteristics of creative people:

1. Possess high intellectual capacity.
2. Interest in scientific, artistic, cultural issues and have broad range of information in these fields.
3. About abstract issues, in comparison with concrete issues, think deeper and better.
4. Like to express their opinion on the issues and do not insist on imposing their beliefs.
5. Flexibility and expression of humor.
6. Interested in question and answer and being curious.
7. They are not conservative and take more risk.
8. Interests are many and varied and have an unconventional process of thinking.
9. Originality and innovation in thought and action are more.
10. Imaginative life and engage with their imaginative dreams.
11. Independence and not interested in following the way of others life.
12. Have great confidence in failures is less frustrated and disappointed.
13. Follow less if the norms, traditions and social values that are not acceptable to them and are more reliant on personal judgment.
14. In relation with others are evidence, direct and righteous.
15. Have attention to values and religious issues such as the meaning of life and these matters to them
16. Have more control on their instincts, their characters are more developed and have less psychological disorders.
17. Their memories are accurate and have attention to detail.

18. Have the ability to perform complex tasks (Seif, 2000).

Characteristics of creative and innovative organizations:

People are different due to creativity and fulfilling new ideas; in the same way, organizations are different in the terms of creativity, fulfillment of the suggestions of its members and consequently, in the production and supplement of products and services or in methods and applying new ways are different. Creative organizations have special characteristics which the main characteristics of these organizations are their flexibility in dealing with the crisis that is often caused by economic competition.

Creative organizations generally have the following characteristics:

A. Creative structure
B. Creative organizational culture
C. Creative environment
D. Creative personal
E. Creative group
F. Creative leadership

Appropriate management style:

One of the main differences between a creative and a non-creative organization, is their management styles. Creative Management is not in bracelet in common and traditional methods but chooses a management style that is suitable for creative and innovative organizations and contribute to an environment that has creative and innovative spirit. Relationships between managers and employees of such organizations are based on intimacy, understanding and cooperating with each other, and this leads to a feeling of security and peace of mind in people.

Some of the characteristics of creative organizations, include:

1. Perfect and intensive competition
2. Effective and thriving culture
3. Easy to access to the managers
4. Self-respect

5. Public services
6. The long-standing relationships with employees
7. Leaders do welcome to the change
8. Flexibility
9. Incentive and innovative structure
10. Job rotation and multiple expertise
11. Group Working (Sam Khanian, 2002).

Techniques and creative techniques:

Brainstorming: For the first time, this technique has been designed by Alex F. Osborne and in Webster International Dictionary is defined as "a group problem-solving technique that involves the

spontaneous contribution of ideas from all members of the group to devise or find a solution to a problem". Brain stimulation in a group meeting by selecting a topics to discuss and establishing specific rules, provides the best opportunity for those seeking ideas. Doctor Osborne four basic rules which has been noted for the technique include:

1. Criticism is prohibited.

2. More quantity is better.

3. Unusual ideas are welcomed. The more strange and audacious ideas leads to the better results

4. Combining and modification of idea are important.

Morneu mirror technique: in some cases, it is a creative solution to solve considerable disagreements within work or family or similar situations. By this method, the two sides watch their characters during role playing and will immediately find solutions which until then could not be seen.

Bionics: One of the techniques of creativity and innovation which widely and successfully used in technical innovations is technique of imitation or imitation of nature. In recent decades some innovations in the field of communication and control sciences such as artificial intelligence and computer programming have been carried out by the imitation and emulation of the human brain activities.

Technique «TKJ»: It is a group problem solving techniques and it was innovated by Kobayashi and Kawakita. The method is based on a set of facts that participants produce. These facts must meet three conditions:

1. They must be related to the problem.

2. They must be objectively verifiable.

3. They must be important.

Meanwhile TKJ can be summarized as follows:

1. Defining the problem: the field must be specified.

2. Problem solving: The proposed solutions should be collected to form a fully inclusive set.

The nominal group technique: In this technique, individuals are not allowed to communicate with each other verbally and literally and they should organize a real group and in the technique, the decision making process consists of five steps:

1. First step: in this step the members of the group gathers together and makes a circle around a table. The topic is given in writing to every member. Then in a quiet environment without talking or consulting, they express their opinions regarding to solving the problem technique.

2. Second step: In this step, each member of the group offers only an opinion and the argument will not start until all members have opportunity to express their opinion.

3. Step 3: The opinions are expressed and discussed in the group so that the implications be clearer and ready to evaluate in the fourth stage.

4. Step 4: In this stage, each member independently and secretly grades the ideas.

5. Step 5: The decision which earned the highest score is the group decision.

Delphi technique: In this technique, it has been tried to avoid any ceremonies and difficulties for who sit opposite each other. This technique involves the following steps:

1. Each member of the group independently and secretly is writing comments, opinions or decisions about the discussion topic.

2. Written comments may be sent to a central station.

3. Expressed opinions are sent to all members.

4. Each member would comment on the opinions of others and therefore is sent back to the central station.

5. The third and fourth steps are repeated until a consensus to be reached.

Forced association: an imposed and compulsory relationship between two or more things or thoughts, two things that normally have no connection with each other. With connecting the two idea that have no relation to each other, a new idea will be formed which provides a new concept for finding new ideas and developing creative thinking.

Lateral thinking: Creativity is to escape and avoid obstacles that shaped the human mind and made human accustomed to determined methods and procedures. The Lateral thinking technique is very useful to remove old thoughts and create a new mind. Because such a thinking encourage people to break down the barriers. And breaking barriers is lead to achieve new concepts and insights.

Speculative excursion: in 1961, a psychologist called Gordon released results of his ten-year study about creative people and meanwhile, he declared that human mind in the expression of creativity and innovation time is in a particular mental state. Indeed, creativity is developed, if such state can be established.

Morphological analysis: Morphological analysis is a technique based on which, the desired phenomenon is analyzed in terms of morphology, structure and different dimensions. For this purpose, different aspects of the phenomenon must be explained and developed. The technique was stated by Zwicky which in contrary to Gordon and Osborne

wants to investigate "the all possible solutions" of a problem.

Idea-spurring questions or Scamper acronym: Acronyms can be used as supplement in teaching brainstorming. One of the most popular acronym of this type is Bob Eberle which is known Scamper. SCAMPER is an acronym for seven verbs used in problem solving. It helps to remember those verbs during the run. This tool can be summarized as:

1. Who or what can be substituted?

2. What can it be combined?

3. Adapt, what else is like this?

4. Change, new turn, change of the meaning, color, motion, sound, and other changes.

5. Magnify, what can be added? More time, more reps, more valuable?

6. Put to other uses, new ways to use in the same way, other applications by modifying

7. Elimination, shrink, what to eliminate?

8. Rearrange, change the parts, other patterns, other drawings.

Synectics: This expression means connecting the factors that appear to be not similar. The technique uses similarities between issues and it calls the thing or thought by something else's name and during these replacements, creative thinking occurs and connects strange things and makes an innovative thought using the familiar thoughts (Haghighi et al, 2007).

In summary, based on studies and researches on creativity, for understanding and the development of creativity, the following points are important:

1. Creativity can be developed.

2. Creativity is an individual activity and evaluation of an individual's creativity is along with an evaluation of their individual abilities.

3. Creativity can be improved through sensitivity in understanding the Issues

4. Creativity improves through experimentation, exploration and experience.

5. Imaginative and innovative thinking motivate creativity ability.

6. Creativity is associated with independent thinking and self-confidence, therefore, strong confidence is necessary for the development of creativity.

7. Creativity develops through expressing personal impressions and feelings.

8. Creativity is curiosity and desire to learn and experience various things and therefore importance must be given to curiosity.

9. Creativity is development of knowledge and ability to absorb and benefit from all blessings of life.

10. Creative ideas and expressions of the people should be encouraged and the proper

conditions should be established to foster creativity (Afrouz, 1995).

Organizations classification based on their attention and emphasis on the development of creativity and coordination with the changing environment:

A. Organizations that have attention to the developing and changing environment and are in a high degree of creativity, they are creative and innovative. In the other words, they pay attention to the creativity and treat innovatively in response to the environmental changings.

B. Vis-a-vis such organizations, there is a batch that not only has little attention to the development but also, has low creativity levels. They remain conservative and traditional and do not become neither creative nor innovative.

C. Another set of organizations while, considering the development and changes, are not creative so they respond to their environment by imitation.

D. The last batch includes highly creative organizations that have not much emphasis on the changing and development. Although, these organizations provide new and creative theories, they don't need innovation. Hence, they neglect innovation and their ideas don't be practical (Alwani, 2007).

Characteristics of creative leaders:

Knowles (1983) in a systematic research and by observing behavior of managers and leaders of industry, manufacturing, services, political, educational organizations has collected creative features. He considered eight fundamental characteristics of the leaders and managers.

1. The creative leaders creates positive and diverse assumptions about the employees:

Knowles based on the observations states that, creative leaders like their employees make opportunities for challenges and they entrust. The research has shown when people are internally controlled, creativity and efficiency are more and individuals think that they can take advantage of their own potentials and it helps in works.

2. Creative leaders believe in the right of employees to take as much responsibility as they involve in the activities.

Employees should be involved in every step of the planning process including needs assessment, setting goals, policy planning, planning activities, applying and evaluation of selected activities and so on.

3. Creative leaders believe in self-fulfilling prophecy and apply it as well:

They know that people like to communicate with the others due to their beliefs. Creative leaders

lead the group in a way that is thought the rout of winning is paved. They treat in such a way that staff possess necessary loyalty to carry out the entrusted tasks.

4. Creative leaders cherish the employees:

They have found that when people activities are based on their talent, abilities, interests and goals, they have more efficiency than within a predetermined work. Innovative leaders are arranged business groups in a way that each person can do activity individually too and enjoy doing it. And they have come to believe that working, learning, entertainment and the others are contributing on individual to achieve his or her unique potential.

5. Creative leadership encourage and stimulate individuals to creativity:

They have come to believe that in the fast changing world, creativity is essential for the survival of individuals, organizations and communities. These leaders demonstrate creativity in their behavior and prepare the ground for creativity and innovation of others. They reward employees for creative behaviors, accept legitimacy of experiences failure and consider them as opportunities for learning.

6. Creative leaders believe the constant evolution process, and they have the necessary skills for manage of change:

They fully understanding of static/dynamic and innovative organizations and continuously are trying to make their organization more dynamic. They believe in changing responsibilities. They are expert on choosing influencing strategies for optimization of change.

7. Creative leaders emphasize on intrinsic and extrinsic motivations:

Creative leaders are taking steps to remove anti-motivations. They spend a lot of energy to optimize the stimulating factors.

8. Creative leaders encourage subordinates to self-management:

They are clearly able to understand the researchers' findings. Researchers have stated that, moving from dependent state to self-directed state is a characteristic of human growth and maturation process.

Knowles states, leaders who employ these features in action, they create magic at work. They always have effective human resources and efficient organization (Aghazadeh, 1996).

How can educational principals create creativity and innovation or foster creativity in teachers?

1. **Management style of educational principal**:

This means that principal performance in school management and also preferred management style of the principal are important. There are 3 different management styles due to social system theories, as follows:

A. Norm-oriented style:

This style based on the normative aspects cares expectations of the organization. And the style is based on the assumption that to achieve organizational goals, procedures, guidelines and relevant regulations can be mixed with organizational roles, duties and expectations. And the staff can be asked to observe them in their tasks.

B. Individual-oriented

This style has an emphasis on personality and gives priority to the motivation and individual needs. And believes organizations instead of depending on strict enforcement of organizational rules and full compliance with the expectations of the organization are more dependent on people who work there.

C. Situation-oriented

It is a variable style that according to the situation, emphasizes on the frequency of the normative and personal styles dimensions.

Some fundamental ways of stimulating creativity in teachers could be mentioned as follows:

A. Creative environment:
B. Taking time for creativity:
C. Establishing suggestion System:
D. Create a special unit of creativity:

Creativity in educational administration:

Creativity is composed of three major elements; knowledge (skills related to the issue), "motivation" and "creativity skills." Accordingly, it is clear that,

Before the school principal be able to do creative work, he/she should comprehend management science, education philosophy, education economy and other scientific topics related to the both school and school management. Also, school principal should possess the high level of motivation, and be familiar with creativity's skills and apply those. (Houryzade, 2006)

Creative problem solving skills for school and the school administration issues:

A. Accurate understanding of problem skills: mental inertia of thinking can prevent problem solving. On the other hand, bad habits and insistence on quick results do not lead to accurate and correct understanding of the problem. In such a situation, answer or answers cannot be correct. Most issues related to school, school administration, class and

class management have the mentioned difficulty because of their complexity and being unfamiliar with knowledge and methodology of creativity and inability in motivating the mental inertia of thinking. Mostly, there is not any defined problem to be solved by a principal. Problems are complicated and uncertain and discovering them is difficult, so few people takes responsibility to solve them. Distinguishing, defining and understanding the problem are key skills of every manager. But, executing and accomplishing issues before thinking about them is often an obstacle. On the other hand, school administration can help creation and acquisition of students' comprehension skill using increasing teachers' creativity capacity and comprehension skill.

B. Social problem solving skill: sociologists consider innovation as a social phenomenon which depends on the specific conditions of the free human environment, group interaction and so on. So when you are raising an issue in a group, you are actually looking for "synergy", because the social interaction stimulates the mind and facilitates the process of seeking ideas and access to ideas. Group meetings are required to enact rules to run sessions, including:

1. Ban criticism

2. Number of ideas is important (more is better)

3. The idea diversification is important (more colorful is better)

4. Ideas combination is important.

Then ask people for the evidences and criteria to achieve pure and creative ideas.

C. Skill Challenge creation in groups to stimulate creativity: school management invites the team to challenge, in this condition, members of the group provide creative solutions to deal with the problem. Innovative solutions solve the problems in innovative and original ways.

D. Encouraging to develop knowledge and skill: One of the most valuable assets of any school is its human resources. So, the strategies that encourages school staff to develop their knowledge and professional skills have particular importance. The school administration through encouraging employees to pathological study by self-reflection and self-evaluation creates need for realistic training and opportunities for scientific-applied studies for them.

E. Skill of environment changing to stimulate creativity of staff and students:

Creativity skills of school staff and students more than any factor depends on the degree of environmental stimuli, whatever the environmental stimuli is greater, and the creativity will be greater. Thus, school administration efforts will be targeted to provide environmental stimuli.

F. skills of encouraging employees to maintain the new ideas:

The school administration through brainstorming method receives and rewards pure and valuable ideas of the staff and students and their parents. The highest award for maintaining the new ideas is good listening and applying them in solving problems.

When staff and students and their parents feel their ideas impact on the school's annual program, they will have a sense of ownership towards the school and they will learn the idea making.

G. Positive Thinking skills:

Management cannot be effective with negative thinking. When

We communicate with a positive outlook on the others and ourselves, the results will be promising. We know that negative thinking, cavil, humiliation and so on are among the factors which not only do inhibit creativity but also, inhibit the creativity of those who have contact by people with these characteristics. School administration by using findings of positive psychology can step effectively in the management of human resource stimulation for creativity and effective communication with the others. Positive thinking contributes on improving performance and relations among school administration, school and others.

H. looking beyond skills in problem solving

School administration with looking beyond and more new intellectual partners provides possibility of using the others' knowledge and experience in problem solving at school. In the world of communication and information by entering the network of schools in other countries, innovative solutions can be achieved.

I. Effective communication skills

It is said that, nowadays power depends on the development of communication. Peter Drucker, the management thinker, rightly stated that sixty percent of the team's problems are caused by faulty connections and most of these problems happen due to bad listening.

J. Ideas developing skills

In the creative problem solving process of the school and the school managing, ideas may be incomplete or immature. So, one of the most important skills for principals and classroom principals is ideas developing skill. It should be remembered that innovative ideas at first may seem hilarious and impossible and we usually do not deal with them properly. School principals by visiting successful organizations and institutions and meeting with their managers and employees can get an idea and take it to school. If they can, so can us. Ideas developing skill

helps school administration to understand new ideas, develop them and solve his own school problems creatively. Will Higton believes that creative leadership should be practiced at school. Accordingly, school principals encourage, stimulate and direct the process of innovation from beginning to the end of courses (Hourizad, 2008).

Leadership styles:

In a survey occurred in the U.S. by "Lee and Pete" and "White" in the 1930s and 1940s, three leadership styles- Democratic, autocratic, and chaos- were examined and the results are announced the following.

A. The leader who was democratically governed, was asked to delegate the policy and doctrine to the group and decisions become definite through discussion.

The members should be free to choose their own behavior. They were told that their duty as the group leader is to encourage and help members to debate and negotiate with each other in order to determine the general policy. The group must decide on the division of work. Whenever, the group members require the technical help, the leader should strive to offer two or more solutions, therefore group members choose and apply one of them.

Also, the group leader was told, whenever she/he asked to praise or criticize the group work or a members work, it should be based on reality and their performance. As, the leader was a regular and normal member of the group and did not participate in works, hence; was not able to compare the adequacy of the working groups.

B. In autocratic group or Authoritarian environment, in general, all decisions on group activities and its control are taken by the leader of the group and also he/she decides about working techniques, methods and priority of activities. So, the members are unaware of next step. The leader determined everyone's task and

Decided on who should work with whom. In Praise and criticism of members, leaders did not obey any criteria. He/she based on his desires, appreciated or criticized whoever he wanted. Authoritarian never participated in any activity unless, when he wanted to show the way they should go.

C. chaos group or turbulent environment

In this group, there was absolute freedom and leader only provides information to the members. He/she has a passive role and did not participate in the discussions. Members were completely free in taking decisions on what is needed to do and method of it as well.

In the beginning, the leader describes available devices and tools to everyone. Although the leader is friendly with everyone, he does not praise or criticize their task.

Contingency approach:

This approach was expressed by "Fiedler" and was known as the most appropriate leadership style based on the current situations He developed the approach to recommend fundamental characteristics of leader to inspire motivation. Additionally, he classified situation according to desired degree of leader to a range from the ideal situation to an undesirable situation.

Duty-oriented Motivation:

It is synonym with leader's task-oriented and structuring behavior and Fiedler considers it as an attribute that essentially is constant for everybody.

Relationship-oriented Motivation:

It is synonym with task-oriented and observant behavior of the leader.

Fiedler developed his theory, contingency approach and the related analysis, focusing on three key- situational factors:

1. Leader-element relations: The degree by which employees believe in the leader.

2. The job structure: The degree by which inferiors jobs are described in detail.

3. Position power: the formal authority of the organization's leader due to the nature of his position.

He discussed all the eight possible combinations of the situations in the both work oriented (task-oriented) and consideration oriented (employee-oriented) conditions which are more fit with leadership style. Eventually, task-oriented leadership and leadership oriented were successful on five and three occasions, respectively.

Resins Likert management and leadership styles:

Resins Likert, known as the founder and supporter of participatory management, has spent a large part of his life in ways that increase organizational effectiveness.

In a study on organizational effectiveness he has argued that factors such as organizational structure, principles and methods leadership can be effective.

"Likert " In his study has emphasized on some factors such as " problem solving " and " formation of problem-solving groups" as the main reasons for increasing organizational performance based on participatory management system.

Likert believed that managers should not encourage employees to work only in the case of

taking wages. Indeed, they should cooperate in responsibilities in order to achieve organizational goals and meet the objectives of the personnel to share synergy according to their ability and interests (Parizi and Irannejad, 1992).

Likert's investigation shows that maintain and develop of human resources is one of the most important factors in the effectiveness of the organization. He suggests that the relationship between superior and subordinate should not be unilateral, but it is better to be founded on mutual cooperation.

So according to Likert, satisfaction and maintaining are based on the long-term interests of the organization and he even has prepared specific

indicators to measure and evaluate the morale of personnel (Human Organization, 1967).

Likert based on research findings, published four management styles and their characteristics in his second scientific work entitled Human Organization, in 1967, and they have the following naming:

1 - authoritarian-exploitation
 2 - authoritarian -Patriarchal
3 - Consultative
4 - Participatory

Specifications and features of each of the four Likert -style management included the following:
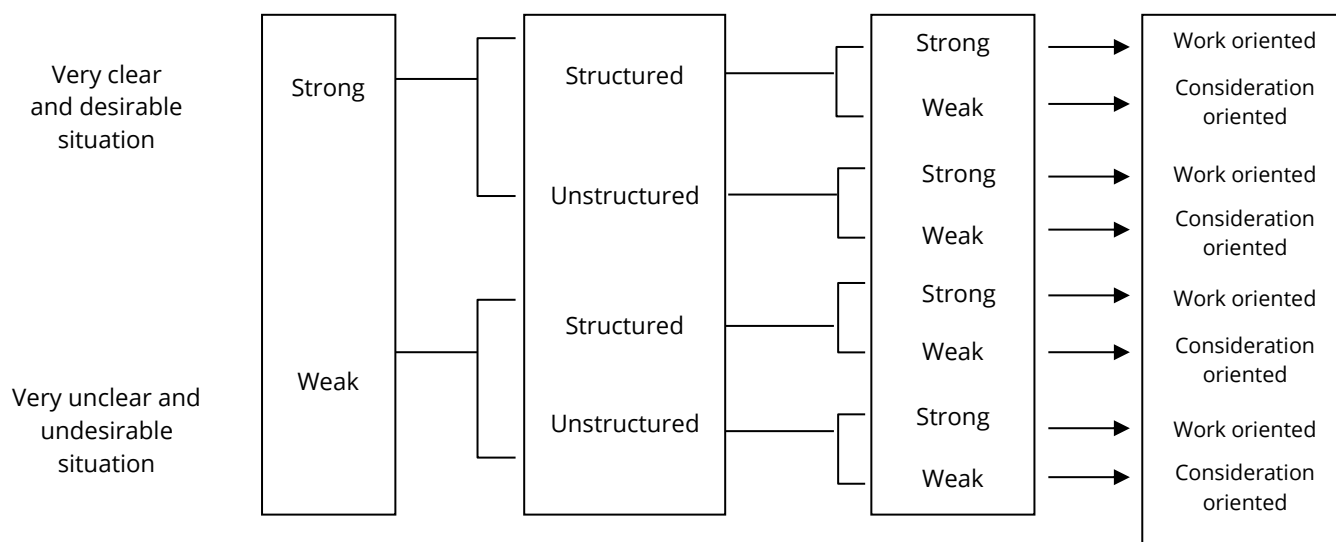
Graph 2 - Fielder contingency theory (attitude)

Style one (authoritarian-exploitation style):

This kind of management does not have any trust in subordinates. It shows that they rarely participate in decision making.

All decisions are made at the top and they are transferred to the bottom through the chain of command. Subordinates are forced to work under fear, threats, punishments, incidental rewards and physiological levels of satisfaction and safety.

Little interaction occurs between superior and subordinate and it is often associated with fear and suspicion.

Process control has focused heavily on senior management level, usually in such a context informal organization is formed which is on the contrary with the objectives of the organization.

The second style (authoritarian-parental style):

This kind of management is along with trust and confidence and similar to the behavior of a lord over subordinates or servants. However, all decisions are made at the top of the organization and determine goals. Some decisions are made within the prescribed material at lower levels. Some actual or potential rewards and punishments some are used to motivate the employees.

And any mutual interaction occurs by directors between the superior and subordinate along with tolerance and leniency and by subordinate with fear. While the control process is still concentrated in the hands of top management, some delegate to moderate or low levels. This usually takes the form of an informal organization, but cannot always resist in front of the official goals of the organization.

The third style (consultative style):

This type of management substantially, but not completely trusts on subordinates. While, the general

policies and important decisions are made at higher levels.

The subordinates are allowed to make decisions in certain cases and lower levels. Relationship on top and bottom flows hierarchically; rewards and punishments are used to motivate staffs randomly to extent of their partnership in wok. There is action and interaction between the superior and subordinate that is often along with trust and balanced with confidence. Important aspects of control process is handed down and work on both high and low levels is coupled with responsibility. The informal organization may be formed, but it either confirms organizational goals or partly resist to it.

- Fourth style (participatory style): in this type of management, subordinates are trusted completely.

While, decision making is distributed widely in the organization, it has a unity as well. Communications not only does flow in up and down directions but also, between groups and homogeneous.

Staff motivation is caused due to their direct involvement in determining economic rewards, goals, method improvement and progress evaluation towards the goals. In such a management, there is interaction between superior and subordinate which is friendly, vast and with confidence.

In terms of control process, there is a wide range of collective responsibility and lower units fully participate in there. Formal organizations is often one. Therefore, the social forces advocate the efforts coming to action to achieve organizational goals.

Management style one, is a duty-oriented, autocratic and structure-oriented. While style four is a relation-oriented management. It is built Based on teamwork and mutual trust and confidence. Styles two and three are between the two extremes that are almost comparable with X and Y styles of McGregory assumptions (Alaghehband, 2002).

The manager who acts under style two, is very authoritarian. But such authoritarian is a kind of paternalistic. This imperative benevolence has a strict maintain control and never let subordinates have freedom. Management style three uses consultative style, ask and consult with staff in decision-making process. But the final decision is made by the manager. Style four manager utilizes a democratic style. This type of manager will provide guidance to subordinates and to make all decisions uses consensus and majority vote (Luthans, 1989). Changes in management style from autocratic management towards participative management will lead to greater success of organization. Leadership style that leads to the collaborative partnerships and formation of working groups, results in the conducting effective, efficient, organized and coordinated works (San Juan, 1998).

Furthermore, the application of supportive and participative leadership styles lead to increased enjoyment of the staff at work.

CONCLUSION

In summary, the results showed that:

1. In the free and democratic environments, the members of the group in comparison with the members of the other groups could feel more freedom. They also offered further suggestions, in order to determine the general policy of the committee. Lack of such offers in total chaos groups was not due to responsibility and lack of freedom of speech among the group members. In fact, it was due to lack of cooperation between individuals.

2. Suggestions on how to sort and group activities under the leadership of members of the autocratic groups were less than democratic and chaos groups.

3. Authoritarian group members were more reliant on leader and did not start anything with their own desire.

4. In one experiment, hostility in dictatorship group was thirty times more than democratic one. Militancy of the group was especially between two members of the group, i.e., theses members one after the other, are considered as the main responsible. But, despot leader never blame the group and were not addressed.

5. Nineteen out of twenty young, preferred the open-minded leader to the autocratic one. And seven out of ten, preferred leaders who did not interfere in their life.

6. In an authoritarian environment, when the leader was late, nobody worked. And if the leader was absent, the work was stopped. Unlike in the democratic groups, each time it was too late leader, his group was busy with working. Indeed, his presence or absence did not have any effect on the members' working group. In the chaos groups, the members were working out in the absence of leader but the activity was not useful or productive.

7. In democratic and chaos groups individuals were working out in order to get everyone's attention and stimulate them to attract their attention. While in authoritarian groups, it is tried to entice people's attention to the leader.

8. In chaos group leadership, the efficiency of group working is less than less than the other two methods.

9. Expressed dismay and outrage towards one another in the power of democratic or authoritarian, and chaos groups is more than democratic leadership.

10. When the leader was absent and a foreigner did quarrel and blame the group members, and criticized the working group:

A. Groups that were run by authoritarian style or members readily accepted blame and aggression of a foreign person or those outside the group, such as those who worked in a nearby workshop put shields and condemn them to be guilty.

B. While in democracy and chaos groups people were united against external aggression and criticism. And instead of making a foreign scapegoat (out of group), they resist and respond directly.

11. It was found that in all cases, differences in the behavior of members in groups of three, depends on their leadership style not their personal and behavioral characteristics. (Berg, Klein quotes Educational Management Author doctor Amman interpretations front, 1,382th)

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