

THE ROLE OF NEW AND CREATIVE IDEAS IN DEVELOPING INDUSTRIES OF EDUCATION, SOFTWARE AND MANUFACTURING IN PAKISTAN

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ABSTRACT

Obviously, for sustaining development, technological transformation is a must source generating from creative minds. How creative ideas have developed an innovative Pakistan is the core aim of this paper. For conquering the said objective, the role of new and creative ideas is investigated in diversified fields of Pakistan. In this way, we can make a snap of every industry which is flourishing in Pakistan just because of creativity is at its peak. Creative needs to be reinforced if ignored for long time. For supporting creativity, many environmental, climatic and organizational cultures are to be considered significant that cannot be ignored in any case. For competitive survival, Pakistan needs to accept only those creative ideas that must be fully absorbed in the said related field with highly efficient output. Thus, we will be talking about the role of creativity in the development of Pakistan in different sectors where newly arrived innovation has really played its dynamic role to reach the climax. The need for new and creative ideas is a requisite so that effective techniques can be planted to achieve high yield. Creativity is not restricted to an individual rather it is a wide subject that caters whole world into its arm. Without it, nothing can be altered and modified. The conventional method for doing things has to be exchanged now with more modern ways. This is what this paper focuses on! Recommendations are also presented at the end of paper for future consideration.

Keywords: Creativity, New Ideas, Developing Industries Education, Software, Manufacturing, Management.

INTRODUCTION

What Counts to Stay Competitive Is the Creativity!

Creativity is a Latin word which means “to Create or to build” (Slahova et al., 2007). The word creativity has been defined in many languages in different. Its more acceptable meaning is to add sufficient value to the products and services of any organization as it is creativity that decides the place of organization in a market (Oldham 2002). To be in depth, creativity is actually terminating the traditional rules and accepting the new yet unique ways to complete any task at hand. Approaching the working directions with different point of views is basically what we say creativity. However, creativity is a human process related to minds so it cannot be encapsulated in a single theory.

As per Patterson et al. (2004, p.13) suggested, Pakistan is now entering into the era of creativity. In Pakistan, some people argued that creativity is the solution to all problems. On the other side of the spectrum, Rogers (1959) disagreed and said that lack of creativity give rise to

maladjustment and tensions. Similarly, Thorne (2007) postulated that real innovation can never be possible without creativity. Patterson et al. (2004) had said to this extent that if leaders will not become creative, the whole society will collapse.

Creativity serves as the core pillar for achieving best results in any industry. When creative ideas hit any culture, these shorter the product life cycles and lengthen the product development speed. In Pakistan, market is so intense that introducing innovation is not enough alone but sustaining its long term usage is the core session. The professionally skilled workers have really contributed in economic development of Pakistan. To cultivate innovative ideas, workers require relaxed environment so that they can make their targets a real story. A strong and relaxed culture is more acceptable to new and creative ideas. For the completion of challenges of any industry, every country should possess competent workforce to excel (Slahova et al., 2007). In a world where international borders are now open for nation, Pakistan has to jump itself into the new era where new and creative ideas must be accepted.

Talking about Eastern and Western countries, there resides hell of difference in understanding as well as implementing creativity. To be explanatory, Eastern countries are more traditional followed by conservative approach. The Western countries are more modern followed by open mindedness. If we talk about thinking of creativity, both countries have equal significance for creativity. It can be said that the contribution of Eastern countries in the application of creativity may be underplayed today or we can say that it is sidelined most of the times (Fryer, 2004).

Creativity has its own importance and is developed from the innate potential. In past, it was believed that creativity can be emerged out in arts only but now it is believed that every individual must have some kind of creative potential. As a result of this belief, creativity is now added in educational sector (Esquivel, 1995). For such task to be complete successfully there is need for new curriculum and teacher's training Programmes for offering creativity in a fortunate way (Parkhurst, 1999, p.19).

Conversing the talent of Western countries, deliberate efforts are done to let the creativity inn at any cost via special creativity Programmes inclusive of The de Bono Program, Osborn-Parnes Creative Problem Solving and Synectics. One of the most triumphant programs is the work of Torrance which can be used by the teachers to design their self-made Programmes as well (Fryer, 2003). European countries have created creative partnerships for developing creative projects for their students (Maddock et al., 2007). Involving creative ideas in study curricula does not imply to leave the school's tasks rather students are focusing on the creative events while proceeding with their routine work (Jeffrey, 2006, p.9).

WHAT ACTUALLY CREATIVITY MEANS?

The basis of creativity is actually the imagination (Sinnott, 1988). What a person imagines can take the form of reality in the form of creative ideas. It does not imply that a person bring-in creativity intentionally rather it can be an unwillingness activity that comes from anywhere even a person is not ready (Turner-Bisset, 2007).

Introducing new and creative ideas is actually laying down the foundation of achieving high yield. According to Ford (2000), creativity is a psychological state of a human being to produce creative activities. If we see some previous researches, these ponder on psychological traits of a creative person (Hunter et al., 2005). The historical researches have contradictions among them like some researches showed creativity as a personal trait while others came out

with the support to environmental factors. Amabile et al. (2005) says that every individual has right to do creative tasks. Likewise, he says that everyone in the organization can come up with the innovative ideas. For supporting new and creative ideas, accurate working conditions are compulsory; says Peterson (2004).

In this paper, we will explore the introduction to creativity in software industry, education industry and manufacturing industry of Pakistan.

LET'S TAKE A LOOK AT SOFTWARE INDUSTRY OF PAKISTAN

In a country like Pakistan, new and creative ideas are needed in software industries the most. Every personnel entering the software industry must be highly technical in software development field. As the software industry meets rise; HP, Oracle, Apple and Microsoft emerge out to be the leading software. Without these software, IT field cannot establish good decorum in the whole industry of computers. No doubt, Pakistan's IT industry has procured its targets successfully in recent years. In current period, over 2500 IT organizations are found to be registered with qualified professionals equipped with executive skills. Because of such rapid increase in creativity and newness in IT sector, sales are approaching over \$2.8 billion. The point to ponder is that export of Pakistan's software industry is amounting to \$1.6 billion today. The active role of new and creative ideas in developing Pakistan's IT industry has lead the sector to have command on 25 tech-incubators, accelerators and co-working spaces today.

In software industry, innovation means a lot. It is more than the word creativity. At every next moment, IT sector needs something to introduce in the industry to gain competitive edge over international challenges. Pakistan is in that information age where its IT sector has to grapple with countless summons including global competitiveness, demographic challenges, political crisis and other related trends (Sari & Trihopoulou, 2005). No innovation can take place without creativity. Creativity serves as the beginning point for innovation to happen (Addis, 2009).

LET'S TAKE A LOOK AT EDUCATION INDUSTRY OF PAKISTAN

In the beginning of 1957, there were several streams of creativity in education sector (Wilson, 2005, p.7) but complete interest in throwing creating ideas was developed in late 90's (Jeffrey, 2006). Student's mind set of being creative must be developed during their educational period so that a huge human capital can be provoked upon which nation's wealth depends. Inevitably, education sector has to undergo huge transformations so that creative ideas can be valued (Nesta, 2002).

It was 2002 era when Pakistan's education took a boost in education industry of the world. When higher education commission of Pakistan was come into existence in 2002, every matter in education industry was resolved so far. HEC was established as a result of the creative idea of research and development for the promotion of higher and qualified education worldwide. The core purpose of HEC is to render its effort for improving the quality of education in Pakistan. For such task to be achieved, challenging faculties are hired on merit. This creative idea to establish HEC is so successful that now Pakistan is focusing more on research and development activity to equip the students with up to date knowledge. Chiou (2002) postulated that the educational institutions with creative workplace give rise to the creative performance of faculty. This is how Pakistan is competing with international universities. HEC is uplifting its faculty and students to

gain insight in diversified fields of Pakistan via research and development. However, Amabile et al. (2005) proposed that creativity is still at the early stage of development in Pakistan.

Many researches have theorized that almost every teacher possesses the sufficient creativity level but to excel in creativity, teachers must be equipped with the knowledge more than just a curriculum which is handed over to them (Wilson, 2005). To develop the sense of creativity among students, teachers need to design creative activities (Turner-Bisset, 2007, p.201) for the students so that they shape their mind for generating new and creative ideas on the screen. Moreover, instilling creativity in the minds of students must not assure that this is the sole way to respond to the concerned task (Runco, 1993, p.5-6). The qualities of a creative teacher include passion character, open mindedness, adaptive to newness, flexibility, encouraged attitude, enthusiastic, dedicated towards tasks, ability to take risks, enjoying creativity, capability to be receptive to innovation, motivated and supportive outlook, honor student's new ideas, thinking out of the box, encourage the students to take part in communication and respecting every student's narration (Woods, 2004; Esquivel, 1995; Grainger, 2005; Nickerson, 1999; Wilson, 2005; Davies & Howe, 2005; Sternberg & Williams, 1996; Thorne, 2007a; Jams et al, 2004).

However, alone teacher's character in shaping the student's mind is not sufficient instead education system as well the administration must reinforce creativity also (Wilson, 2005). It is also observed that one specific creative approach may not satisfy all children. It implies that different students require different approaches (Martinsen, 2003). For styling a creative environment, behavioral, curricular, social and technological aspects must be considered first. The environment must be receptive that it freely allows the students to participate. The researches have unveiled the fact that students must be uplifted to take risks (Jeffrey & Craft, 2003) as it will enhance the chances to face creative yield (Sternberg & Williams, 1996).

LET'S TAKE A LOOK AT MANUFACTURING INDUSTRY OF PAKISTAN

Manufacturing contributes a big part in economic development of Pakistan. It ranks on third among the largest industry of Pakistan as Pakistan is earning 18.7% of GDP from manufacturing industry. It is the role of creative ideas that raise its growth rate to 3.56% with over 100% value addition (Ministry of Finance, 2012). One research says that no one but creativity only is a fundamental element to grow an economy (Freeman & Soete, 1997). In manufacturing industry, introducing new technology is an art. Without accepting creative ideas, there is no room for improvement (Drew, 1997). Sometimes in Pakistan a situation came across where innovation gave nothing. So when creativity gives nothing, it will surely render some new thing to take place in the organization; may be only a capability to manage changes (Lieberman & Montgomery, 1998). Specifically in manufacturing industry, the countries which are giving credit to creativity and innovation become more productive with more earnings for their employees (Fagerberg et al., 2005). Many scholars have documented that innovation is only possible as a consequence of new knowledge and creative ideas.

The contemporary and creative ideas are now the emerging fields of development in Pakistan. For creativity and innovation to enter in any internal environment, the organization must have six qualities (Kanter, 2000):

- Integrative structure
- Diversified culture

- Countless links inside as well as outside organization
- Intersecting territories
- To give opportunity to individual's talent
- To support group work

Every country has its own norms, climate and culture. Likewise in Pakistan, it is not incumbent that every new idea will fit into the industry. Thus, new ideas need to be managed so effectively and efficiently that will ultimately generate maximum and worthy output. The new ideas consist of raw data, knowledge and information. It is the industry's management responsibility to grab that data which is much rewarding for the industrial growth (Darroch & McNaughton, 2001)

More the Creative Place More will be the Room for Creative Ideas! (Martens, 2011)

To be creative means devising the new combinations of analogous data or elements which are somehow proficient enough to meet the requisites. The more the associative elements, the more useful will be the processes and outputs. The organizations with highly supportive creative culture welcome the employees to express their creative ideas and to utilize their cognitive ability to produce creative working output (Sun et al., 2011). If any organization is offering positive climate for innovation, it is a beneficial indication for its development (James et al., 2004). Thus it ends up with the conclusion that creative culture is the main basis for the development of any organization (Carmeli & Schaubroeck, 2007). When employees found creative working environment within an organization, their motivational level towards their work rises up hence enhancing overall creativity ultimately (Ekvall & Ryhammar, 1999). It means it is very important to apprehend the organization's environment first to encourage creativity. The institutions with creative climate tends to gain more advantages from their creative employees (Lale & Arzu, 2009). Several Researches have emphasized on the duty of manager of organization to make the creative climate to happen in real. Only managers of the institution can introduce the creative culture at workplace by changing the beliefs of workforce. When exchange of information takes place, diversity of opinions comes into existence which in turn develops new ideas. Thus, management is solely responsible to instill creativity among employees as they are the pioneers who design job descriptions and other policies. Research of Sun et al., (2011) postulates that creativity is only welcomed if there resides leader contribution, environment support, team assistance, learning culture and resources supply.

Runco (2014) made creativity an everyday phenomenon. However, creativity encountered very crucial time in 2007 to be acceptable in Pakistan (Brundrett, 2007). Thus, the economic achievement was not proved out to be excellent in that era. Countries like Pakistan has to answer on the economic growth thus, educated workforce is an impulse. This cannot be possible without letting the new and creative ideas to set foot into the organization. The more creative a person is, the more rich life he will deserve in future (Hayes, 2004, p.281). Moreover, those who are encountering downfalls in their working place can become successfully benefited from the creative ideas (Runco, 1993).

As postulated by Barron (1988, p.80), the viable developments of new and creative ideas might include:

- Any new invention.

- Transformation in people's behaviour.
- Discovery of contemporary processes at workplace.
- New procedure for government taxes.
- Composing a rib of music.
- Establishing novel ways for controlling sub-ordinates.
- Shaping any new philosophy.
- Modern treatment for treating diseases.
- Laws innovation.
- Thinking out of the box for turning out with more solutions.

A survey in Pakistan has given teachers the opportunity to say words for creativity in perspective of their students. Teachers are of the view that creativity is to get ready the students for meeting challenges of life with the application of their independent thinking. It is about bringing out the hidden talents and makes it accepting for them to adapt to the changing environment positively (Sarsani, 1999, p.243-244). The role of creativity is so intense that it is now the best way of retaining student's interest in studies. Consequently, there is strong understanding of concepts (Sen & Sharma, 2004, p.162). Thus, US Department for Labor Labels has claimed creativity to be the foundation skill which is a compulsory requisite for shaping the future (Parkhurst, 1999, p. 1-2).

According to Nolan (2004), creativity and new ideas are something that have diversified and huge application in whole life. Apart from giving benefit to the society, creativity also benefits an individuals as well as culture (Shahzad, 2014). As Simonton (2000) said, creative individuals pop out to be more sensible mentally as well as emotionally who are in turn satisfy the whole society (Runco, 1993). With such amazing factor of creativity, our lives can transform into an easy and safe lifestyle with uplifting the enjoyment and rewarding factor (Csikszentmihalyi, 1996, p.344). It is not about only organizations that need creative ideas, but it is about the whole masses who are demanding the application of new ideas for answering their routine problems (Martinsen, 2003).

Creativity serves as the compulsory subject for any sector as progress of country and future generation is dependent on it. The word creativity is not restricted to the companies alone but it is the vital instrument for economic development of Pakistan (Hobday, 1995). Williams (2001) recommended that if organization is deprived of creativity, it still can be taught to employees and managers as well through frequent trainings programs. Welcoming new and creative ideas enhances the ability to respond to opportunities in a more contemporary way. It is the duty of management to encourage their sub-ordinates to come on-air at the floor of the organization with their creative ideas. Moreover, the management must empower the workforce instead of behaving as a controller authority (Judge et al., 1997). The concept of creativity is still evolving (Forrester & Hui, 2007 p.30). this is the main point of distinction among east and west that really needs to be investigated in further researches (Raina, 2004). To conclude, creativity is not merely a concern of lip service rather initiative must be taken (Hussain 2004, p.93)

AMABILE'S MODEL FOR CREATIVITY

According to Amabile et al.,’s (2005) model for organization creativity, the diagram shows the parameters that stimulate creativity. The creative ideas only work out positively in the organizations when there is supervisory support, organizational encouragement, freedom of presenting ideas, team work, time constraints and proper allocation of resources are in place. Creativity becomes a predictor of achievement when these factors are in place within an organization (Figure 1).

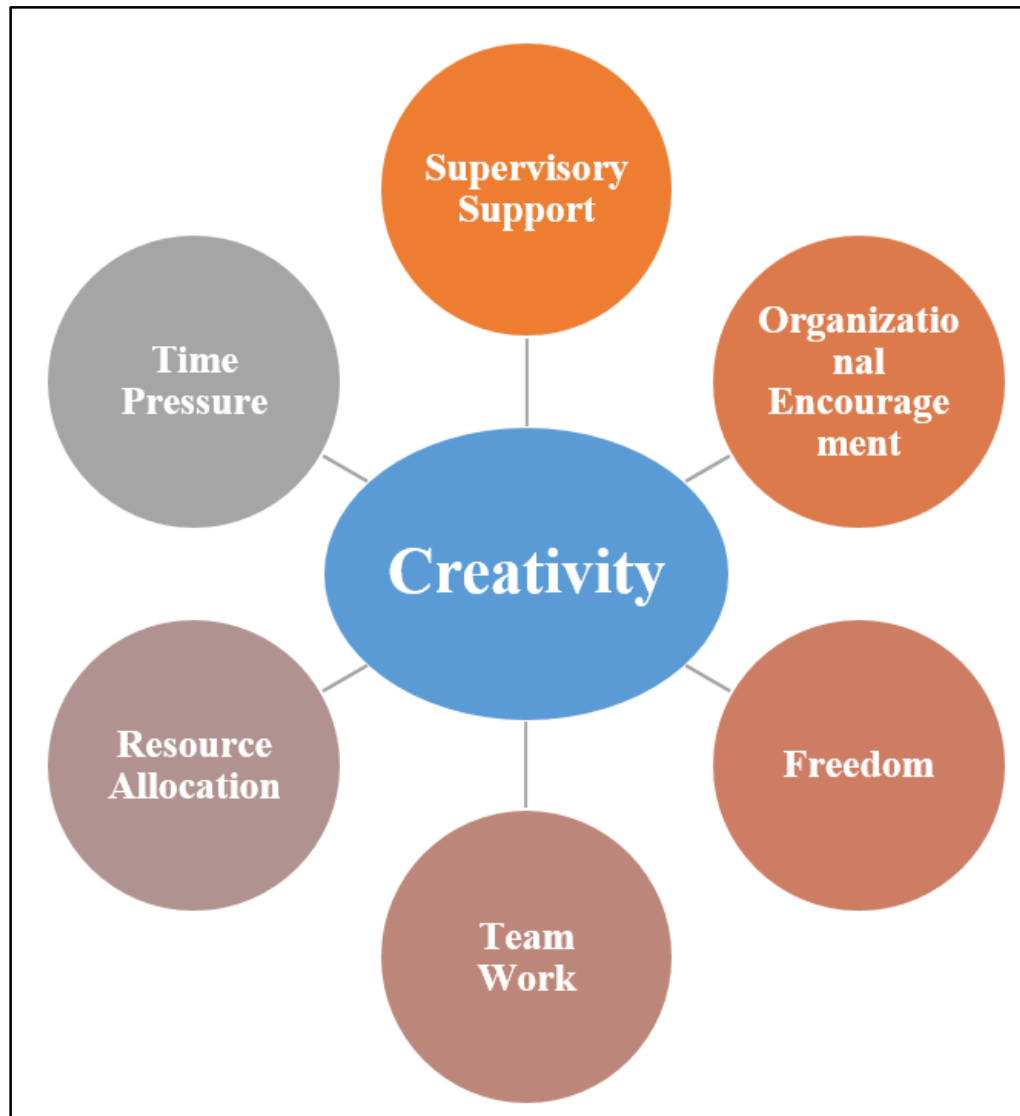


FIGURE 1
AMABILE’S MODEL FOR CREATIVITY
BROWN’S MODEL FOR CREATIVITY

Brown (1989) proposed creativity model with the inclination of four elements. He takes this word as a process and not a trait. He narrates that creativity exists only when there is a

creative person to give creative ideas; a whole process of creativity will run for application of that idea; a situation or environment that supports creativity and a product will be formed as a consequence (Figure 2).

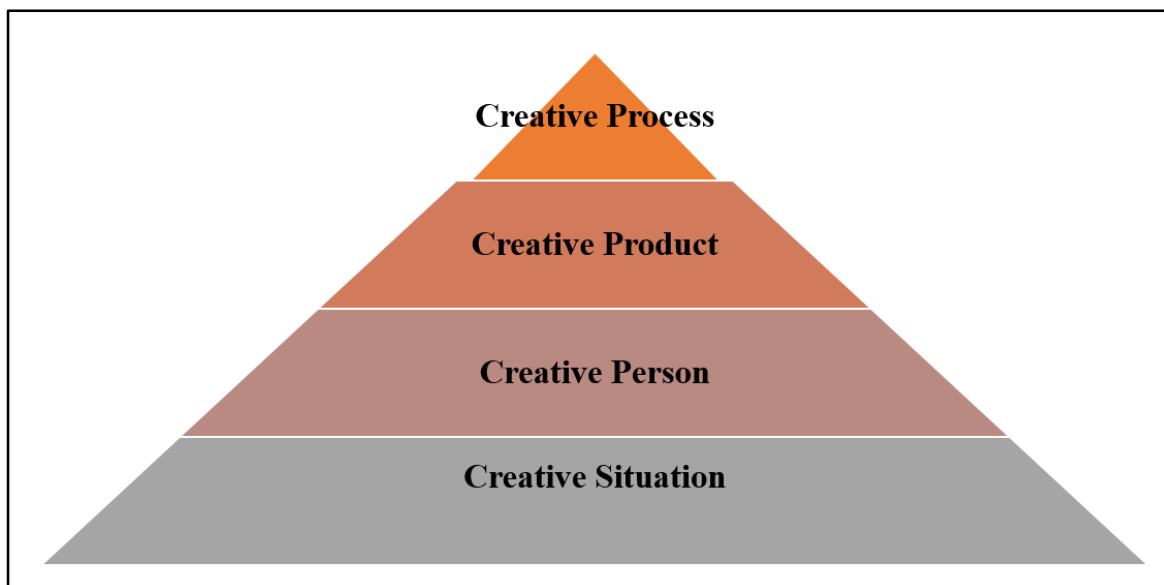


FIGURE 2
BROWN'S MODEL FOR CREATIVITY

One research has spoken about the Asian countries that these are the consumers of western products mostly. As an outcome, these countries are losing the concepts of self-identity, prosperity and independency. Oral (2006) says that most of the developing countries neglected creativity whereas the developed countries have been taking edge of creative ideas for years. However, Pakistan is out of those developing countries which has admitted the concept of creativity and provided room for creativity in every sector of it. Most studies have submitted that Asian countries must appear out to be advanced and must be adapted to their own creative lifestyle. Further, these developing countries must keep on giving their industries a forward push towards globalization. It can only happen when Asian countries start resisting accepting the creative ideas. Except Pakistan, most of the Asian countries are in immediate need to take practical steps to make creative ideas a part of their educational agenda.

DOWNSIDE OF CREATIVITY

Mostly, the role of new and creative is seen out to be a positive attribute in many countries, however its downside is also existed (Simonton, 2000 p.151). According to one scholar Csikzentmihalyi (1996), creative is a problem solving attribute but on the other hand it also creates problems. She is of the opinion that the processes which are already running perfectly do not need any creativity; not desirable at all. Runco (1993) said that creative ideas in education are good to unveil but it becomes an unfavorable attribute when students claim themselves to be an independent and non-conforming attitude. Patterson et al. (2004) has presented countless

examples of US universities where creativity comes out to be un-flavored. Most of the teachers do not like the creative qualities of their students specifically when they react bold. It sums up that it does not imply that creativity is very much honored in abroad rather creativity is honored in those areas only where it really needs to be applied; otherwise it is just a word.

CONCLUSION

To make a successful conclusion, we must say that enhancement of creative ideas is a requisite now whatever the sector may be. This paper has discussed the role of new and creative ideas in IT field, educational industry and manufacturing industry only however, the subject of creativity has its wide implications in every sector of the society. If we start talking about the worldwide industries, the research paper will never end. For letting the creativity to become a beneficial part of any industry, structural changes are required.

Concerning IT field, software industry can never run without creative ideas. It will go dumb if creativity is ignored. Secondly, the educational industry of Pakistan is growing very fast with the introduction of new curriculums. Undoubtedly, Pakistan's education system has changed so much that it now welcomes creativeness wherever needed. The educational institutions are really giving chance to the bright students who have creative minds. Thirdly, the manufacturing industry of Pakistan is somehow working with creativity to produce high yield in short time of manufacturing processes. The whole air of Pakistan will get to change only when all of us will realize the worthiness of creative ideas and also accept them.

RECOMMENDATIONS

- Although our HEC is in developing stage in Pakistan but it can help the country more to implement corrective measures for future gains.
- Creative ideas can sort out the business problems more realistically and can end up with better solutions than any other tool.
- Specifically in marketing related sectors, the role of new and creative ideas is a key ingredient of success in Pakistan and it must be followed at first.
- In Pakistan's education sector, creativity must keep on encouraged because this sector do not only develop elite class students but masses of students.
- In Pakistan, creative ideas are added in the course in university level. Thus, creativity must be fostered in education sector right from the elementary and secondary education as it is the basis of education foundation that shapes the students for lifetime.
- To enhance creativity, schools and universities must do partnerships with the professional organizations to give students the opportunity to work with different organizations to cater hand-on experience prior commencing professional life at actual.
- In Pakistan, the role of new ideas must be made so common so that children can have richer lives in future with their valuable contributions towards the society.

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