

A Study of Teaching Core Competencies for Improving Creativity

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Abstract

The Government has stressed that the essence of ideal future education and its ultimate goal is creative character education that produces 'talents who can produce new ideas and get along well with the people around.' Concept of creative improving program should be started with good effective model, which has many elements of future competencies, has been emphasized; Based on such creative character education model has emerged as ideal educational alternative that can brace for future society, the importance of competencies of all the people who live in Korea. If the quality of such education is high, it can boost the quality of field education and ultimately boost the effects of creative and happiness education for our community members. Thus, this study is aimed at searching the various competencies required for our future creativity education for managing our students' developing creativity education. The research findings are as follows. First, 'creative thinking ability' and 'creative personality' should be included in the Creative development program. Second, there are six core competencies that Korean Ministry of Education emphasized the importance of future education by announcing the 'self-management', 'knowledge information processing', 'creative thinking', 'aesthetic sensibility', 'communication', and 'community competence' were included in the Core Competency. Lastly, 'Science', 'Mathematics', 'Art', 'Society', 'Confluence' and 'Humanity' were included in the educational subject fields.

Keywords: *Creative thinking ability, Creative personality, Future core competency, Improving creativity*

1. Introduction

Today's society is known as the information & knowledge society, multicultural society, automation society, and post-human society, and this means that the paradigm of social environment and future industries has changed enormously compared to the past.

Based on the trends and developments we think will influence our societies during the next five to ten years, we can sketched a series of images of the future. These images should not be looked at individually; also together they form a scenario of the future that we used as the basis for our work. Even though our lives are increasingly marked by globalization, it is at the local level that the prerequisites for global growth are created.

Local communities are going to be increasingly characterized by diversity – a diversity which must be utilized by all sectors of society. Regions must be able to ensure successful

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integration, remove social rifts, and increase the tolerance of diversity. To above, Korean Ministry of Education emphasized the importance of creativity by announcing the Education Policy as a future educational policy under the educational goal of composing the curriculum that could grow 'creative talent practicing consideration and sharing' [1].

In the new society, we need manpower of creative convergence that can demonstrate both creativity to produce new, amazing, and original products with insights based on given or detected issues, perceive new relations, create extraordinary ideas, or think outside the conventional ideas, and create things or ideas that are new and valuable, along with imagination in humanities. Therefore, education for the new era should be systemized and consistent not only in schools but throughout the society.

Creative thinking in a trained method can play a real role in innovation. “ Creativity and innovation are generally complementary activities, since creativity generates the basis of innovation, which, in its development, raises difficulties that must be solved once again, with creativity...It is not possible to conceive innovation without creative ideas, as these are the starting point.” [2].

From the US - the Creative Classroom Project was a collaboration between Project Zero and the Disney Worldwide Outreach to produce materials that help teachers explore and understand the role of creativity and innovation in teaching and learning, the importance of developing classroom and school environments that can bring out the best in teachers and students, and methods for making classrooms more engaging places.

Our school system is a thinly disguised conspiracy to quash creativity. We are at an inflection point. The main crisis in schools today is irrelevance. Our educational thinking is concerned with; ‘what is’. It is not good at education processing ‘what can be’. The student made projects, centers and displays in the classroom; I feel the truly creative classroom goes way beyond what can be seen with the eyes. It is a place where bodies and minds actively pursue new knowledge.

There are thousands of creative techniques and skills for advance creative thinking ability, which are also classified in many ways [3]. Some of them stimulate different ways of organizing known information and help approach problems from new angles [4]. Intuitive techniques are less structured techniques. They sometimes leaning to skip steps in a sequence and tend to provide a whole answer all at once, such as the “ Aha experience” technique (based on ideal possibilities and solutions), and they are more appropriate for ill-defined questions [5].

In order to nurture manpower of creative convergence, it is necessary to introduce creative learning elements to improve the creativity of students in each stage and nurture key competences for the future that are being stressed nowadays. Also, it is important how these competences should be demonstrated in the fields of knowledge and philosophies.

A theoretical model that includes it all should be developed first in order to develop an educational program for manpower of creative convergence based on the theoretical and logical frames. A creativity program should be developed and applied on top of the theoretical and philosophical framework related to creativity and key competences.

2. Six factors of creativity

There are many definitions of creativity. A lots of them suggest that creativity is the generation of imaginative new ideas [6], involving a radical newness innovation or solution to a problem, and a radical reformulation of problems. Other definitions propose that a creative solution can simply integrate existing knowledge in a different way. A third set of definitions

proposes that a creative solution, either new or recombined, must have value [5] in our society. A novel idea is not a creative idea unless it is valuable or it implies positive evaluation. Also, according to dt ogilvie [7], imagination, which involves the generation of ideas not previously available as well as the generation of different ways of seeing events, is important to achieve creative actions.

Also, Creativity “is a fundamental feature of human intelligence in general. It is grounded in everyday capacities such as the concerned with ideas, review something, perception, analogical thinking, searching a structured problem-room, and reflecting self-assessment. It involves not only a cognitive dimension (the generation of new ideas) but also motivation and emotion, and is closely linked to cultural context and personality factors.” [8].

Creativity is a concept that integrates creative skills and creative personality [9] and both include six sub-factors each. The sub-factors include fluency to think of various ideas, flexibility to think through various categories, originality to think what others cannot think, imagination to draw something virtual, sensitivity of thoughts to recognize various objects in mundane areas, and precision to examine given problems, clearly identify the meaning of those problems, and elaborate the problems by providing what is missing.

Creative personality include curiosity to know about the surroundings and ask questions, sensitivity to question various issues that occur in mundane areas, task commitment to collect as much information about a situation or issue to focus on problem-solving without giving up, humor to make approaches from different perspectives, independence/adventure to produce ideas with a proactive attitude with the fear of failure, and problem-solving leadership to resolve problems in problem situations.

3. Six core competences

Future key competences are the competences that one should nurture through curricular and creative experience activities in schools and various other educational sites and many futurists have suggested interpersonal skills, information processing skills, self-control and ethics, and creativity as the competences to nurture through education. Therefore, the six key competences suggested by the Ministry of Education in 2015 included self-management, knowledge information processing, creative thinking, aesthetic sensibility, communication, and community competence.

The meaning of each competence is as follows: Self-control is the ability to be self-directed with basic abilities and skills necessary for one’s life and career with identity and self-esteem. Knowledge information processing competence is the ability to process and use knowledge and information in various areas for reasonable problem-solving. Creative & convergent thinking is the ability to converge and use knowledge, technology, and experience in various fields to create something new.

Aesthetic sensibility is the ability to have insights and understanding of others based on cultural qualities and sensibility to create and enjoy quality and happiness of life. Communication is the ability to effectively experience one’s thoughts and emotions and arbitrate conflicts in various situations of life. Community competence is the ability to uphold the value and attitude required for the members of regional, national, and global communities to actively engage in solving community issues.

4. Six fields of philosophy

There are various fields of philosophy, but the model selected the subjects that are closely related to convergence education and the areas that are considered important in

school curriculums. Those fields are Science, Math and Art, in STEAM education system and also, we added Society, Confluence, and Humanities.

STEAM Education that pursues nurturing creative minds and whole-minded education has intended to overcome the limitation of previous science education by combining STEM with Arts. STEAM aims at developing the science-centered STEM education, so it would need to be defined as a concept of convergence along with imagination in humanities in order to fully contain the significance of completely convergent education. It is intended to realize the educational ideal of convergence of all subjects and the concept is critical to embody the idea in the actual school education.

Humanities are academic disciplines that study human culture. In the Middle Ages, the term contrasted with divinity and referred to what is now called classics, the main area of secular study in universities at the time. Today, the humanities are more frequently contrasted with natural, physical and sometimes social sciences as well as professional training [10].

A society is a group of people involved in persistent social interaction, or a large social grouping sharing the same geographical or social territory, typically subject to the same political authority and dominant cultural expectations. Societies are characterized by patterns of relationships (social relations) between individuals who share a distinctive culture and institutions; a given society may be described as the sum total of such relationships among its constituent members. In the social sciences, a larger society often evinces stratification or dominance patterns in subgroups [10].

And confluence is also very important concept these days. In geography, a confluence is the meeting of two or more bodies of water. Also known as a conflux, it refers either to the point where a tributary joins a larger river, called the main stem, or where two streams meet to become the source of a river of a new name.

5. Conclusion

The study of creativity does not have a long history in Korea compared to the Western academic history. Most studies in Korea has focused on understanding and analyzing the study of creativity in the West, but some studies have been conducted to develop creativity examination tools for the Korean people and compare the Korean people with foreigners [11]. Eun Hyun Sung et al. [12] conducted a comparative study of creativity of Korean and American college students and Kyung Hwa Lee [13] has developed a creativity examination tool for Korea and conducted a comparative study with Australia. Studies are being conducted in regards to Korean creativity and multicultural society as Korea is quickly becoming a multicultural society.

The use of model to support collective creativity is a more complicate process. It is necessary to introduce appropriate model into a suitable type of organization that would preferably be one employing multidisciplinary school levels and students. It is also important that the participants find the model useful for organizing and planning their creative ability improving. When students are being creative in the classroom they are likely to question and challenge. Creative pupils are curious, question and challenge, and don't necessarily follow the rules. They make connections and see relationships. Creative pupils think laterally and make associations between things that are not usually connected. They also explore ideas and options. Creative students play with ideas, try alternatives. Sometimes they reflect critically on ideas, actions and outcomes. They review progress, invite and use feedback, criticize constructively and make perceptive observations.

Considering the reality where middle and high schools are losing interests in creativity as academic performance is considered most important for college admissions in Korea, however, it would be absolutely necessary to conduct Korean creativity studies for each group of individuals from children to adults and develop a program to promote creativity nationwide for the coming age of creative economy. The key contribution of this study is that it applied the concept of core competencies of future education in every school students.

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