A STUDIO ON CREATIVITY EDUCATION TAKING ADVANTAGE OF INTERACTIVE MEDIA - FOCUSED ON ‘MULTI SENCE’

Boyoung PARK (pby800@hanmail.net), Soyoen JUNG, Jiyoen JANG, Sungsik LEE
Graduate School of Techno Design, Kookmin University

Abstract: Studies and developing education program for multi senses and creativity education; total education using five senses is getting more variety, because the importance of creative education is increasing these days. But the teaching materials for these programs are still old making-oriented analog type. In this study, we mention the possibility of analog type materials and interactive multi senses media materials those are suitable for creativity education that requires variety and new experience, and suggest real creativity education program to find out the best suitable education media for each education program. Especially, we would give chances to children to experience new and creative practical education by developing programs using digital media materials which can materialize interactive performance that cannot be shown by analog type materials.

Keyword: Education, Creative, Digital Interactive Media, Multi Sense

1. Introduction
Creativity can be improved by study. So the school education should provide activities to increase creativity. Lots of programs and teaching materials for creativity are developed these days. In this study, we mention the possibility of creativity education using variety media, and suggest programs to help developing materials that children could have more experience of multi senses.

2. Creativity Education
2-1. Importance
A society has creativity or not is so important that creativity is emphasized by industry rather than educational field because it is the key of survival. It is the matter of survival and essential issue, so it should be manifested.

2-2. Creativity Education
The definition of creativity was mentioned by B. G. Park (1998); he said the knowledge elements of creativity are originality, flexibility and delicacy and the attitude elements of creativity are sensitivity, openness, independence and the spirit of inquiry. Creativity education should be developed as the programs that can satisfy these elements.
Creativity can be improved by study; on the contrary, it could be decrease if it is not used. That is why school education provides the program to increase creativity. Earlier program while brain is developed are better because it is the most effective that education started when they are young before brain is not harden and when they can flexible think.

3. Creativity Developing and Interactive Media
3-1. Creativity Education through Practice
There is one way of variety approaching to creativity by B. G. Park (1998) that is a try of understanding creativity as a whole process with related elements. person, process, press and product, he called them 4P.

4. Designing creativity multi senses program
4-1. Contents
It contains programs using multi senses.
1) Multi senses: positive using of multi senses with sounds, rhythm and visual.
4-2. Lineup and contents of education program
1) Making Trees: Understanding after making tree form using paper. Then put them together as one tree.
2) Making Cubic: Making basic form with newspaper, paper scraps, then, make other forms.
3) Painting project: Stamp with variety dyestuff (Using every kind of materials in our living as dyestuff)
4) Making touch books: Make own book that has lots of feelings with crumbling paper, tissue, foil, etc.
5) Making fragrant books: Make fragrant book with spreading many kinds of juice on it.
6) Drawing by rhythm: rhythm according to the music that the tutor playing with wearing black gloves on hands and feet. Drawing would be drawn according to the moving line of hands and feet. (It is possible to total experience to listen, rhythm, express and appreciate.)
7) Making sound: If children touch the grid screen, variety sounds which are installed before would be produced. After hearing the sound, put a numbered sticker on the screen. If children touch the screen following the order of numbers, they could listen to the sounds that made by themselves. (They could experience and express sound editing and reconstruction.)
8) Painting with singing: After choosing one among ten graphic styles, sing on the microphone. Then chosen graphic style would be drawn on the screen according to the height of the tones. Children could have their own drawing made of sing by saving the screen data.

4-3. Lineup Media (Analog, Digital)
1) Analog Media: Using this on the program which children makes and experience directly (making trees, making cubic, painting project, making touch books and fragrance books)
2) Digital Media: Using this on the program which requires multi senses experience not analog materials. (Painting with rhythm, making sound, painting with singing)

4-4. Space Interface design
Simulation of interactive digital media program would be like this;
Materials – Computer, Speaker, Mic, PC Cam, Projector, Screen, Black Gloves, Black foot cover, sticker with numbers.
Algorithm – Using interactive software by sensing like Max Msp Jitter, prepare program installed on the computer. Then, make input data from camera or mic, with computer processing, into another form of output such as images or sounds through the projector.

5. Conclusion
We think about teaching material with multi senses and interaction as a way to creativity education. If we lineup programs considering characters of programs and media, it could be more effective creativity education. In addition, variety multi senses experience in childhood would be a guide to real creativity for coming digital era.
We have a plan to study to observe the results after enough testing of children education with multi senses and interactive media mentioned in this study.

6. References
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