Research on Creativity in Design Education
On the role of expression and reflection upon the process

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Abstract: The purpose of this research is to understand the creativity aimed at in design education. This research was progressed by the method of verifying educational practice of Visual Communication Design for the purpose. The lesson of the Visual Communication Design currently practiced for hearing impaired students, in Faculty of Design, Tsukuba College of Technology was made into the example. It inferred what kind of creativity the student demonstrated from the example. Consequently, it turned out that the student raised the creativity when they connected with their self-expression. In addition, it also turned out that self-reflection of a creation process is effective in design process. The result of this research shows that future design education needs to take hold on expression in the individual inner world more.

Key Words: Creativity, Education, Design, Visual communication, Art

1. Introduction

The author researched in order to point out and describe what kind of creativity would be developed in design education. There are two educational systems in the design subject of study of Tsukuba College of Technology, a product design course and a communication design course. The education in the latter is studied in this research. The example of the lesson made applicable to research is one of the lessons whose author is taking part in education from 2000. The name of lesson is “Theory and Practice of Visual Communication Design”, which carried out for the second grade. The student of Visual Communication Design Course aims at fostering abilities of printing, the publishing business, and graphic design after graduation. Therefore, it is clear that the educational purpose is the skill of DTP or graphic design needed in the occupations. However, it turned out by former investigation that it had not been necessarily to reply to requests of the students [Nagai, 2002]. Therefore, in this research, what kind of creativity really has been required for the design students would be considered. Moreover, it verified also about the self-reflection of the design process by the students taken in as the method of creativity development. The author thought that it is difficult to consider the educational effect in one lesson. Probably, more than it, it will be more difficult to plan an educational effect quantitatively. Then, the method of investigation synthetically was taken about what creativity was developed in the lesson.
2. Purpose of design education

2.1 Art education and Design education

Usually, it is thought that the purpose of design education differs from the purpose of art education. In design education, it is called for more than art education that it is work with the sense of purpose, which clarified of being helpful to something. The meaning of helpful is a demand of a consumer. Or, it can be said that development of a new product is helpful to a company. Furthermore, it can also be said that a design replies to a social request in a large meaning. The domain of a product design expresses such an idea about a sense of purpose most typically. In a product design, the demand of a user is more important than a designer's self-assertion. The expert designer is requested that he/she can pile up his opinion with a demand of a consumer well. Because of that, the educator of design education is strongly conscious of "a design is not art." However, in the domain of Visual Communication Design, the classification of a design and art will make an unnatural state. There are also much those who opted for entrance into a school of higher grade in a design subject of study by the reason of since he likes art among students. There is a possibility that it may be caught in the meaning that it is not freer than the thing which he wants to express to consider to meet the demand of the others previously. In practice, although it is important that it can be helpful to society through the thing, which he wants to express, it is not good to make a student consider to press oneself down. When its expression is able to be realized into society as a design and can be helpful to the others, a design doer can say that it is an active expression person. Noguchi and Nagai described this kind of design as the personal level of creativity [Noguchi and Nagai, 2004]. Figure 1 shows the levels of creativity. This model is illustrated three levels of creativity based on Boden's theory [3].

![Figure 1 Three levels of creativity](image)

(A: personal level, B: society level, C: historical level)

2.2 Aims of Design

In the Visual Communication Design Area, it is also important to use the technology of a design for society. Contribute to society by acquisition of design technology is the goal of design education. By learning the technology of a design, a student can get a future occupation and can pursue own happiness. The author thought the another target in design education that every student's personal creativity should be expressed and demonstrated. Of course, a design work must fully demonstrate a function. In this case, the function of a design means that it is a design for the others. Therefore, it is the purpose of design education to perform the act of a student
understanding his individuality one by one, and expressing it. It is also the purpose to
live a life of the others happiness through the function of a design. Moreover, the
capability for a student to understand his creation act is important as a higher order
purpose. Thus, understanding that the level of creativity is constituted by an individual
level and the social level is connected with understanding the target of design
education synthetically. It is necessary to avoid that design education becomes skill
training on the title of responding to a request from the industrial world. It is the
author’s position that the design education in which philanthropy also employed the
important but individual motive efficiently should be thought as important.

3. Visual Communication Design

3.1 Expression in Design

Artistic expressions are taken interested because they can define the difference of
each artist. For example, when several people draw a bird in a cage, their works are
all different from each other and there are never the same pieces. This difference is
resulted both from the difference of the way the artist see the object and the technique
he draws. Moreover, the audience adds their own comprehension. The culture of
drawing and appreciation it and the art of visual expression is working to show that
the human being has in his mind the ability of administering the image and this ability
is also socially controlled. The syntax which concern visual information except of
language is described later, the relation between the subject of expression and his
vision is discussed here. As the perception belongs to its owner subject, the world that
one is seeing now, basically is seen by others. So, having the excellent visual
perception and giving visual expression have been thought to have interactive relation.
In the artistic expression like painting that has its basis on vision, it is believed that
the vision itself can be improved by training, for example, rough drawing and the
things that the artist can accomplish the expressional technique. (Arenheim,1976) In
educational method of creativity, typified by Itten (1967), which regard valuable
individual sensibility as the medium of perception, beginning from the breathing,
sharpening vision and other perception is though to polish the sensibility as the basis
of expression. The vision is dealt with here individually from among the other process
of sharpening the vision and other perceptions, and it is described upon the process of
gaining the world by vision. Nagataki (1999) described that the vision has supremacy
in the world structuring process taken by perception. After that he discussed the
importance of waiting the accomplishment of vision construction as he illustrates ‘the
process of artists’ gaining their own vision’. Then, he concluded that in order to gain
artist’s vision, there is no other way than leaning by seeing. His study has in common
with J.Barger. Bager discussed that to see has something in common with to touch,
and it means to possess the thing one can see by his vision. And the process is
constructed by stacking the experiences to see, and there are no other means to do this
(Barger, 1993). When tying to discuss the creativity, the necessity of treating why
stacking perceptual experiences forms the expressional basis, (though) this has been
regarded quite common by now, should be realized.

3.2 Case Study

The lesson which was investigated is ‘Theory and Practice of Visual

Five students were asked to book design which his/her favorite novels. They brought each two or three books and selected the best one in them through the discussion with classmates and educator.

Figure 2 shows example of the students work. The book which selected was old Japanese literature ‘Wagahai-ha Neko-de-aru.’ Figure 3 is another student’s work and the book title is ‘The Copy Cat’ which is popular suspense.

Students were asked to reflect and explain their design works after finish and they presented the process of work, what keyword of the story they found was represented.

Figure 2  Student’s work 1 (by A. Motegi)

Figure 3  Student’s work 2 (by J. Ito)
4. What’s the students studied

After the student presentation, authors conclude their explanation and analyzed by meaning analysis method. Then, the results was all the students found out some important keywords to develop their images. Each keyword was related with the student self-expression which had been asked to write before the lesson.

Based on the results, the author concluded that the students were finding keyword connected with their interests and developed the image through transforming. Also, they realized and noted the process of design work. This can be called Meta-Cognition of design of creative design.

References
5. Itten, J. Personal Notes on Education in Bauhaus, 1967