

Effect of Pre-and Post-internship Trainings for Freshmen and Sophomores in University Using the Lego Serious Play Method

Namiko Inoue*・Osamu Kikima**

Abstract This study focuses on internship programs targeting freshmen and sophomores in university. It analyzes the students' perceived employability and their general perception regarding a role after completing a relevant internship. In this study, 80 percent of students report an increase in their communication skills and general mental ability. A statistical analysis of this result shows a significant enhancement of self-assessed vocational ability. The subjects of this research not only include students, but also the organizations that provided the internships. The organizations evaluated the students with respect to: communication skills, collaboration skills, behavioral reform, and view of the occupation. In all cases, the organizations rated the students higher than the students rated themselves. This research focuses on the experience during the internship experience period. In internship education, the content of pre-learning and post-learning also influence the educational evaluation. It is necessary to consider the educational effect of pre-learning and post-learning, which should be the next research subject.

Key words internship programs, freshmen and sophomores in university, lego serious play method

1. Issue Identification

According to the "Survey on Internship Implementation" conducted by Japan's Ministry of Education, Culture, Sports,

Science and Technology (MEXT), internship programs are increasing in all levels of higher education, from specialized training colleges to graduate schools.

MEXT recommends higher education

* 福岡県立大学人間社会学部・准教授

** 九州産業大学・教授

institutions in Japan to implement internship programs. Experiences gained through internships differ from those of part-time jobs, and should produce positive educational effects. Therefore, professors who oversee internship programs need to bear in mind students' four-year timeline when designing related courses.

Although most internships take place right before job-hunting, this is too late for students. Instead, it would be best for students to experience internships as a freshman or sophomore, before they chose their career. This way, students would have a more flexible view toward working.

Internships will enable them to expand their view as well as identify challenges in terms of their capabilities. After experiencing internships, students can strive to overcome such challenges and continue to develop during the remainder of their student life.

Many prior studies on internships point out that pre- and post-internship education programs are important. However, they do not sufficiently examine the educational contents of internship programs. This study focuses on internship programs targeting freshmen and sophomores in university. We used plastic blocks in pre- and post-internship trainings. But, in this paper we cover only pre-internship trainings. In an attempt to help students express their perceptions in words.

2. Prior Studies

Edgar Schein put forward the theory of "internal career" and "external career."

"External career" refers to information such as work experience, achievements or past job titles that are usually written on one's resume. Such information can easily be conveyed to others. Information printed on business cards are usually part of one's external career. Meanwhile, "internal career" refers to one's feelings or interests gained through such work experiences. Such information is difficult for others to comprehend, and at times, may not even be clearly acknowledged by oneself. Dr. Schein perceives career based on these two aspects.

This paper examines how using plastic blocks can help students perceive their "internal career."

Operational definition of "internal career": How freshmen and sophomores perceive various occupations and one's capabilities. Plastic blocks are useful in understanding many things, including the reason why people work. They also make it easier to envision connections between organizations and individuals, between workplaces and local communities, and between lessons learned in society and those learned at university, which are invisible.

3. The Reason and Significance of Using Plastic Blocks

“Learning by Expanding” theory by Yrjö Engeström: Thought can be stimulated by using artifacts or improvising objects. One can explain their thoughts more easily using models rather than just words. They can visualize their ideals and values through comparison. They can also create their own criteria to assess their capabilities.

Effect of blocks

- Blocks help visualization
- Blocks enhance thinking capabilities
- Blocks make it easier to envision spatial connection
- Blocks enable comparing one’s own work with others’, and stimulate creativity
- Blocks enable students to focus on internal factors (introspection), thereby making abstract matters easier to understand
- Blocks enable students to realize that internal factors include feeling motivated and fulfilled at work
- Blocks enable students to realize that external factors include income and work environment
- Blocks can express meaning through antennas (metaphors)
- Blocks support clarification of anxiety

It is difficult for students to talk about

working. This makes it hard to determine how students’ feelings or perceptions toward working change before and after internships, or during pre- and post-internship trainings. At first, we thought that using a dialogue method might be effective. However, we then considered that using a tool would be better. After searching for an adequate tool, we decided to use plastic blocks to try to capture changes in students’ awareness. We assumed that using blocks would enable students to broaden their perspectives. Students would be able to visualize their images in 3D. Since 3D objects are easier to fix, blocks would also prompt trial and error. This paper refers to research results by Yrjö Engeström.

Internship experiences help students think about how to spend the remainder of their student life, and determine prospective fields for job hunting or careers to pursue. However, in some cases, internship experiences may have negative impacts on students. Therefore, professors should support students in deciding their own actions or behavior regardless of their experiences at internships. We predicted that once students overcome internship experiences by using tools, they would be able to create new situations and design their future. In other words, tools will enable students to create new ideas.

In this research, we attempt to verify whether students will be able to make their

own decisions in school life after internships. This research relies on the idea indicated by Engeström in 1987. By reflecting on their internship experiences using plastic blocks, students will likely be encouraged to extend their thoughts about working as a member of society. Also, lessons learned through internships can serve as a foundation for the remainder of their school life and for job hunting.

We believe that learning through blocks can accelerate students' development while promoting their understanding of society. This research aims to present a new method of career education based on internships, by verifying the degree and quality of expansive learning.

We conducted a survey on this point before and after the training.

(1) Survey respondents : Liberal arts student in public university (Freshmen and Sophomores)

(2) Number of subject : 19 students

(3) Task (Challenge to make in block) :

- ① Ideal society,
- ② The meaning of working in society,
- ③ New goals during university

4. Results and Findings

Below, this report shows the results of the questionnaire survey.

19 students answered the questionnaire. The students answered the questionnaire after the class was over. Ethical

consideration was given that faculty explained that the questionnaire is not related to grades. The results show 2 points. The first point is a shift from egoism to altruism. And second point is the number of those who responded "Do not know" decreased or became zero.

Findings of this study are as follows.

1. We acknowledged a broadening in student's perspectives. Students seemed to recognize connections with people.
2. Blocks helped students visualize their perception toward work.
3. Blocks helped students clarify new challenges.
4. Also, Negative impression deepen and concrete. Need support system

It is easier to build hierarchical relationships especially when focusing on inner motivation. This is probably because blocks can be stacked in 3D (i.e., height, width and depth). One can also infer that students' thoughts extend to what is hidden behind or beneath their values.

5. Limitations and Challenges Going Forward

We aim to reflect the results of this study to the next academic year's internship education program. One finding from the survey results was that We need to measure the educational effects of plastic

blocks and internship experiences separately. In the next study, I plan to create a questionnaire that takes this point into consideration. Also, it was difficult for students to express their thoughts on working using blocks. Our goal is to support students in expressing their perception toward work. Then, students will be able to hold a clearer image of working. We will continue our research in order to contribute to such outcomes.

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<Table. 1>

Q1.Significance of working: pre internship without blocks (multiple answer) N:19

answers	ratio※
earn (make money)	63.2%
social contribution	26.3%
member of society	10.5%
personal growth	10.5%
hard to say	10.5%
purpose of life	5.3%
for killing time	5.3%

※denominator:19

<Table. 2>

Significance of working: pre internship with blocks (multiple answer) N:19

項目	ratio
personal growth	36.8%
achieving a goal	31.6%
social contribution	26.3%
member of society	21.1%
a cog in sociegy	10.5%
earn(make money)	10.5%

<Table. 3>

Significance of working: ex-post internship with blocks (multiple answer) N:19

answers	ratio
a connection between people or society	36.8%
social contribution	26.3%
goal achievement / worthwhile	26.3%
member of society	21.1%
earn(make money)	15.8%

<Table. 4>

Q2.emphasis points of choice in employment :pre internship without blocks (multiple answer) N:19

answers	ratio※
work environment	36.8%
compatibility,adovantage of capability	36.8%
satisfying job	21.1%
salary	5.3%

<Table. 5>

emphasis points of choice in employment :pre internship with blocks (multiple answer) N:19

answers	ratio
work environment	36.8%
compatibility,adovantage of capability	36.8%
satisfying job	36.8%
salary	5.3%

<Table.6>

emphasis points of choice in employment :post- internship with blocks (multiple answer) N:19

answers	ratio
satisfying job	47.40%
work environment	31.60%
compatibility,adovantage of capability	31.60%
salary	15.80%

<Table. 7>

Q3.image about self and society .Image about self and social connection

(N:19) : pre internship without blocks

answers	ratio
no idea	78.9%
helping each other	5.3%
community participation	5.3%
approach to society by myself	5.3%
not get use to society yet	5.3%

<Table. 8>

image about self and society .Image about self and social connection_ : pre internship with blocks

answers	ratio
no idea	31.6%
connection with others	31.6%
to be far apart	15.8%
grow up to be a member	15.8%
tough	5.3%

<Table. 9>

image about self and society .Image about self and social connection, ex-post internship with blocks

answers	ratio
interrelate deeply	31.6%
a member of society,contribute to society through our work	21.1%
Live and let live	10.5%
social association,relationships with others	10.5%
no idea	10.5%
society behind the wall ,no great distance from university	5.3%
mature by the interpersonal relationship in occupation society	5.3%
social contribution	5.3%

<Table. 10>

Q4.anxious points about the internship (N19) : pre internship without blocks

answers	ratio
can work well or not, make mistake	36.8%
positive action	21.1%
nothing	21.1%
keep comunication	15.8%
what kind of job that I will try	5.3%
sometime I lost my role	5.3%
the condition of being shy	5.3%
master role and job	5.3%
late arrive , early riser	5.3%

<Table. 11>

anxious points about the internship (N19) : pre internship with blocks

answers	ratio
can work well or not, make mistake	26.3%
nothing	26.3%
keep comunication	15.8%
positive action	10.5%
sometime I lost my role or work	5.3%
the condition of being shy	5.3%
master role and job	5.3%
lack self-confidence	5.3%
basic skill of manners	5.3%

<Picture. 1>

Block work ① “work in society”beginning [by students A & B]



<Picture. 2>

Block work ② “work in society”closing stages [students A & B]

