

# On the Development of Profession's Basic Abilities Studied By Using the PBL Educational Method

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## ON THE DEVELOPMENT OF PROFESSION'S BASIC ABILITIES STUDIED BY USING THE PBL EDUCATIONAL METHOD

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### Abstract

In general, it is said that town management takes ten years until its effect appears. Therefore, continuity is the most important. This paper focuses on the second year project to revitalize city centre through cooperation among industry, government, academia, and local community. In Kanazawa City, the price of land in the city centre has been rising lately facing the operation of a new Shinkansen line in 2015. Following a plan of the Sinkansen project, "Marche" started as a practical response to the complexities of city revitalization. The project which we carried out last year was to create the Branding Scheme to make a sense of unity, and make effective use of the space called "Seseragi-Street" in the centre of Kanazawa City. We organized "Marche" and held on September 30, 2012. The project promoted mutual interaction between students and citizens and it let students deeply commit to the aim of making better society.

Since the results of the questionnaire surveys last year encouraged, we tried to improve "Marche" by increasing the number of times and the scale this year. To carry them out, we added and planned many activities and many groups regardless of age or gender to energize the area. We won the competition of the municipal budget again which made it possible for us to continue the project in 2013. This is a practice using Project Based Learning scheme to enhance students' twelve abilities classified into three categories: action, thinking, and teamwork. The scheme is an evaluation method for what the society fundamentally requests. In addition, our questionnaire survey to stores and visitors has done successfully and we counted the number of visitors. The result showed more than 1000 people visited each time, meaning "Marche" has been recognized as a regular event. We also made a questionnaire survey for students asking about which abilities they think they could improve. The self-evaluation causes one of the educational effects and its result notifies the students of their specialties.

In addition, we won the first prize of Design Competition 2013 in Yonago on November 14, 2013.

**Its proper evaluations would continue driving force and keep up students' motivations. It can be said that the project was surely guaranteed in that it is socially awarded every year.**

**Keywords:** *Revitalization of City Centres, Continuity, Collaboration, Action, Thinking, Teamwork, CDIO*



Figure 1, Seseragi Marche in 2013

### Introduction

The so-called hollowing out of economy in city centre is now a major problem in many local cities. To deal with the difficult situation, in Kanazawa City, redevelopment projects have undertaken and also town centre managements have emerged as practical responses to the complexities of city revitalization. Faced with the operation of a new Shinkansen line in 2014, the revitalization has been achieved so that the price of land in the city centre has been rising lately. Following the trend, we planned and carried out the project of "Seseragi Marche" last year, which makes the street called Seseragi Street well-known.

This paper describes the project planned and carried out through cooperation among industry, government, academia, and local community. This project brought out the synergistic effects of collaborative learning among different groups. Students' supports to revitalize city centre and the project's activities deepened the relationship between the students and the citizen.

The aim of the project in 2013 was to make "Seseragi Marche" a regular event. In the second year of the project, we tried to hold Marche four times. In addition, we planned new programs in which children, women and also elderly people could be involved. We

hope that they made the street much livelier. And also, Nishimoto Lab. in INCT joined us as a partner and gave us a big help this year.

**Materials and Methods or Pedagogy**

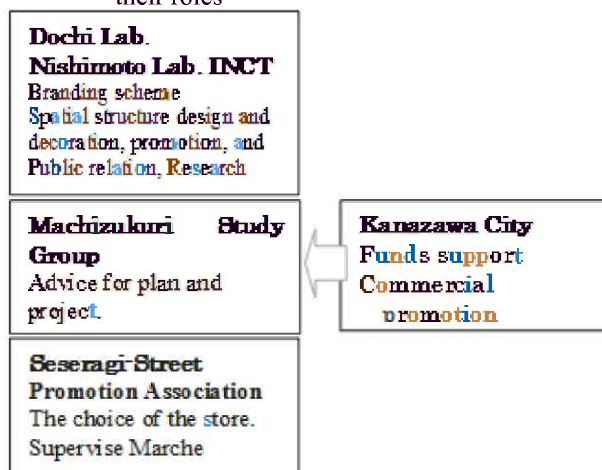
**Location and Problem**

Seseragi-Street is located in a commercial district in Kanazawa City centre where old and new stores uniquely co-exist. The length of the street is approximately 1km along an irrigation canal. Despite that the street has a lot of traffic and also unique feature, it is hardly considered to be a well-known street. In order to establish the sense of unity and community, we started Marche last year.

**Organizing a Project Partner**

Human resource and budget are necessary to implement the project. Therefore, last year, we firstly formed a project partner to work on the project. The project partner consisted of three groups: Dochi Lab. in INCT, Machizukuri Study Group belonged to Toyo Planning CO., LTD, and Seseragi-Street Promotion Association. In addition, Nishimoto Lab. in INCT joined us as a partner in 2013. Then, sixteen students including 8 fourth grade students and 8 fifth grade students got involved this year. The project was a part of an activity in laboratories and a class in college. The groups cooperated, taking advantage of their specialties. Dochi Lab. and Nishimoto Lab. in INCT were in charge of branding scheme: spatial structure design and decoration along the street, public relations, planning and promotion and also research in the project. Machizukuri Study Grope belonged to Toyo Planning CO., LTD arranged with each group and the related people and also advised for plan and project. Seseragi-Street Promotion Association supervised Marche and was in charge of the choice of the store at Marche.

Table 1, The correlation diagram of project partner and their roles



**Budget: Cooperative challenge project for town management.**

Secondly, to implement the project, we tried to prepare a budget. In 2013, we gained two public funds. One was the Cooperative Challenge Project for Town Management that we obtained last year, too. It was a cooperative project of both citizens and the administration. Kanazawa City provides a budget to invite public participation. The purpose of this project is to call for ideas of revitalization in regional areas or challenge to the new field to solve various administrative problems. Many original plans were proposed from the citizens or groups in 2013 too. 57 groups applied and 44 passed the application competition. 28 out of 44 groups were selected at the final presentation competition. And the other was Revitalization Project for Regional Shopping Area. Seseragi-Street Promotion Association applied it and got passed. With the budget, we made an original tent and a sign board which were designed for easy and speedy set up.



Figure 3, Cooperative challenge Project for Town Management in 2013 and original sign boards

**The Projects**

**1. July 6, 2013 Seseragi Marche on the Star Festival**

The first Marche was held on July 6, on the Star Festival. 8 stores were open at open-space on the street called Korinbo-Hiroba. We made advertisements and planned space design and stage events. The staffs and visitors wore a cotton summer kimono with summer features to make the street much livelier and more attractive.



Figure 4, Poster and Article from Hokkoku Shinbun. July 7, 2013



3. October 6, 2013 Seseragi Marche



Figure 5, Korinbo-Hiroba July 7, 2013

2. September 8, 2013 Seseragi Marche in twilight

The Second Marche was held on September 8. 13 stores were open at Korinbo-Hiroba, We made advertisements and planned space design and stage events. A part of sales was donated to Tohoku for the Great East Japan Earthquake.

Marche in the evening was our first attempt. According to our research, approximately 1,000 visitors came during 4 hours. The Mayor came to see how crowded the place was.

Since the festival called Seseragi-Matsuri takes place once a year in autumn, we decided to hold Marche and the festival on the same day so that the street became livelier and more attractive. We made advertisements and planned space design and stage events as we did last year. At the festival, the street was closed to vehicles and 46 stores were open at Korinbo-Hiroba. As new events, work-shop and art exhibition for children were implemented. Also joined Marche was a fresh-market organised by a group of neighbours.



Figure 9, Poster and Article from Hokkoku Shinbun. October 7, 2013



Figure 6, Poster and Article from Hokkoku Shinbun September 7, 2013



Figure 10, Work-Shop and Art-Exhibition for children



Figure 7, Korinbo-Hiroba September 7, 2013

4. November 4, 2013 Seseragi Marche

The last Marche in 2013 was held on November 4. 12 stores were open at Korinbo-Hiroba, We made advertisements and planned space design and stage events. A new work-shop for children was carried out.



Figure 11, Poster and Article from Hokkoku Shinbun November 5, 2013



Figure 8, Greetings from the Mayor and donated a fund to Tohoku



Figure 12, Korinbo-Hiroba Work-Shop for children November 4, 2013

## Results and Discussion

### 1. Evaluation

We had two evaluation methods through counting the number of visitors and a questionnaire survey about the project to visitors and stores every time. In addition, we also asked students which profession's basic abilities they improved through the project.

#### 1.1 The number of visitors

The success of outside event mostly ascribes to the weather. In fact, in Marche on November 4, it was already cold. However, according to our research, the number increased comparing to the number on July 6. On September 8, 2013, the visitor was approximately 1,000. The Figure 13 shows that it is a quite successful result. It can be said that Marche had the ability to attract more customers each time.

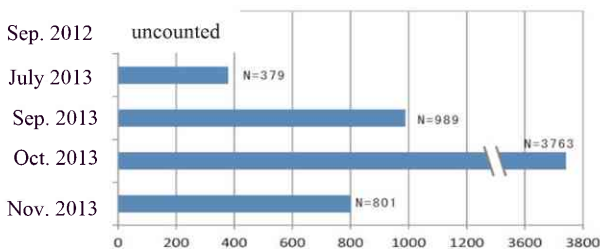


Figure 13, The number of visitors

#### 1.2. Questionnaire survey about Marche

We made questionnaire survey to both visitors and stores. There were ten questions in total. We will show some results below.

##### To visitors

The questionnaire survey to visitors was conducted in an interview-style, asking five questions.

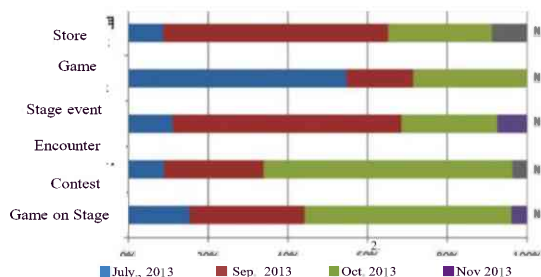


Figure 14, Questioner result on by which activity you were impressed at Marche

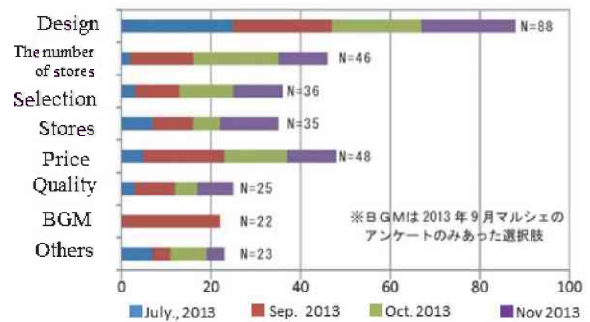


Figure 15, Questioner result on by which you liked at Marche

The first question asked by which activity you were impressed at Marche. The answers in Figure 14 shows that store and stage left a strong impression and the same as last year.

The Second question asked by which you liked at Marche. The result in Figure 15 tells us that design received remarkably high evaluation. The logo mark with branding was accepted widely.

##### To stores

We provided five questions and all stores filled in the form. We collected all answers and some comments.

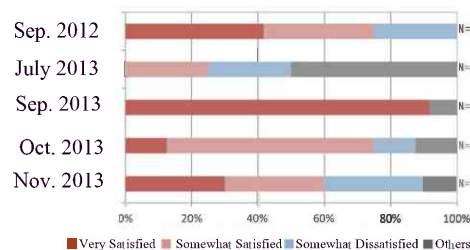


Figure 16, Questioner result on over view of Marche

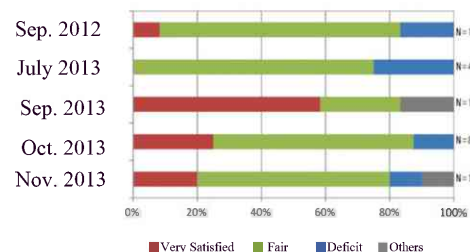


Figure 17, Questioner result on the profit

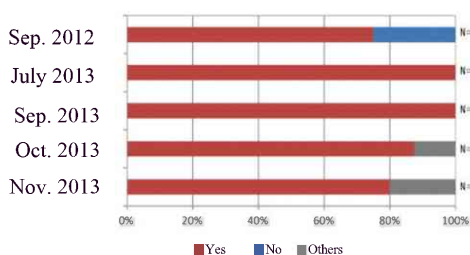


Figure 18, Questioner result on you intended to open your store if Marche is held regularly



As for an overview of Marche in Figure 16, it received quite high evaluation except the one on July, 2013. Marche on July 6 was the first Marche in 2013. The number of visitors was low in Figure 13. And also they were not satisfied with the profit as in Figure 17. However, after that, the result on profit and the overview of Marche reached satisfaction level due to increase in number of visitors. Moreover, the result in Figure 18 shows strong intention of the stores to open regularly at Marche.

### 1.3 Questionnaire survey about Student abilities

One of the aims of the project is practical education to enhance students' twelve abilities classified into three categories. Students are required to develop the ability of basic scholarship and special knowledge. Additionally, they need the twelve abilities as well as the society fundamentally requests them. The Ministry of Economy, Trade and Industry has advocated the twelve abilities in Table 2 as an educational evaluation since 2006. It is because they think it necessary for student to improve the abilities to work with various people at work and in community.

Table 2, Required Twelve Abilities

1	Action,	Independence, Approach, Action
2	Thinking	Finding, Planning, Creativity
3	Teamwork.	Presentation, Attention, Flexibility, Understanding, Discipline, Stress control

Source From: Ministry of Economy, Trade and Industry

As main staffs, 21 Students from Dochi Lab. and Nishimoto Lab. in INCT have been involved in Marche since last year. We asked all members and collected 18 out of 21 answers. A method was called Comparing the Points before –and-after by and also called Five-grade Evaluation.

All ability increased about 1 point in Figure 19. However, presentation ability was quite low. This response may be due to the fact that they realized difficulties of the presentation in public from their experiences. One student commented that preparation in advance was a key to success.

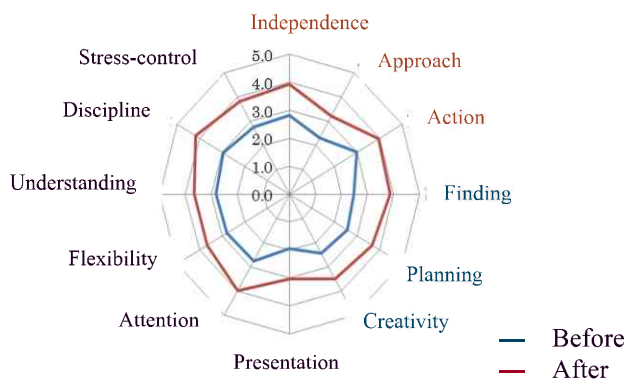


Figure 19, Before-and-after about the point of average of Students' Twelve Abilities

While students seem to have no confidence of their presentation, each item in Figure 20 shows that the students gave more points not only to independence, finding, and attention, but also to presentation. For the presentation, they took care of how it could be successfully shown in public. And also, presentation was a good opportunity to receive various and valuable comments. However, they sometimes faced the stark reality by those comments. In fact, the experiences surly improved presentation technique and moreover it made the project better.

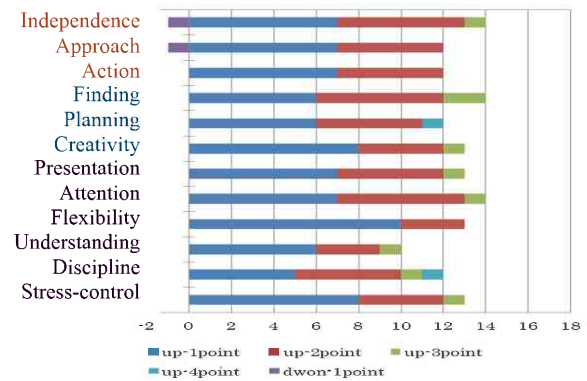


Figure 20, The range of the increased point

## 2. Achievements and additional effects

### 2.1 Projects

Marche was held four times to revitalize the city centre in 2013. Moreover, some additional effects of Marche in concert with other groups in surrounding areas were found;

1. Sweets de Marche promoted Seseragi-Street Promotion Association with other University and collage on November 3rd ;
2. re-opened Fresh-Market with our help and they joined Marche on October 6th ;
3. Event for children: Work-shop, art exhibition October, 6 and November 4th ;
4. donated fund to Tohoku for The Great East Japan Earthquake on September.



Figure 21, Fresh-Market joined Marche October 6, 2013, Sweets de Marche on November 3. 2013, Event for children and report to the Mayor about the donation

## 2.2 Students

The students achieved to publish four News Letters. They visited shops and gathered news materials on their own. Then, they designed and handed them out on the Marche each time.



Figure 22, The first issue of News Letter on July 6

Some students have been involved in the project for two years. Since they made an official presentation many times, their presentation ability including drawing and speech skills had been remarkably trained. Consequently, we won the first prize in Design Competition 2013 in Yonago on November 14, 2013. The Design competition was organised by National College of Technology. 115 plans from 55 colleges applied. The theme of the competition was “Merchant’s House in the city in the future”. We chose Seseragi-Street as its site and designed the street with its feature of irrigation canal and vertical interval. Since we visited the site weekly for two years, we had an opportunity to find what their advantages were.



Figure 23, visited and reported to the Mayor in article from Hokuriku Chunichi Shinbun on Desember18, 2013 and gained the first prize of Design Competition 2013 in Yonago.

## Conclusions

Through the project, it can be concluded into two points as follows:

### 1. What was achieved in the project?

The purpose of the project was to continue the Seseragi Marche. We tried to improve Marche by increasing the number of times and the scale this year. Since Marche was held four times as we planned, it was carried out so. We tried and planned many activities and made many groups regardless of age or gender to energize the area. Because of that, some additional effects and achievements were found. During Marche, we could see a sense of unity and community through Marche’s design works and people’s functions. The space and street which we designed were effectively active and livelier comparing to last year. By increasing the number of times and scale, the number of visitors got increased. It is clear that we carried out and prevailed the image of Marche.

### 2. What did the student achieve?

As in the last year, the student gained five abilities: time management, deadline awareness, communication, budget control, presentation, and design. And also, it was found that Profession’s Basic Abilities were also improved through the project according to students’ self-evaluation. As a result, we have been achieved meaningful goals and achieved social evaluations for two years.

The project was surely guaranteed by the awards and a praiseworthy educational methods.

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