

Japanese Cooperation in TVET Teacher Training: The Malaysian CIAST

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1. Introduction

Capacity development of TVET (Technical and Vocational Education and Training) teachers is one of the key issues facing many developing countries when they seek to increase the number of skilled workers in the labor market. The last two decades have seen a growing interest in TVET teacher training. In 1999, the Second International Congress on Technical and Vocational Education in Seoul, South Korea, on the theme of *'Lifelong Learning and Training: A Bridge to the Future,'* showed recognition of the important role of TVET teachers (UNESCO 1999). In this congress it was confirmed that well-trained teachers can be a bridge between economic growth and human development (Majumdar 2011). The policy was followed at the Third International Congress on Technical and Vocational Education and Training in Shanghai, China in 2012. Based on the Shanghai Consensus, the 2015 Recommendation by United Nations Educational, Scientific and Cultural Organization (UNESCO) states that there are four areas of TVET personnel enhancement that need to be tackled. These are: (i) promoting qualified and high-quality TVET staff; (ii) establishing the status of TVET teachers; (iii) building systematic support systems and articulating the expected role of TVET teachers and their learning needs; and (iv) enhancing initial teacher training and professional development (UNESCO 2015). The Recommendation suggests taking a systematic approach in reforming TVET teacher training.

The Japanese government has assisted capacity development of TVET teachers in developing countries for many years. One of the major Japanese projects aimed at TVET teacher training was assisting in the development of the Center of Instructor and Advanced Skills Training (CIAST) in Malaysia. CIAST was the first dedicated organization for the training of trainers (ToT) in Malaysia and it began operating in 1983 with financial

and technical assistance from the Japanese government. It is located in Shah Alam, the state capital of Selangor. After the Japanese project was completed in 1991, CIIAST has been playing an important role in TVET development in Malaysia as a base of Japan's cooperation for ToT as it dispatches experts to technical cooperation projects in other countries and serves as a host organization for the Third Country Training Programs.¹

The CIIAST project has been recognized as good practice in the 'technical cooperation projects for human resource development' that the Japanese government put great effort in during the 1980s and the 1990s. For this reason, Japan International Cooperation Agency (JICA) reviewed the project many times (e.g., JICA 1995). However, these reviews mainly focused on project outcomes and summarize the lessons from them and do not clearly indicate how the Japanese experience was introduced on site, absorbed by counterparts and disseminated in Malaysia. In other words, they did not sufficiently analyze how Japanese development cooperation was adapted for the Malaysian context.

In Chapter 2, Mori and Ohno presume that the translative adaptation proceeds in three stages: (i) learning; (ii) adaptation or internalization; and (iii) scaling-up or dissemination. CIIAST, which is often referred as good practice in Japanese technical cooperation seems to be at the stage of 'scaling-up or dissemination.' This chapter examines the case of CIIAST by focusing on:

- the characteristics of Japanese development cooperation from the viewpoint of 'translative adaptation;'
- the actual process of translative adaptation (learning, adaptation, and scaling-up); and
- the enabling factors of translative adaptation, including scaling-up.

2. Overviews of CIIAST

2.1. *Japanese technical cooperation for CIIAST*

Japan's technical cooperation with Malaysia relating to CIIAST started in 1982 when Japanese experts were dispatched there based on an agreement

¹ 'The Third Country Training Program' is a method of Japanese technical cooperation. The program is hosted by a country that has received technology transfer from Japan. The purpose of the program is to disseminate the technology to neighbouring countries through training. The program is funded by Japan (JICA 2000).

between the two countries. In January 1981, then Japanese Prime Minister Zenkō Suzuki visited ASEAN countries and proposed the 'Human Resource Development Project' to the respective leaders of each member nation. The project was to establish a local ASEAN training center in each member nation and he pledged 100 million US dollars for this project. The Government of Malaysia agreed to proceed with this project and requested the Japanese government for assistance to establish CIAST to enhance the capacity of vocational training in Malaysia in line with the Fourth Malaysia Plan (FMP) (1981-1985). The plan showed the importance of expansion of vocational training in response to rapid economic growth, structural change in the economy, and population growth. As mentioned in the plan 'an Advanced Skill Centre to provide training for supervisor, foreman and instructors will be built.' The founding of CIAST was in line with the original plan. Based on this request, the Japanese and Malaysian delegations had a series of discussions and these negotiations finally led to agreement on the project's framework.

According to the minutes of discussion between the Japanese preliminary survey team and the Malaysian authorities in April 1982, the basic conceptual framework of CIAST, such as objectives, main functions, the training plan including program capacity and duration, were the main topics of the discussion (JICA 1982a). Although there were many subsequent discussions between the Japanese delegation and the Malaysian authorities, the objective of CIAST follows an original idea from FMP as the minutes mention: 'CIAST will be the national institution for the training and the upgrading of vocational training instructors and supervisors to teach at training institutions and enterprises throughout the country and it will also conduct advanced training for skilled workers and instructors.'

Japanese assistance for CIAST was made up of a combination of grants and technical assistance, as shown in Table 4.1.

Grant aid projects for CIAST thus amounted to 3.8 billion Japanese yen for the construction of facilities and the provision of equipment. The technical cooperation project included the dispatch of Japanese experts, the training of Malaysian personnel in Japan and the provision of a small quantity of equipment (JICA 1982b). The technical cooperation project was implemented from August 1982 to March 1991 and the outline of CIAST it created was: (i) Advanced Technology Training; (ii) Instructor

Table 4.1. Japanese Assistance to CIAST

Project title	Type of assistance	Year	Amount (million JPY)	Contents
Establishment Project of the Centre for Instructor and Advanced Skill Training	Grant Aid	1982	1,740	<ul style="list-style-type: none"> • The main building (the administrative and classroom block) • Workshop • Dining hall • Student housing • Equipment
		1983	2,060	
The project on the Centre for Instructor and Advanced Skill Training	Technical Assistance	1982 – 91	1,693	<ul style="list-style-type: none"> • Dispatch of long-term and short-term Experts (61 persons) • Equipment

Source: Drafted by the authors based on JICA (1982c) and JICA (1993).

Training; (iii) (Industry) Supervisor Training; and (iv) upgrade training for Instructors. The purpose of the project was to support the Malaysian counterparts to establish and operate CIAST.

2.2. The current situation of CIAST in Malaysia

Approximately 40 years have passed since the establishment of CIAST in 1983. The TVET system in Malaysia has been changed since the time CIAST was established. For example, TVET administration in Malaysia was restructured in 2006, with the enactment of the National Skills Department Act (NASDA) 652. According to Rasul et al. (2015), the Department of Skills Development (DSD) was established under the Ministry of Human Resources by restructuring the National Vocational Training Council (NVTC). DSD has the following responsibilities:

- to develop and continuously revise training standards, skills training and the certification system;
- to promote skills training; and
- to coordinate strategies and the skills training program.

After the restructuring of the TVET administration, CIAST was shifted from the Manpower Department to the DSD under the Ministry of Human Resources in 2007. This enabled CIAST to participate in formulating the National Occupational Skills Standard (NOSS) in various industries. CIAST instructors often participated with NOSS development committee members in various fields as experts and facilitators.

In 1983 CIAST started, providing three pillars of training courses, namely, 'Training Methodology,' 'Supervisory Skills,' and 'Advanced Skills.' 'Training Methodology' provided pre-service training and in-service training mainly for TVET instructors for six months each and involved technical assistance from JICA. There were nine modules in this course each with a duration of 1-4 weeks. The course 'Supervisory Skills' consisted of seven modules each with a duration of one-to-four weeks. The target of this course was mainly supervisors from the private sector. 'Advanced Skills' Training was conducted by six specialized departments, including the Automotive, Machine Operation and Die Making, Heavy shop, Electrical & Electronic, Instrument & Automatic Control, and Fabrication, with 29 modules in total.

In 2019, the circumstances surrounding CIAST have changed. The TVET system has been developed, and other TVET institutions are providing instructor training. NVTC introduced the NOSS Certification System in 1992; the implementation of the NOSS-based training system sought to strengthen linkages between training and the world of work (Leong, Yunos, and Spöttle 2015). Malaysia has also introduced competency-based training (CBT), which was originally started in Australia, and developed DESCUM (Develop a Standard Curriculum) based on DACUM (Developing a Curriculum), which came from the United States. Responding to the introduction of NOSS for vocational training instructors, CIAST provides a Vocational Training Officer (VTO) certificate course. The origin of this course goes back to the modules of 'Training Methodology' developed by CIAST in 1983. The course was designed based on VTO NOSS, so students who successfully completed the course were awarded Vocational Training Officer Level 3 certification by the DSD (Malaysia Department of Skills Development 2014). According to the CIAST annual report, more than 912 students completed the course in 2019. CIAST also provides DLPV (Diploma Lanjutan Pengajar Vokasional)² aiming to produce competent instructors who have the Advanced Skill Diploma (Level 5) in specific fields. Furthermore, some short programs such as

² DPLV is a training program aimed at competent instructors who have the Advanced Skill Diploma (Level 5) in specific fields in accordance with Act 652 (National Skills Development Act). <https://www.dsd.gov.my/index.php/soalan-lazim/177-soalan-lazim/1683-soalan-lazim-8>.

customized courses for the private and public sector, NOSS (DESCUM³), Dual System, Facilitator Skill, and CUDBAS (Curriculum Development Based on Vocational Ability Structure),⁴ have been conducted. In short, CIAST has been continuously changing its functions along with TVET reform in Malaysia since its establishment.

3. Data Collection Method

This research aims to reveal the actual processes of translative adaptation of CIAST and how Japanese technical cooperation supported CIAST through interaction between Japanese experts and their Malaysian counterparts. This research adopted a qualitative method since this allowed the authors to analyze the actual processes of interaction through key stakeholders' perceptions. Firstly, the authors collected and analyzed project related documents including project evaluation reports, papers, and the books experts have written. Second, based on this analysis, the researchers conducted semi-structured interviews with key stakeholders who were Japanese experts and their Malaysian counterparts.

The authors conducted semi-structured interviews with the Japanese experts in 2019 and their Malaysian counterparts in 2020. The language of interview was English for Malaysian counterparts and Japanese for Japanese experts. Regarding the Japanese experts, the first chief advisor of the project, Mr. Kasahara, has passed away, but his books are helpful in understanding the project. The authors also found two Japanese experts who served in the early stages of the CIAST project (see Table 4.2).

The authors interviewed 12 Malaysian counterparts (see Table 4.3). CIAST was established as a completely new institution in Malaysia. Accordingly, all CIAST instructors, who acted as counterparts of Japanese experts were newly recruited without predecessors. Before the establishment of CIAST,

³ NOSS is supposed to be developed in the process of DESCUM in Malaysia. According to Amran et al. (2020), the NOSS development process is that first DSD appoints five to twelve 'job experts' personnel as NOSS Development Committee members who are responsible for developing the occupation standard, then the committee members attend development workshops and are involved in completing the Job Analysis and Competency Profile Analysis mostly through brainstorming activities.

⁴ CUDBAS is also one of the curriculum development methods. It was originally developed in Japan in 1990, and has been introduced to Malaysia through another Japanese project named 'Improvement of the Vocational Training System to Keep Meeting with the Needs of Industries' (2008-11).

Table 4.2. List of Interviewees (Japanese Experts)

No.	Organization	Field	Dispatched Period		Duration
			from	to	
Japanese expert 1	Employment Promotion Corporation ⁵	Supervisory Skills / Die Making	1983	1986	30 Months
Japanese expert 2	Employment Promotion Corporation	Training Methodology / Electronics	1983	1987	42 Months

Table 4.3. List of Interviewees (Malaysian Counterparts)

No.	Degree when joining in CIAST	Position when joining in CIAST	Before CIAST			Direct assistance from Japanese expert	Category
			Private sector	Other TVET institution	Specify		
Malaysian counterpart 1	Bachelor	HOD				Y	(i)
Malaysian counterpart 2	Bachelor	HOD				Y	(i)
Malaysian counterpart 3	Bachelor	HOD				Y	(i)
Malaysian counterpart 4	Bachelor	HOD				Y	(i)
Malaysian counterpart 5	Diploma	Instructor				Y	(ii)
Malaysian counterpart 6	Diploma	Instructor				Y	(ii)
Malaysian counterpart 7	Diploma	Instructor				Y	(ii)
Malaysian counterpart 8	Diploma	Instructor	○	○	ITI	Y	(iii)
Malaysian counterpart 9	Secondary	Instructor		○	ITI	Y	(iii)
Malaysian counterpart 10	Bachelor	Instructor	○			N	(iv)
Malaysian counterpart 11	Diploma	Instructor	○	○	ITI	N	(iv)
Malaysian counterpart 12	Higher Diploma	Instructor	○	○	TTC	N	(iv)

Note: 1. ITI stands for Industrial Training Institute.

2. TTC stands for Technical Training Centres under other Ministries.

⁵ The 'Employment Promotion Corporation' was established by the Ministry of Labour to implement vocational training. Most of the technical experts dispatched to CIAST were instructors from this organization.

academic qualification was not required for TVET instructors. According to JICA (1984), the JICA delegation requested the Malaysian side to recruit university graduates and diploma holders as CIIAST instructors and add these to experienced instructors. Responding to JICA's request, the Malaysian side recruited new instructors with higher academic degrees. Therefore, the interviewees were classified into three categories: (i) fresh graduates mainly from universities abroad, with a bachelor's degree; (ii) fresh graduates mainly from domestic educational institutions, with diploma degrees; and (iii) experienced instructors from other ITIs (Industrial Training Institutes).⁶ Category (i) instructors were appointed as Heads of Departments (HOD), and they also served as the organizational management of CIIAST. Most of the category (iii) instructors had working experience in the private sector, which was necessary for instructors at that time, but they usually did not have academic degrees. The authors also interviewed instructors who joined CIIAST after project completion (iv).

4. Findings

4.1. *The Japanese development cooperation approach for CIIAST*

The research findings indicate that Japanese development cooperation for CIIAST can be characterized as two approaches—'hands-on' assistance and co-working based on the self-help philosophy of the Japanese project team (see Chapter 2).

As mentioned in Section 2.1, the original concept of CIIAST was developed by the Government of Malaysia. According to FMP, the Government of Malaysia intended to expand technical and vocational education, thus the FMP included the construction of 12 vocational schools and five ITIs during its period. It also included construction of CIIAST as 'an Advanced Skill Centre to provide training for supervisors, foreman and instructors will be built.' However, there was no detailed concept of CIIAST in the FMP.

JICA participated in the preparation of the CIIAST master plan by dispatching several delegations of Japanese experts. These delegations mainly aimed to discuss and negotiate Japanese assistance to CIIAST,

⁶ ITIs (Industrial Training Institutes) are vocational training institutes under the Ministry of Human Resources.

but they also seriously discussed the basic concept of CIAST such as its training courses, the capacity of each program and so on. In August 1982, both sides signed an agreement of technical cooperation, called a Record of Discussion (R/D). Based on this agreement, JICA dispatched the first Japanese expert to the project in July 1983. He was Mr. Shohei Kasahara, and he devoted four years and two months from that time to the CIAST. His previous position was Vice President of Institute of Vocational Training (IVT) and he had long been involved in vocational training in Japan as an administrative official, so we can assume that he had a wide network in the field of vocational training in Japan.

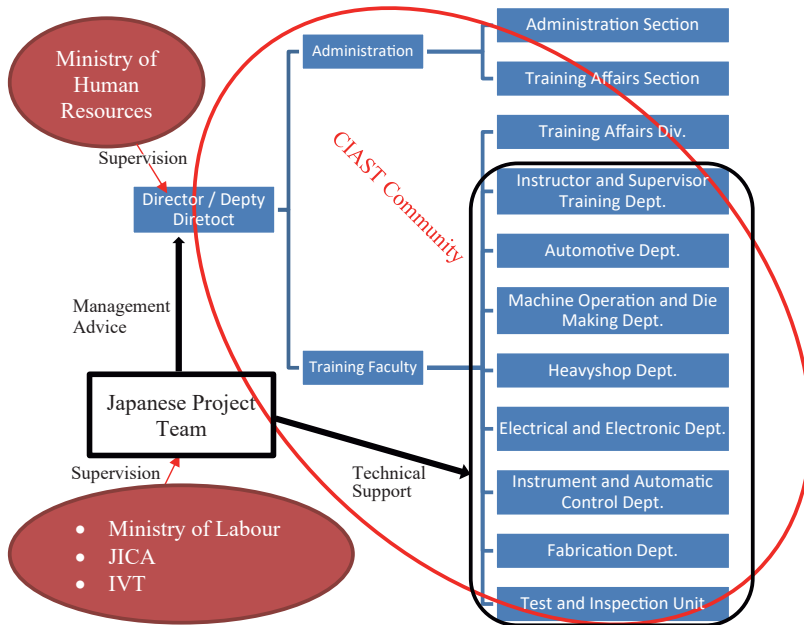
His office in Malaysia was next to the Director General in the Ministry of Human Resources. His first task was to support the Ministry of Human Resources in the establishment of CIAST. He also coordinated the efforts of related Japanese stakeholders, JICA, IVT, and the Ministry of Labour in Japan. In October 1983, a coordinator from JICA and three technical experts arrived in Malaysia to prepare to open CIAST and Mr. Kasahara became the chief advisor and leader of the project team. The chief advisor role was an administrative officer with expertise in vocational training, while the three experts were all TVET instructors who had graduated from IVT, the Japanese public higher educational institution for TVET teachers under the Ministry of Labour.

Project activities were conducted mainly at two levels. First, the chief advisor worked with the director of CIAST, which can be called the management level, while the technical experts supported their counterparts in respective departments, which can be called the technical level (Figure 4.1).

At the management level, the director of CIAST and the chief advisor worked very closely to operate CIAST. Interviewees who worked for the CIAST foundation mentioned the relationship of the director and the chief advisor as:

[the director] and Mr. Kasahara, had a morning meeting, every day, almost every day, because their room is just side by side and then they discuss. They called it their morning prayer (Malaysian counterpart 1);

I still remember that during all our meetings Mr. Kasahara



Source: Drafted by the authors based on JICA (1982a).

Figure 4.1. Project Implementation Structure in CIAST

and our Director General, and our director, every head of department had to be present. When is your first training of Computer Numeric Control (CNC), and okay, your Die making, when? Your copy milling, when, CNC, because we have CNC Lathe so, we have to present to Mr. Kasahara. He was very strict (Malaysian counterpart 3).

These interviewees clearly show that Mr. Kasahara and the director worked literally side by side with very close communication. This indicates that the Japanese project not only provided technical advice but operated CIAST together with Malaysian counterparts.

The technical experts also worked together with their counterparts. The Japanese side strongly requested Malaysian side to assign 2-3 counterparts per one Japanese expert on various occasions such as evaluation missions, advisory missions, joint coordination meetings and so on. A former Japanese expert (Japanese expert 2) mentioned that the 'Malaysia side tried to do their best.' Once counterparts were assigned to Japanese experts,

Japanese experts focused on the capacity development of their Malaysian counterparts by on-the-job training (OJT) and off-the job training (Off-JT):

So, in welding they have 2 Japanese experts, [expert] and [expert]. I learned one by one, face to face for welding and shift metal, because when you are studied at university, you have no skills, welding you have to much more skills (Malaysian counterpart 5);

For example, like my expert have 1 page from the Japanese magazine, so he will read 1 time, and then he translates, 1 sentence, he will translate, I will write down the translation, and then he will explain. After finished 1 page, I already translated to English, then I show to him, and speak to him about my translation and then we just correct the sentences, the meaning of the sentences. And these are part of the material, teaching material for students [...]. And this type of teaching, according to Islamic way. Islamic way is like that, we have one to one with students, and then he will recite the student will also recite. And then explain the meaning of the versus of then he will take example, and maybe he will show. So, this is teaching method in Islam too, so I think, I did like the expert, practice that type of their culture, your culture, it's the same way of our Islamic culture (Malaysian counterpart 4).

Considering that most of the Japanese experts were graduates of IVT, the model of 'TVET instructor training' for Japanese experts was IVT. However, it should be noted that the IVT model was also a work-in-progress in Japan at that time. According to a Japanese expert (Japanese expert 2), IVT professors were also developing a new model of TVET teacher training based on 'Training with Industry (TWI) training,' which came from the United States:

At that time, IVT professors have no established theories or systems of vocational training pedagogy yet, so they rely on TWI. They were in the middle of establishing the system to train Japanese vocational training instructors based on TWI, which is what they taught us. Therefore, we relied on what we learned there, and I tried to implement it in

Taiwan (Japanese expert 2).

As he mentioned, Japanese experts brought the IVT model to Taiwan first then they consolidated their way of technology transfer in other developing countries. Japanese experts accumulated knowledge or lessons relating to technical transfer to other countries based on their practical experiences.

According to a book written by the first chief advisor of the project (Kasahara 1991), the concept of 'self-help' was important as the principle of development cooperation, and he tried to form a common understanding between the Malaysian and Japanese sides based on this concept. The following descriptions, 'JOB DESCRIPTION OF THE CIAST EXPERTS (May 25, 1984)' and 'PRINCIPLES OF THE CIAST TRAINING (March 7, 1985)' were proposed by the Japanese expert team and were accepted by Malaysian counterparts (JICA 1987). The descriptions help us to understand what the technical cooperation project aimed at. First, 'JOB DESCRIPTION OF THE CIAST EXPERTS' indicates that the main roles of the Japanese experts were 'assisting' and 'advising' their counterparts on course development, instead of providing material itself. Second, the Japanese experts tried to let their counterparts to do their duties as much as possible. However, since one of the CIAST purposes was to introduce advanced technologies, some subjects were completely new for the counterparts. This is because there were two categories A and B. Those in category A were basic subjects so the role of Japanese experts was just advising. Category B subjects were more difficult for the counterparts, so the Japanese experts provided more hands-on support. This shows that the Japanese expert team varied the degree of support according to the capacity of their counterparts. Therefore, the descriptions imply that the approach of Japanese experts was a co-working style:

JOB DESCRIPTION OF THE CIAST EXPERTS (May 25, 1984)

1. Research for industrial need of vocational training by way of factory observation, industrial committee activities, etc.
2. Assisting development of training software such as curricula, training aids, final test papers on each module unit, etc.

Category A

- (1) Setting up the principles on the contents of training software by mutual discussion.
- (2) Advising and assisting in making draft by counterparts (CPs).

Category B

- (1) Setting up the principles on the contents of training software.
- (2) Presenting some samples of training software.
- (3) Assisting CPs to make training software.
3. Advising on CPs' conduct of training and final testing.
4. Review on the training software, training conduct and final test of each module unit, and assisting CPs to improve them.
5. Others
 - (1) Planning CP training in Japanese.
 - (2) Monitoring for proper use of equipment provided by Japan.

PRINCIPLES OF THE CIAST TRAINING (March 7, 1985)

1. Introduction of New technology and Related Basic Elements
The training programme places emphasis on the field of new technology and the related basic elements toward attainment of it.
2. Unification of Practice and Theory
Skilled workers are encouraged to study the related science and technology, and highly educated staff are conversely encouraged to come closer to the workshop.
3. Qualification of Performance Ability
CIAST Module Certificates will be issued to those who have passed all final tests under each module.
4. Response to Growing Industrial Needs
Training components and methods of conducting training should meet the growing industrial needs of the country.

Furthermore, this attitude of the Japanese experts focusing on sustainability and capacity development of counterparts agrees with what the interviewees (Japanese expert 2, Japanese expert 1) mentioned:

Regarding how to train our counterparts, I wanted them to develop and expand their training by themselves after we go back to Japan. I did not want equipment provided by JICA to rust (Japanese expert 2);

I wanted counterparts to become instructors who can teach theory and practical skills, *Jitsugakuittai* (Unification of Practice and Theory), who can use and maintain equipment by themselves, same as the Japanese instructors (Japanese

expert 1).

In addition, it should be noted that the close relationship between the Japanese experts and their Malaysian counterparts supported their technology transfer activities. All interviewees who had worked with Japanese experts mentioned the good relationship they had with them. It is possible that the close relationship promoted technology transfer:

It was nothing to do after work. I always met Mr. [expert] at the restaurant and I bring him to my house, I invite Mr. [expert] to my house, so those are the things that bring us together. That was part of the project, but it is a good place (Malaysian counterpart 8);

Mr. [expert] always invite me to go to swimming pool and play tennis at his apartment, near Pantai Dalam. So, not in the training, but outside also very close (Malaysian counterpart 5).

However, this good relationship was developed over time by overcoming some conflict through continuous discussion, as explained in the following section.

4.2. The process of learning and adaptation

CIAST developed its capacity by internalizing the technical advice provided by Japanese experts, according to the research findings and previous studies. However, this does not mean that the process of learning and adaptation was always smooth. It was the result of recurring clashes of opinions and consensus-building. As mentioned in Section 3, there were three types of instructors when CIAST started in 1983: (i) fresh graduates mainly from universities abroad with bachelor's degrees; (ii) fresh graduates mainly from domestic educational institutions with diploma degrees; and (iii) experienced instructors from other ITIs.

As the instructors of the categories (i) and (ii) were very young, CIAST was their first career. Although they had technical knowledge with bachelor/diploma degrees, they had no practical experience. In spite of this, they had to teach experienced instructors or the supervisors of factories. Therefore, they had to learn from Japanese experts seriously:

Academic in university, whatever you know. Like me, I'm engineer, but I never touch the machine in the university, all theory [...]. We, for example, like me, almost zero, knowledge and skill for that. That means we need too much I mean the guide from the Japanese expert (Malaysian counterpart 1);

After I study at the UTM (University of Technology Malaysia), diploma in mechanical, we have no skills. So, at CIAST, I learned the skills, one by one (Malaysian counterpart 5).

When CIAST was established, TVET teachers were not required to have an academic degree as more stress was put on experience in industry. However, CIAST was a trial of the introduction of academic degrees to TVET teachers. Therefore, it was important to integrate theories and practical skills in that new instructors with academic degrees were educated as engineers, but they did not have practical skills. According to Kasahara (1991), this idea was introduced by the Japanese side with the slogan in Japanese 'Jitsugakuittai,' meaning 'unification of practice and theory.' In the beginning, instructors with bachelor's degrees tended to avoid practical training, however, they gradually changed their mind and came to the workshop in grey-colored shirts. All interviewees emphasized the importance of teaching both practice and theory by instructors:

I teach both. Theory and practical. And also, at the same time, we develop a written information material, information sheets, work sheets, between expert and our head of department (Malaysian counterpart 5);

Both theory and practical but most of the university more to the theory than practical. But training in Japan, they do both. First, they teach us how to what is the tricky part of mole for example, then from the theory, they can do the design (Malaysian counterpart 6).⁷

In the process of project activities, there were also some gaps between

⁷ He intended to tell that the Japanese instructor did not only teach the theory of mole in chemistry but prove it through an experiment.

the Japanese side and the Malaysian side. For example, according to Kasahara (1991), 'Since Japanese experts arrived at CIAST, there was an issue of who would prepare syllabi and teaching materials.' One day, the Director General complained to the chief advisor that some experts did not prepare syllabi. The chief advisor explained to the Director General that Japanese experts would not develop syllabi and he emphasized the importance of the capacity development of Malaysian counterparts (see also 'JOB DESCRIPTION OF THE CIAST EXPERTS' and 'PRINCIPLES OF THE CIAST TRAINING' in Section 4.1). In reality, Japanese experts developed some syllabi such as supervisory skills because young fresh graduates did not have enough knowledge and experience to develop the syllabi by themselves. However, the principle to develop the capacity of counterparts seemed to be shared by the Japanese experts and their Malaysian counterparts alike:

I prepared most of syllabus and teaching materials. However, if I prepare all materials, counterparts did not learn how to prepare them. I wanted them to develop, improve by themselves even if CIAST introduces new course after we leave. So, I left about 20 per cent of teaching materials then I told my counterparts to develop by themselves, setting the deadlines, advising how to prepare (Japanese expert 2);

Okay, since that everything starts from zero. We have all the textbooks from the Japanese, from the expert. We have to write our own written material. For the information sheets everything, so, we have to do it with the help of the expert. We have to do it by ourselves, before we go and teach people. People from the industry, so it's a good experience, at least we learned step by step. So, the way they teach us, quite effective (Malaysian counterpart 3).

The point is that no Malaysian counterparts mentioned that 'Japanese experts developed/provided syllabi and teaching materials.' They understood that they had to develop their own capacity to prepare syllabi and teaching materials by themselves.

As mentioned above, CIAST instructors had to learn from Japanese experts to teach instructors from other TVET institution or supervisors from industries. On the other hand, the project gave generous support

to Malaysian counterparts for their capacity development. As a result, Malaysian counterparts thought of themselves as a kind of ‘product of the project.’ This indicates that they had internalized what they learned from the project:

I’m a product of CIAST. I’m the product of [expert]
(Malaysian counterpart 8);

That (Japanese style) means they are very punctual, and not playful. So, they bring their Japanese culture to our training center and of course, at first, there are some resistances, especially from our senior instructor. But the young graduate like me and some others, we are quite open
(Malaysian counterpart 1).

This enabled the development of community of CIAST staff and dissemination of their knowledge and experience even after they changed careers, as explained below.

4.3. Careers of Malaysian counterparts after the Japanese project

It is likely that the knowledge and skills of CIAST staff who worked with Japanese experts have been disseminated to other organizations as they work in different organizations. Most of the counterparts who worked with Japanese experts have advanced to different careers in the skill training field. Table 4.4 shows the professional careers of the interviewees.

As shown in Table 4.4, most of the counterparts left CIAST and have been appointed as an instructor or a director of other TVET institutions as well as the Ministry of Human Resources (‘Gov.’ in Table 4.4). The Ministry of Human Resources includes the Manpower Department, DSD, and NVTC. They do not only serve as technical instructors but they also serve as managers of TVET providers under the Ministry of Human Resources and as government officers to carry out the reform of the whole TVET system in Malaysia.

In one example, one of the interviewees (Malaysian counterpart 5) contributed to TVET in Malaysia as an instructor of another TVET institution and as a technical administrative officer of the government

Table 4.4. Interviewees' Career

NO	Degree when joining in CIAST	Position when joining in CIAST	1960s	1970s	1980s	1990s	2000s	2010s	Final Degree
					← CIAST Project →				
Malaysian counterpart 1	Bachelor	HOD			Study → CIAST ← Gov → ADTEC ← CIAST ←				Bachelor
Malaysian counterpart 2	Bachelor	HOD			Study → CIAST ← Gov → ADTEC ← Gov → CIAST ←				Bachelor
Malaysian counterpart 3	Bachelor	HOD			Study → CIAST ← ITI ← Study ← ITI ←				Master
Malaysian counterpart 4	Bachelor	HOD			Study → CIAST ←		ADTEC ← Gov ←		Bachelor
Malaysian counterpart 5	Diploma	Instructor			Study → CIAST ← TTC ← Gov → CIAST ←				Master
Malaysian counterpart 6	Diploma	Instructor			Study → CIAST ← Study → CIAST ITI ← ADTEC ← Gov → ITI ←				Master
Malaysian counterpart 7	Diploma	Instructor			Study → CIAST ←				Doctor
Malaysian counterpart 8	Diploma	Instructor		Study → Prv → ITI → Gov → CIAST ← Gov → ITI →				Intl. expert	Diploma
Malaysian counterpart 9	Secondary	Instructor	Study → Prv → ITI →			CIAST ←			Secondary
Malaysian counterpart 10	Bachelor	Instructor				Study → Prv → CIAST ←			Doing Master
Malaysian counterpart 11	Diploma	Instructor				Study → Prv → ITI → CIAST ←			Diploma
Malaysian counterpart 12	Hggher Diploma	Instructor				Study → Prv → TTC → CIAST ←			Higher Diploma

Note: 1. The underlined words show the informant was in a Managerial position (Director, Principal, Deputy Director, and so on);
 2. Gov shows that the informant was in the position of Ministry of Human Resources. It includes Manpower Department, Department of Skills Development (DSD), National Vocational Training Council (NVTC);
 3. ITI stands for Industrial Training Institute;
 4. ADTEC stands for Advanced Technology Training Centre;
 5. TTC stands for Technical Training Centre under other Ministries;
 6. Prv stands for Private company; and
 7. The information is based on the interview results and may not precisely present their history.
 Source: Drafted by the authors based on the interviews.

after he left CIAST. He joined CIAST in the middle of the 1980s after the official opening of CIAST as a fresh diploma graduate in the Mechanical department. He was trained by Japanese experts and he had opportunities to participate in training in Japan including skills training in a private company. After 4 years working at CIAST, he was transferred to a technical school under the Ministry of Defence which provides training for retired soldiers. He worked as a head of department there for 5 years, then he was called to NVTC. NVTC was an implementation body for national vocational training policies and is currently known as the Department of Skill Development (DSD) under the Ministry of Human Resources. During working at NVTC, he had an opportunity to upgrade his academic degree to bachelor from diploma, then he came back to CIAST as an instructor in the TVET teacher training course in the 2000s. He is still working at CIAST. He also continued to study during working at CIAST and he now

has a master's degree.

As shown in Table 4.4, some interviewees were appointed to managerial positions such as a director or a deputy director of other TVET institutions. A story mentioned by an interviewee (Malaysian counterpart 6) implies that the CIAST project had an impact on other TVET institutions through him. According to him, when he was a deputy director at ITI in the late 1990s, he faced a problem that instructors with higher academic qualifications taught only theory not practical subjects. It was the same problem that the Japanese experts faced at CIAST in the 1980s:

At that time, I was Deputy Director, so I didn't teach very much [...] low education instructors they teach practical, high education instructor, they are fresh graduated holder, they teach theoretical. [...] So, even though I'm not the instructor at that time, [...] I say, I want you to be here, gather all your students here [...]. I teach the student, not only their students, my students, and I taught them theory today, then after they understood their theory and design everything, then I taught their practical. So, I go down to the workshop, I taught them practical, how to make mold and die. So, what happen to them you know? They are more realize, I mean the higher officer was de-modernize, because why, their students did not respect them anymore, everything they have they don't understand anything, [...] because you know when I was first year of my job at CIAST, I don't know anything, just like them, fresh graduate, don't know anything, just after I finished my training in Japan, I was very confident, just after I complete my training, that's why I came to solve this problem (Malaysian counterpart 6).

In this episode, the interviewee believed that instructors should teach both theory and practical subjects. As mentioned in Section 4.2, this concept was introduced by the Japanese side as '*Jitsugakuittai*.' Thus, he tried to introduce this concept to other TVET institutions from his experience in CIAST although he did not use the word '*Jitsugakuittai*.'

4.4. Enabling factors for continuous professional development

TVET staff require initial preparation, as well as continuing training and professional development, including experience of working in enterprises, and support to enable them to reflect on their practices and adapt to change (UNESCO 2015). The interview data suggest that many CIAST staff have achieved career progress, taking advantage of the flexible path set by the government, and JICA also provided opportunities for capacity development. Regarding the question why they become instructors, most of the interviewees answered because the job had been offered by the government. In most cases the appointment was linked with the scholarships offered to them by the government, which means that their placement as an instructor in CIAST was not always intentional. Nevertheless, most of the interviewees revealed their happy feelings when received the job offer, due to the economic recession at the time and the stable nature of governmental officer employment in the country.

As stated in the Table 4.4, many of the interviewees pursued higher degrees after being employed by CIAST. For example, Malaysian counterpart 7 obtained a diploma degree in electrical engineering, then was employed by CIAST as an instructor. During working in CIAST, he got a chance to pursue a master's degree in the IT field with a scholarship from the government. Then just before retirement from CIAST, he managed to get a PhD degree in vocational education on a part-time basis. Just like him, many of the participants have obtained bachelor, master, or PhD degrees during their assignment in CIAST or other institutions. Another interviewee, Malaysian counterpart 6, obtained his bachelor's degree while he was working in CIAST. For his final project, he made a very simple product using a machine owned by CIAST, which very much impressed lecturers in the university who had never seen the real product before as they had only dealt with theory, according to him. This means that as a university student (Malaysian counterpart 6) he had more practical experience than the lecturers.

As well as degree seeking opportunities, the training of CIAST instructors in Japan appeared to be a great chance for them to upgrade their skills. All of the interviewees who worked with Japanese experts experienced training in Japan. The duration of the training ranged from eight months to one year. Japanese experts designed personal training programs for their counterparts in collaboration with JICA, the Ministry of Labour,

and IVT. Some of the interviewees mentioned they had opportunities to be trained in IVT. For example, interviewee Malaysian counterpart 1 mentioned that he studied in IVT for 6 months and his training was a research type. He did his research under the supervision of a professor in IVT. Another participant mentioned that, before he was dispatched to the Kyoto Skill Development Centre for training, he knew nothing about die and mold making, which he had needed to train his students. But after the training in Japan, his confidence level became very high. He emphasized that, even if he had completed his bachelor's degree, he might not get this level of confidence if he had not attended training in Japan. Furthermore, the training program in Japan did not only help Malaysian counterparts in terms of capacity development, but it was a good opportunity for Malaysian counterparts to understand IVT which Japanese experts considered as a model of CIAST.

Experience as an instructor in CIAST was found to be very useful when they engaged in training courses in other developing countries. Some of the instructors have been involved in the Third Country Training Program (TCTP) operated by JICA, the Malaysian Technical Cooperation Program (MTCP) by the Ministry of Foreign Affairs in Malaysia, and in other opportunities such as international organizations and individual consulting. They utilized their knowledge and skills gained from CIAST during those opportunities.

One of the interviewees mentioned that he had brought the evaluation culture of Japan, where training participants answered questionnaires about the training courses, to Afghanistan when he worked there as a technical advisor under the International Labour Organization (ILO). Another interviewee mentioned that he could learn advanced technology, which he had never learned before, from the Japanese experts at the National Polytechnic Institute of Cambodia, where he had attended TCTP as an instructor for 2 weeks. He described the meaning of TCTP for CIAST and himself as the following:

What Japan already gave to us, the knowledge and the skills. So, we transferred it back. The knowledge, the skills, to another developing country [...]. I can get new knowledge (from the Cambodian counterparts). I can introduce, for example, exchange knowledge. Maybe I don't know something, they know something. We exchange the

information, exchange the skills (Malaysian counterpart 12).

Although he did not receive any direct assistance from Japanese experts in CIAST itself as he joined the Center in 2002, it is worth noting that he used the words 'transferred it back.' This means that he clearly admitted that the training in CIAST had originated from Japan.

Experience in CIAST was useful not only when they taught instructors from other countries, but also when they were transferred to other places than CIAST. Malaysian counterpart 8 described his experience as a development officer at the headquarters of the Ministry of Human Resources. He was in charge of finding sites to build new Advanced Technology Training Centres (ADTEC) and ITIs. He clearly mentioned 'We generated the project (CIAST) from zero. It's life experience. You cannot learn this from anywhere.'

As we have seen, it is obvious that they received a tremendous impact from the Japanese experts dispatched by JICA. But we also found that the influence they got from Japan was not restricted to that from JICA experts. Malaysian counterpart 12 mentioned that he had a dream to be an expert in industrial automation just like his supervisor whom he met when he worked for a Japanese company before joining CIAST. Malaysian counterpart 12 mentioned that he was very grateful to the supervisor because he taught Malaysian counterpart 12 a lot. Another interviewee (Malaysian counterpart 8) appreciated a Japanese factory where he worked just after he obtained a certificate from technical school in 1970. The factory allowed him and his colleagues to pursue a diploma at night after working. He added a story from when he had first been offered a job in Afghanistan under JICA after retirement from CIAST. He introduced his wife's opinion against his assignment in Afghanistan:

You worked for Japanese company before. You let Japanese come to our house. They were very good people. I don't think they (Japanese) will fail you, so please go. The head will tell you dangerous, but the heart say, let's go (Malaysian counterpart 8).

In summary, it is likely that CIAST staff achieved career progression from the combination of opportunities obtained through the government

and the Japanese development cooperation projects as well as their own efforts to develop their abilities.

5. Discussion

5.1. Japanese approach to assist CIAST and translative adaptation

The results from the interviews and documents clearly show that the Japanese cooperation approach for CIAST was ‘ingredients-oriented’ (see Yanagihara 1998 and Chapter 2) and hands-on from the beginning until the end of the project.

The establishment of CIAST was originally planned by the Government of Malaysia, and the Japanese cooperation approach was to support implementation of their plan. As mentioned in Section 2.1, although the project was a Japanese political commitment to ASEAN countries, the Government of Malaysia took this opportunity to request Japan for support to establish a new training center for TVET instructors and supervisors of industry, which they had planned in the FMP. Responding to this request, the Government of Japan supported the realization of the Malaysian initiative by dispatching delegations of technical experts. JICA dispatched an expert (Mr. Kasahara) to prepare for CIAST establishment and he worked with the Director General of the Ministry of Human Resources and the CIAST director directly. According to the Japanese advisor’s diary (Kasahara 1991), the DG, the Director, and Mr. Kasahara met frequently, and they argued about various issues such as counterpart training in Japan, the training contents of CIAST, and all administrative issues. Taking these facts into account, the Japanese approach was characterized by a participatory and co-working style in the process of CIAST establishment, which Ohno (2016) described as ‘co-creative partnerships.’ Therefore, this study concludes that Japanese cooperation was an ‘ingredient oriented’ and hands-on approach at the stage of CIAST preparation.

At the implementation stage of the project, Japanese cooperation continued to be ‘ingredient oriented’ and hands-on. In 1982, adding to the chief advisor, two technical experts and one coordinator arrived at CIAST from Japan. Then the project started full-scale. Japanese experts brought textbooks written in Japanese. They took much of their time in the office to translate textbooks for Malaysian counterparts and preparing

teaching materials for new courses. It is possible to say that this was a 'normative' approach. However, Japanese experts stuck to the principle that technical cooperation should promote 'self-help' in counterparts and as a result, this concept seemed to be shared with the Malaysian side. Japanese experts did not do all of the work on behalf of their counterparts in the educational area. Accordingly, Malaysian counterparts never said that 'Japanese experts prepared curricula' but always said 'they helped us' even though the first version of the curricula was mainly drafted by Japanese experts. One interpretation of this approach is that there can be a 'normative' aspect in international cooperation, but the research findings show that both Japanese experts and their Malaysian counterparts did not attempt to directly copy the Japanese model to Malaysia in this case.

It should be mentioned that the Japanese side of the project focused on the capacity development of Malaysian counterpart personnel. One of the main concerns of the Japanese side during the project was always the appointment of counterpart personnel. Japanese delegations and the chief advisor strongly requested the Malaysia side to assign 2-3 counterparts per one Japanese expert and the Malaysia side responded to these requests. Once counterparts were assigned, the project focused on the capacity development of the counterparts although they were newly assigned and had no working experience. Japanese experts supported their work in OJT, and also trained them in Off-JT. The Japanese experts kept their counterparts busy by giving assignments.

In addition, many Malaysian counterparts were fresh graduates when they were appointed to CIIAST. This meant they had neither practical skills nor working experience in industry. In general, less experienced counterparts could be inhibitors of an international cooperation project. However, this study demonstrates that less experienced counterparts possibly promoted 'translative adaptation' in this case. Malaysian counterparts had no option other than to learn from Japanese experts to take up their responsibilities as instructors of CIIAST. This could affect the relationship between Japanese experts focusing on capacity development and those CIIAST counterparts who needed technical expertise. The results imply that they could internalize what they have learned from the project, in that they had no other practical experience before appointed to CIIAST. In the viewpoint of 'translative adaptation,' this internalization process by Malaysian counterparts can be interpreted as 'learning' and 'adaptation.'

5.2. *The importance of self-help philosophy for adaptation and scaling-up*

The results show self-help was one of the most important concepts for both the Japanese side and the Malaysian side in terms of the development of CIAST. Mr. Kasahara, the first chief advisor of the project emphasized self-help philosophy as the most important principle of the project and this was shared with project experts (Kasahara 1991). This research shows that this philosophy led the Japanese cooperation approach to be 'ingredient oriented' and hands-on.

At the same time, the Malaysia side also seemed to make efforts for self-help. The idea of CIAST was not brought from outside of Malaysia but was planned based on their own analysis of the challenges. It is true that CIAST received a considerable amount of grant and technical assistance from the Japanese government as stated in the first section. However, upon the development of TVET teacher training in Malaysia, the Malaysian government has been bearing a substantial amount of money by itself to upgrade the skills of the trainers.

These instructors did not only get a chance to pursue higher degrees supported by the government, but they also utilized the opportunity of TCTP or development of channels in other developing countries. While Malaysian instructors make full use of the Japanese experts stationed in other developing countries, they also exchange skills and knowledge with their counterparts there.

5.3. *Mobility of CIAST counterparts for scaling-up*

In general, the lack of continuity is an extremely difficult environment for capacity development (Hilderbrand 2002). Thus, a rapid turnover in personnel has been regarded as one of the risks in technical cooperation. However, this study has shown that the mobility of CIAST counterparts promoted the 'scaling-up' of 'translative adaptation' to government agencies and other skills training institutions.

After project completion, the Malaysian counterparts were transferred to other TVET institutions or the TVET administration itself, and they applied their knowledge and experience in these contexts throughout their professional career. On the other hand, it was considered that CIAST

might lose its attractiveness since many counterparts had left CIAST. In fact, one of the interviewees, who led CIAST reform in the late 2000's, reflected on CIAST at that time of its establishment;

CAIST was almost 25 years old and when I went through what they offered to the public, it was something that I had left before and it's never been changed. [...] I was not proud of CIAST at that time when showing others (Malaysian counterpart 1).

This implies that CIAST did not have enough capacity to change itself to meet the changing needs of human resources in Malaysia although the Japanese project was aiming at this. However, even though former counterparts left CIAST, they keep staying in the same community. For example, according to the interviewee (Malaysian counterpart 1), the DG of DSD in the Ministry of Human Resources, who used to be the first CIAST director, requested him to return to CIAST to take part in its reform.

Although those who were trained by the Japanese project did not remain in CIAST, they were appointed to important positions under the Ministry of Human Resources, and maintained strong ties with CIAST and their former colleagues in CIAST. These findings suggest the possibility that the CIAST community acted as a community of practice (Lave and Wenger 1991) and that the process of expansion of this community through the mobility of CIAST counterparts has contributed to the dissemination of and 'scaling-up' of Japanese assistance.

6. Conclusions

This chapter has discussed the process of 'translative adaptation' mainly by focusing on the perspectives and activities of Japanese experts and Malaysian counterparts in TVET teacher training.

The research findings indicate that Japanese assistance to CIAST was made up of 'ingredients-based,' hands-on, and 'co-working' approaches. These approaches are considered to be able to make lots of achievements even after project completion. It should be also noted that the strong ownership of Malaysia over CIAST was another important factor of the success of CIAST. Japanese experts tried to take a hands-on approach to the development of the capacity of their counterparts at both the project

formulation stage and the implementation stage. This approach was based on a philosophy of 'self-help' where the Japanese experts believed that their Malaysian counterparts were responsible for developing teaching materials under the chief advisor's firm philosophy that technical cooperation should be an assistance for 'self-help.' As a result, the idea was accepted by Malaysian counterparts. This enabled CIAST to own these materials and revise them by themselves. Therefore, it is suggested that the hands-on approach can assist in the continuous development of counterparts on condition that the philosophy of 'self-help' is shared with recipient counterparts.

On the other hand, Japanese assistance to TVET teacher development was limited to the institution level. As UNESCO (2015) suggested, building a systematic support system for TVET teachers such as insisting on the qualification of TVET teachers is necessary in TVET teacher reform. As far as the data collected in this research is concerned, Japan focused on the organizational capacity development of CIAST and did not intervene in TVET policy. This agrees with what Mori and Ohno noted in Chapter 2, that 'East Asian donors, including Japan, are apt to provide development cooperation focusing on ingredients by taking a hands-on approach.' In the CIAST case, the Government of Malaysia could utilize CIAST by reforming it in accordance with TVET teacher reform. However, this implies that TVET institutions possibly fail to adapt themselves to policy changes. This can be a barrier for the 'scaling-up' of 'translative adaptation.'

In this chapter, we examined the actual process of 'translative adaptation.' In the learning and adaptation stage, the Japanese project focused on the capacity development of Malaysian counterparts by a hands-on approach based on the 'self-help' philosophy of the Japanese project. The Malaysian counterparts also accepted this approach, they did not regard Japanese experts just as resources, they developed personal relationships with trust. As a result, the project succeeded in developing counterparts who not only acquired knowledge and skills, but also understood the underlying concepts of Japanese vocational training such as '*Jitsugakuittai*,' work attitudes, and so on. The Malaysian government made effective use of these counterparts by assigning them to different positions in the TVET sector and the counterparts performed what they had learnt from the project in their new positions. Therefore, the mobility of the counterparts contributed to scaling-up after the project termination.

As discussed in this chapter, the process of 'translative adaptation' in CIAST was affected by various factors on both the Japanese and Malaysian sides. However, this study indicates that the hands-on approach promoted 'translative adaptation.' This chapter could not discuss details about TVET teacher training reform in Malaysia though, as the country has learnt and adapted various models from outside. Thus, it can be presumed that the hands-on approach is not the only enabling factor of 'translative adaptation.'

One of the limitations of this study is that we only focused on Japanese cooperation. As Malaysia adapted various models from outside, 'translative adaptation' is not the translation and adaptation process of a single model, but a process in which multiple models are translated and adapted in relation to each other. Therefore, a further study of how translative adaptation happens with multiple models should be conducted.

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