



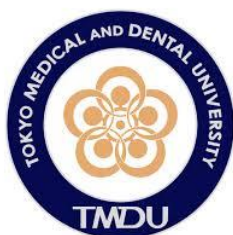
"2 Weeks to Remember"

Experiencing TMDU, Treasuring Japan, Keeping Friendship

"Inter-University Exchange Program

towards Medical and Dental Networking in South East Asia 2015"

FINAL REPORT





Acknowledgement

All we have is between hello and goodbye. There were moments we were together in Japan, but now we are separated by distance. There were things which made goodbye seemed so hard, the lesson learnt, moments spent together and friendship made between each other.

But life is a journey, not a home, and the journey must go on. For every moments spent and time we cherished, let us keep them in our mind and treasure them in our heart forever. And after all, for all the great experiences we got, we would like to express our gratitude to people took part in this exchange program.

First we would like to express our most sincere gratitude to Prof. Junji Tagami, the Executive Vice President of Education and International Student Exchange, Prof. Keiji Moriyama, the Dean of Faculty of Dentistry, Tokyo Medical and Dental University, along with Prof. Yoko Kawaguchi, Dr. Sachiko Takehara, Dr. Yuji Ishida, Ms. Maki Shibata, and all staffs at the TMDU International Exchange Center for their hardworking on organizing this annual exchange program.

We would also like to express our gratitude for all teachers in TMDU, for the lessons and experiences given to us through lectures and lab visits. We have got a lot of insights and now we have a new paradigm of dentistry.

Furthermore, we would also like to thank Dr. Yosi Kusuma Eriwati, the Dean of Faculty of Dentistry, Universitas Indonesia for her support on this exchange and also Dr. Melissa Adiatman, Dr. Lia Kartika and Dr. Masita for their time, support and guidance while we were together in Japan. Thank you for giving us this opportunity.

The last, we wish to thank our Japanese friends who came to Indonesia before, Yutaro Hattori, Yuka Kasuga, Takahiko Nagai, Yasunori Aoi, and Takumi Suzuki. Thank you for your time, kindness and warm welcome during our stay in Japan. Thank you also to participants from UMPHCMC, Chulalongkorn University, and Srinakharinwirot University for our friendship. Without you all, this exchange wouldn't be as meaningful as it is now. Thank you for every moments we shared together.

We are really grateful to have this opportunity and we wish you all good health, happiness, and success. Finally, saying goodbye can be tough when we know that we would never going to meet again. But, no need to feel hard since we always have the chance to meet again someday in the future. Hope this report brings up good memories and deep in our hearts we always want to rewind everything one more time!

Our Schedule

	1	2	3	4	5	6	7
Date	October 12, 2015 Mon(Holiday)	October 13, 2015 Tue	October 14, 2015 Wed	October 15, 2015 Thu	October 16, 2015 Fri	October 17, 2015 Sat	October 18, 2015 Sun
AM	Arrival	9:30 Opening ceremony Orientation 12:00-13:00 Welcome Lunch	9:00-9:30 Lecture (Dr. Takehara) 10:00-12:00 Visiting basic science laboratory/clinic①	9:00-9:30 Lecture (Dr. Ishida) 10:00-12:00 Visiting basic science laboratory/clinic③	9:30-11:40 Teamwork Activity	Japanese Culture Experience	Japanese Culture Experience
PM		13:00- Dental material company visit	13:30-15:30 Visiting basic science laboratory/clinic②	13:30-15:30 Visiting basic science laboratory/clinic④	National Musium of Emerging Science and Innovation visit (Report)	Japanese Culture Experience/ TMDU Student Festival	Japanese Culture Experience
15:30-16:00		Report	Report	Report			

	8	9	10	11	12	13	14
Date	October 19, 2015 Mon	October 20, 2015 Tue	October 21, 2015 Wed	October 22, 2015 Thu	October 23, 2015 Fri	October 24, 2015 Sat	October 25, 2015 Sun
AM	9:00-9:30 Lecture (Dr.Inokoshi) 10:00-12:00 Visiting basic science	9:30- Research Day with TMDU D4 students	9:00-9:30 Lecture (Dr. Aoyama) 10:00-12:00 visiting basic science laboratory/clinic⑦	9:00-9:30 Lecture (Dr. Chi, Dr. Lia, Dr. Supak) 10:00-12:00 Visiting basic science laboratory/clinic⑧	9:00-11:00 IT simulation learning with TMDU D4 students @Practical room (Bldg 7, 5F)	Japanese Culture Experience	Departure
PM	13:30-15:30 Visiting basic science laboratory/clinic⑥		13:30-15:30 Visiting basic science laboratory/clinic⑨	13:30-15:30 Visiting basic science laboratory/clinic⑩	12:50-15:55 International Symposium & Cultural Show with TMDU D2, D3, D4 students	Japanese Culture Experience	
15:30-16:00	Report		Report	Report			

Research Award & Party
(Report)

Oral presenters

Poster presenters(self-motivated)

TMDU	TMDU(obligatory)
Chulalongkorn Univ. 0-2	Chulalongkorn Univ.
Srinakharinwirot Univ 0-2	Srinakharinwirot Univ.
Univ.of Indonesia 0-2	Univ.of Indonesia
Univ. of Medicine and Pharmacy 0-2	Univ. of Medicine and Pharmacy.

Oral presenters will be awarded.

Presenters should be the **MAIN AUTHOR** of each Oral or Poster presentation

16:30-17:30
Evaluation Committee

18:00-20:00
Closing Ceremony & Party
(Certificate Presentation)

(Report)

About International Symposium and Cultural Show

* Oversea students' reports on TMDU dental training course: "What we learned and what we thought" (15mins./university)

* TMDU student reports on overseas dental training course (15mins./program x 3)

* Cultural performance from each university (10 mins./university)



Experiencing TMDU



Dental Company Visit



Department Visit



IT Simulation Learning



Research day

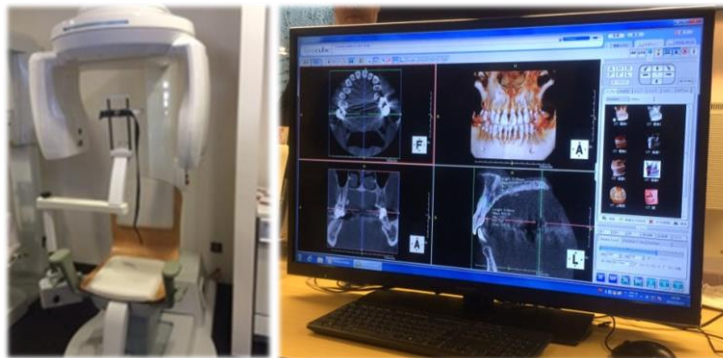


Dental Company Visit

On the first day of the TMDU Dental Training Program 2015, we had the company visit schedule. We were divided into two large groups and visited different dental companies, Yoshida and GC.

YOSHIDA is known as one of the largest dental companies, specialized in manufacturing dental equipments such as dental units, digital devices like dental radiology system, and also hand pieces. Mr. Yoshinori Kan led us during this company visit and gave us a short tour introducing their latest best products such as CBCT, dental unit (dental chair), CO₂ laser, "book-sided" dental room, and *Dentroid* (patient simulation unit).

CBCT has been one of the leading technology in dentistry as it offers advanced features to get the best picture of patient's oral condition such as the bone height, periodontal condition, root length and bone condition. This device is so practical and help dentists to explains what happens to the patients in their oral cavity.



CBCT device and it's photo result

Besides CBCT, YOSHIDA also offers dental units from various range of prices, from the standard to the luxurious ones and also CO₂ lasers, which is used to cut tissue, stimulate the cells regeneration, also to stop wound bleeding. Furthermore, another impressive devices they offers are the book-sided dental unit and room which is a practical dental unit inside a foldable room and also *Dentroid*, the simulation phantoms, which uses the manikin robot who could give responses if they are hurt .



Dental chairs offered by Yoshida



Dentroid (left) and Book sided dental unit (right)

While others were visiting Yoshida, some students visited GC Corporate Center. GC is a well known dental brand in Indonesia. This was our first time to visit this company and we were surprised that they also offers luxurious massage dental chair also. We thought that what they have are just cements, waxes and plasters.

At the company, we were given an introduction about how GC company founded and developed until now. GC was first founded by 3 Japanese alchemist and developing into a big company with principle to make all the employers as their "Nakama" which means they are not only striving for profit but also treating all the colleagues in the same level. As their tagline sounds, "GC moves forward to the future", GC has a new mission to manage and improve their product quality to reach GC Quality Management 2021 (GQM 2021).



Massage dental chair and GC restorative products

After company introduction, we got a chance to see GC products, like restorative materials, dental units, CAD-CAM, autoclave, toothbrushes, and etc. We also tried to MI paste produced by GC. They also give us gifts, such as tooth brush, dental floss, and bubble gum.

During the company visit, we saw and tried new technologies which we have never tried in our university. We think that breakthroughs made by these two companies are impressive and their ideas on developing dentistry has never come up in our mind.



GC waxes and dental composites



Department Visit

1. Molecular Immunology

At this department, Professor Azuma explained in brief about co-signal molecules. She explained the function of various kind of CD as a co-stimulator or co-inhibitor to T cell activity. CD 80 and CD 86, which act as co-inhibitor and co-activator, was discovered by Professor Azuma. The balancing between co-stimulatory and co-inhibitory signals controlling the antigen-specific T cell responses. She also explained us about the importance of immunology studies for the treatment of oral cancer. PD-1 is responsible for regulating T-cell activation and expressed on activated CD4+ and CD8+ T cells.

2. Health Care Economics

Health care economics is a study about efficiency and efficacy of medical and dental care on the basis of medical ethics and healthcare education. It involves the macroeconomics and microeconomics in health care system. Prof. Kawabuchi, the head of this department explained a comparison between Indonesia, Thailand, Vietnam, and also Japan to know each country position and advancement on their insurance system.

The system they use in Japan provides equal health services for every social status by 30% paid by personal and 70% by the insurance. For old people is 10% and rich old people is 20%. He also explained about the differences between equality and equity. Equality is where everyone receives the same amount of care without considering different need and without implying any moral judgement. Equity is where people with equal need treated equally and based on need, irrespective of socioeconomic status.

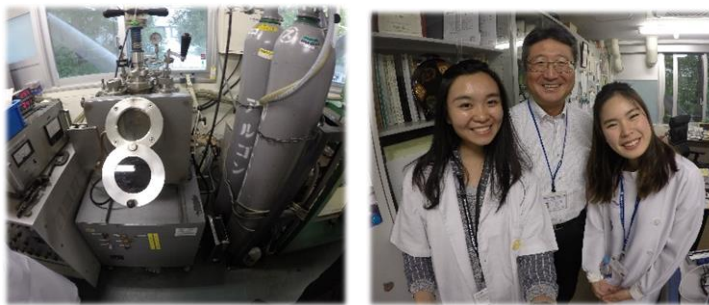
3. Inorganic Materials

Some of us got a chance to visit the inorganic material department in the Institute Bioengineering and Biomaterial. This department mainly studies about the effect of the inorganic material like titanium and zirconia to the tissue. In this opportunity, we were taught to make a titanium oxide coating and specimen imaging using the SEM microscope.

4. Metals

In the metals department, we learnt a lot about metals, alloys, and ceramic that is used in the dental implant system. The lecturer was Dr. Shiota and from his lecture, we got new perspectives on dental implant and the properties of the materials that is used inside. So, 80% of implant consists of metal and 20% consists of ceramic/polymer. The metal used in the implant is mostly titanium because it is stable and not reactive, so it is safe for human.

We were also introduced to "Ti-Unite" which is said that it is the most famous implant material used in the world and "Stroma" the second famous material which uses the acid-surface to bond with the biomaterial in human body. After that, We strolled around the dental material lab and saw many machine that we have never seen before. It was amazing!



*The alloy making machine (left) and
Students with Dr. Shiota (right)*

5. Psychosomatic Dentistry

Psychosomatic dentistry.... It is not a familiar term for us. At first, we thought that it was a branch of dentistry which treat patients who has psychological disorder. But we knew that we were a little bit wrong after Dr.Yojiro Umezaki, one of the psychosomatic PhD student, explained us about this department.

So, the psychosomatic is about dentistry but more to the medically unexplained symptoms. So every patients with unexplained symptoms that are related to oral is referred to this department. The treatment is usually giving antidepressants until the patients seemed better. This is because they believe that the medically unexplained symptoms sometimes related to brain dysfunction or psychological condition.

6. Maxillofacial Prosthodontics

Maxillofacial prosthodontics department is located in the 6th floor of dental building and is a major of maxillofacial reconstruction using the prostheses. Causes of the cases that needed reconstructions are varied, such as cleft cases, trauma, and malignancy.

One of the most common cancer in Japan is tongue cancer, and nowadays TMDU develops the radiotherapy treatment which is less invasive and provide better quality of life after the surgery, especially for T1 and T2 stages. The therapy is called Brachytherapy, During this therapy, patients need to stay in isolation room for 24 hours and using the acrylic prosthetics called the spacer for 4 days.

The spacer also used for the patients who undergoing radiotherapy in general. The thick part of the spacer indicates the area of the prostheses it covers. It also has ball clasp for retention which are easy and fast to be manufactured. For the maxilla prostheses the radioactive usually put inside the holes in the prostheses area in the palatal, however to protect the tongue or mandible from the exposure of the radioactive, it is covered using the lead acrylic prostheses.

Another thing in maxillofacial prosthodontic is facial prostheses which use the common process such as making impression, working cast, waxing up, and put the silicone then add the colors. The colors included intrinsic and extrinsic colors which resemble the skin colors.



Dental prostheses for maxillofacial prosthodontics (the lead covers radioactive from exposing the other tissue)



Facial prostheses and group picture with the head of maxillofacial prosthodontics

7. Anesthesiology

Department of Anesthesiology is located in 7th floor of dental hospital building. This department consists of two different rooms: the operating room (operating theatre) and out-patient clinic in ambulatory anesthesia service. We were welcomed by Professor Fukayama and got the chance to wear operating clothes. There were 3 operations at the moment: synovial chondromatosis, floor of the mouth and lymph tumor, and 3 extractions of wisdom teeth in mentally retarded patients. We got the chances to enter all the operating rooms and saw the procedures performed.

After that, we were taken to the out-patient clinic room in ambulatory anesthesia service. We saw the patients got anesthetic and sedation but only for a while and would return in just few hours. Some patients had high gag reflex and some were post implant. Another information that we got is about nitrous oxide, Prof. Fukayama said that it did not use anymore as general anesthesia but still as sedative with the upper limit of 30%. We also got the chance to practice the monitoring check by ourselves to measure the blood pressure, ECG, saturation, and EEG.

The whole experience was so great, that we got the chance to see dentists treated the patients who needed the obturator and prosthetics, also that feelings wearing the operating clothes and inside the operating rooms were so amazing. We truly learnt a lot about these clinical subjects which would be really useful in the future.



The monitor used for vital sign measurement



Group photos with Prof. Fukayama

8. Orthodontics

In this department, the professor gave us two cases that we needed to discuss about the dental conditions, treatment objective, and treatment plans. After the discussion, the Professor gave some explanation about the condition of cases, before and after working model, and described other cases. After we finished the discussion, we were asked to try the extra oral photo for orthodontics case diagnosis.



The dental study model



*Extra oral photo
for orthodontic diagnosis*

9. Gerodontology

Gerodontology is a department which takes care of elderly patients, more than 65 years old with systemic diseases. In Gerodontology clinic, each dental unit, it is provided with the monitor to control the vital sign. During observation time, we got the chance to see the dentist doing magnetic overdenture with two magnetic mini implant on the anterior parts.

Furthermore gerodontology in TMDU focused on researches about relationship between denture treatment and body function, stress analysis of implant overdenture, factors analysis of complete denture prosthesis, resilient denture lining materials for patients who can't wear hard dentures, CAD/CAM for fabricating complete denture (using scan), and masticatory performance (color changeable chewing gum) which we already tested during the observation in clinic.



*A part of gerodontology research:
masticatory performance (color
changeable chewing gum)*

10. Fixed Prosthodontics

Prosthodontics is divided into three department, they are Gerodontology and Oral Rehabilitation, Removable Partial Denture, and Fixed Prosthodontics. In every department, they are doing the clinical work, education, and also research.

The research in fixed prosthodontics included 4 main topic, which is occlusion, latest technology for the making of crown and bridge, mechanisms of periodontal tissue remodeling, and influence of dental material to human body or allergic reaction. After that we were given the opportunity to see CAD/CAM machine. Recently, especially here in TMDU, they use zirconia as the material for CAD/CAM restoration frequently, because it is strong, biocompatible, and esthetic.



Inlay restoration was being made with CAD/CAM machine

11. Removable Prosthodontics

This department focused on stomatognathic system rehabilitation using the removable appliances. In the clinic, we saw the demonstration for the usage of extra oral scanner, intraoral scanner and milling of the restoration with a CAD/CAM technology. Dr. Kenji Fueki told us that CAD/CAM technology is more comfortable for both patient and the dentist, although its usage in Japan is not very common.

Now, current CAD/CAM technology is limited for fixed prosthodontic denture. But Dr. Kenji Fueki said that they are working on the research to develop a new technology that enables dentists to fabricate removable denture using CAD/CAM.

12. General Dentistry

In this exchange, we got a chance to visit the General Dentistry Department. At first we went to clinic for undergraduate student. Dr. Ken Ichi explained that in the morning the clinic is used only for initial diagnosis. In TMDU, every dental chair is used by two students, a dental student and a dental hygienist. Both of them treat one patient at the same time.

After visiting the clinic, we also visited dental laboratory for undergraduate student. At that laboratory, there is one unique experience. We were allowed to try using Simodont. It is a tool for tooth preparation. But since they do not have so many Simodont in TMDU, it is only used for research not by for undergraduate student.

13. Oral Pathology

Oral Pathology specifically studies oral cancer. There are two laboratories for research and clinical and also room for pathological diagnosis. Each staff and researchers have their own microscopes for examining and researches. In the laboratory they use various technique such as molecular biological technique. There are many laboratory equipments such as different degrees of refrigerators (-21,4,-79), staining tools, PCR, bacteria section with uv light, sterilizer, electronic cooling system, and sanitation water system (Millipore). We also visited the room where they keep all the mice inside. There are little mice; also a mice without hair that can be transplanted with human cancer cells.



*Mouses used for experiment ;
one is without fur
(induced with the cancer cells)*



The microscope and pathological specimens

14. Sports Dentistry

Sports Medicine/Dentistry is a branch of dentistry to prevent and treat orofacial athletic injury and related oral disease. The goals are to research more in improvement of technique for prevention and safety, guideline for maintenance and improvement in athletic performance and physical fitness health, and relationship of orofacial and motor function. It consists of dental check up, general dental treatment, TMD treatment, treatment orofacial injury, and delivery custom made of mouthguard and faceguard in order to improve quality of life for athletes and sport loving people.

We were shown the way to make facial impression and face guard. It can be upper face, lower face, or chin. Then they also made mouthguard for us, started from making impression, and the rubber mouthguard. It was a nice and cool experience to wear the mouthguard.



Face guard with chin guard, mouth guard, and students with their mouth guards

15. Cariology

The Department of Cariology and Operative Dentistry researches mainly focused on oral biofilm, saliva buffer capacity, caries mechanism, caries diagnosis, hard tissue remineralization, pulp healing, laser, bleach, fluoride, resin, glass ionomer cement, adhesive materials, and minimal interventions technique.

Adhesive dentistry had primary invention as Buonocore found acid etched then followed with true hybrid layer in acid etched by Nakabayashi. It studies about exchange process how mineral removed from dental hard tissue to be replaced by resin monomer and micro-mechanical interlock which is hybridization of dentin. There are some factors affecting bond durability such as imperfect resin infiltrated hybrid layer and exposed collagen fibrils denatured. The minimal intervention includes early caries detection and risk assessment, remineralization - demineralization, minimal intervention operative, and restoration using dental adhesive.

16. Maxillofacial Surgery

In this department, got the explanation about the main cases handled. The majority of the case is teeth disease, especially impacted wisdom teeth. For the largest number of operation is malignant tumors, followed by jaw malformation and cyst. TMDU Dental Hospital mainly got referred from other hospital or private practices to handle the oral cancer case. The survival rate of oral cancer stage I and II was 241 cases (89%), and for stage III was 43 cases (69%), last for the stage IV was 19 cases (58%). Almost all odontogenic tumor cases in TMDU Dental Hospitals were benign.

In the afternoon we got the opportunity to observe surgery operation in the Operation Room. We had to wear the operation dress and equipment. These efforts are done to maintain the sterile environment in the operation room. The first operation we observed was chronic Temporomandibular Disorder. The second operation was tongue cancer removal and reconstruction. In the oral surgery clinic we got to observe several odontectomy procedures.



Left to right: Surgery equipment, surgery process and sterilization room

17. Pediatric Dentistry

Pediatric dentistry is usually categorized as an age-defined specialty. Pediatric clinic has 60 patient/day, for minor operation 150 cases/year, In holiday pediatric clinic has 100 patient/day and 0-6 patient/day for new patient. Main treatment given in the pediatric clinic is preventive therapy, restorative therapy, prosthetic therapy, pulp therapy, oral surgery therapy, and behavioral management. They have also an education and motivational room for children tooth brushing.

18. Special Care Dentistry

This clinic is located at the first floor of dental hospital building. In this clinic they treat patient with any kind of disability or special needs, such as patient with systemic disease (blood disease, post heart operation, or other diseases), patient that couldn't maintain their movement (got injured because nerve damage that cause them to have involuntary movements), patient who has disability to speak, hear or understand the instruction, patient with mental disorder and dentophobic patient.

At that time, we were given a chance to try the N2O sedation between friends. It was an amazing experience, because in Indonesia, dentists are not allowed to do the N2O sedation. Furthermore, this clinic also had some trick for treating patients with special needs, they usually use a flipchart or a picture to help patient that couldn't understand dentist's instruction by hearing the instruction only.



Fadila was giving N2O sedation to Pear and a picture of flipchart

19. Implantology

The department of Implantology mainly discuss about orak implant and regenerative dental procedure like bone healing and regeneration, not only concerned about the hard tissue but also the soft tissue. Mr. Shinji Kuroda also explained to us the bone regeneration with stem cells from bone marrow and early bone cells. We also got the chance to see the surgeries procedure for implant, the first surgery was the bone artificial placement for sinus lifting before putting the implant. The second surgery we got to see the primary surgery, which was the insertion of implant body.



Sinus lifting process

20. Orofacial Pain Management

We had the opportunity to visit the Orofacial Pain Management Clinic. There were few lectures about orofacial pain itself and how to manage the pain in TMDU Hospital in Japan. At first we have to diagnose the patient using so many techniques in clinical examination such as pulp test, local anesthesia for diagnosis, sensory taste, taste examination, measurement of salivary secretion, X-rays, CT, MRI, Psychological test, and other tests.

We got the chance to see the professor treated the patients in the clinic. The first one was using the stimulation therapy electroacupuncture and photodynamic therapy super lizer. There were another methods used in the clinic such as AC iontophoresis, medication, and also psychological therapy. In managing the orofacial pain it is important to balance the western and oriental technique because it is flexible and effective for the patients. Usually there are 100 patients a day in the clinic, handled by 4 doctors. They also introduced us to the medicine Kampo, and it is widely used in Japan.



Tools and questionnaire for orofacial pain examination

Orofacial pain management was really interesting topic because dentists in Indonesia never use the traditional technique such as acupuncture to treat the neuropathic pain in oral and maxillofacial complex. To hear that the treatments are proven to be effective for the patients make us really curious. There are no certain techniques to treat or diagnose the orofacial pain and it is really hard Indonesia to treat such pain in and we usually use the western medicine and technique.



The electroacupuncture device

21. Oral Health Promotion

In the Department of Oral Health Promotion, we learnt how to use the chromatography and BREATHON. These two devices are used to diagnose halitosis. Chromatography device is used to count the level of H_2S , CH_3SH , and $(\text{CH}_3)_2\text{S}$, which all are the components of halitosis. If the level of H_2S is high, it is likely the tongue coating causes the halitosis, if the level of CH_3SH is high it is likely because of periodontitis, if the level of $(\text{CH}_3)_2\text{S}$ is high, it is because of systemic disease. If one or more of these three components is high, that means the person has halitosis. Unlike the chromatography device, BREATHON device doesn't measure the level of gas causing halitosis, it only states if someone is malodorous or not.

We were happy to know about my oral odor condition now we can use the devices to diagnose halitosis and also we learnt a lot on why halitosis occurs. We also got some souvenirs from this department! They are mouthrinse and tongue brush.



*Vynlia was trying the chromatography device (left)
and Ranny with the BREATHON(right)*



IT Simulation Learning

In the last day of this exchange program, we got a chance to try the IT simulation learning. Each of us was given a seat and a computer and there were series of question related to dentistry in the computer and we had to answer those questions. The topics were around anamnesis and diagnosis, root canal treatment, medically compromised patient, dental emergency and oral and maxillofacial surgery.

Compared to the computer based test we have in UI, IT simulation learning in TMDU has some differences. The first, in TMDU, there are some questions which has more than one answer. Although it had been written in the question " please choose 2 answer", some of us still choose one and continued to the next question. As a result, we got less point for that question. The second, in TMDU, we knew whether our answer is right or wrong before we continue to the next question and we were told the reason why our answer was right or wrong. Finally, based on these comparison, IT simulation learning in TMDU is better than the computer based test we have in UI.



UI students were doing the IT simulation learning



Research Day!

It was October 20th 2015 and that mean that day was TMDU Research Day. This day might became the most frightening day for some of us, because some of us had to do the research presentation. We got nervous easily because it was the first experience for us to present our research. But before the research presentation began, there was an opening speech at 9 a.m. by Dean of Faculty of Dentistry Tokyo Medical and Dental University, Prof. Keiji Moriyama, and also from Prof. Yoko Kawaguchi; continued by lecture from Prof. FA Clive Wright about Prevention and Minimal Intervention Approaches for Older People and from Prof. Miyuki Azuma about oral immune responses and regulation.

Prof. Clive Wright's lecture explained us the population changes in Australia. Specifically there are many people in the ageing process with estimation of 25% in 2056 and 28% in 2101. The process in ageing including increase in disability as the high number of assistance required in daily living and cognitive impairment as burden of dementia also rises with increasing age. In 2005, 100% of people more than 65 years have at least one long term health condition or chronic disease. Diseases including eye 90%, musculoskeletal 66%, circulatory system disorder 57%, osteoarthritis 28%, and respiratory conditions 15%. Ageing people also need more teeth and sophisticated restorative treatments.

The second lecture from Prof. Azuma told us that the immune system is built of a set of components such as T cell (T helper and T killer), B cell, macrophage, and natural killer cells and each of them interact each other to perform specific behavior or function. Immune system included innate immune system and adaptive immune system. One of the main parts in this lecture is dendritic cells (Ralph M. Steinman) which is leukocyte with dendritic morphology and broadly distributed in whole body. DC triggers innate and adaptive immune response, bridge two immune systems, and control the immune systems. Current research is about dental pulp dendritic cell which move to infected site quickly, express TLRs, induce CD 86, and migrate to regional lymph nodes.

After these two lectures, finally the most frightening time came. Yes it was the oral presentation session. There were 12 students presented their research and for each student, 8 minutes time was given for presentation and 5 minutes for the judges to ask question. The judges were Prof. FA Clive Wright, Prof. Yupin Songpaisan, Prof. Tetsuro Watabe, Prof. Miyuki Azuma, Prof. Haruhisa Fukayama, and Prof. Takashi Ono. From Universitas Indonesia, there were 2 presenters, Fenny Kamadi, who finally got the first prize, and Bernard Kurniawan.



Delicious lunch provided before the presentation session



Students from Universitas Indonesia on TMDU Research Day

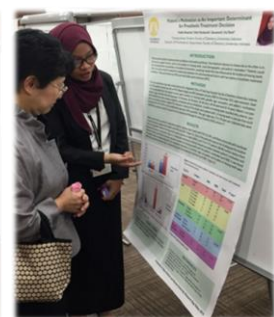
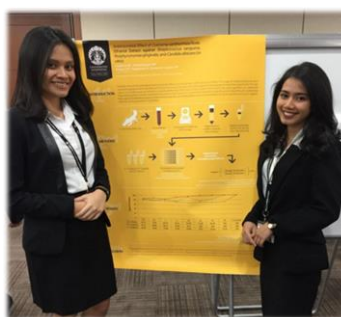


Fenny (left) and Bernard(right) were presenting their research

After all participants finished presenting their oral presentation, it was time for research poster viewing. We all attached our posters and people would ask about it. Then after all done, the TMDU team provided us dinner and followed by announcement of winner and award presentation. Luckily Fenny won the first prize and Pear from Chulalongkorn University won the second prize. We were so happy and grateful for this first opportunity to present our research in oral or poster. We learnt a lot from it and we hope someday we can participate in another scientific forum better.



UI students celebrated Fenny's victory



Reina and Ranny (left) and Fadila (right) with their posters



Treasuring Japan



Museum Visit

Free Time!



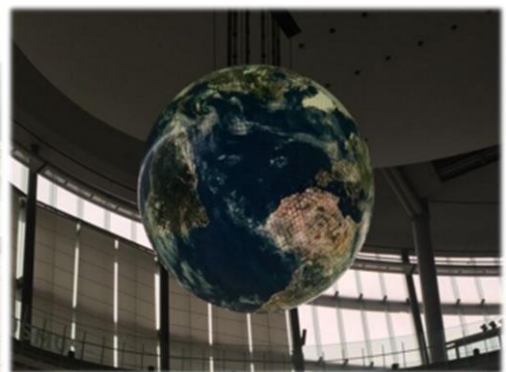
Museum Visit

On October 16th 2015, we visited The National Museum of Emerging Science and Innovation in Odaiba. We went by train and got there around 3 p.m. The museum was so big and modern, we saw many new inventions and technology. At the entrance, we saw a very huge globe replica and there are some sofas below the globe so that we could see the globe rotates from there.

There was a kind of explanation first near the entrance of first floor exhibition about five criterias which must be trully understood: alternative creativity, mimicking creativity, serendipity, integrative creativity, and associated creativity. Many inventions from many years were realized by the "help" of these elements. Alternative creativity tells that new ideas unconstrained by traditional values may give the ability and chance to create new things; try new approaches in doing the old methods hoping to get better new method. Mimicking creativity tells about taking hints from existing technology to be able to create new things that formerly have not been existed or achieve more that used to. Serendipity tells about the unexpected development may give the ability to make fortunate discoveries; as well said that there is nothing useless, everything may gives the chance to create something new. Integrative creativity is about combining different things for a same purpose which may give the ability to generate new things; it is also important to gather and consult with other people, making a team to get the purpose easily. Lastly associated creativity is about identifying qualities shared that first may seem unrelated but by connecting each other giving the ability to generate new things. These five things usually being forgotten, in fact, they are the important things in making new inventions.

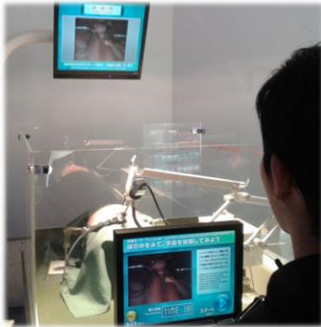


All students in front of the Museum



The Globe Replica

In this museum there are also some section which specialized for health care sciences. There were a large interactive screens which explains how do we remember things, health care strategies, how does a medicine work, and also a sophisticated robot assisted surgery demonstration. These things were new for us and they are amazing.



The robot assisted surgery simulator



Health care development strategies



Ashimo Robot Performance

There was also another section where we could score our personality in two different aspects : cognitive (counting while walking) and psychomotoric (walking performance). In cognitive, we walked as it told, and the monitor would give some questions in math from various level from easy to hard for us to count and gave the answer. The process was done while walking, then the scored would be depend on some aspects such as speed, walking stability, speed while thinking, stability while thinking, answer time, and correct answer.

Another one was psychomotoric personality test with some aspects to be scored such as walking speed, step symmetry, posture, forward arm swing, backward arm swing, arm swing symmetry, stride, and gait period. This was a part of the research but it really works well and gives us useful information.

After finished trying most of the section in this museum, it was time for Ashimo robot performance. This robot is a phenomenon, it could dance, walk, and talk. Ashimo is shown to the visitors every day at around 4 p.m. for a short performance. However it was still so amazing to see such modern technology, especially in Japan where technology is developed sophisticatedly and this museum visit was an amazing experience for us. Here we got a lot of information on latest development and sciences and the most surprising thing is, most things here are interactive.



Free Time!

During our stay in Tokyo, that's right that most of our time spent in the campus. But we still had free time at the first day of arrival, weekends and in the evening after class and we spent our time enjoying Tokyo on this opportunity.

We visited some tourist attraction places in Tokyo such as Asakusha Temple, Shinjuku Park, Tokyo Dome, Odaiba, Shibuya, Tokyo Tower, Disneysea and lot more places. It was easy to go to anywhere in Tokyo since it has many railway routes and we can see their schedules in our mobile phone. While we took the train for the first time, we were amazed that all people stood on the left on the station escalator. If we had to walk, it was safe for us, the pavement was also clean. It was strange, how do people keep their pedestrian clean since there were not many trash can. Furthermore, people here were also very helpful to the tourists. Although not all people could speak English, but if we asked them, they would try to help us. Most people in Tokyo obeys traffic rules, whether they walk or drive and we seldom heard cars honking as we think, the Japanese respects each other very well.

We tried also some Japanese food in both convenient store, restaurant or small food stall. Foods here were delicious and also clean. One unique experience for us was the food ordering machines which uses coins. It was the first time for us to see and try this machine. This machine makes ordering food faster so people would queue less. But there were also some restaurants where we had to queue to be seated. For us, queueing up in Tokyo is fine because people here respects each other very well and there were always sign informing an estimation on how many minutes required from our queueing point to the end.

Finally, we are grateful to have this opportunity to enjoy Japan. And we also enjoy our stay in Japan (as happy faces seen in our photos ;-)) For us, Japan is clean and peaceful country and Tokyo is a well organized metropolitan city.



On the ship to Odaiba



*At the
Asakusha
Temple*



On our way to Asakusha



*"Halloween mode" in
Tokyo Tower*



Shinjuku Park



Meiji- Jingu Temple



Photos taken in Edo Tokyo Museum



At Tokyo Disneysea



Keeping Friendship

Team Work Activity

Cultural Show

Closing Ceremony

Happiness Captured!
(Photos)



Team Work Activity

When we saw there was a team work activity written in the schedule, we were curious what would we do in that day. But finally the day came. We got to the campus at 9.30 a.m and all students were divided into 4 groups. In each groups we were being paired, and we were asked to draw each other faces. Later, the pictures will be guessed and the group with more right guesses got more points they got reward.

The time given for each person to draw was 30 minutes. It was so short because some of us can't draw, so finally the result was exactly not similar with the person we drew. But it was a fun day and we really got closer to each other. The pictures became our gifts for each other to be remembered later.



Photos taken during the Team Work Activity



Cultural Show

It was October 23rd 2015 and it was a day for cultural show and also, our last day in TMDU. In this day, each university performs a cultural show so that we could understand each country's culture well. Before the cultural show began, each universities should also gave a 10 minutes presentation on "what we learnt and what we thought" during this exchange program. From UI, Vynlia and Reina gave the presentation.

After the presentation session finished, it was time for Cultural Show. From UI, we sang a medley of two traditional songs, "Sik sik Sibatumaningkam" from North Sumatera and "Yamko Rambe Yamko" from Papua. Besides singing, we also performed a medley of traditional dance from various region in Indonesia.



The singing (left) and dancing(right) performance from UI

At that day, we got the second turn for cultural show. Before us, there was a dancing performance from Chulalongkorn students and there were performances from Srinakharinwirot and UMPHCMC students after us. All performance were amazing and this opportunity made us understand each country's cultures well and this was a chance for us to make friendship with students from different countries.



Performances from UMPHCMC (left) and Chulalongkorn (right) students



Closing Ceremony

After the cultural show finished, it was time for the closing ceremony. There was a closing speech from the dean of Faculty of Dentistry before dinner and also certificate presentation for all participants. Everyone felt sad at this day because this day was the last day that all participants from different countries meet together in TMDU.



*UI delegates with
Prof. Junji Tagami*



*Students enjoying buffet
dinner*

Besides dinner, closing speech and certificate presentation, surprisingly there were also Taiko and Modern Dancing performances from TMDU students. And after all the performances finished, a surprising moment came again. The teacher from UMPHCMC presented a souvenir for Prof. Yoko Kawaguchi. It was a writing of "TMDU dental training program 2015" which was made of bird origamis. So there were hundreds of bird origamis made by all participants built that writing.



All participants with the TMDU writings

Happiness Captured!





Happiness Captured!





Happiness Captured!





Happiness Captured!





What we thought.....



**Bernard Kurniawan
(Beks)**

Konichiwa! This exchange was the first time for me to be in Japan. It was great to be here and I realized that what I have heard about Japan before, either from newspaper, film, or comics is real. Tokyo, a clean-bustling metropolitan city amazed me much and also TMDU, an university with advanced research and technologies. What I saw and felt here had never been thought in my mind before! So I love Japan and all inside it. Thank You TMDU, Japan government, and friends for this dream-living experience! Actually I didn't want to wake up, but I had to. So, wait for me again in the next coming years, sure to be back again someday! Keep in touch and mata aimashou!!





Dela Medina (Dela)

Participating in the Dental training program at Tokyo Dental and Medical University is a very valuable experience for me. We spent most of the days visiting the laboratories in TMDU both from basic science and clinical lab; also we have the oral presentation competition and poster presentation about the students' researches. The opportunity to meet and build networks with keen students from different countries and cultures definitely changed my point of view as dental students. The lecturers and visiting laboratories I perceive as an important chance to learn and improve my skills and motivation to face the upcoming challenges in the field of dentistry. Dental health is still a major problem in Japan, Vietnam, Thailand, and Indonesia by this experience I learned that collaboration plays important role in order to solve this problem. This experience has changed me as a dental student and also helps me to set my future goals as a dentist. I understand the value to become future global leader, especially in the dentistry field. In the future, I hope this program could help dental students like me to recognize their role as a future global leader.



Fadila Khairani (Cacak)

Being one of the delegates of this program was one of the best thing that ever happened in my life. It was a precious "once in a lifetime" experience that couldn't be repeated, even if someday i go back to Japan, it would never be the same without "US", without the joy and togetherness we shared.

This program gave us so much to learn, the dental knowledge from the lecture and Lab experiences. Trying to speak new language from all the participants and enjoy the cultural experiences. We also learn another precious thing, to build a friendship that we could never forget and regret.

It changed me and broaden my perspective as well. The program was well-designed to make us completely inspired, to be a future leader dentist. I couldn't thank god enough for giving me this chance.

Besides, I enjoyed my free time in Japan. I tried many kinds of Japanese food such as sushi, takoyaki, udon and many more. Also I went to some places, Asakusha, Harajuku, Shibuya, Tokyo tower and many more. From this I learned a lot on Japanese living culture, behavior and manners. Thank you Japan and TMDU for this two weeks experience. Hope someday I would be back here as a student.



Fenny Kamadi (Fenny)

TMDU program was a dream came true for me, being in Japan for educational trip and getting the opportunity to meet fellow dental students and experiencing dental school in Tokyo have been such a precious journey. I truly learnt a lot in this program, to see how Japan takes care of their citizens oral health, how the education program going though in TMDU, I learnt how integration really works well and dental hospital develops as well as medical hospital. I enjoy every seconds in this trip, making friends and making memories. Thank you for giving me this chance, giving us such a pleasure time here, thank you for all students from TMDU, University of Medical and Pharmacy Ho Chi Minh City, Chulalongkorn University, and Srinakharinwirot University, such a great time spending time with all of you.

Hopefully by this program, we can get all the positive values, for our dental studies, and also in the future to improve dental education, also to work together as dentists. I hope all of us will remember this experience as a good time we share together for a long time, and hopefully we'll see each other soon. So, thank you very much TMDU and also hopefully, I'll see you again soon!



Mohammad Mutawalli Makhbubi (Bubi)

Spending 14 days in Japan was a wonderful journey. I am very happy that I have opportunity to join this program. I got many of experience in Japan and also knowledge, friends, and experience. First, I can get knowledge in dentistry field. In many lecture and laboratory that I visited, I learned dental Japan education, advanced technology in Japan, dental health care in Japan, and research in Japan. I would tell about my laboratory In Tokyo Medical and Dental University, I can got many information and knowledge about basic dental science and clinical dental science. In Japan I made new friends from different countries. Such as Japan, Vietnam and Thailand. Although, the learning time just 14 days, it did not make us to just focus on the academic course. However, making relationships and relationships are very important for our future lives. Besides, I have many kind of experience in Japan. Now, I can speak Japanese although just for say hello and ask something.

Japan has many beautiful place and cool place. I visited many kind of tourism place in Tokyo such as Asakusa, Odaiba to saw Miraikan and ASUMO robot, Edo Museum in Ryogoku, Shibuya street, Tokyo Sky Tree, Tokyo Tower, and etc. The experience that I never forget is when I went to Hakone to see mount Fuji and Ashinoko Lake. It's the biggest experience because I went to Hakone by ourselves and no Japanese people who accompany us. In this place just a few people can speak English. However, I enjoyed the scenery there and back to the hotel safely. Thanks for JASSO and Japan Government that give me the opportunity to study exchange in Japan. I hope that in the future I can go back again to Japan as PhD student.



Ranny Rahaningrum Herdiantoputri (Ranny)

Having a chance to participate in TMDU Inter-university Exchange Program has been a great opportunity for me to expand my knowledge. At first communication was a very big challenge because people in Japan have various level of English understanding so I learnt how to be adaptive to overcome that problem. When trying to communicate in English doesn't seem possible, I would try to communicate in Japanese just like I was taught on the first day in TMDU.

In this program we had a chance to study with students from Thailand and Viet Nam in lectures, clinic visits, lab experiments, and also in teamwork activity. We had lectures about orthodontics, periodontal medicine, gerontology, health promotion, and prosthodontics from different TMDU lecturers. We also got encouraged by several PhD students in TMDU to continue our study in TMDU. I got the chance to visit several clinics like special care clinics for patient with disability and fresh breath clinic. There I learnt many things I haven't got the chance to learn in Indonesia. I studied about embryology in laboratory by doing experiment in section staining and gel electrophoresis. These experiences make me more interested to study more in the future

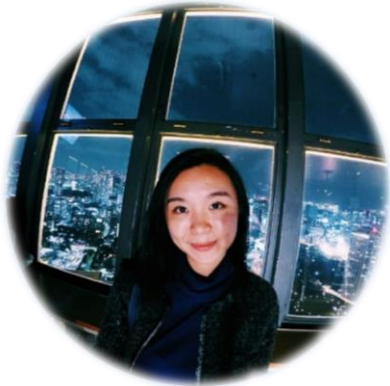
What's important besides learning about dentistry here is that making friends and connection from other country. We had many chance to make friends. The four countries participating in this program could promote each other's culture and learn from each other too. We also shared about health condition in our countries.

The participants from Indonesia got a lot of help from TMDU 3rd grade students. They've taught about customs in Japan and shared a lot about their way of thinking and way of life as well. I personally feel blessed to become their friend. I am looking forward to spend more time in Japan to continue my study and hopefully I can meet my friends again in the future.



Reina L. Hutauruk (Nena)

Participating in the Dental training program at Tokyo Dental and Medical University is a very valuable experience for me. We spent most of the days visiting the laboratories in TMDU both from basic science and clinical lab; also we have the oral presentation competition and poster presentation about the students' researches. The opportunity to meet and build networks with keen students from different countries and cultures definitely changed my point of view as dental students. The lecturers and visiting laboratories I perceive as an important chance to learn and improve my skills and motivation to face the upcoming challenges in the field of dentistry. Dental health is still a major problem in Japan, Vietnam, Thailand, and Indonesia by this experience I learned that collaboration plays important role in order to solve this problem. This experience has changed me as a dental student and also helps me to set my future goals as a dentist. I understand the value to become future global leader, especially in the dentistry field. In the future, I hope this program could help dental students like me to recognize their role as a future global leader.



Vynlia Tandiar (Vynlia)

Writing this page keeps making me reminisce all the great memories that I have in Japan, especially in TMDU. This exchange program has changed my life and my point of view. Since the first day in TMDU, I learnt a lot, not only academic skill but also social skill. I have been to many places without the company of my family, but the two-weeks experience I had in Japan are the most memorable ones.

I really grateful to TMDU and UI for giving me chance to enjoy and to learn new things abroad. I also learn that dentistry in Indonesia is not as advanced as in Japan. I learn there are many specific departments that manage people's complaints. The people in departments that I visited in TMDU were also very nice and kind. I hope that someday I can go back to TMDU as a student there. I know it will be really hard, but I can try my luck!

Life in Japan was extremely good! I made new friends from Japan, Thailand and Vietnam. Learning their backgrounds and cultures are really exciting. 14 days in Japan make me a beginner Thai speaker. My new friends and I also traveled together to many beautiful places in Japan, such as Hakone and Shibuya. I also learned that people from different countries have different personalities. As I can see that, people in Japan are really hard working and discipline. I really amazed at their time management. My friends from Japan also have the purest hearts. They always accompanied us wherever we wanted to go. We are really close eventhough it was just a short meeting. I do hope that we can maintain all these good relationships and we can meet as great dentists in the future!

'Great intentions make great things happen' are the words that can describe this exchange program. I am glee and I do really appreciate all the chances that had been given to me. As I can say, this exchange program helps me a lot in deciding my future path in academic and in career. I believe that all the participants have great intentions and I hope we can make great things happen!

