

## ●My Internship Experience

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When I arrived at Nagoya Centrair fourteen months ago I was excited about starting a new chapter in life. I was also very nervous because I arrived with no experience in Japanese conversation and with many precautions given from previous intern students on the dos and don'ts in Japan. On my first day, I anxiously greeted and introduced myself to others using the same Japanese lines I have prepared and practiced beforehand. I was taken out for an Italian dinner soon after my arrival in Japan, during which I was able to chat more freely with others. From that point on I was greatly relieved because everyone was very friendly and communication was much easier than I expected.

Over the next two weeks I was introduced to the various aspects of my work at the Macromolecular Materials Laboratory, including the people, knowledge, and experimental techniques. I was tense during the first few weeks at work because unlike internships in Canada, I was not interviewed before coming to Toagosei, and so I did not know what qualities or knowledge my supervisors expect me to have, especially when my major is materials engineering rather than chemistry. Because of that, I was studying hard from the literatures that I was given, and making note of everything that others say. To my great relief I was able to get used to my work very quickly, as I started understanding more about my work I was also able to give advices and discuss with my supervisors about my view on the research I was doing.

I worked under the Polymer Group on the development of a special-grade dispersant for ground calcium carbonate. Some tasks that I performed include polymerization, SEC analysis, and pigment grinding. As an intern student, I was very fortunate to be able to oversee the development from its beginning to actual production at Nagoya Plant. I was also able to have a deep involvement in discussing the technical aspects and planning the research. Furthermore, I had the opportunity to meet with our clients to get new information, which is not common even for internships in North America.

In this project, we took a building-blocks approach in which before any polymer samples were made, we first identified the properties of each of the potential chemical species and determined how each of them will or will not be useful in wetting and stabilizing the calcium carbonate in slurry. This approach, compared to the usual aim-for-the-goal approach, allowed us to gain more knowledge on the factors that affect the performance of our product. It also helped in developing my logical thinking which will be useful both in school and in future work. Moreover, this internship allowed me to gain experience in polymer science through a chemical approach, which is an interesting new aspect to my study because back in school, I have been approaching this field from a more physical viewpoint.



Working in Japan is also very different from working in North America. One of the most obvious differences is the team-oriented nature in Japan, as work is conducted as a group rather than individually. Group meetings are a lot more often in Japan, where people can understand better what their colleagues are doing. I personally prefer this style because it allows members in a team to support one another more easily than in North America.

For example, a problem regarding an experiment can be quickly answered by a colleague without having to explain the entire background of the task, because that colleague already knows what is being done and what the target is. Also, in Japan, everyone in a department, including section chiefs and managers, share the same office, which is very different to North America where supervisors usually get their own rooms and others get their own partitions. This configuration, although sacrificing privacy, allows easier communication between colleagues, which I think may improve productivity.

Laboratory safety is also treated differently. North American employers focus more on written rules and their enforcement, whereas in Japan, safety rules are decided on a group basis, mainly through the monthly safety meetings which are usually not held in North America. In my team, we have morning meetings in which members will explain their tasks for the day and point out the potential dangers as well as the respective safety measure. Most importantly, other members will add to the safety measures if they find any missing spots.



Japanese employees are also very devoted to their company. It is very common to see people working at the same company for their entire career, which also allows companies to make more long-term goals compared to those in North America. Although the life-employment system in Japan has been changing for the past decade, Japanese companies are still providing employees with more personal care compared to those in North America, for example dormitories and meals during the weekdays. One example at Toagosei in which the devotion can be seen is when we weed the grounds of the Research Institute by ourselves,

rather than contracting the task out, which to some people may be able to increase the employee's sense of belonging to the company. Weeding the company ground is new and very surprising for me because it is not usually done in Canada where many will find it counter-productive. It may also interfere with one's schedule or experiment, which can delay the completion of a task or lead to overtime work.

Another surprise I had was the hours that Japanese people put into work. Despite having heard numerous times about the working hours in Japan, I was surprised as the actual hours were much longer than what I expected. However, I found that when I do stay longer at work, I can learn a lot more since many technical discussions take place after hours, which is also helpful to my dispersant development because there is more time for me to express my opinion to my supervisor and other members and also more time to ask for their opinions. Besides the technical aspect, the longer working hours may also help to form stronger bonds between coworkers personally, due to the increased level of communication.

The strong bond between colleagues is also what I like about working in Japan. During my internship I was able to enjoy various events with my colleagues. From these activities I was able to learn more about the culture and also improve on the language very quickly, but the most important benefit is to be able to make valuable friends with my colleagues. At first I found the language barrier to be a great difficulty as it was hard for me to understand many conversations in meetings or breaks. During this period, I usually listen to the conversations and try to interpret the conversation through the vocabularies I know and the overall atmosphere of the conversation. I learned many new expressions and ways of speaking from these situations and found myself quickly improving in the language. However, due to this style, I often appear to be able to understand the language more than I actually do, so there can be situations where people overestimate my listening skills and speak at a level that I cannot understand.

Outside of work, I have joined a language exchange group and also a badminton circle to fill my free time. Through these groups I met many people whom I was able to have fun with and learn from in terms of the cultural and language aspect. My weekends are usually consisted of these group events, badminton practice, and having parties, dinner,

or karaoke with colleagues from work or members of the circle. Life in Japan is more fast-paced than in Canada. Personally, I found the Japanese style suits me better for now as it can motivate me to a greater extent both during and outside of work to talk more and do more. I have also found myself becoming more active throughout this internship which I consider a positive personal development.

One aspect of Japan that I like the most is the focus that people put in keeping the harmony. In such a society, people are polite and courteous in general, and erratic behaviour is rarely seen. In North America, people are educated to think more freely and maintain their individualism. This difference in culture often leads to the view that people in North America are more assertive in general and sometime even erratic whereas people in Japan are milder. Japanese people are also very organized, and put much focus on making and following plans. For example, they will start planning long before a trip or a party and make sure things go well. In North America, however, people like to be more flexible and not be bounded by solid plans. Furthermore, improvising is much more common in North America especially among the youth, with the only exception for formal business situations. Personally, I prefer to be more definite in terms of plans and less on being eccentric, so I think this is another point which I think we can learn from the Japanese people.

Having lived in Hong Kong in the past, I found adapting to Japan easy because there are many similarities in many areas of the two cultures. For example, the table manners, the basic social rules, and interaction between people are similar. However, there are also some areas which I had difficulties getting used to. In Japan, shoes must be taken off in various places such as restaurants, bath houses, certain stores, and people's rooms. I had to always force myself to remember to remove my shoes, and even so, it can sometimes be a challenge to find out where the "no-shoes" zones are. Another difficulty I had was with the garbage disposal system, where garbage must be divided into burnable, non-burnable, and recyclable. Even the non-burnable and recyclable groups are very strict with a wide range of garbage that they do not accept. I find it confusing at times when deciding which garbage belongs to which bag. Also, the way the system is set up makes disposing several types of trash very difficult because it is not accepted as

either of the three group mentioned above, for example cardboard, clothing, and magazines.

During the 14 months in Japan I had many opportunities to travel around Japan. Travelling was made convenient due to the advanced transportation system in Japan, such as the Shinkansen and the extended yet reliable train network. I have travelled west to Gifu, Kyoto, Osaka, Himeji, Wakayama, Koyasan, and east to Hamamatsu, Fuji, Tokyo, Chiba, as well as north to Sendai, Sapporo, and Otaru. It was also very easy for me to travel in Japan because of the number of public holidays, almost one day per month with longer vacations in May, August, and January. During some public holidays and ordinary weekends, festivals are very common events where people gather up and celebrate. I always admire how lively the hosting neighbourhoods or cities can become and how both the spectators and performers are so dedicated to the event. Moreover there are often lots to see during the festivals in Japan, such as booth games, food stands, parades and performances. In Vancouver, celebrations of such calibre only take place once or twice a year and the events are more monotone compared to those in Japan. For example, one of the largest celebrations in Vancouver is called the 'Celebration of Light' which is basically a series of fireworks competitions and the only focus is on the fireworks.



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Over the course of my internship I was able to see much more outside my country. On top of gaining valuable technical knowledge and developing my logical thinking, I was able to broaden my perspective in many aspects of everyday life. Moreover, through interactions with colleagues, fellow interns, locals, and other foreigners, I was also able to develop a new insight to communication between people. Most important of all, I have created some of the happiest memories in my life throughout this year in Japan. Also, having made many friends here that I will surely keep in touch with, I will always feel connected to this country.

Lastly, I would like to express my sincerest gratitude to everyone at Toagosei for all their help throughout my internship. I have received a lot of help on coming to Japan and ensuring that my stay here remains smooth. All problems that I had in terms of living were able to be quickly solved. Also, I have learned a lot from everyone, from experiment technique, safety attentions, to difficult concepts that I would never be able to figure out on my own. On top of that, everyone was very patient with my lack of knowledge, and helped me tremendously in learning the basic concepts and developing a logical mind. Finally, I really enjoyed the various events and parties we held outside of work, and those were some of the best memories I have.