

Overseas Study Tour Report 2014 "English Adventure Program"

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Abstract

In the past few years, faculty and staff members of Akita Prefectural University (APU) have been working to increase the number and types of study abroad programs for APU students. One of the programs, the University of Guam's "English Adventure Program," was customized and implemented for the first time in September 2011. Since that time, this two-week program has evolved to provide a balanced schedule of English as a Second Language (ESL) classes, academic lectures, cultural activities, educational tours, and conversation time with student members of the university's International Friendship Club (IFC). Results of the 2014 post-trip questionnaire suggest that this customized, short-term, study abroad program produced several benefits for the participants. These benefits include enhanced motivation for learning English, positive changes in their world views, and better attitudes towards and understanding of foreigners. This paper presents a detailed description of this customized program and the results of the post-trip questionnaire.

Keywords: Collaborative learning, English as a second language (ESL), experiential learning, short-term study abroad, student engagement

In the field of international education, it is widely known that there are many positive, long-lasting benefits of overseas study. According to the results of the IES Abroad 50-year Alumni Survey, the vast majority of the respondents reported a continued commitment to studying foreign languages (86%), enhanced interest in academic study (80%), a greater awareness when communicating with people from different cultures (94%), a long-lasting effect on their world view (95%), and an impact on their career path (76%) (Dwyer & Peters, 2004).

Nevertheless, despite the evidence of the many benefits of study abroad, relatively few Japanese university students participate in

overseas programs. According to the Organization for Economic Co-operation and Development (OECD) (2014), only 1% of Japanese university students were enrolled in programs overseas in 2011. One reason for this low participation rate is students' reluctance to delay graduation and entry into the workforce since academic credits often do not transfer. Another reason is financial concerns, as a semester or year abroad can be significantly more expensive.

Though past research suggests that longer programs have a greater impact on academic achievement, cultural development, and personal growth (Dwyer, 2004), it has recently come to light that short study abroad trips

can also have a lasting impact, especially on participants' global engagement (Fischer, 2009). Therefore, what are needed are more opportunities for Japanese university students to participate in affordable, well-organized, short-term study abroad programs, such as the University of Guam's "English Adventure Program." This program is very affordable for students and flexible in terms of duration, number of English classes, and types of cultural activities. Upon request, this program can be customized to meet the needs and interests of the students.

The University of Guam's "English Adventure Program" 2014

Program Location

The 2014 APU English study tour took place on the island of Guam, which is located in the western Pacific Ocean. Guam is a territory of the United States. The economy here is primarily dependent on US National Defense spending and tourism. The population of Guam is approximately 161,000. The Chamorro people, the indigenous peoples of the Marianas Islands, make up the largest ethnic group on Guam.

Program

The University of Guam's "English Adventure Program" was selected for APU's 2014 English study tour because of the positive response from past participants and UOG's willingness to work with the tour leader to further customize the program. This year's program was designed to maximize learning through academic lectures and experiential activities. The program included English language classes taught by an enthusiastic, experienced ESL instructor, Mrs. Ramona Johnston, lectures by several UOG professors and special guests, and cross-culture sharing with UOG students and 4th

graders of the Captain Henry B. Price Elementary School in Mangilao.

Program Goals

Through English language lessons, lectures, cross-cultural sharing, educational tours, hands-on activities and collaborative research, this program aimed to help students:

- enhance their motivation for learning English and the subjects in their chosen majors
- develop greater intercultural awareness and a wider world view
- determine their career paths
- improve their research, writing and presentation skills

Program Schedule

This study tour took place from September 7 ~ September 21, 2014. The schedule was designed to keep students constantly engaged through a variety of activities and to mitigate risk by keeping students together and setting an evening curfew. Some of the highlights of this tour included several special lectures by faculty members and invited guests, and visits to UOG's integrated demonstration farm, the newly opened Chamoru Cultural Immersion Center, a private beach in Inarajan, and the Captain Henry B. Price Elementary School.

Program Field Research

In addition to UOG's customized "English Adventure Program," a field research component was added to the study tour by the tour leader. This collaborative, curricular-related research was designed to provide further opportunities for highly-engaged, integrative, intercultural learning. Collaborative learning, when used appropriately, can help reduce the anxiety associated with learning a foreign language (Nagahashi, 2007a, 2007b),

enhance student engagement, increase motivation, and improve English skills (Nagahashi, 2014). Incorporating content-based instruction, which integrates language skills and content," is an effective way of creating a stimulating and engaging environment in which language use is natural, relevant, and purposeful" (Nagahashi & Duell, 2008, p.41). Providing opportunities for students to take part in intercultural activities not only enhances their understanding of another culture, but also helps develop presentation skills (Nagahashi, 2013). In addition, this research component promoted learner autonomy. Students who are self-directed tend to be more motivated, spend a greater amount of time on tasks, and have a better attitude towards learning (Nagahashi, 2006, 2012).

Prior to departing for Guam, the 16 tour participants were divided into four research groups of four members each. The four research topics were (1) Guam Culture, (2) Guam Higher Education, (3) Guam Island Sustainability, and (4) Guam Tourism. Each participant selected one of the four topics to study in greater depth. Groups were instructed to conduct preliminary research on their topics and to present their findings (in English) during the second orientation meeting. During the tour, the research groups were assisted by UOG students, who helped locate relevant materials. At the end of the two-week program, the groups presented their findings (in English) to UOG faculty, staff and students. After the tour, the research groups completed written reports in English (see Appendix A) and gave PowerPoint presentations (in Japanese) on the results of their research. These presentations took place on APU's Honjo and Akita campuses and were attended by students, faculty and members of the administration.

Program Presentations and Tours

The University of Guam's "English Adventure Program" was customized for APU at the request of the tour leader. In addition to the usual English language classes and cultural activities included in the regular program, several lectures, hands-on activities and tours were added. The table below provides information on the special lectures, hands-on activities, and tours (see Table 1).

Program Costs

Expenses for the program were covered by both the university and the students who participated. Akita Prefectural University paid for roundtrip international airfare from Narita to Guam, which came to 73,620 yen for each student. Students paid for their accommodation, transportation and the UOG program fee, which came to a total of 110,000 yen per person. In addition, students were responsible for the passport fee, travel insurance (costs varied), and transportation costs between Akita and Narita.

Program Leaders

The tour was under the leadership Terri Lee Nagahashi, an Associate Professor in the Research and Education Center for Comprehensive Science (RECCS), Professor Hironobu Okazaki, RECCS, Professor Jun Fukushima, Department of Biotechnology, and Naoko Saruta, APU International Exchange Center (see Table 2).

Program Participants

Participants for the 2014 "English Adventure Program" were selected based on a written application and a personal interview. All Akita Prefectural University students were invited to apply. Information about the tour was sent to university departments at the beginning of April 2014 and applications were accepted until Wednesday,

Table 1
Special Lectures, Presentations and Tours

| Date | Presentation Title | Lecturer | Title/Position |
|-------------------|--|---|---|
| Tuesday 9/9 | Class Audit: Introduction to Sociology | Dr. Kirk Johnson | Professor, Department of Sociology, University of Guam |
| | Sustainable Agricultural Systems: Issues, Technology and Innovation | Dr. Mari Marutani | Professor, Agriculture and Life Science Division, College of Natural and Applied Sciences, University of Guam and Tropical Agriculture Science Program (Advisement Liaison), specializing in germplasm improvement, conservation of native species, and agroecology |
| | Introduction to Triton Farm, An Integrated Demonstration Farm at the University of Guam | | |
| Wednesday 9/10 | Lecture on Guam from the Perspective of Geography, History, and Anthropology | Dr. Hiro Kurashina Dr. Rebecca A. Stephenson | Director Emeritus of Micronesian Area Research Center (MARC) Professor Emerita of Anthropology |
| Thursday 9/11 | Class Audit: Introduction to Sociology | Dr. Kirk Johnson | Professor, Department of Sociology, University of Guam |
| | An Introduction to UOG's Green Army | Student Volunteer | Undergraduate Student, University of Guam |
| | Introduction to the Center for Island Sustainability | Phillip John R. Cruz | Extension Associate II, Island Sustainability Center, University of Guam |
| | How to Grow Eggplants and Hot Peppers | Phoebe Wall | Extension Associate III, Cooperative Extension Service, University of Guam |
| Monday 9/15 | Introduction to Sociology (special lecture for APU students) | Dr. Kirk Johnson | Professor, Department of Sociology, University of Guam |
| | Guam's Dangerous and Poisonous Sea Creatures & 4-H Fisheries Activity (traditional and modern fishing techniques) | Chris Kenty | 4-H Youth Development Program, Cooperative Extension Service, University of Guam |
| | UOG Marine Lab Tour | Marine Lab Graduate Students | Graduate Students, Marine Laboratory, University of Guam |
| Tuesday 9/16 | "Journey Stories" with Sindalu: Chamorro Journeys in the U.S. Military | Smithsonian Institution National Traveling Exhibit | The Isla Center for the Arts, University of Guam |
| | History of the Northern Marianas Islands | Darlene R. Moore & Judith R. Amesbury | Archeologists, Micronesian Archeological Research Services |
| | T.Stell Newman Visitor Center, War in the Pacific National Historical Park | Park Ranger | National Park Service Ranger, USA |
| Wednesday 9/17 | Historical Island Tour INADEHEN I LINA'LA' I KOTTURAN CHAMORU INC. (Chamoru Cultural Immersion Center) | Jean Taitano Cultural Center Volunteers | Certified Guam Tour Guide Local Artisans of Guam |
| Thursday 9/18 | An Introduction to Japanese Culture (for 4th graders at Captain Henry B. Price Elementary School, Mangilao) | APU students | Students, Akita Prefectural University |
| | Guam Tourism | Dr. Fred Schumann | Associate Professor, Global Resource Management, School of Business and Public Administration, University of Guam |

Table 2
Tour Leaders

| Campus | Department | Rank | Name |
|--------|--|---------------------|---------------------|
| Akita | Research and Education Center for Comprehensive Science (RECCS) | Associate Professor | Terri Lee Nagahashi |
| Honjo | | Professor | Hironobu Okazaki |
| Akita | Department of Biotechnology | Professor | Jun Fukushima |
| | APU International Exchange Center | Co-director | Naoko Saruta |

May 2nd. The personal interviews took place at the Akita campus on Wednesday, May 21 stand on the Honjo campus on Thursday, May 22nd. The final decision was announced on Friday, May 30th. Eighteen students, 11 from the Honjo campus and seven from the Akita campus, applied for the program. The eighteen students who applied were interviewed individually by a panel of faculty members and the directors of the International Exchange Center.

Sixteen students (9M/7F) were selected to take part in this overseas study program. Ten students were from the Faculty of Systems Science and Technology (Honjo

campus) and six students were from the Faculty of Bioresource Sciences (Akita campus). There was one freshmen (1F), five sophomores (2M/3F), eight juniors (5M/3F), and two seniors (2M). Six university departments were represented (see Table 3). Keigo Takahashi, a senior majoring in Management Science and Engineering, was selected as the student leader. Daiki Ito, also a senior majoring in Management Science and Engineering, was selected as the student manager. Chiho Sato, a junior majoring in Architecture and Environment Systems was selected as the student interpreter.

Table 3
Tour Participants

| Campus | Major | Year | Name |
|--------|--|------|---|
| Honjo | Machine Intelligence and Systems Engineering | 3 | Takeru Sato |
| | | | Toshiki Takei |
| | Electronics and Information Systems | 3 | Ayumu Morikawa |
| | | 2 | Genki Shimizu |
| | Architecture and Environment Systems | 3 | Chiho Sato (student interpreter) |
| | | 1 | Akari Nohara |
| | Management Science and Engineering | 4 | Keigo Takahashi (student leader) Daiki Ito (student manager) |
| | | 3 | Kota Sato |
| | | 2 | Ayaka Kawahara |
| Akita | Biotechnology | 3 | Nozomi Wada |
| | | | Noriyuki Watanabe |
| | | 2 | Yuto Takahashi |
| | Agribusiness | 3 | Kumiko Ito |
| | | 2 | Yuriko Sato Chiho Suzuki |

Results and Discussion

Approximately seven weeks after returning to Japan from Guam, the tour participants were asked to complete a short questionnaire. All 16 of the study tour participants completed the questionnaire. Quantitative results, mean and standard deviation, for statements 1-7 follow (see Table 4). These results indicate that for the

majority of the students, this study tour was particularly effective for (a) improving their motivation for learning English, (b) having a big impact on their lives, (c) changing the way they view the world, and (d) changing the way they respond to foreigners.

Table 4
Means and Standard Deviations for the Post-Trip Questionnaire(N=16)

| Statement | Mean | Ranking | Standard Deviation |
|---|------|---------|--------------------|
| 1. The Guam Study Tour helped improve my motivation for learning English | 4.75 | 1 | 0.43 |
| 6. The Guam Study Tour had a big impact on my life. | 4.50 | 2 | 0.61 |
| 3. The Guam Study Tour changed the way I view the world. | 4.25 | 3 | 0.83 |
| 7. The Guam Study Tour met my expectations. | 4.00 | 4 | 0.94 |
| 4. The Guam Study Tour changed the way I respond to foreigners. | 3.94 | 5 | 1.03 |
| 2. The Guam Study Tour helped improve my motivation for learning in my major. | 3.44 | 6 | 0.93 |
| 5. The Guam Study Tour changed my plans for the future. | 3.31 | 7 | 1.04 |

Note: Scores are based on a 1 (strongly disagree) to 5 (strongly agree) scale.

In addition to responding to the eight statements listed in Table 4, students were asked to complete the following eight open-ended statements (see Table 5).

Table 5
Sample Student Responses to the Post-Trip Questionnaire (N=16)

| Statement | Before the study tour I... | Now I... |
|---|---|--|
| 1. The Guam Study Tour helped improve my motivation for learning English. | Before the study tour I didn't study hard. Because studying English was not important for me. | Now I regret that I didn't study English from an earlier time. I want to stop being passive because of the language barrier. |
| | Before the study tour I had avoided learning English. | Now I mix with the foreigners in Japan. So I'm learning English from the foreigners. |
| | Before the study tour I didn't have confidence in speaking English because I didn't have any chance to talk English. So I was very weak in English. | Now I have some confidence in that, and I like English. I made some friends in Guam and keep in touch with them. So I became more and more interested in my studies in English. |
| | Before the study tour I study for the test and it's little boring. | Now I want study English for conversation. Conversation is very fun and I want to speak more. |
| 2. The Guam Study Tour helped improve my motivation for learning in my major. | Before the study tour I worried about that my major fit me. | Now I enjoy growing rice and vegetable. |
| | Before the study tour I had noticed that I have to study many things including English for my dream. | In Guam, I saw UOG students who have higher motivation to study than me. I shocked and thought that I shouldn't stay like before. Now I would like to study more deeply and get more opportunity to study in my major. |
| 3. The Guam Study Tour changed the way I view the world. | Before the study tour I thought that I become a international person if I can speak English. But it was wrong. | English capability is not the only thing that I don't have enough of. I felt that it is necessary a lot of knowledge to understand each other's culture. |
| | Before the study tour I thought that the foreign countries are scary. | Now I felt that the foreign countries are interesting. |
| | Before the study tour I have no interest for the world. | Now I take interest in the world. |

| | | |
|---|--|--|
| 4. The Guam Study Tour changed the way I respond to foreigners. | Before the study tour I was not able to talk positively. | Now I can talk positively. |
| | Before the study tour, I did not know what to say. | Now, increased the opportunity to talk in the laboratory to foreigners. |
| | Before the study tour I had been avoid communicating with the foreigner, because I was afraid of mistake English. | Now I feel that it important speaking with warm enthusiasm. |
| 5. The Guam Study Tour changed my plans for the future | Before the study tour I worried about leaving Japan. So I thought that I don't want to go far foreign countries | Now I think that I want to visit a lot of foreign countries. And I want to view around the world for my eyes |
| | Before the study tour I wanted to work at abroad. | I saw some Guam people who very interesting to the Japanese culture and I very proud our culture so I want to work not only abroad now. I want to work at Japan too. |
| 6. The Guam Study Tour had a big impact on my life. | Before the study tour I 'm not good at English. But my English skill improved. | So, I think it is important not to afraid of action |
| | Before the study tour I think boring studying English. | Now I think studying English is fun. |
| 7. The Guam Study Tour met my expectations. | Before the study tour I expected to study English only. | Something unexpected that happened was to study, to communicate, to cooperate, to be impressed, to discuss by speaking English. I experience many things. |
| | Before the study tour I expected it to be a kind of trip or sightseeing. | Something unexpected that happened was very happy to spend two great weeks with friends and UOG members. Sometimes it was hard for us to finish our report until the deadline. But now it seems the way I should go. |
| | Before the study tour I expected to tell "thank you" because many people from all over the world helping to revive my hometown that suffer from regarding the Great East Japan Earthquake. | Something unexpected that happened was the bonds of friendships, between UOG students and APU students who join in this tour. |
| | Before the study tour I expected to we feel happy only. | Something unexpected that happened was our opinion conflicts sometime. |
| Statement | | |
| 8. If I were the leader of this tour, I would... | "I would like to go to friend's house, when we can watch real life of foreigners." | |
| | "I would study English more." | |
| | "I would allow some latitude in the schedule of our tour." | |

In summary, as the quantitative results and student comments above illustrate, this short-term study abroad experience was very beneficial for the participants. Students gained confidence in their ability to communicate in English, along with a desire to improve their English language skills. They also have a greater awareness of what is going on in the world and a greater willingness to communicate with foreigners.

Conclusion

In conclusion, the 2014 APU Overseas English Study Tour, which combined a customized version of the University of Guam's "English Adventure Program" and an APU supervised field research component, provided abundant opportunities for highly-engaged, experiential learning. Participants of this tour benefitted in many ways. Results

of the post-trip questionnaire suggest that this tour was particularly effective for enhancing students' motivation for learning English, improving their intercultural communication skills, and broadening their world view. Although it is anticipated that this experience will continue to impact the participants' lives, follow-up studies are necessary to assess the long-term impact of this short-term study abroad.

References

- Dwyer, M. (2004). More is better: The impact of study abroad program duration. *Frontiers*, 10, 151-163.
- Dwyer, M., & Peters, C. (2004). The benefits of study abroad. *Transitions Abroad*, 27(5), 56-57.
- Fisher, K. (2009). Short study-abroad trips can have lasting effect, research suggests. *Chronicles of Higher Education*. <http://chronicle.com/article/Short-Study-Abroad-Trips-Can/1541>.
- Nagahashi, T. (2006). Fostering positive changes in students' beliefs about learning English: Results of a four month study. *Akita English Studies, Akita University*, 48, 6-16.
- Nagahashi, T. (2007a). A cross-sectional study of foreign language learning anxiety among freshmen at Akita University. *Bulletin of the Center for Educational Research and Practice, Akita University*, 29, 93-102.
- Nagahashi, T. (2007b). Techniques for reducing foreign language anxiety: Results of a successful intervention study. *Annual Research Report on General Education, Akita University*, 9, 53-60.
- Nagahashi, T. & Duell, P.B. (2008). Integrating language and content instruction in a health awareness course for medical students. *Annual Research Report on General Education, Akita University*, 10, 57-65.
- Nagahashi, T. L. (2012). Beneficial effects of a three-week intervention program on the promotion of learner autonomy. *Bulletin of the Research and Education Center for Comprehensive Science, Akita Prefectural University*, 13, 111-127.
- Nagahashi, T. L. (2013). "Explore Oregon USA": Results of a successful short-term study abroad program. *Bulletin of the Research and Education Center for Comprehensive Science, Akita Prefectural University*, 14, 77-99.
- Nagahashi, T. L. (2014). Collaborative learning: An effective alternative to traditional classroom teaching. *Bulletin of the Research and Education Center for Comprehensive Science, Akita Prefectural University*, 15, 75-88.
- Organisation for Economic Co-operation and Development (OECD). (2014). *Japan: - Education at a Glance 2014: Country Notes-OECD*. OECD: Paris: Author.

Appendix A
Student Research Reports
Guam Culture

Kota Sato and Ayaka Kawahara, Department of Management Science and Engineering
Ayumu Morikawa, Department of Electronics and Information Systems
Kumiko Ito, Department of Agribusiness
Selene Santos, Eileen Prangan and Ray Cabral, University of Guam

We researched about Guam culture and chose to focus on three main points: history, Chamorro language, and patriotism. There are various aspects of a culture, but we think these three best symbolize Guam culture.

Cultural diversity on Guam is related to its history. Therefore we will explain about the historical and cultural background of Guam. Indigenous people on Guam, also known as the Chamorro people, lived in peace for a long time and established their own culture, which was similar to the ancient Austronesian culture of the Philippines, Indonesia, and Malaysia.

During this early time, latte stones were developed. Latte stones, consisting of a pillar and a capstone, were used for bases of buildings. Four pairs of pillars were used as the foundation (see Figure 1). Latte stones vary in size, ranging from about 6 to 8 meters. The bigger the latte stone was, the more power a person held. Nowadays, latte stones can be seen everywhere on Guam as a symbol of power. The stones can even be seen in the governor of the state's office. In Guam, the existence of the latte stone is very important.



Figure 1. Hagatna's Latte Stone Park

Later, in 1521, Portuguese navigator Ferdinand Magellan arrived on the island of Guam. Guam became a Spanish colony, and the indigenous culture started to fade away. Then, in 1898, Spain surrendered the island of Guam to the United States. With the exception of the Japanese invasion during WWII, Guam has been ruled by the U.S. in peace.

Next we will explain about the Chamorro language. Chamorro has its own special alphabet, which consists of 24 characters (see Figure 2). Local children on Guam learn the Chamorro language in elementary school. We learned a certain phrase in the lecture about sociology, "The middle of a culture is the language." Their education makes them proud of their culture. It turns out that the greeting "*Hafa Adai*" is often used. One distinction about the Chamorro language is the strong accent. In the southern part of the island, the accent is especially thick and is difficult for a person to understand. Pure Chamorro is hardly spoken. It is mainly spoken mixed with English.

Finally, we will talk about patriotism. In order to maintain one's culture, there needs to be adequate affection for it. We selected patriotism as one of our three main points of Guam culture because we got the feeling that UOG students love their island. In Guam, they sing the national anthem of United States, the Star-Spangled Banner, and the state song of Guam, which is known as the Guam Hymn in English and *Fanohge Chamoru* in Chamorro. The Guam Hymn is sung at opening ceremonies, receptions, military ceremonies, and when hoisting the nation's flag. *Fanohge Chamoru* is sung in school. On Guam, the people pledge allegiance to not only the United States but also to Guam. This seems to make a good



Figure 2. The Chamorro alphabet.

condition to keep their culture.

In conclusion, though the original culture of Guam, the Chamorro culture, has diminished over the years because of colonization and occupation, it is still alive and being preserved by means of education. Chamorro language is being taught in the local schools and the people love their island and its culture. The latte stone is a symbol of their history and proudly displayed. In this way, Guam culture has been preserved and conveyed by local people. We think that patriotism will keep Guam's culture from becoming extinct.

Higher Education in Guam

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Daiki Ito, Department of Management Science and Engineering

Takeru Sato, Department of Machine Intelligence and Systems Engineering

Yuto Takahashi, Department of Biotechnology

Japan and Guam have different cultures, so we expected to discover something we don't have if we compared them. We are interested in higher education in Guam, so we researched about this topic and focused on the University of Guam. In this report we are going to compare the University of Guam (UOG) with Akita Prefectural University (APU). *Table 1*

A Comparison of UOG and APU

First, we will compare the number of students, class size and cost per credit (see Table 1). In APU, we have about 1,600 students and UOG has about 3,400 students. In APU, there are about 8 to 200 students in a class and in UOG, there are about 8 to 50 students in a class. The price per credit is about \$180 at APU and about \$190 at UOG. As you can see, these two universities don't have a big difference in price. However, we have different ways of calculating this price. For example, students in UOG pay per credit and students at APU pay by the semester. We think that

| | UOG | APU |
|---------------------------------------|------------------|------------------|
| Number of students | 3,400 | 1,600 |
| Number of students in one class | 8~50 | 8~200 |
| Price per credit (International) | \$180 (\$457) | \$190 (\$180) |
| Credits you need in order to graduate | 100~130 | 123~128 |

knowing the price per credit is important for understanding how much we are paying for each class and this contributes to motivation for studying. The UOG students seem so positive about learning.

Second, we will compare sample time schedules from each university (See Figure 1). The blue schedule belongs to a UOG student who is a junior majoring in Biology and the orange schedule belongs to an APU student who is a junior majoring in Machine Intelligence and Systems Engineering. The arrows

represent one class. When comparing the two schedules, we noticed that the UOG student has less classes

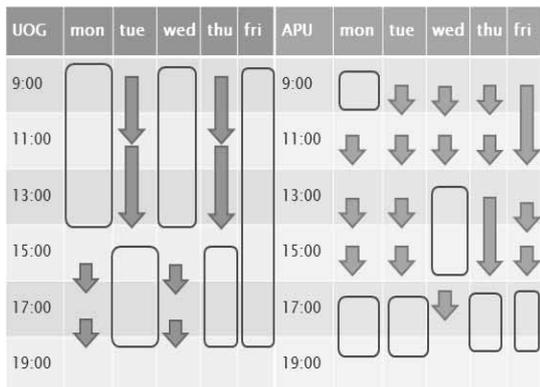


Figure 1. Sample student class schedules

(see Figure 2). This was an unbelievable sight for us. Of course, from the outset, their students seem positive to study. UOG's system makes students study harder. In addition, they're not only studying, they are volunteering and doing something for their motherland. For example, a few UOG students joined each of our research groups and helped us with our topics. They are volunteers. UOG provides various learning opportunities. "Without dialogue there is no communication, and without communication there can be no true education" (Paulo Freire). Dr. Kirk Johnson taught us this wise quote. Without communicating with our conversation partners, we couldn't have realized what this quote meant. We had a great experience because we could find what we needed after this.

and more free time in one day than the APU student. What do these students do during their free time? The UOG student uses her free time to study and participate in club activities, while the APU student uses his free time for his part-time job. We think this UOG student has high motivation for studying. We should follow her example.

Third, we will talk about our impressions of the classes and students of UOG. On two days, we joined Dr. Kirk Johnson's Intro to Sociology class. His classes were so powerful. For example, one day he made his student stand on the podium in the front of the room

(see Figure 2). This was an unbelievable sight for us. Of course, from the outset, their students seem positive to study. UOG's system makes students study harder. In addition, they're not only studying, they



Figure 2. UOG student standing on the podium in Dr. Kirk Johnson's Intro to Sociology class.

are volunteering and doing something for their motherland. Some majors don't have laboratories. Other majors have laboratories, but students can't join the laboratory without a professor's recommendation, so it is not easy. Most Japanese university students need to submit a research paper in order to graduate. We think that UOG students have a greater freedom of choice and feel that there are many opportunities open to them. Finally, during this tour, we saw something surprising, UOG students mourning for 9.11. They never forget the terrible incident that happened more than 10 years ago. On the other hand, at APU, we don't mourn for 3.11 or other terrible incidents. Many of the UOG students, administrators, and teachers are considerate of their country and people in spite of Guam being so far from the United States. We felt that it was a good custom.

In conclusion, we spent two weeks with UOG students and found that they seem positive about studying and are interested in a lot of things. We realized that UOG's system of classes, credits, time schedules and graduation requirements are very different from APU or other Japanese universities. We think that this system makes UOG students positive to study. This positive attitude will help them develop many abilities. We would like to follow UOG students' attitude, and we think that Japanese universities



Figure 3. Mourning for 9.11.

should imitate some these systems which make students positive to learn.

Guam Island Sustainability

Keigo Takahashi, Department of Management Science and Engineering

Genki Shimizu, Department of Electronics and Information Systems

Yuriko Sato and Chiho Suzuki, Department of Agribusiness

Sustainability is a word we often associate with the environment, economy, society, and education. In this report, we will focus on the environment of Guam and associate sustainability with the ecology movement in Guam. We think that the people should live in harmony with nature for the sustainability of Guam. Guam has been working towards the island's sustainability, so we'll introduce some of their efforts. We will focus on three points (1) the background, (2) recycling and (3) renewable energy.

First, we will provide some background information about Guam. As you know, Guam, like Japan, has limited area and resources. Therefore, they need to use various activities for island sustainability and to protect the environment. They need to think seriously about island sustainability. On the island of Guam, garbage is increasing rapidly, and the capacity of one dump has been reached and a new one has been started. To manage this problem people need to reduce, reuse, and recycle. In addition, they should try to decrease the amount of carbon dioxide in the environment, which is contributing to the greenhouse effect. The earth is becoming warmer and sea levels are rising. They need to do various activities for island sustainability in Guam to protect the environment. For example, it is possible to conserve energy by saving electricity and walking instead of driving cars to save gas.

Our second point is about recycling. Where does garbage go on the island? Before 2011, garbage went to the Ordot Dump, which is now a landfill and located in Chalan Pago-Ordot Village. The closure of the Ordot Dump played an important role in the development of the waste management on Guam. The Government of Guam wanted to reduce the waste that would go into the new landfill (Layon Landfill in Inarajan Village), so they partnered up with the University of Okayama to help with recycling.

In Guam, recycling isn't as common as it is in Japan, but it is beginning to improve. In the University of Guam (UOG), we saw the present situation. The garbage cans on campus have separate sections for different types of trash,



Figure 1. The Center for Island Sustainability (CIS) test garden. Shredded paper is being used on the garden as mulch.

for instance, combustible garbage, aluminum cans, and plastic. At home, people have trash bins, one with a green lid and one with a black lid. The trash can with the green lid is for recycling paper, cardboard, aluminum cans, and plastic bottles. The rest of the garbage is thrown into the trash can with the black lid. At the Center for Island Sustainability (CIS) in UOG, we saw two ways of recycling. One way was for recycling shredded paper. The paper is being used as mulch in the garden (see Figure 1). This mulch has three advantages. It helps control soil temperature, keeps the soil moist and inhibits the growth of weeds. In Japan, black plastic mulch is common. Unfortunately, unlike the shredded paper, it is not biodegradable. The other way of recycling that we saw was composting. Food and other biodegradable wastes are put into a pile and left to decompose. When the compost is finished, it is used for plants as fertilizer.

Our third point is about renewable energy, including wind and solar. Guam needs to develop renewable energy sources, so it will not be so dependent on imported fuel. Recently, Guam has been trying to use wind energy. There are a total of four wind systems in Guam. We heard from University of Guam students that three systems are owned by the University of Guam, (Two can be found in two different farms and one on campus) and the fourth one is owned by a private company in Piti. We noticed that they are smaller than systems in Japan and break easily. We want to improve them, so that more people will use them in the future.

Next we will explain about solar photovoltaic systems. Solar photovoltaic systems were introduced to Guam in 2012. There are three solar panel systems in Guam. The University of Guam, which uses a total power of 1.98kw, has one of them. One of the differences that we noticed is that there is no system for selling the surplus electricity like there is in Japan. We think that the government needs to create a system for selling the surplus electricity. We also saw a solar water-heater. This system raises the water temperature using sunlight. In Japan, this system isn't used as often.

Finally, we will explain about electric cars. We saw an electric car when we went to the Center for Island Sustainability (CIS) in the University of Guam (see Figure 2). An electric car is an automobile that is powered only by electricity, and because it doesn't use gasoline, it can be recharged using an outlet in your own house. However, it can't be driven the same as gasoline-powered cars because the range is limited.

In addition, while we were in Guam, we noticed that there was a symbol for saving energy everywhere. It is called ENERGY STAR. It is a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect the climate by using more energy efficient appliances. We can see the ENERGY STAR symbol in many places, for example, in school, at home, and in stores. It is usually stuck on the air conditioners, refrigerators, and water heaters. We can reduce energy use with these energy saving appliances.



Figure 2. UOG's electric car

In conclusion, Guam is a small island with limited resources, so people should save resources and energy. They must find other energy resources such as solar energy and wind energy and also need to find a way for people to sell the surplus energy. The government should also promote living in harmony with nature. However, the most important thing is more people should be aware of the importance of the environment in Guam.

Guam Tourism

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We researched about tourism in Guam on our trip because it's a major industry in Guam. We thought we could find some interesting things about Guam tourism. We focused on four main points and researched about shopping, food, sightseeing, and the number of tourists.

First, we will explain about shopping. Tumon and Hagatna are the main shopping districts on Guam. Popular places for tourists to shop include Guam Premier Outlets (GPO), Kmart and the Micronesia Mall. At GPO, there are stores on the upper floor and a food court on the lower floor. People can spend a whole day shopping here. We recommend the fast fashion store in GPO. There are many kinds of clothes and discount goods in this store. Kmart is the largest discount department store on Guam, and it is open 24 hours. We can buy a large variety of souvenirs, ranging from Chamorro Chip Cookies to dried mango. Micronesia Mall has many specialty shops. There are cheap folk crafts, aloha shirts and resort wear. There is also an amusement area, so families can enjoy this place.

Second, we will explain about food. The traditional food of Guam is Chamorro Fiesta style dishes, such as red rice and chicken. We can also eat Filipino style food at the Chamorro Village Night Market (see Figure 1). The Night Market is held every Wednesday. We can buy fresh coconut here and enjoy coconut juice. Coconut candy is also available. In addition, we can eat Chamorro food at KFC. McDonalds is also different than in Japan. We can eat wrap sandwiches and have infinite refills on drinks.



Figure 1. Turon (banana lumpia), a Filipino snack.



Figure 2. Tumon Beach, Guam

Third, we will explain about sightseeing. Two famous tourist spots are Two Lovers Point and Tumon Beach (see Figure 2). Two Lovers Point is well known for its beautiful view, and people often have weddings here. Some visitors like to tie tags with messages about their loved ones and promise their love. Tumon Beach has a beautiful sea. The beach has shallow waters and it is very clear. We can enjoy snorkeling and diving. However, we should pay attention to pickpocketing and poisonous sea creatures.

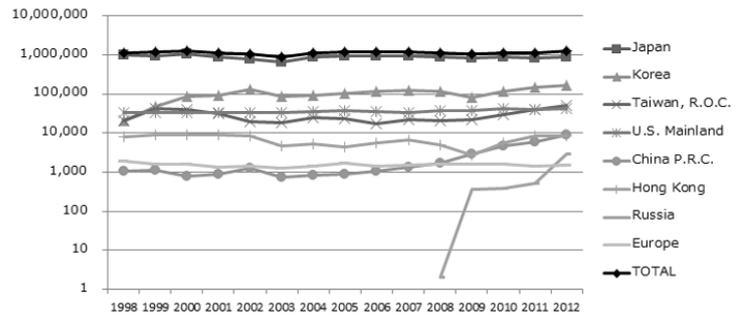
Finally, we will explain about the number of tourists. Tourism in Guam began developing in 1970. At first there was only one hotel, but today there are many hotels lining the waterfront. The number of tourists in Guam has reached 1.3 million per year. Japanese tourists account for 70% of the total. Guam plans to further increase the current number of tourists who can enjoy the sightseeing and the shopping with the Guam Tourism 2020 Plan. Guam hopes to

increase the number of tourists from 1.3 million to 2 million by the year 2020. The Plan includes an increase in the number of hotel rooms from the current 8,000 rooms to 10,000 rooms.

In conclusion, the tourist industry of Guam is an extremely important matter, as it supports the economy of this small island. We think that it is desirable for tourists to increase when regarding the

continuance of future island development. Therefore it is necessary for Guam to differentiate itself from the other Micronesian islands. While Guam can try to make itself more unique, there are environmental problems that will need to be addressed. It is necessary to address the protection of the environment sustainability. The increase in tourists will also cause a gradual decrease in environmental quality.

図表 グアムへの来島者数 (2012年トップ3と、米国本土、中国、香港、ロシア、欧州)



(出所) Guam Visitors Bureau "Year End Summary", "Annual Report" (各年) を基に大和総研作成

Figure 3. Number of tourists who visited Guam in 2012.