

## End of AY 2016 Report for SIP - Group9

### Project Title

Thinking about ethical dimension of global leaders – Developing an interactive game for ethical capacity building

### Team

GSDM ID	Name	School	Department	Year (e.g. D1)	Leader/member
15208	Akiyuki Masuda	Engineering	Systems Innovation	D2	Leader
15105	Kai Takeuchi	Engineering	Precision engineering	M2	Co-leader
16109	Seungchul Oh	Engineering	Mechanical engineering	M2	
15104	Haruku Shirahata	Engineering	Chemical system engineering	M2	
16203	Risa Shibata	Public Policy		M1	
16215	Sasaki Kyouka	Public Policy		M1	
15203	Prarthana Bhattacharyya	Information technology and engineering	Information & Communication Engineering	D1	
15207	Toshihiro Matsuguma	Engineering	Department of Aeronautics and Astronautics	M2	
14207	Priyanka Soni	Frontier science	Computational biology and medical sciences	D2	

### Objective: Explain what social/global issues that this project tried to address and why the issue is important.

Global leaders are expected to play a crucial role in decision-making. Not all decisions are self-evidently made – simple utilitarian evaluation does not necessarily lead to socially desirable decisions. For instance, mere technocratic solutions may overlook ethical problems which undermine nonpecuniary values where society is founded.

A “moral” choice does not mean justice for everyone and it can bring negative outcomes to some stakeholders which were not considered. In the last annual residential meeting of GSDM, the idea of terrorist detection by drones had overall positive reception. However, one can readily imagine that judging individuals by looking can incur social divides and other adverse reactions.

According to one of the prevalent models of ethical decision making, there are four steps of the process (Craft, 2013). Rest’s (1986) states “(1) recognize the moral issue; (2) make a moral judgement; (3) resolve to place moral concerns ahead of other concerns; and (4) act on the moral concerns.”(Craft, 2013).

However, good the intention is, if the decision-makers do not even recognise the issue, it is highly likely that holistic outcomes can be undesirable. Not least ability of recognition is a critical step for global leaders due to complex and diverse nature of global society.

Therefore, it conforms to objectives of GSDM to provide GSDM students with an opportunity to broaden their ethical horizons in decision-making. This project employs gamification since it is an efficient methodology in raising awareness of ethics and facilitation of finding and sharing ethical concerns. A primary aim of this game is equipping participants with ability to discover ethical dilemma in seemingly justifiable measures against social issues (dilemma seeds) from various perspective.

### Method: Explain through what kind of approaches you tried to achieve the objective.

\*About the list and details of the interview, add the appendix.

The development scheme comprises three parts:

1. Defining global leaders  
We discussed with experts and did literature survey in order to clearly define capability of global leaders in terms of ethical decision making.
2. Designing game structures  
A key of gamification is that the game is entertaining per se. Therefore, we consulted experts to identify core quality of successful games. We also tried out several games to understand and verify suggestions made by the experts.

3. Collecting dilemma seeds  
We interviewed experts and did literature survey. Having summarised the insight obtained in the series of discussion with experts, we decided to create dilemma seeds where most people seemingly agree upon.
4. Evaluation method  
We interviewed experts in education of ethics.
5. Pre-testing (implementation)  
We carried out an IEL in order to verify quality of the designed game structure and contents.

**Outcome:** Explain what kind of results you obtained from this project and discuss how it addressed your focal social/global issues.

1. Defining global leaders  
Based on the discussions and the survey, we concluded that recognising a wide range of stakeholders and perspective and analysing the issues being detached from subjective arguments of stakeholders are the key elements which differentiate "local" leaders.
2. Designing game structures  
As broadening ethical perspective of players is the primary target, we decided that players compete in discovering potential dilemma in the dilemma seed cases. However, we deem that the number of dilemma items does not directly lead players to victory but some elements of randomness and tactics remain due to entertainment reasons. We materialised a paper prototype model. In parallel, we also developed a simple version of our perspective broadening game for the IEL where the number of items directly contribute to their victory. The game framework is inspired by "Cards against humanity".
3. Collecting dilemma seeds  
In order to develop dilemma seeds that indicate players potential dilemmas in the game, we conducted interviews with external experts and with SIP 12 which look into neglected tropical diseases. From these results, we devised five imaginative cases which are designed based on an alignment table of two categories: uniqueness and difficulty. These include recent technologies and systems. The cases are based on some realistic figures and situations so as to induce discovery of dilemma.
4. Evaluation method  
As result of discussion of survey, we found only one systematic method of educational evaluation in this domain. The method is called rubrics which is designed to reduce subjectiveness of the judges. In this method, judges evaluate essays written by the students. However, rubrics require experts as judges and we consider evaluation can partially be combined with performance of the game players taking advantage of gamification. Also peer evaluation is also an alternative so that it is more readily used. Possibilities of such ideas need further discussion.
5. Pre-testing (implementation)  
We held an IEL on 3 March for implementation of the game with the lecture of guest speaker, Prof. Honda from Kanazawa Medical University. 17 participated in the IEL and Prof. Honda introduced ethical decision-making. SIP 12 provided the detail explanation about neglected tropical diseases. This subject is one of the cases in the game. We collected data on the players' recognition capacity in concrete situations and conducted a survey to measure educational effects. We confirmed that this game was entertaining and the number of perspective items can be an indicator of effectiveness. This IEL also elucidated some points to be improved.  
We introduced three evaluation criteria of "Most likely", "Humorous", "Eye-opening" for peer scoring of ideas. The devised evaluation criteria was designed to function as a guild line for exploration of potential dilemma. We employed Google Form as the answering system to make the answers anonymous and facilitate data analysis.  
This SIP aimed to provide a tool for GSDM students to realise trade-offs behind social issues. Although this SIP did not directly tackle social issues, the ideas and findings of this SIP can contribute to solving problems through ethically competent leaders in the future. In the course of the activities, we learnt importance of repetitive discussion on the same subject with various experts to identify the gist of education in ethics. We also noticed that gamification of this education drew attention of various researchers and practioners and thus further development of this project may be of significance for the education outside GSDM.

**Budget:** List the budget this project implemented. \*About the details, add the appendix.

Purposes	Expense
Books	25,578
Travel fee	474,710
Honorarium	52,450
Others	
Total	552,738

Interview list

No.	date	Interviewee	Affiliation	place	purpose	contribution to the project	Interviewer	Budget spent (yen)
1	13 July, 2016	Ms. Shoko Kato	KPMG AZSA Sustainability Co., Ltd	KPMG AZSA Sustainability Co., Ltd	Learning about GC dilemma game, its facilitation and CSR education in companies.	Ms. Kato is an expert of CSR consulting and facilitation of UN global compact dilemma game for companies. The UNGC dilemma game is suggested by an external reviewer in an IEL as a good previous work in the field of educational board games. We learnt how to facilitate that kind of games and manage ethical perspective in companies.	Akiyuki Masuda, Kai Takeuchi	0
2	24 September, 2016	Dr. Hiroshi Kimura	NPO Public Outreach	NPO Public Outreach	Hearing dilemmas and risk communication in field of nuclear industry.	Dr. Kimura is a researcher in the field of risk communication of nuclear industry. The real dilemma of nuclear power plants were good references for our game design. Also the risk communication process for nuclear dilemma were indicated as a prototype of our game.	Akiyuki Masuda, Kai Takeuchi	0
3	18 October, 2016	Prof. Michio Yoshida	Faculty of Education, Kumamoto University	Kumamoto University	Educational effects of leadership on ethical action in organization.	Mr. Yoshida has a long carrier in the field of education, especially group dynamics. We learned how to facilitate the ethical action in a group. His knowledge on the education helped us to design the training process of decision-making and the effectiveness evaluation of the game.	Akiyuki Masuda, Kai Takeuchi	141,760
4	19 October, 2016	Prof. Kanichiro Suzuki	College of International Management, Ritsumeikan Asia Pacific University	Ritsumeikan Asia Pacific University	Learning about global leadership, how to get it, and decision-making process of global leader.	Prof. Suzuki has worked in the financial field and is studying on the leadership in a group. Actually he conducted a debate game in his lecture and we learned the facilitation of debates. He emphasized the importance of simulating the real situation to widen our perspective. Also the discussion with him cleared our understanding about global leaders.	Akiyuki Masuda, Kai Takeuchi	

5	9 November , 2016	Mr. Takayuki Asami	Rakuten	Rakuten	Learning existing educational games which are already introduced into corporations.	Mr. Asami is working for the department of HR in Rakuten and they are using an educational board game for the training of marketing skills. The board game is a competition style which players aim for the maximization of their assets. The design of the game and the facilitation skill of the game were included in this project.	Akiyuki Masuda, Kai Takeuchi	0
6	17 November , 2016	Assoc. Prof. Kojiro Honda	General Education Department (Humanities), Kanazawa Medical University	Kanazawa Medical University	Evaluation methodology of educational effects and ethic in process of decision-making.	Prof. Honda is a researcher in field of engineering ethics. We learned a methodology of evaluation of educational effect in engineering ethics, which are designed and developed in Kanazawa Institute of Technology in 2006.	Akiyuki Masuda, Haruku Shirahata	57,660
7	9 December , 2016	Mr. Yoshihide Esaki	METI	METI	Extraction of dilemma seeds cases from the perspective of policy makers.	Mr. Esaki has worked for METI and led the developments of laws including laws on the safety of regenerative medicine (再生医療新法). The conflicts of the medical system among the pharmaceutical stakeholders such as companies, patients and the government provided us the suitable dilemma seeds cases for discussion in our game.	Kai Takeuchi, Haruku Shirahata	0
8	13 December , 2016	Prof. Yamori Katsuya	Kyoto University	Osaka station	The dilemma seeds game that has been developed by Prof. Yamori and the process of game design.	Prof. Yamori is one of the developers of the dilemma game "Cross Road" that provides opportunities to simulate decision-making in disaster. We learned the process of designing the game and the facilitation in diverse groups from his experience.	Kai Takeuchi, Kyoka Sasaki	87,880
9	14 December , 2016	Prof. Kazuto Kato	The Graduate School of Medicine, Osaka University	Osaka University	Communication between the scientists and the citizens and its dilemmas	Prof. Kato is a researcher who studies science communication in field of health care. The educational methodology for discussion among students and the research trends on health care research provided us the insights for the game design and the suitable dilemma seeds cases for the game.	Kai Takeuchi, Kyoka Sasaki	

10	20 January, 2017	Dr. Rainer Schmidt	Roche	The University of Tokyo	Extraction of dilemma seeds cases in field of pharmaceutical industry	Dr. Schmidt is a head of department of anti- cancer medicine manufacturing in Roche. We learned some conflicts in pharmaceutical industry such as the balance between price and efficacy of drugs, acceleration of the development process of new drugs. Those topics were good references for the dilemma seeds cases in our game.	Kai Takeuchi, Haruku Shirahata	0
11	14 March, 2017	Assoc. Prof. Shishin Kawamoto	Hokkaido University	Hokkaido University	Extraction of dilemma seeds cases		Akiyuki Masuda, Kai Takeuchi, Haruku Shirahata	187,410
12	15 March, 2017	Assoc. Prof. Mitsukuni Yasui	Muroran Institute of Technology	Muroran Institute of Technology	Extraction of dilemma seeds cases		Masuda Akiyuki, Kai Takeuchi, Haruku Shirahata	
							Sum	474,710



Budget implementation breakdown

Purposes	Detail	Expense [yen]
Books	Lindsay J. Thompson "the moral compass -leadership for a free world"	4728
	C. Millar, Eve Poole "Ethical Leadership: Global Challenges and Perspectives 2011th Edition"	11409
	Karl M. Kapp "The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education"	9441
	Total	25578
Travel fee	Interview with Prof. Michio Yoshida and Prof. Kanichiro Suzuki	141760
	Interview with Assoc. Prof. Kojiro Honda	57660
	Interview with Prof. Yamori Katsuya and Prof. Kazuto Kato	87880
	Interview with Assoc. Prof. Shishin Kawamoto and Assoc. Prof. Mitsukuni Yasui	187410
	Total	474710
Honorarium and travel expenses to invite a guest speaker	Inviting Prof. Honda from Kanazawa Medical University to IEL	52450
Others		0
Total		552738