

World Connection Project - Hong Kong Youths Meet Nature in Japan -

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One of the fundamental obstacles to achieving a sustainable society is the great difficulty in modern cities to appreciate and contribute to the well-being of the people and the environment that support our lives. As a part of World Connection Project, a group of two teachers and eight students in Hong Kong visited Toyota city in Japan in May 2016. They experienced authentic paper making, hand crafts, rice planting, etc. with the guidance from local masters in the authentic natural settings. The students' reflection indicated that the experience inspired them to appreciate and contribute to the human and natural resources that support their lives. Qualitative analysis from the students' reflection confirmed a set of hypotheses based on the urge theory of emotion (Toda, 1981) about the kinds of authentic environment that facilitate emotions like curiosity, challenge, gratitude and contribution.

Keywords: Authentic learning, Cross-cultural learning, Global issues, Sustainable society

Introduction

This paper describes our attempt to tackle some difficult issues in our modern society, such as the difficulties in living in harmony with the natural environment based on human bonds within local communities, widening economic gaps, overpopulation of cities and depopulation of rural areas, etc.. We approach these issues from an educational perspective, focusing especially on learning through experience using some kind of media and technologies.

In order to understand the structure of the issues, we first briefly summarize them from historical, economic and social perspectives. These issues are related to many global issues we see in many areas in the world, such as environmental destruction, poverty, food shortage, depletion of natural resources, which are said to be likely causes of many conflicts (Ziegler, 1999; Boris 2005; Timberlake 1985). As many people have pointed out, these problems are serious side effects of the industrialization and global financial markets based on special relationships between the leaders of both financially richer and poorer countries, that were profitable during the history of slavery and colonialism and still are today (George, 2010; Ziegler, 2013). For example, in many African countries, lands used for traditional farming have been turned into mass production farms to produce exported goods for the profits of the government officials, and many farmers who lost lands have moved into cities where poverty spread. In countries with rich oil or mineral resources, developed countries have tried to win the rights to those resources by providing the governments or anti-government groups with weapons, often resulting in genocides and conflicts. All these factors related to global financial market involving the developed countries in Europe, USA, Japan after World War II and more recently China seem to have led to today's poverty, hunger and conflicts widespread in Africa and some Asian and Latin American countries.

These problems are deeply connected to our daily lives. For example, Japan imports more than 60% of foods from all over the world, in which millions of people die from hunger every year, but throws away enough foods to feed 50 million people. Relations between human behavior and our crises have been pointed out from many different perspectives. Sato (1997) points out that the process in which many prosperous civilizations in human history destroyed their own environments and eventually collapsed is underway in a global scale in the recent years. Toda (1981) analyzed human behaviors in various emotional states and concluded that, the behaviors that were optimized for surviving in the wild environments no longer function properly in our modern, civilized society,

resulting in behaviors that seem irrational. Similarly, Wilber (2001) pointed out that the gap between our mental world and the system of artifacts is ever widening at all levels such as bodily, emotional, cognitive, and societal systems.

Some solutions to these global issues have been put forward in the areas of economics and social systems, such as “Tools for Conviviality” (Illich, 1973) and “Intermediate Technology” (Schumacher, 1977), proposing social systems that are not destructive to the well-being of the humanity and our environments. However, as we will discuss in the following sections, these solutions require our appreciation and understanding of the value of the proposed social systems which can only be acquired through experience and learning. We will discuss some difficulties in our learning of these global issues and propose a educational approach to these issues, with kinds of learning through experience to overcome these difficulties.

Difficulties to See the Global Issues

We first discuss two reasons why these issues are difficult to understand much less solve: our dependence on the mass production/consumption system, and the dysfunction of our emotional systems in modern cities.

Dependence on Mass Production/Consumption System

In modern cities, people depend almost entirely on the huge system of mass production/consumption (hereafter referred to as “the system”). Their lives depend on the system because as consumers, they need to keep buying their food, energy and other daily necessities, and as workers they need to earn money for their living. In order to make profits, the system expands itself by involving financially poorer areas who previously were less dependent on the system, spreading from cities to countries, and from developed nations to developing nations. This seems to account for the history of industrialization and globalization of the world from slavery to colonialism and the development of global businesses in recent years, as described above. The problem is that it is almost impossible for those who are caught so deeply in the system to recognize and understand the relation between these global issues and their daily behaviors as consumers and workers. Why?

Urge Theory and Emotions in Modern Environments

We can begin to understand why by looking at the second reason which is the difficulty of our emotional systems to function properly in the civilized world. Urge Theory (Toda, 1981) postulates that human emotional system evolved in natural environments in which our ancestors survived for hundreds of thousands of years. An urge is a specific set of emotions and behavior patterns that is activated in certain circumstances. Once activated, it prepares the body and cognitive systems to react to the situation properly and triggers a set of actions that are optimal for the survival of the individual or the group of individuals in these situations. Toda proposed many kinds of urges. For our purpose, we focus on two types of urges: “Learning Urges” and “Social Urges” (Table 1). Suppose you are engaged in some activity using some artifacts, possibly with some people.

Learning urges. As “Learning” urges which are essential for learning, we consider “curiosity urge”, an urge to know or understand something better, and “challenge urge”, an urge to try some action even if it involves some risks. They are necessary for learning the skills to make and use tools which were essential for survival in natural environments. These urges explain why our children are so interested in constructing things by hands and motivated to challenge new activities, as well as in understanding and controlling natural phenomena like making and maintaining fire.

Social urges. As “Social” urges which are essential for maintaining a society, we consider “gratitude urge”, an urge to thank someone who does something good for the person, and “contribute urge” (Toda’s “help urge”), an urge to help someone in need or contribute to an endeavor. As the conditions for activating these urges, we hypothesize that:

- The curiosity urge and the gratitude urge are activated when the process of functioning of the artifacts and/or actions and mental states of other people is visible (to a certain extent) to the person, ^{1,2}
- The challenge urge and the contribution urge are activated when some possible actions that the person can take are visible to the person.

Table 1

Learning Urges and Social Urges, their conditions for activating

Urge Types	Urges for Knowledge	Urges for Action
Learning Urges	Curiosity	Challenge
Social Urges	Gratitude	Contribution
Activation Condition	<u>Process is Visible</u>	<u>Actions are Visible</u>

Now we can analyze how these urges are likely to be activated in different kinds of environments.

Learning urges. Let us compare learning urges in natural and civilized environments.

- For people living in the wild as our ancestors did for most of the human history, the curiosity and challenge urges are likely to be activated often, because someone engaged in an activity, such as cooking or hunting etc., could see the processes of how their lives are supported by people and natural resources. Thus, when a less experienced user of a tool observes a more experienced user using it, s/he is likely to get curious and challenge her/himself to try it. Note that the curiosity and challenge urges support each other: challenging an action will make more processes visible which activates curiosity; becoming curious and looking more closely will in turn make some actions visible and activate the challenge urge.
- In contrast, for people living in the civilized environments, the curiosity/challenge urges are activated less often because while using complicated modern tools with simple interfaces, the process of using a tool is not visible enough. Compare, for example, how much more curious a child will get and more motivated to challenge him/herself to make a fire than to turning on an air conditioner or a microwave.

Social urges. Similarly, we can compare social urges in natural and civilized environments.

- For people living in the wild, the gratitude and contribute urges are likely to be activated often because the process of making the daily living tend to be visible. Thus, the process of preparing and eating foods are likely to activate the gratitude urge toward people who produce the food as well as natural resources, and also the contribute urge facilitating actions to support them.
- In contrast, in the modern environments, the gratitude/contribution urges are activated less often. In the civilized environments in which we can get things we need by turning on switches or paying money, the processes of production are not visible and it has become increasingly difficult to feel appreciation towards people and resources that support our lives and get motivated to help and contribute.

Research Design and Methods

Research Questions

We formed the following research questions based on the conditions for activating the learning and social urges in Table 1.

Activity in which one can observe the process of making something is likely to make one more curious.

Activity in which one can experience the process of making something is likely to make one more motivated to challenge. From the “Flow Theory” (reference), the activity needs to be just right for one’s level of expertise (not too difficult nor too easy).

Activity in which one can observe someone or something supporting oneself is likely to make one feel gratitude.

Activity in which one shares an experience with someone contributing to a valuable endeavor is likely to make one feel motivated to help or contribute.

Subjects

8 first year students from the Hong Kong Polytechnic University School of Design, Bachelor of Arts in Interactive Media programme were chosen to join the World Connection Project exchange activities based on quality of their design portfolios and proposed presentation topics submitted. The programme is a so-called “top-up” programme

with year 1 students approximately equivalent to year 3 in the normal 4-year bachelor programme in Hong Kong.

Context

In this study, the subject Hong Kong students participated in a series of exchange activities, which are extension of the World Connection Project aimed at collaborations among different countries to discover and experience the process and actions of producing food and goods, in hope of triggering their learning and social urges. The activities are divided into the pre-visit presentations stage, the actual visit, experience and exchange activities stage.

The Exchange Activities

Pre-visit presentations stage. For the pre-visit presentations, the eight Hong Kong students were split into two teams, one worked on presentation topics they chose about paper and another worked on presentation topics they chose about food, all with the context of Hong Kong before the visit. Meanwhile, 50 Japanese students from the Chukyo University were divided into 11 teams to present topics around food and paper as well with the Japanese cultural context.

The Hong Kong student presented their slides orally through video conference while the Japanese student posted their presentations slides online, followed by answering questions posted by the Hong Kong students through the video conference session.

Actual visit, experience and exchange activities stage. After the pre-visit presentations, the team of 8 students from Hong Kong travelled to Nagoya, Japan with 2 teachers to carry out the actual visit, actual experience and exchange activities. The actual visit activities included visit to a local tofu factory in Toyota to understand the ingredients and the making process of tofu, visit to the paper museum to understand the history of paper making, the types of paper made and used for various crafts, and visit to the Sanshu Asuke Yashiki to observe the traditional Japanese village life.

The actual experience activities consisted of washi (Japanese paper) making workshop, rice planting experience on a rice field (Figure 1) as well as a traditional Japanese handcraft workshop offered by the Sanshu Asuke Yashiki (Figure 2), where students could choose from indigo handkerchief dying, indigo shawl dying, bamboo craft making and coaster weaving workshops. For the exchange activities, the Hong Kong students discussed with the Japanese student teams on the topics in a meet up session. During the session, both sides explained their finding around the topics with their own cultural context and prepared for a presentation for the next day. Translator helps were also provided to ease the language barrier between the students. For the presentation on the next day, Japanese student teams and Hong Kong student teams merged together and presented the topics both in the Japanese and the Hong Kong context. The student audiences were provided with flash cards of red and green color randomly, where they were asked to write down the similarities or the differences between the two cultures on the presented topics on cards distributed randomly. Some of the cards were then read to the class after each presentation. Due to class time limitation, a few of the topics presentations were postponed to video conference after the students went back to Hong Kong.



Figure 1. Rice planting activity in an organic rice field in a natural setting guided by staffs of the NPO “Earth as Mother” in Toyota, Japan.



Figure 2. Bamboo craft activity inside an old house guided by a master in Asuke Yashiki in Toyota, Japan, where visitors can experience living in a natural environment with various hand crafts.

Data Collection and Analysis Process

For this study, both qualitative and quantitative data were collected from the participating Hong Kong students and analyzed to verify the research question.

For qualitative data, the students were asked to write short reflection notes for each of the activities commenced during the actual visit, experience and exchange activities stage. Students who had particular feedback on a certain activity wrote their names and short sentences to express their view. Since expression of view on any particular activity was optional, not all students wrote reflection notes on all the activities. These reflection notes were then

categorized into the four types of reported emotion urges: curiosity, gratitude, challenge, and contribution.

For quantitative data, a questionnaire was drafted. Two parts of the questionnaires were concerned with the studies here. Part one was composed of six questions that probed the students' proneness to experience gratitude, based on the GQ-6 questionnaire (McCullough 2002). Part two asked about their appreciation on the actual visit, actual experience and exchange activity. These two parts of the questionnaire are listed in the question column of Table 3, with answer in 7 point Likert scale, ranging from strongly disagree (1) to strongly agree (7). Note also that a shorter version of the questionnaire, with just the GQ-6 questions were also passed to the students from the same program in the Hong Kong Polytechnic University, as the control for comparison.

Exchange Activities Results and Analysis

Qualitative Results on the Students Urges

Table 2 summarizes the list of activities, whether they included the activation conditions for learning urges and social urges, namely "process is visible" or "actions are visible" (marked by "Yes") and the categorized results from the reflection notes submitted by the Hong Kong students on the exchange activities. As discussed in the data collection and analysis process, student reflections for each activity were categorized into: reported curiosity, reported gratitude, reported challenge and reported contribution. Also, the cells for the urges are gray colored when the activation conditions for the urges are designed in the original activities.

Table 2.

Exchange Activities, Types of Urges and Hong Kong students' reflection with reported emotions.

Activity	Activity Type	Process is Visible	Actions are Visible	Reported Curiosity	Reported Gratitude	Reported Challenge	Reported Contribution
Visiting tofu factory	Actual visit	Yes		Discover the characteristics and the importance of the quality of soybean.	Appreciate master's enthusiasm. Appreciate the utilization of local ingredients.		
Visiting paper museum	Actual visit	Yes		Feel interesting, inspiring and gaining new knowledge. Surprise at the power of paper art and paper model.			
Visit to Asuke Village	Actual visit	Yes		Impressed by traditional wisdom and by the use of simple materials in creating daily necessity.			
Washi Japanese paper workshop	Actual experience	Yes	Yes	Value the new experience.	Appreciate the masters for their patience and persistence on maintaining the craft making process.	Feel the paper making and coloring is difficult.	Looking forward to exploring the making methods.
Rice planting activity	Actual experience	Yes	Yes	Yes. Appreciate the precious experience.	Yes. Appreciate the nature, the food and the farmers.	Understand the process more. Feel planting is exhausting.	More cautious on food waste problem.
Traditional Japanese handcraft workshop in Asuke Village	Actual experience	Yes	Yes	Appreciate the beauty and durability of the craft.	Amazed by masters' skill.	Want to learn the knowledge and wisdom of making precious traditional crafts.	Want to pass the knowledge and wisdom of making precious traditional crafts.
Topics discussion between Hong Kong and Japanese students	exchange activity	Yes					
Cross culture topics presentation with both Hong Kong and Japanese students	exchange activity	Yes					

Analysis of the Qualitative Results

To measure these results against the research question stated in previous paragraphs, we found the followings:

- Activities involving actual visit or actual experience are more direct for the students to observe the process of making something, compared with presentations and discussions. And only these activities triggered significant urges, including curiosity emotion in the reflection.
- All the actual experience activities involved students making something in the process, and only those activities had reports with emotion of engaging oneself in a challenge.
- All the actual experience activities involved masters demonstrating their skills related to their occupations and all those had reports with gratitude emotion. Among the actual visit activities, only the tofu factory visit involved a master explaining his work in details with passion. This put a human face to one's contribution to the society and is the only one with reported emotion of gratitude.
- The rice planting activities and the traditional Japanese handcraft workshop activity produced food and craft that could be linked more directly with their pragmatic uses in the society, while the paper craft produced washi paper which could be perceived as art work with aesthetic value. Only the former two actual experience activities had reported emotion of contribution.

From the above observations and analysis, we conclude that the research question hold up well in the World Connection Project exchange activities.

Quantitative Results on Students' Experience of Gratitude

Table 3 lists the results from the end of activity student questionnaires. These results are represented quantitatively by the mean score, with range from 1-7 on Likert Scale, and the standard deviation.

Table 3.

Results of the exchange activity questionnaire from the Hong Kong students

Question	Description	Mean (range 1 – 7)	Standard Deviation
I have so much in life for which to be thankful.	GQ-6 question.	5.75	1.30
If I had to list everything that I felt grateful for, it would be a very long list.	GQ-6 question.	6.13	1.05
When I look at the world, I don't see much for which to be grateful.	GQ-6 question.	4.25	1.71
I am grateful to a wide variety of people.	GQ-6 question.	5.75	0.83
As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.	GQ-6 question.	6.63	0.70
Long amounts of time can go by before I feel grateful to something or someone.	GQ-6 question.	3.25	1.39
The tofu factory visit activity inspires me to appreciate and contribute to the human and natural resources that support my life.	Appreciation to actual visit activity.	5.88	1.05
The Japanese washi paper workshop activity inspires me to appreciate and contribute to the human and natural resources that support my life.	Appreciation to actual experience activity.	5.88	0.78
The rice planting activity inspires me to appreciate and contribute to the human and natural resources that support my life.	Appreciation to actual experience activity.	6.75	0.43
The Asuke village crafts making activity inspires me to appreciate and contribute to the human and natural resources that support my life.	Appreciation to actual experience activity.	6.13	0.93

Analysis of the Quantitative Results

The mean GQ-6 score for the Hong Kong students joining the World Connection Project exchange activities, calculated from answers of the six GQ-6 questions is 31.75 (N = 8). This is to compare with the mean GQ-6 score of 29.16 from the Hong Kong students from the same academic program that did not join the exchange activity (N = 19 out of a total of 31 students). The significant difference between the mean GQ-6 scores reflects that the

students who took part in the exchange activity demonstrated a more positive affective trait and are more “prone to experience gratitude in daily lives.” (McCullough 2002) It is also worth noting that students participating in the activity were chosen based on the quality of their submitted design portfolios and their presentation topics, rather than random sampling. A better evaluation to the effect of the activity on their ability to experience on gratitude could involve the selected students to do the GQ-6 questionnaires both before and after the activity commenced. From Table 2, we also note that the mean scores of two of the actual experience activities are “Agree” and one (the rice planting activity) with mean score of “Strongly Agree,” all with $SD < 1$, showing that the students generally believes that the activities inspire them to appreciate and contribute to the human and natural resources that support their lives.

Summary and Implications

These results were in support of our research question about conditions for activating the learning urges and social urges. Activities in which the process of producing something is visible tended to activate emotions associated with urges related to knowledge, i.e., curiosity and gratitude. Activities in which possible actions that the person can take are visible tended to activate emotions associated with urges related to action, i.e., challenge and contribution. Activities in which one can work with experienced masters in authentic environment tended to activate emotions associated with social urges, i.e., gratitude and contribution. These results seem to suggest encouraging possibility to tackle the difficulties in understanding the global issues discussed at the beginning of the paper, guided by these emotions.

The current analyses are based only on activated emotions during short term activities. An urge consists of a set of emotions and actions and we have analyzed only the emotion part and not the action part. Further analyses on longer term activities are necessary in order to achieve concrete actions resulting from these activated urges. By combining the findings reported in this paper with the Create/Connect/Open model we have developed in the World Museum Project (Miyata, 2013), we can design long term activities which start from making things in closed environment like classrooms and gradually expand to making things in more open, authentic environment involving people in the community with various levels of experiences, in order to expand the scope of learning and social urges from individual to more social interests.

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