

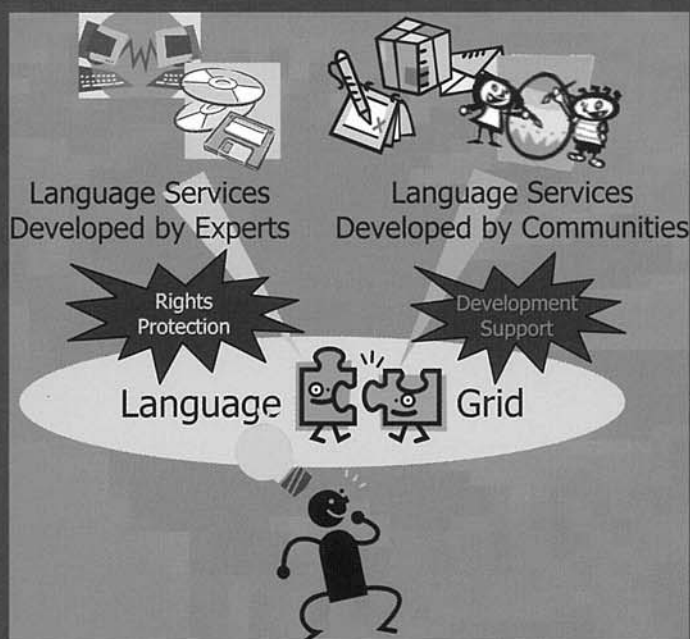
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Atoms of Bonding: Communication Components Bridging Children Worldwide (Invited Talk)

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Abstract. Connecting children around the world using ICT with the mind of respecting various cultures and language, NPO Pangaea is challenging to create “universal playground” where children can feel a bond regardless of their physical locations, languages spoken, or economic circumstances. We develop Package consisting contents, or activities, facilitator training program, and net environment utilizing pictogram designed by adults and children. Two years of conducting activities, over 100 occasions, to create bonds among children, four major communication components became apparent. 1) Shared tasks, 2) Shared personal information, 3) Enjoyable face to face meeting, 4) Attractive communication method. Lacking any one of these four components, it is difficult for participants, aged 9-17, to actively seek the opportunities to bond. Pangaea activities now taking places in Tokyo, Kyoto, Seoul, Vienna, and Kenya, what works for intercultural communication activities will be presented focusing on four components.

Keywords: Pictogram, intercultural communication, atoms of bonding, CMC, simultaneous activity.

1 Atoms of Bonding

9.11.2001 is the memorable date for every one of us. I am sure that all of us can recall where you were or what you were doing when the tragedy happened. For me and the co-founder, the incident happened very near from us. We were both in US, and were going to take that UA93 on 9.11. It happened that my appointment at New Jersey on 9.10 was postponed to 9.12 only three days before as I received the phone call from the company I planned to meet (Toys R Us) saying the marketing report won't be ready on 10th, that they wanted our meeting needs to be on 12th. I complained, as I had my meeting in San Francisco with Exploratorium staff on 12th, and the flight to Japan was planned on 13th. My colleague and I started the project named Pangaea.¹

What happened on 9.11 is terrible. Yet many of us started to think why this sort of things happens, and some new projects started. ICE [4], Intercultural experiment was

¹ <http://www.pangaeaan.org/>

inspired by the incident as we did and started. For some, it is to break language barrier, and for us, it is to create "Universal Playground" where children can feel the bond regardless of culture, language, or physical distance which can be considered as barriers for the formation of bond.

Internet connects the world. So we say and hear for quite some time. But has it really achieved that in last twenty years? It provided many good things, windows to the world, information access easily available for everyone. No more expensive international phone charge. We use Skype, or emails without paying postage. OK, then do we feel the connection or bond under these circumstances? For children, I must say that it limits the population. To feel a bond to another individual or group, both parties need to be themselves, in another word, they need to feel comfortable to each other before bonding takes place. In today's ICT environment, we are still not successful to create such situation where two parties can be on the same platform and express themselves freely and positively [5]. Infrastructure of ICT is rapidly developing. Internet Café can be found in Refugee Camp in Ghana, or very rural area in Cambodia. In some areas, still electric power lines are not available, nor telephone lines, yet mobile phones work there. Lines are connected, but as the world we see today, people are hardly connected and still searching the way to create ways for intercultural, inter-lingual communication passages. Computer Mediated Communications (CMC) as a new dimension of intercultural communication between East Asian and North American College students by Ringo Ma studied interactions, and presented five propositions among those who participated such interactions and those who did not [2]. Walther pointed out that in spite of its limitation on the transmission of non-verbal cues, CMC allows relational development [3]. Many intercultural communication studies seem to take an underlying assumption that it is English or another language, even though it may not be the native language. Researches in machine translation and sociological, or psychological researches seem very far from each other. Please excuse my ignorance in the world of researches. As NPO, the aim is to reach the mission ASAP, finding the most effective road to find a path to connect children, these distance between machine translation group and sociology, psychology, and education group needs to be shortened. Only having one is not usable for activists like us and many others.

This created situation that still NO ICT activities providing inter-lingual communications with people not college-educated can be found, closest is in the field of sports. Then there was a possibility to create environment, or Universal Playground. Playground can be found near everyone's house. Some are fancy with many playthings, some are just green fields, or ground. Children are genius to find something to play with. One ball can turn the ground into sports field. When different language children come to the playground, they may not interact at the beginning. However, what happens is if they come everyday, there are more chances that they will start interact. In current ICT, the lack of such common playground can be observed. Also being told not disclosing one's identity on internet, due to the unfortunate existences of net criminals, very artificial environments are now formed at regular net society.

Current ICT accommodates the same language group communication or when it is international, usually English is the choice language. At feasibility study, we faced

questions many times, “Pictogram messages? Why not use English? On Internet, it is the global language.” In Japan, or in other Asian countries, many children aged between 8 and 15, do not speak or use English fluently. It is not mandatory in Japanese elementary schools, so it will stop the majority of elementary school children’s participation if we ask them to use English. Selecting any foreign language as the communication language, mission of Pangaea, creating individual bonds across the world becomes far reached, as children need to concentrate how to use foreign language. Many international exchange programs ask participants to use foreign language when they interact. This is natural as two groups don’t have a common language, the non native language is selected.

Many intercultural communication projects currently available force children to use non-native language when two groups have different native languages. A person may have rich experiences or things to say, when he/she can not speak a foreign language. It imposes problems when a person can say very good opinions in their native language, but does not understand what is going on around the roundtable because foreign language is used.

For Pangaea Project, we wanted to children, not those children from rich or elite families who can afford traveling overseas with money or qualify competitive exchange programs, but those who may never travel or thought of traveling overseas. Saying please use particular foreign language, there is a hidden implication. “It is the superior language.” UNESCO is now eagerly seeking ways how people, including children, understand to live in the era of multicultural coexistence. Project upholds the spirit of the Cultural Diversity Treaty approved by UNESCO on October 20th 2005, by creating the space where participants can learn to respect cultural diversity and recognize individuals as they are regardless of their social backgrounds. To respect others do not mean that one must like others. Understanding there are different ways of thinking and living in various parts of world, appreciating the differences, and finding similarities interesting, they are crucial for such coexistence. Being able to speak and express your own language is good start to tell story about oneself and community. Therefore, our project challenges to create contents, system, and facilitation to send the message to the world, “We have our own uniqueness, and let’s play together.”

Project uses Internet technologies effectively to transcend the distance, the dividing factor of children across the world, and to create more opportunities for them to feel the bonds. At the same time, it focuses on building personal bonds among them in the face-to-face environment. This is why it holds activities at such locations as schools and community centers, where children participate in group, talk to each other and make new friends.

Bond is all about people. Definition of Bond differs from one culture to another. At Pangaea, it is a connective feeling to want to understand children in distance using different language living in each unique culture. Atoms of Bonding appear as they keep certain lengths of repeated communications which genuinely pleasurable experiences of some sorts are produced. Only by identifying atoms of bonding, we can start seeing the effective way to utilize ICT in the most suitable manner.

2 Formula for Universal Playground

2.1 Tools for Universal Playground

Three phases of developing a feeling of bond are found. 1) Meet, 2) Communicate and 3) Bond. Through these phases, children start seeing how others understand or do not understand, different style of expressions and communications, and eventually learn how to effectively present themselves positively. We use Pictogram to break the language barrier and to prompt heart-to-heart communication. Single thing, event or the idea are expressed with different images depending on the cultural background of each child. Project differentiates itself from normal chat. Pictogram is one way to communicate in project, but there are many other ways to communicate such as drawing, creating animation, taking photo, or writing comics.

PangaeaNet is the intranet system, where children's creative works are stored and shared without being exposed to unknown public which may pose some dangers, and Pictogram messages are exchanged. It has four levels of communities with house, village, country and the earth, allowing all participants to get to the earth with four clicks from their houses. PangaeaNet requires the authentication using RFID card to log-on, to protect the security of participants.

Shortly after project started in four locations in Tokyo at its testing phase, it was discovered that children needed to learn how to present themselves effectively to others. For the effective presentation, skills are necessary. First, explain about themselves to others, and learn also how to listen to others. This led into creating activity such as "I love map". Children just put the small photo in the center, and they can write all the things they like in any ways they wish. At first they all do this in their native language. This way, they express freely without hesitation. "I love Map" surprised adults as how different each children present, yet there were many things common in which they like. Knowing what you like and telling people tells others about oneself more than we know. Children who love playing soccer can be found in Tokyo, Kyoto, Seoul, and Vienna. Common interests bring them together. Program focuses on preparing sets of activities which are fun to do, and at the same time, it gives opportunities for them to get interests to each other.

2.2 Communication Components Learned from Preliminary Activities

In last two and half years, Project has run over 120 activities, and participants in total are now over 1000. Tokyo, Kyoto, Mie, Seoul, Vienna, and Nairobi now run activity at least once a month or more. With over 70 facilitators in action, project evolves with help from engineers and researchers. Being NPO means having very tight budget. Under this circumstance, project is not able to waste any cent or yen, but plan and move quickly and efficiently if project visions to provide Bonding experiences to children around the world. Therefore, planning, observations and reviews are all very critical to correct mistakes, and to find better ways. The realization of four components came apparent from this environment. Children mostly participate regularly, once a month or twice a month. Some in last 2 1/2 years never missed the activity. Program is successful not only due to its contents, but real interactions which take places among children, differs from interactions they sometimes have in school

classroom. Group of children work together, share their creations, and sometimes go outside to take photo to introduce their community in activities like Pangaea Playing Cards.

Shared Tasks. Children at Project all start from Tako Introduction. It serves as the icebreaking activity for children who gather to participate for the first time. In adult world, it is self-introduction. But for those of us, who are shy, usually get caught up in awkward situation when someone asks to tell about yourself in front of strangers. Therefore, at project, they introduce their partners who are randomly paired. This brings out the feeling of empathy, children feel sorry for not giving good introduction for their partner, and they are much more talkative to speak about their partners than about themselves. In addition, they are asked to introduce their partners in a way which others will be interested in this partner and even being liked. After this, children start drawing their houses, and rooms. All these steps are followed exactly in any locations. As they work on these common tasks, and see others' houses and rooms, participants know exactly what other children are drawing. And their creations are very unique in their own way. Through this experience, they become much more interested in not only about their creations, but differences and similarities found in other countries creations.

Shared tasks need to be fun and enjoyable to all 9 to 16 year old children. We have found that at different age, still they seem to enjoy to draw their home which to be visited by others. Some children remodel their house time to time, as they see other

Houses: Shared tasks



Fig. 1. Shared task

work, they want to make it more attractive. Drawing materials are crayons, markers, colored pencils, and pencils. Some will make their house looks like Pokemon Monster, and some draws the music instrument which they play. After drawing "I love Map", the awareness of their interests becomes clear, and without any instructions, they take them in.

Tasks need to reveal personal quality of each individual. Mission is to create bonds among children. Project is not about art lesson. In order to facilitate communication in multi-lingual, multi-cultural groups, the program contents must be well planned. It must present individuals and community information which triggers many questions and comments. Program uses many analogue activities because this seems to reveal more personal quality and information than digital creation. This is partly due to the age of participants. They are still not skillful using PowerPoint, or Illustrator. Therefore, their creations appear not so different.

Common experiences make instruction unnecessary or minimum. Creating Intercultural platform, anyone will try not to have too many text information, as various language groups join, customizing to each language group will cost in terms of time and money. Project found that having common tasks, children know how things work, and what are presented where at PangaeaNet.

Shared Personal Information. ICT created artificial intelligence, but also artificial communication ground. Revealing their real names, addresses, and faces, such personal information exposure to public is considered dangerous in many countries. Korea seems to be one of the exceptions. This is the way to protect oneself at ICT. News about early teenage girl in US, who thought she was becoming a friend with the same age boy, went to see him at shopping mall one day. She then found was it was someone who was older than 40, and he kidnapped her and somehow managed to take her to Europe. In last two years, project pointed out the crucial value about providing personal information. Being NPO, working with children, project went thorough amid discussion how to consider this fact. The conclusion reached was that we find a way where non participants are not able to see these personal information. Choosing this path, amazing things were discovered.

When children have their faces from their unique windows at their house in PangaeaNet, and faces the face reflects child's feeling on the last accessed day, this provides more familiarity. Creation, Face, Voice, and gestures, more information about an individual, they bring more closeness. It led us to conclude no personal information, no personal bonding.

Enjoyable Face to Face Meeting. FTF is now studied and Gudykunst and Kim mention about the concept of "strangers, represents the closeness of physical distances [1]. Icebreaking activity – Fun first encounter to bring two groups closer is the critical part to foster a feeling of "bond".

At the initial encounter at FTF, both parties are excited, and also nervous. The program is planned as Ice-breaking, melting the nervousness between two groups by playing a game which does not require spoken language. Koetsuna works as it lets children shouts to compete which group has larger voice. At every Koetsuna activity, it has proven that whether they loose or win, both parties enjoy their encounter. Voicing out works to remove their tensions, and therefore, able to move into the real

Profile: Height, birthday, things I like, languages I speak
Shared Personal Information

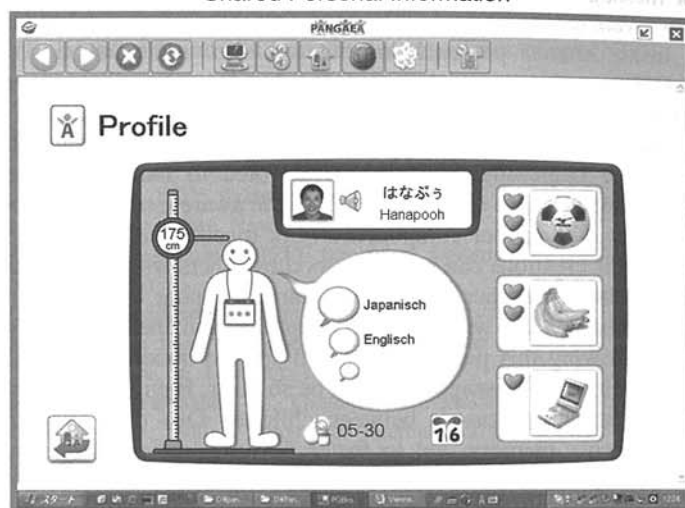


Fig. 2. Shared personal information

small group FTF meeting. Otobiko serves to small group (4 children/group) ice-break. Now they can see face to face, more closer, and gestures can be seen from web camera. FTF is planned from the large group-small group-individual. This gives opportunity for children to get used to be on Web Cam, and much more comfortable to each other than asking them to start interacting each other without such order.

Attractive Communication Methods. The most difficult part in inter-lingual communication without selecting non-native language is how to communicate. The project developed “Communicator” system which uses pictogram for the communication. From our study, rather than putting stress, children seem to enjoy sending pictogram messages than writing in texts. Idea about able to communicate any language groups without being able to write in English excites them as our interview revealed. There have been quite interesting research seeds on this subject. Pictograms are proven to be quite effective to communicate emotions. Rather than reading texts, which many children hate especially if it is not native language, in our interviews, children expressed that it is more fun to use communicators than writing letters. However, we do not mean for children to abandon their native language of course. In fact, having exchanges of Pictogram messages, interactions in PangaeaNet, and meeting children on Web Cam activities, some got so interested in their friend’s language, they started to write with them.

3 Summary

Identifying four components which break barriers between groups, and implementing all four into the program, what we observed is the imagination of how other people of

group who live in distance and have different language and culture perceive your creation or message. Children are genuine to wish other people like you, not dislike you, as they reveal their own face, voice, and creations.

Shared tasks, shared personal information, fun communication method, and enjoyable FTF meeting pave the road for bonding. Bonding, as we define as emotional connection, is very difficult to measure and evaluate. One of the ways the program evaluates is to observe how children present themselves through messages or creations. At the beginning, children are devoted to Doing Something (sending messages, or drawing 4 clip comic strip). Then the awareness of their works is viewed by other children. When four components work together, at this phase, children ask themselves if their creations can be understood by others who do not understand their language and culture. In other words, they start imagining what others think in their shoes. At this phase, they will also ask people around them if their works can be understood. Following this process, they will start to understand what other people intend to say even some messages may not be so clear. Having this extra step forward to each other shortens distances between children. One time event may have an impact to children's memory, yet to foster the imagination, some prolonged time period is necessary to internalize how to be in others' shoes.

Observations made in last two and half years, over 150 activities with 1000 children in four countries, ICT can be a powerful vehicle to promote inter-language, intercultural experiences for not elite populations. Also from high tech gritted society like Shibuya, Japan to economically striving community at Nairobi, Kenya, children seem to have common interests and something to share with. Still there are long road ahead which not so many people have traveled. Researchers at this great workshop are the kind of people who are interested to pave the rough road for intercultural communication, not only by themselves, but willing to collaborate with others who may even be in different fields. Being an invited speaker at this workshop is the great honor, and I am grateful to be able to represent NPO in intercultural collaboration. There are hundreds and thousands of NPOs and NGOs around the world, but not many are so fortunate to be near information about intercultural collaboration. We hope to utilize what have been found in researches to create effective programs, and I hope our observations will be able to guide researchers to new seeds to greater researches.

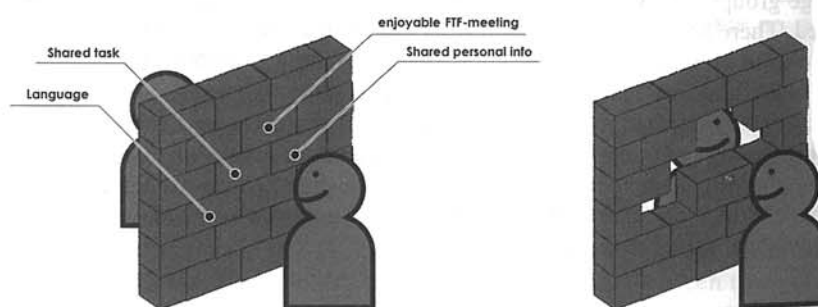


Fig. 3. Model of bonding

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