

For Embodied Self View – In Multi-Cultural Collaboration

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Abstract

In this paper, we analyze collaboration processes between university and high school students involved in an international project in which students from different countries including Taiwan, Korea and Japan collaborated both online and face-to-face. An analysis of their online communication in a BBS system indicated a shift of the students' view from what we call a "disembodied" view, focusing on individual abilities/characteristics, to an "embodied" view, focusing on the relations they were trying to create with others. This shift was associated with more positive actions toward creating new relationships. Further analysis of online communication in a chat system indicated certain structures of how they support communication of others. From these observations, we hypothesize that a disembodied view tends to suppress one's motivation for creating new relationships, which can be activated by shifting to an embodied view.

Multi-cultural Collaboration

As our society becomes more and more global, opportunities are abundant at work, at school or in communities to meet someone from a different culture than one's own and learn creatively from such experiences. Our experiences are multi-cultural at many different levels: someone may be an Asian, a Japanese, a member of a particular community, a particular family, a student in a particular school, a particular group, etc., etc. One may experience multi-cultures even within an individual. Thus, any situation can be viewed as multi-cultural at some levels.

We have designed and conducted many workshops to foster creativity in multi-cultural settings at different levels, based on a set of design principles (Mudpie Unlimited & Child Research Net, 1999). We have argued that a creative process emerges when people can express themselves openly across cultural boundaries (Mudpie Unlimited, 2001). This study tries to expand this line of research in two dimensions:

1. It expands our vision from single workshops to a broader social context: we examine a collaboration process spanning an eight months period, in which many types of activities took place including several workshops as well as spontaneous communication both online and face-to-face.

2. It expands the way we try to understand a collaborative process from our initial, conceptually based framework to a more empirically based framework derived from detailed analyses of observation data.

Supporting High School Students

In this study, we analyze the communication process in a project in which high school and university students collaborated both online and face-to-face. The collaboration started in 2000 in the context of the "World Youth Meeting in Nagoya" in which students from different countries including Taiwan, Korea and Japan participated, and still continues in 2003. In this paper, we focus on their collaboration during the period between April and November in 2001.

Table 1 shows the overall flow of events and activities of Japanese high school (HS) and Chukyo University (CU) students before and after the World Youth Meeting¹ (WYM) in 2001. The main activity of the HS students before the WYM was to prepare their presentations for the WYM with HS students from Taiwan and Korea. The main activity of the CU students before the WYM was to support these HS students so that they could communicate well with the foreign partners and collaborate successfully for their presentations at the WYM.

After the WYM the HS and CU students kept communicating with each other spontaneously. The main focus of our analysis is the dynamic changes in their communication before and after the WYM.

The Support for Communication

In this section, we describe how the CU students tried to support the HS students, both online and face-to-face.

Face-to-Face Support: Before the WYM, the CU students visited three HSs to help the HS students

¹ Note that the World Youth Meeting 2001 encompassed much more activities and participants than those shown in Table 1. The table includes only those events that were significant for the collaboration between the high school and university students, and does not show the activities of the teachers who organized the WYM, for example.

prepare for the WYM. After the WYM, the HS and CU students occasionally visited each other, and the CU

students organized a “WYM reunion” to facilitate communication between different HSs.

Table 1: Events and activities before and after the World Youth Meeting 2001

Dates	Major Events	High School Students	Chukyo University Students	Online Communication		
				Chat turns	BBS articles	Period
April-19 July		<ul style="list-style-type: none"> Prepared presentations for WYM Communicated Online (e-mail, chat, BBS) with Taiwanese and Korean HS students. Discussed presentation contents 	<ul style="list-style-type: none"> Supported HS students to prepare for WYM Visited three HS's to help prepare for their presentations. Set up chat and BBS for online communication and reflection Designed a reflection video for WYM – video and photo recorded HS students' activities. 	1501	18	1 Apr. 19 July
20 July	Open Campus at Chukyo University	<ul style="list-style-type: none"> Several HS students participated. 	<ul style="list-style-type: none"> Organized a workshop to help HS students think about their presentations. 	2785	65	20 July 27 July
28 July	World Youth Meeting 2001 At the main Hall of the International Center in Nagoya	<ul style="list-style-type: none"> Joint presentations with Taiwanese and Korean HS students on the theme “New English education” Some HS students helped CU students to manage the music session. 	<ul style="list-style-type: none"> Presentation of a reflection video at the end of the meeting in order to reflect on the whole process. Organized a music session involving all students, teachers and the audience 	621	63	28 July 30 Aug.
31 Aug.	WYM reunion	<ul style="list-style-type: none"> Several HS students participated. Several HS students helped CU students to manage the event. 	<ul style="list-style-type: none"> Supported HS students in areas of communication and reflection. Organized workshops to reflect on WYM experiences. 	3971	54	31 Aug. 2 Nov.
3 Nov.	Campus Festival at Chukyo University	<ul style="list-style-type: none"> Several HS students participated. A few HS students helped CU students plan workshop. 	<ul style="list-style-type: none"> Organized a workshop (space and music) to facilitate communication. 	1128	4	3 Nov. 15 Nov.
16 Nov.	School Festival at Inabe HS	<ul style="list-style-type: none"> Some HS students organized a workshop for other HS students to meet and communicate with CU students 	<ul style="list-style-type: none"> Several CU students participated 	378	14	16 Nov. 31 Dec.
				8884	218	Total

The CU students organized workshops to facilitate communication using methods they designed themselves, as well as methods they had learned in university classes. For example, they used brainstorming type activities with sticky notes for writing opinions, feelings, etc. The HS students

mentioned that these were useful in designing their own presentations at the WYM.

Online Tools: To support communication, we designed two online communication tools: a chat system and a Bulletin Board System (BBS).

- **The chat system (I-chat)** has a feature that, when someone joins in, sends a mail message to the mobile phones of the CU students. It ensured that HS students could talk to the CU students anytime they wanted to. An example of a chat session is shown in Figure 1, in which students from three Japanese HSs and two Taiwanese HSs, as well as HS and CU teachers discussed their WYM presentation. There were a total of 8,884 turns (a turn is an input by a person which can be one to several lines of text) in the chat during the period between April and November.



Figure 1. Display of the I-chat system

The BBS system (Hiroba): (Figure 2) also has features to facilitate communication: for example, it can organize multiple BBS's so that messages on different topics by different groups are linked to each other. The BBS was used often to discuss and organize an event as well as sending messages reflecting on their experiences after an event. There were total of 218 articles and over 12,000 accesses on eight broad topics during this period.

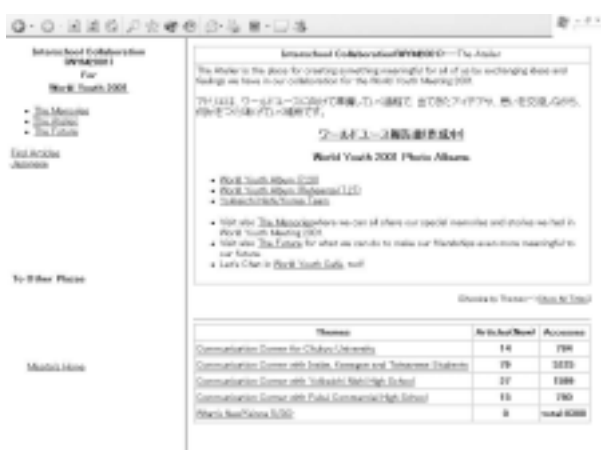


Figure 2. Display of the Hiroba BBS system

Analyses of Communication

In Table 1, we can already identify some changes in the activities of the HS students. In most cases, they participated in events designed and managed either by the teachers (the WYM) or by the CU students (Open campus, WYM reunion, Campus festival). Some students started spontaneously to help the CU students during these events and, in November, some of them organized a workshop on their own for their school festival inviting the CU students and involving other students. They went beyond their school culture because inviting university students to a school festival had not happened in this HS. What underlie this change in their activities from “participants” to “helpers” and finally to “organizers” is the main focus of the analyses described in this section. In the following subsections, we examine the nature of the collaboration between the HS and CU students, focusing mainly on their verbal expressions observed in their online communication.

Table 2: Example changes of expressions in BBS

Occasion	Expressions
(1) 20 July, after the CU open campus	I thought the people in Miyata lab were all very lively and playful. ... I wish we could become like that. ...
(2) 18 Sep., reflecting on the experiences	Thanks to the Chukyo students I could gradually overcome my habit of avoiding to express myself openly. ... I will never forget this experience and want to become someone who always shines like you.
(3) 1 Nov., after the HS festival in which the student designed a workshop to give her friends opportunities to meet university students	I was very happy to read your messages saying you found our workshop useful. ... I personally was sorry that I could not involve a friend of mine because I wanted her to have the wonderful experience of meeting you ... Many other students who met you for the first time seemed to feel more and more friendly and some even had tears when you had to go. I realized we can understand each other if we accept each other and communicate openly.... I will try to talk my friend into the chat soon.

Changes in HS students in BBS articles

The expressions of the HS students in the BBS changed qualitatively during the period shown in Table 1. Shown in Table 2 are some examples from articles written by an HS student on the BBS on three different

occasions (originally in Japanese). There seems to be some clear, qualitative difference between the expressions written in July (1) and the expressions written in November (3). We examined many articles written by HS students during the period between July (WYM) and November (school festival), and found that the changes in their expressions can be characterized as follows:

- A. We found decreasing number of sentences that mentioned one's own characteristics or someone else's characteristics. An example is "I thought the people in Miyata lab were all very lively and playful." in the example (1) in Table 2.
- B. We found increasing number of sentences that mentioned one's own actions or intentions toward making some relation with someone. An example is "I personally was sorry that I could not involve a friend of mine because I wanted her to have wonderful experiences of meeting you" in the example (3) in Table 2.
- C. We found some expressions that reflect on one's own experiences. An example is "I could gradually overcome my habit of avoiding to express myself openly" in the example (2) in Table 2.

We counted the number of sentences in the articles that fell into the following three categories of expression:

- A. **Individualistic expression:** an expression that describes only oneself or only someone else, typically in the form of "I am ..." or "You are ...".
- B. **Relational expression:** an expression that mentions one's actions or intentions for making relations with someone else.
- C. **Reflective expression:** an expression that mentions one's own actions or thoughts in a reflective manner.

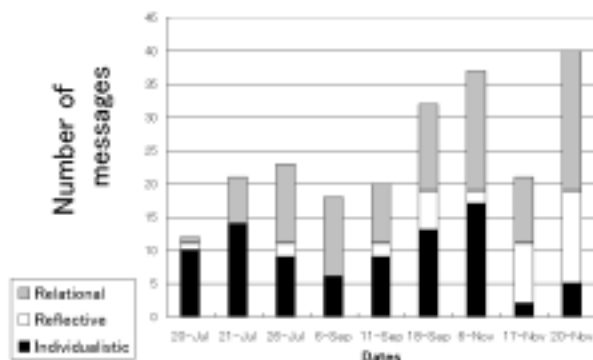


Figure 3 Change in HS students' expression in BBS

Figure 3 shows relative proportions of the numbers of sentences that fell into the three categories in the articles written by two HS students who wrote more articles than other HS students in the BBS. Each bar corresponds to the day the articles were submitted to the BBS. At the beginning, there were many individualistic expressions than relational expressions. In contrast, in September, there were many more relational expressions than individualistic expressions. There was a clear increase in the relative frequency of relational expressions and similar increase in the number of reflective expressions.

Disembodied and Embodied View

We interpret these results as indicating a shift in how the HS students viewed themselves and the other people: An Individualistic expression indicates that one views a person (oneself or someone else) as having certain characteristics separate from the rest of the world – what we call a “**disembodied view**”. A Relational expression indicates that one sees oneself as a part of a network of potentially meaningful relations: others (people or media) are seen as someone with whom one could create new relationships – what we call an “**embodied/situated view**”.

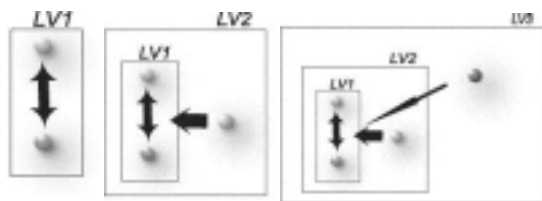
Support Structure in Chat Communication

Closer examination of the BBS articles suggested that relational expressions can be analyzed further in terms of the kind of relations the person was trying to make. To illustrate, compare the following two expressions from the example we have seen in the example (3) in Table 2 (BBS article by an HS student after their workshop in the school festival):

- A) I was very happy to read your messages saying you found our workshop useful.
- B) I personally was sorry that I could not involve a friend of mine because I wanted her to have the wonderful experience of meeting you.

In A), the student was trying to make a relation simply with the CU students. In B), the same student was trying to make a relation between another student and the CU students. A) is a simple communication whereas B) has the intention to facilitate communication of other people.

We have analyzed this kind of support relations in the online communication on the I-chat system. During the initial stage of the chat communication turns were taken mostly by the CU students (over 1000 turns in a week) and gradually the HS students started to join more frequently after the WYM (1st week of August) whereas the number of turns by the teachers decreased.



level 1 level 1+2 level 1+2+3

Figure 4: Support levels in chat communication

We found that communication in the chat had certain structure in terms of how participants try to support others' communication. To examine this structure, we categorized each turn in the chat communication according to its "support level".

- Support Level 1: when a conversation is taking place simply among a group of people.
- Support Level 2: when someone is talking with the intention to facilitate a level 1 communication.
- Support Level 3: when someone is talking with an intention to facilitate a level 2 communication. An example dialogue is shown in Table 3, where a CU student (HM) tries to support two HS students (RS and AT). The rightmost column indicates the support level of each turn.
- Support level 4 or higher: we found several occasions of level 4 communication, although it becomes increasingly difficult to identify higher level turns.

Table 3: An example chat session with turns at level 2 and 3

Person	Turns	Lvl
RS	HM, can you help us?	?
HM	Sure, how can I help?	2
RS	I wonder how the opinions of the Japanese and Taiwanese students can be negotiated. The Taiwanese take it very seriously, so I wonder if I should suggest the fun aspect.	2
HM	How about using this chat to discuss with them?	3
RS	In English?	?
HM	Of course!	2
AT	I think chat is good. We'll feel encouraged.	2
HM	Then, do you want to tell the Taiwanese friends this address and a time and date for discussion?	3
RS	I think that's a good idea.	2

We are doing a preliminary analysis of the frequency of support levels in the communication in I-chat. So far, we compared the HS students, CU students and the

teachers in the support levels of their communication on 21-23 July (Figure 5). As shown in Figure 5, the university teacher communicated at higher levels more often than the university students, who in turn communicated more often at higher levels than the HS students. We have noted some instances of level 3 turns by HS students in September and November. We will continue this analysis in order to find out how the support levels might change over the course of collaboration.

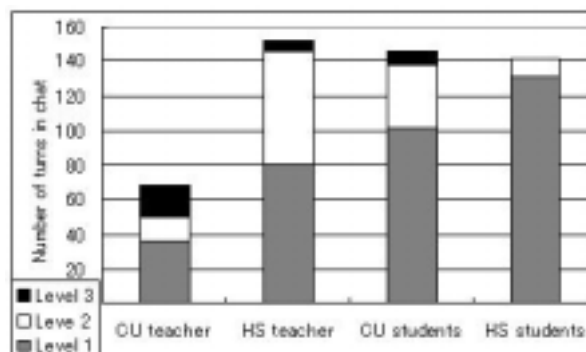


Figure 5: Support levels of CU/HS teachers/students in chat (21-23 July)

Discussion

We have described changes at three levels:

- Changes in types of activities: from participants to helpers to organizers:
- Changes in verbal expressions in the BBS articles: Individualistic expressions to relational and reflective expressions.
- Structure in the chat communication: simple communication and supporting communication.

How can we connect these observations? How are the changes in their verbal expressions (b) related to their behavioral changes (a)? How are the support structure in their communication (c) related to these changes? We already hypothesized that these changes reflect how they view themselves and the others. Thus, when one views oneself as separate from the rest of the world (Disembodied view), one tends to be conscious more of one's own characteristic. As the view shifts to relations with the rest of the world (Embodied view), one becomes conscious more of potential relations one could create with others. This is consistent with the HS students' change in behavior (a) from "participants" to "helpers" and to "organizers" because organizing a workshop involves creating new relationships with others. It is consistent also with the difference in support levels in the chat communication that the organizers communicate at higher levels more frequently than helpers and participants.

Two questions arise here:

- How did such change in the view take place?

How did a change in the view bring about a change in the behavior? A change in the view may be a necessary condition for a change in the behavior, but it cannot be a sufficient condition. In other words, one may see a potential for a new relation but may not necessarily try to create that relation.

We further looked into our data for examples that could help us answer these questions. Table 4 shows an excerpt from I-chat communication in which a teacher (T) is interviewing a CU student (S) after a visit to a HS for the first time.

Table 4: Reflection support by shifting the view

(1)	S	I panicked. I thought I was not good at communicating with new people.
(2)	T	You were concerned about them?
(3)	S	I was concerned about how I looked to them.
(4)	T	How did you want to look to them?
(5)	S	I wanted to look like a talkative person.
(6)	T	Did you want to talk with them?
(7)	S	I wanted to remove the barrier between them and me so that we can communicate better.
(8)	T	I see. What did you want to communicate with them?
(9)	S	I wanted to talk about the World Youth Meeting.
		The dialogue continued.

(1) is a typical example of “Individualistic” expression because it described oneself as “not good at communicating”. In contrast, (9) is a typical “Relational” expression in which S started to describe his desire to communicate with the HS students. So, we interpret this dialogue as an example where S’s view shifted from an initial disembodied view to an embodied view. In this example, this shift was guided by the questions that T chose. In (2), T was trying to shift S’s focus from his own characteristic to the relation with the HS students as in (3). T then tried to focus on S’s motivation for making a relation with questions (4), (6), and (8) to find out what kind of relation S wanted to create with the HS students.

Note that T’s questions tried to change only the focus and not the “contents” of S’s desire to make relations. If we can assume that the questions did not affect the “contents” of S’s motivation, we can also assume that S had had the desire that he tried to describe in (9) but had not been aware of it until he was questioned by T.

We hypothesize that a disembodied view makes it difficult to become aware of such motivation (in the above example, S said he “was concerned about how he looked to the HS students” and panicked), whereas, by shifting to a more embodied view, it becomes easier to be aware of such motivation. Thus, a shift to an embodied view may activate a motivation suppressed by a disembodied view, and may eventually result in

actions (either verbal or non-verbal) intended to create new relationships.

This hypothesis, together with the observations described in the previous sections, suggests the following scenario:

1. As the HS students participated and collaborated with the CU students, they shifted their view from relatively disembodied ones to relatively embodied ones.
2. This shift made them aware of their desire to create relations as well as possibilities of making such relations, indicated by more relational expressions in the BBS.
3. This awareness led them to actions towards creating new relations, such as their workshop in the school festival, as well as level 2 and higher support in their chat communication.

It is not yet clear in our analyses whether and how the CU students (and the teachers) helped the HS students shift their views. The chat interview shown above is one example (although it is a teacher supporting a CU student, we noted many instances of similar attempts by CU students), but there were much more communications happening than we have been able to record and analyze. Even if we had all the data, it would be too complex and difficult to disentangle the connections between so many events and communications among them. Our current approach is to outline a design model for workshops for effectively guiding through such a shift in world view, by abstracting from the support by the CU students and teachers, and to try to design smaller scale workshops that are tractable enough that we can possibly get a better understanding of what is happening (Miyata, Sakakibara, Shinohara & Tsuruoka, 2003).

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