

Art Mile Project: An International Collaborative Online Art Project

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The purpose of this research is to develop and evaluate curriculum for international collaborative learning analyzing the bigger picture of cooperative learning in two separate student populations. The research model consists of the following four steps. The first step entailed a mutual understanding period; the second step, a collaboration period for reaching project consensus; the third step, an independent activity period. Lastly, the fourth and final step was an appreciation period. All the cases came under these four steps. Four standards were defined to analyze students' learning experiences: 'pleasure,' 'understanding cultural differences and similarities,' 'confidence in cooperative activities,' and 'class unity.' After the activities, students drew line charts depicting their own feelings regarding each standard from the beginning to the end of the collaboration. The line charts were a similar in tendency, aside from the differences in details. These differences can be explained by how each teacher designed his or her international collaborative learning activities.

Keywords: distance collaborative learning (DCL); cooperative learning; elementary school; fortune line method; international exchange; bulletin board system (BBS)

Introduction

The "Art Mile Project" is an international exchange project between Japanese and foreign elementary schools. This study of the "Art Mile Project" took place during a six month period in 2007 and is sponsored each year by Art Mile Japan (Representative: Atsuko Shiwaku). For this project, the students of the two schools decide upon a theme through discussion, and ultimately draw one, huge mural over the course of the six month exchange. Seven classes from four

schools in Ishikawa Prefecture were observed over the progression of this process. This analysis focuses on two of those schools. The Art Mile Project provided a sample curriculum, but each individual teacher was entrusted with the actual application, so the flow of the class varied depending on the teacher.

In introducing the topic, teachers saw what a typical experience had been like in the past to compare to the experiences in their own classrooms and, then, discuss the differences in results and the differences in the teaching materials they ultimately used. Teachers also engaged in an international exchange activity, requiring each teacher to make detailed arrangements between the two countries' schools, many times a task far outside the individual's comfort zone. Generally, after the rough outline is decided, the exchange learning progresses according to the individual teacher's discretion, and in this study and its results are considered as *intermittent autonomous international exchange learning*.

Objective

With this type of learning, it's possible to teach with a variety of teaching methods depending on the preferences of the teacher, the media used in exchanges, and the realistic frequency and amount of time for carrying out exchange activities. It's very flexible, allowing for a lot of different class types, and has a unique international exchange learning effect. This program showed that this type of international exchange can be used in various different school and classrooms. My purpose is this: to verify the effects of this learning experience in its varied applications. Specifically, to show what types of teaching methods came about from the exchange between the two class with the mutual goal of making mural painting together as well as investigate and explain the results of the international exchange over a long period of time, focusing on the students who took part in this learning.

Distance collaborative learning was the selling point of the Art Mile Project. In general, international collaborative learning is difficult, because both teachers and groups of students may or may not have the same intention for the project. It is also true that the students and teachers of one school in the exchange may or may not have sufficient, comparable or complimentary skills or academic achievement leaving the effects of an exchange experience imbalanced from the onset. According to a study done by Makiko Kishi in 2008, "Distance Collaborative Learning between Korea and Japan," challenges in engaging in international exchange projects are related to this divergence in objective and related skill. In this study Japanese and Korean students engaged in DCL activities. However deficiencies were acknowledged in the post-study analysis (Kishi, 2008). "DCL activities generally consist of three important elements: 1) preparation, 2) implementation, and 3) prerequisite conditions" (Inagaki, 2004). In this case, the teachers set up videoconferencing links twice to design the DCL activities before implementation. The teacher at Kishi's Japanese "elementary school agreed with the suggestions from the Korean teacher although he knew that the project would be too difficult for his students. As a result, the students at the each elementary school lost motivation to complete the DCL project. It is very important to consider the competencies, skills and situations of both sets of students in setting up the objectives and designing lessons" (Kishi, 2008). The Korean teacher's goal was to debate with Japanese students about cultural and social

differences, and the students involved anticipated this debate as a conduit for getting to know the partner school's students' everyday life. The goals for the Japanese teacher involved simple international exchange, where the Japanese students carried on a more conversational discourse with their Korean partner school. The Korean students lacked the challenge they had been promised, while the Japanese students lacked the competency to communicate on the same academic level. This left the participants feeling they had gained knowledge, but that they had not achieved their goals established from the outset (Kishi, 2008).

To carry out DCL projects, student academic levels and goals need to be clearly established. However, with the Art Mile Project, the goal and schedule are simple and preset: in cooperation with a partner school, plan and complete a mural over a six month period. There is no need for students to have achieved a specific academic skill level.

This study also focuses not only on the interaction of the teachers, but on the emotions exhibited by the students throughout the project, as with former studies looking at the feedback from teachers. The Art Mile Project eliminates the problems of academic divergence and allows students from very different backgrounds to collaborate on an equal basis. The recorded emotional responses allow for a closer look at how meaningful the experience was for the students.

Method of Research

In our study, Japanese elementary School 'Y,' a class of twenty-seven sixth-grade students engaged in an exchange relationship with a Canadian School. The teacher at school 'Y' had no prior experience with either domestic or international exchange programs. For Japanese elementary School 'F,' thirty-six fifth-grade students completed their exchange relationship with a Taiwanese School. The teacher at school 'F' did have prior experience with domestic exchange, but not international exchange. As stated previously, the objective of this international exchange learning program is to have 2 schools from different countries make a large mural together over the course of six months, from roughly June, 2007 to March, 2008.

Teachers were given assistance where needed, such as introducing the other teacher in the project partnership or providing resources and technical support for the video conferences and message boards. Assistance was essential for making the intended outcome easier to achieve for the teachers. After the program was completed, the activities and methods used were categorized as well as identifying the types of teaching materials that were created while developing long-term activities to achieve the project's goal in order to clarify and pin-point the differences recorded in the students' group and individual responses.

A large variety of teaching methods were used in the various classrooms, it was impossible to collect specific data from the students while the activities were occurring. After the completion of the exchange, questionnaires were completed by the students about the program. The first aspect surveyed concerned the activities as a whole and their impressions from the start and finish of the activities. The second aspect surveyed concerned the student's feelings regarding the main points of the learning process.

Table 1 shows the exchange process of the study. At first Japanese students could not even imagine the faces they would meet or the modes of thinking espoused by the students. However, after several conversations, they began to recognize individual's names and faces. Then, students began to feel as though their partner class's students were their own class members. Learning local information about their partner class's community and lifestyle helped to further familiarize and engender a connection of friendship and helped the students to open up to one another.

Table 1. *The Exchange Process (Inclusion varied between schools)*

The 1st step <i>1. Start</i> <i>2. Self-introductions</i> <i>3. Introduction of local cultures</i>	The 3rd step <i>7. Drawing half of the mural (foreign school)</i> <i>8. Finishing the mural (Japanese school)</i>
The 2nd step <i>4. Thinking of an original plan</i> <i>5. Amending the plan</i> <i>6. Deciding upon the composition</i>	The 4th step <i>9. The completion of the mural</i>

Students, in their respective schools, brain-stormed ideas about what they thought the other school's students were like, creating an initial, perceived image of the other. The Japanese classes, out of this free-formed session, were to choose one idea to present to the Canadian or Taiwanese counterpart. If students could not decide on one theme, they were allowed to present several ideas and ask partner students which idea they preferred.

When students presented their ideas to their partner students, the bulletin board system, or BBS, was useful for the collaborative thinking process. BBS gave the Japanese students time to think and respond to new ideas and questions from the partner school. This 2nd step was very difficult at times for the students and it became essential for the Japanese teachers to motivate their continued participation.

Japanese school Y' s Canadian partner school was fourteen-hours behind Japan, so real-time video conferences with the classes were impossible. However the teacher at School Y engaged in indirect video conferencing with the Canadian teacher from his home at night. He would video-capture the exchange and then show video clips to his Japanese student later at school. The Japanese teacher would then record video footage of his students, to then present to the Canadian students at midnight from his home

All communication was filtered through the Japanese teachers for translation, in order to facilitate solutions to language barrier issues. Both teachers at the Japanese schools spoke and

wrote confidently in English. All communication between the exchange schools was done using English as the common language. The teachers at Japanese school Y and Japanese school F would translate the English to their respective students and then, in turn, translate the Japanese responses and questions into English and then through to the partner schools.

In the sessions where students were drawing out the initial image, direct communication of any kind was difficult to facilitate. Students' motivation was bolstered by thinking about the partner classes, trying to imagine how they were engaging in the drawing process as they were. Items of material culture sent as an exchange offering to and from the partner school (items like stuffed animals, pictures, local food stuffs) also helped keep the students tangibly engaged and encouraged a feeling of class unity and heightened connection to the partner school.

As a capstone to the project the partner classes were given time to appreciate the finished work and look back their collaborative effort. It was hoped that students felt a sense of achievement in seeing the completed mural, where they saw the results of their six months of combined effort. These final thoughts were also exchanged with the partner schools.

Investigation Item 1

The students were to rate how they felt at the start and then at the end of the activities in each of these categories on a scale from 1 to 6 (six indicating well, and one meaning not at all). Figure 1 shows the questionnaires in the format that was presented to the students, where the activity was subjectively rated by each individual student.

1. *How well did you understand differences and similarities between yourself and the people of the country you were interacting with?*
2. *How confident did you feel while doing these activities with people who could not speak Japanese?*
3. *How unified were you as a class and project group?*



Figure 1. *Questionnaires for students: the investigation item sample of the subjective effect*

Investigation Item 2

In addition to these questions, the students were asked about how much enjoyment they derived from the four aspects of the exchange (related to the goals of the teachers facilitating this

project) and how they felt at nine different intervals during the exchange program. This data was made into a Fortune Line method line graph with a range of 80 mm (40 positive and 40 negative). The four aspects were:

1. *Pleasure of learning through international exchange*
2. *Understanding cultural differences and similarities*
3. *Confidence, despite language barriers.*
4. *Feeling of class unity*

In another study using the Fortune Line method, teachers used these short surveys to gauge the progression of a science experiment (Kubota, 2005). There were seven check points for this science experiment. Teachers were easily able to understand the catalyst for when a student would change his or her hypothesis during a one hour lesson. Teachers could then see how the methods used affected the response line of the graph, showing the students' confidence level during the experiment (Rush, 1988).

In the Art Mile Project the four steps and nine check points were analyzed using this method. Art Mile Project activities are long term projects and are suited to this linear analysis. Keeping students motivated is very difficult, and it is important to be aware of how and why the students' emotional responses shift. Our Fortune line measured the results of the four points (pleasure, understanding of differences, confidence in exchange, and sense of unity) for evaluation. Figure 2 shows Questionnaires for using the Fortune Line method

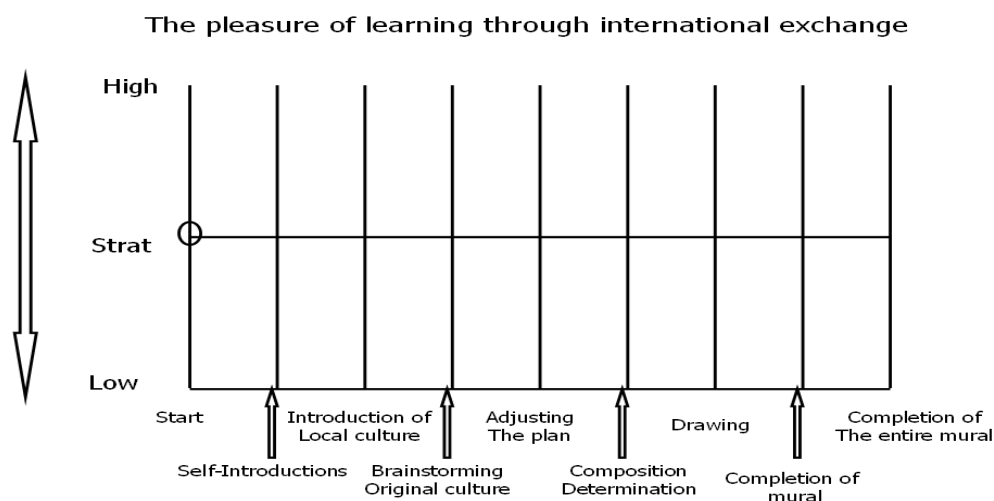


Figure 2. *Questionnaires for students using the Fortune Line method*

Characteristics of School Y's Mural

Students from each class drew pictures depicting seasonal imagery in their country. Japanese students drew cherry blossoms seen during a class trip in spring; insects and watermelon in over summer vacation; autumn sports competitions and falling leaves; and a snow-covered

Kenrokuen (a local feature and famous Japanese garden deemed a national treasure) in winter. Canadian students included summer yachting and winter ice hockey. Differences in how these images were depicted, while topically similar, show how students view their own environment. The Canadian students base their images on a wide, blue sky or lake, while the Japanese students associated each season to a color scheme, emphasizing that seasonal color. Figure 3 shows Y's completed mural with Canadian elementary school.



Figure 3. *School Y's completed mural with Canadian elementary school*

Characteristic School F's Mural

The students and teachers chose to blend elements of their traditional cultures together in one, integrated image. Each group interviewed their counterparts about culture and focused on a particular element. Then, each group researched on their own about that topic in order to accurately depict that cultural aspect in the mural. Japanese students drew Taiwanese traditional dance, traditional attire, music, architecture, stories and choreography. Taiwanese students drew famous Japanese cultural traditions and symbols – from sumo wrestlers and visiting a shrine in a lovely kimono, to the celebration of Children's Day and Tokyo Tower. Each class was responsible for giving the requested information to their other class. Japanese students started their research by asking the Taiwanese class about their culture, and vice versa. "What is a traditional house like?" "What do your traditional clothes look like?" "What foods do you eat in your country?" They would then take that information to draw their perceptions of the other class. Drawing from a cross-cultural perspective is more difficult than depicting one's own culture. It required a lot of cultural information from the partner school. This required many hours and many video conferences to be held. Figure 4 shows F's completed mural with Taiwanese elementary school.

Different curriculums in School Y and School F

The goal of the School Y teacher was to finish the mural, because this was the first time for the teacher to do any sort of international collaboration work. Students drew their own culture, including themselves in the mural. School Y did not engage in real-time video conferencing, but they exchanged items of material culture to promote emotional connections between they and their partner classmates. The goal of School F's teacher was to lead the students towards class



unity. Students made the rubric by themselves over the course of multiple real-time video-conferences. Students drew the Taiwanese traditional festival scene after researching the partner class's traditional culture. While each process was different, the outcome was the ultimately the same. Figure 5 shows Y and F elementary school's actual Curriculum.

Figure 5. *Y and F elementary school's actual Curriculum*

Results of the Investigation

Overall the understanding of cultural differences and similarities, confidence in cooperative activities, and feeling of unity of the class for the two schools greatly improved. Table 3 is the recognition of the change from start to goal.

Table 2. International Intercultural exchange curriculum model 24 hours model

Context	Aim	Lesson	Activity	Aim of activity	Notes	ICT
<Sep.> 1. Self-introduction	Relationship-building	1	Project introduction:“ <i>What is the Art Mile Mural Project?</i> ”	Stimulate project motivation collaboration	Guest speaker presenting: “If the world were a village of 100 people”	BBS/Forum Video-conference (VC)
		2	Overall project plan	Foresee the whole activity	Have a image of this global project	
		3	Make self-introduction online or by sending introduction cards	Write self-introduction in English	Write messages on the online forum or make cards and send them	BBS/Forum Camera →EMS
		4	Video-conference	Meeting online	Test Skype	VC
<Oct.> 2. Learn about our/your culture Research a theme	Know more About local culture around you	1	Collect information about your school and location Research theme	Determine what information tell to the partner	Information can be used to make a website	Web BBS/Forum VC
		2				
	Research on a theme	3	Make a presentation and show it with each other	Develop a presentation ability and using-ICT ability	Make your presentation easy to see with pictures and illustrations.	
		4				
<Nov.> 3. Discuss the theme ↓ Design a mural	Embody image of the theme into a picture	1	Discuss the theme Create sample image	Put ideas to paper	Make Image map of the theme	VC BBS/Forum
		2				
		3	Exchange painting samples	Convey exact ideas to the partners precisely	Pick up some rough designs to show via online forum or VC	
		4				
		5	Decide on the design and how to divide it	Suggest how to: adjust, correct and finalize	Use forum or VC in an effective way	
		6				
<Dec.> 4. Paint half ↓(send) <Jan.> Paint the other half Completed	Painting one half in Japan and then the painting to the other country to finish	1	Draw a sketch on 1 canvas	Use pencils + felt-tip pens	Projector possibly used	BBS/ Forum VC
		2				
		3	Color it	Emphasize responsibility and cooperation with classmate.	Take photos to send to partners via the internet	
		4	Enjoy painting with your classmates in cooperation!			
		5				
		6				
<Feb.> 5. Display and then Appreciate; Reflect on Work	Enjoy the work Appreciate achievement (send it back)	1	Display the work Describe Impressions (Send it back)	Share achievement in the classroom	Do not forget to take photos to send Japanese class / Exchange class Send painting back	EMS
		2				
	Share it with your partner	3	Display the work	Share achievement in the classroom Exchange it	Take photos Give photos of the mural to every student	VC BBS/ Forum
		4	Exchange impressions on VC			
<March.> 6.Send mural to JAM			Send the mural back to JAM.		JAM will keep the Mural and display it in Japan and the world.	

Table 3. *The recognition of the change from start to goal*

F elementary school (n=35)	start	goal	
Understanding of cultural difference and similarity	1	35	
Confidence in cooperative activities	5	35	
Feeling of unity of the class	12	35	

Y elementary school (n=27)	start	goal	
Understanding of cultural difference and similarity	7	27	
Confidence in cooperative activities	3	23	
Feeling of unity of the class	11	25	

The recognition of learning process by “Fortune line method”

In analyzing the results seen in the "fortune line method," the scores of the students were calculated in the following manner: The students marked how they felt about each of the nine things mentioned earlier as a dot on a graph with a range of 80 mm (40 up and 40 down), and the dots were then connected to create a line graph. I took and assigned numerical values to the points according to their positions and then created another line graph based off that information.

Furthermore, I divided the students from the classes into three groups based off of how much enjoyment they derived from the project, according to the survey. The top 30% for the starting point of the activities, namely the self-introduction, according to the "fortune line method" graph were put into one group (group G ▲), the middle 40% into another group (group M ■), and the bottom 30% into the third group (group P ◆). The average for each group in the four areas (how enjoyable it was, how well they understood cultural differences, how much confidence they had in working together, and how strong the sense of unity was) from the introduction to the completion and viewing of the mural was put into another graph.

Japanese "Y" elementary school

The graph for the information from "Y" elementary school in Figure 6, from a to d.

The group separation for this category in regards to elementary School "Y" was 8 people in group G, 11 in group M, and 8 in group P. Looking at the graph, the differences in the groups are easily understood. For this class, the self-introductions were not performed directly due to time zone differences. The students from Canada were each assigned a partner student from "Y" elementary school to introduce themselves to.

From there, the two schools communicated over the period of several months while working on completing the mural, and there was a strong feeling of the other school's presence. Group P's

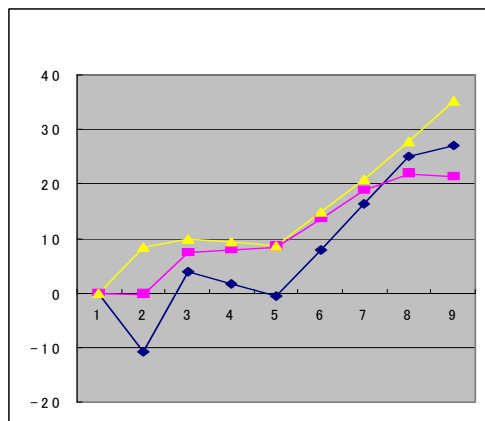


Figure 6-a. *Y Pleasure*

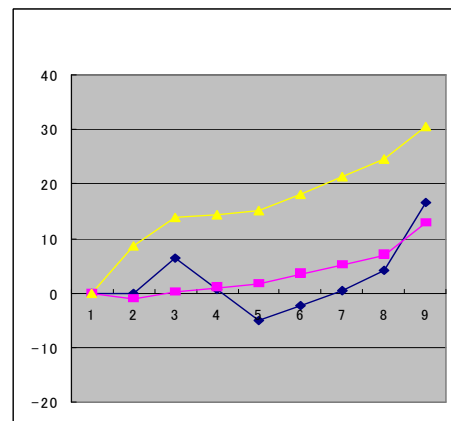


Figure 6- b. *Y Understanding of differences*

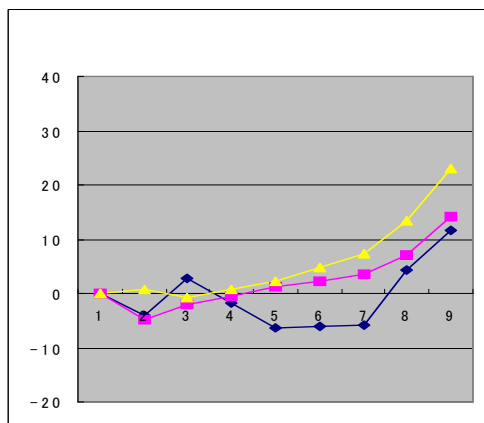


Figure 6- c. *Y Confidence in exchange*

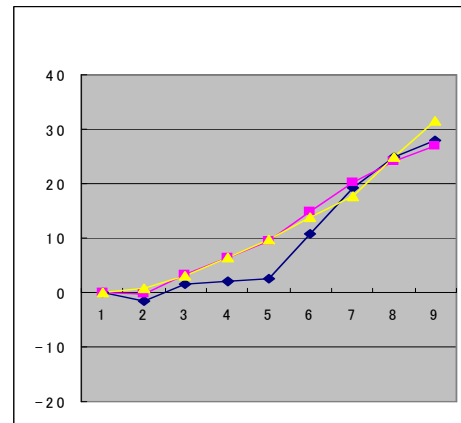


Figure 6- d. *Y Sense of unity*

feeling of enjoyment was strongly affected by the feeling of restriction in using English to communicate, and the fact that they could not understand the messages from the Canadian students very well. On the other hand, however, for group G, the students felt that same presence, but rather than feeling it to be a negative aspect, it had the effect of them looking forward to the activities to come. In other words, rather than feeling restriction in the communication, they openly received it.

Next, with the introduction of the local cultures, the class was divided into three groups with different responsibilities for carrying out communication activities: the homepage group, the doll group, and the translation group. In this step as well, the amount of enjoyment went up. Students became more interested because it was not about what they each knew individually, but about finding things out as a group.

When deciding upon the composition, the students did not discuss it in-depth with the Canadian class, but the teachers discussed the basic idea, and then the group in charge of the design at the Japanese school discussed it and made the final decision. However, since they did not really make the decision through communicating with the foreign school, the enjoyment for groups G

and P dropped at this point, though it rose slightly for group M. On top of this, since little information from Canada was put in the steps of choosing the composition and the Japanese class picked a theme while worrying about this, group P's feeling of understanding lowered, and up to this point, the sense of unity was very weak.

While drawing the mural (starting at step 7), all three groups went up sharply. The picture was of Japan's four seasons, and the students drew themselves in the seasons that they were born in. Group P, who did not find it very fun at first, finally began to enjoy the project when they drew themselves in the picture, and their level of enjoyment even surpassed group M's. The sense of confidence in working together also increased. At the end, during the appreciation stage, they were able to see the results of their hard work with the Canadian partner class's work added to it.

Japanese "F" elementary school

The graph for the information from elementary School "F" in Figure 7, from a to d.

It appeared that for this school, where the communication took place in real-time via video conference, the children who had confidence in things such as giving their self-introductions in English, seemed to especially enjoy the introductions. The amount of confidence felt in working together also fell for groups G and M, who felt a lot of enjoyment from the start.

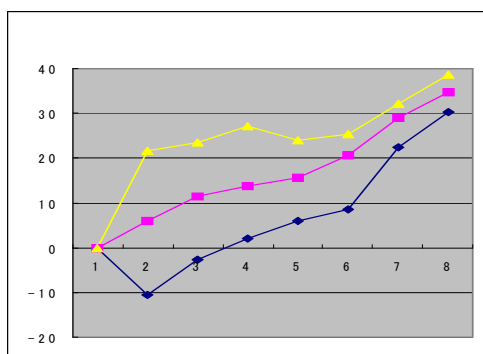


Figure 7-a. F Pleasure

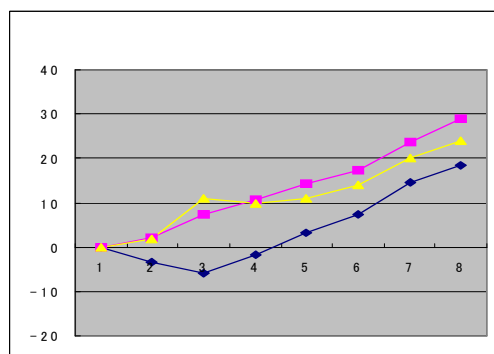


Figure 7-b. F Understanding of differences

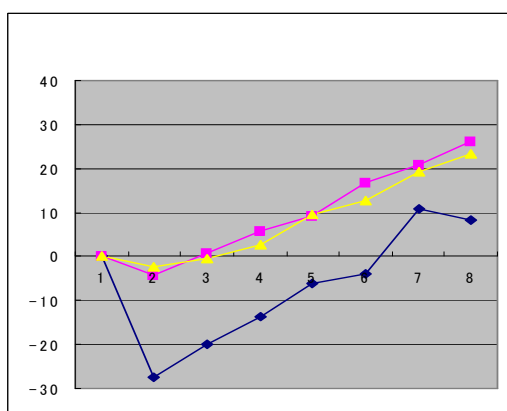


Figure 7- c. F Confidence in exchange

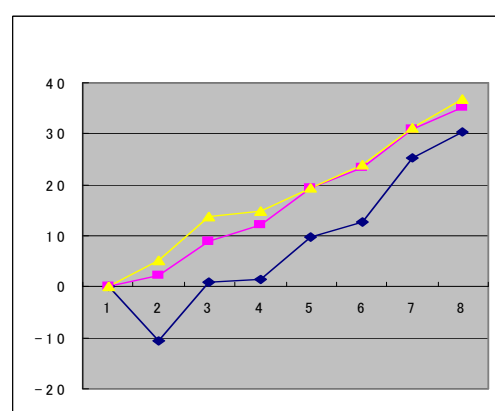


Figure 7- d. F Sense of unity

Next, in the introduction of local culture, the students broke into groups and presented the information they knew by making a web page and video clip in each group. While the self-introductions were an activity carried out individually, the introduction of local culture took place in groups and they found it more comfortable and enjoyable.

For deciding on the theme, during the rough draft, the students all came up with ideas on their own and wrote them all on a bulletin board. However, the sheer volume of ideas was a detriment as they were not able to get a conclusive response from the partner school. As such, they narrowed the ideas down to three and then asked the other school again for their opinion. During this period, there was a video conference once every two weeks, and they carried out their activities with the prospect of choosing their own project leader. Because the information for group G leveled off, the variations in emotional response are unclear. This is probably because of the fact that even though they put a lot of information up, they did not receive much feedback on the bulletin board from the partner school. Groups M and P were more spread out because they were probably more interested in how their own ideas were progressing rather than what the partner school's differences were. The level of enjoyment for Group G, which was very high at first, fell due to the lack of meaningful responses from the partner school. However, in contrast, the levels of enjoyment for Groups M and P went up.

Unlike the introduction of local culture, which was very simple, communication for deciding on the composition surely had a higher level of difficulty since they had to take both their thoughts and the desires of the partner school into consideration when making their final decision. However, as the class at School "F" created the plan and executed it themselves via video conference, their confidence in working together and sense of unity were very high. Also, since the theme of the mural was involved the studying the environment and traditional dance of the partner school's country, the students had to learn more about the partner country's background, in detail, in order to work on the mural. This led the 'understanding of cultural similarities and differences' also moving up the scale.

The enjoyment during the creation of the mural went up greatly for all three groups. Because they were depicting information about the partner school, they had to look up the other country's information in detail and asked questions about things they did not understand via the bulletin board. On top of this, since the teacher in charge went and visited the other school during winter vacation, the students' mental image of the other school was greatly expanded by the video and materials brought back from that trip.

At the time of the survey, the actual mural had not yet made it back from the partner school. The data collected excludes the appreciation of the finished mural.

Conclusion

Reality

Even though the goal of drawing a mural was same, the exercises used to reach the goal were completely different for the two schools. However, for both elementary schools, at School F of

where there was a focus on real time video conference, and School Y, where there was very little real time communication, all three area ("understanding of the cultural difference and similarity", "confidence in cooperative activities", "feeling of unity of the class") improved from start to finish. The similarity for the two schools was that they sent their names and pictures to the partner school. For School F, that was done via BBS. Also, since School F used video conferences, they were able to see the students at the partner school and greet them by name. The important thing is that teachers should let students feel the reality, the tangibility of the partner school's students from the very beginning.

Collaborative drawing

In the collaborative drawing step, all 4 area's points ("understanding of the cultural difference and similarity", "confidence in cooperative activities", "feeling of unity of the class") were improved. Corroborate drawing bolstered the class's feeling of unity. During drawing, students could visualize the partner school's drawing and remain aware cultural differences. When a mural comes back to Japan as a completed figure, students have confirmed that they can finish a project with cooperation and hard work, bolstering their overall confidence.

On the view point of pleasure

During the international collaboration, the teacher is able too see the whole flow of the project, but ca not see the individual student's pleasure. By understanding the periodic changes recorded in the surveys, the teachers can then adjust their actions to properly correspond to the needs students.

The effect of the individual international interchange

Teachers can engage in domestic exchange with a goal of drawing, but international exchange gives the students an enhanced opportunity to observe and develop their own confidence in cooperative activities in a far more meaningful way than domestic exchange. International exchange provides a greater contrast, highlighting that needed feeling of group unity, when also compared domestically.

Effect of this type of international interchange

The international interchange depends on conditions of the partner class. School Y has no direct connection with their partner school, only indirectly though the exchange of introduction video clips. However, School Y's teacher helped create a connection during the first step of the exchange, by exchanging names and pictures with the partner school, helping the students retain their motivation until the goal was achieved. If you provide students with ample motivation from the start, the conditions of the partner school will not affect the outcome greatly, but depend on teacher's own teaching method. It was expected that same effect would occur with School F where the teacher engaged in many direct student video conferences. Though, not all video conferences were suitable for students. School F's teacher always reviewed the session after each video conference. The teacher then provided feedback to the students regarding the quality of communication during the previous session. Teachers were required to alter the

established plan when partner school's response was negative. Teachers must be careful to monitor sensitive situations when administering real-time situations. This type of international interchange learning, having a clear goal and creating tangible, touchable results increases the effect of education, even though minute processes are different.

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