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Investigating Society “Close-up”: A Case-Study of an Individual Student, Yumiko, and the Construction of a Footbridge on Route 419

Is it actually certain that our students are changing during our social studies classes? This paper aims to reveal structural development and evaluation in social studies education which is related to national curriculum requirements and focused on particular students in order to test the effectiveness of the lesson. In order to increase students' concern for the theme, the teacher choose a topic related to the construction of a footbridge on Route 419 on the students' daily route to school as the lesson study unit.

The lesson unit took place in a 9th grade class of a Japanese Secondary School, called Asahi Chu-gakko in Kariya, Aichi, for about 40 days from September 21 to October 29, 2010. “Yumiko” is a so-called “case student” among the 37 students that is indicate effectiveness of the lesson through observing in detail his/her performance during the lesson. The authors describe whole learning tracks of the case student Yumiko through pre- and post-Lesson Commentary and Lesson transcripts as evidence of her learning.

Keywords:

Lesson study, problem solving approach, political education, case student, lesson transcript, student-centered learning, pre- and post-lesson commentary, Japan

1 Introduction: Political education in Japan - fundamental principles in practice

In Japan, political education (Seiji Kyoiku/Komin Kyoiku) is an important domain as emphasized in Article 14 of the Fundamental Law of Education. Nevertheless, Japanese teachers have to remain neutral in their teaching in accordance with the claim by the political parties under the “Act on Temporary Measures concerning Assurance of Political Neutrality of Education of Compulsory Education Schools” passed in 1954 (Ohta, 1978). During the post-war era, from 1945 to the end of the 1950s, relationships between MEXT and the teachers' union was tense. Thus, social studies teachers focused on social issues of relevance to the students' lives rather than the political situation and political parties. They paid more attention to problems that students try to solve as citizens in local society (Eguchi, 2004; Kuwabara, 2004; Mizuyama, 2009; Kobayashi, 2010; Grammes 2012).

In the Japanese course of study (national curriculum: Gakushu-Shido-Youryo), the aim of political education was clarified in the revised curriculum of 1998 as being “to consider social issues from multiple perspectives and in a multi-facetted manner using documentary evidence” (Ministry of Education, Culture and Science, 1998, 8). In addition, in 2008, it was decided to place more emphasis on basic political and economic concepts like “opposition and agreement” or “efficiency and fairness” as fundamental literacy of politics and economics (MEXT, 2008, 7). A student would not be able to understand such concepts if they were taught in a one-sided manner. Engagement and concentration are to be produced in students through analysis of social problems which arise from their circumstances and social lives, enabling them to participate in society as active citizens (Ikeno, 2004; Sanaga, 2006; Fujiwara, 2009; Hikita, 2011; Nakadaira, 2011; Ikeno, 2012).

Based upon the above, the authors have designed aims and a Lesson Unit to assist students in developing their ability to view issues from multiple perspectives and to engage in problem solving (Kuramoto, 2005; Katakami, 2006; Matsui, 2012).

In this paper the authors describe the learning process of an individual student, described in this paper as a “Case Student”, “Yumiko”. The “art” of description in the context of the Japanese Lesson Study tradition focusses on the learning process of individual students rather than the group. This is because learning is established only in each individual. Therefore, at least one Case Student is nominated by the teacher in order to help in the evaluation of the quality of the lesson. The authors follow their learning situation as much as possible. This idea should be emphasized in social studies that nurture consciousness and viewpoints of students to the society in particular. However, it is a difficult thing to observe

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their consciousness and viewpoints occurring in the class. In this study, in order to solve this difficulty the authors selected Yumiko (fictitious name) as a "Case Student" and decided to monitor her learning as the Case Student throughout a lesson unit for five weeks concretely. The reason why the teacher chose Yumiko as a Case Student was because she showed a tendency to take primarily her own views into account and to pay less attention to the views of others. So the teacher wanted her to consider other ideas for her further development as a young citizen. If she demonstrates the development of such an attitude over the course of this lesson unit, the lessons will be deemed a success.

According to the Case Student method, the Case Student is observed and his/her process of learning during a whole lesson unit described in a precise manner, followed by an analysis of changes in his/her perception of the issue at hand during the lessons (Horikawa Elementary School, 1959, 28-34). The Case Student method has been an established practical research technique since the 1950s' in Japan and has been used widely by elementary and lower secondary school teachers as well as in social studies education. This technique and others are practiced and improved through "Lesson Study", that is school-based, collaborative, practical research to improve teachers' qualifications. This practical research by teachers through Lesson Study has been extremely popular in Japan for more than 100 years, and in recent years this exercise has begun to be used more frequently further afield particularly in US, UK and in other Asian countries (Lewis, 2004; Arani et al., 2010; Dudley, 2011; Yang & Ricks, 2011; Ko, 2011; Fang et al., 2011; Grammes, 2012; Suratno & Kuno 2013; Takahashi et al., 2013).

The lesson unit chosen for this study is entitled "Social implications of the footbridge construction on Route 419 in our community" and its implementation with the 9th grade students in lower secondary school is a fruitful example of social studies classes in Japan, which are adapted to problem solving and use a student-centered approach. Ikura and Kuno had designed a series of lessons collaboratively and implemented them at the Asahi junior high school in which Ikura was placed as social studies teacher. The practical part of this paper was originally written in Japanese language for a school practical report in 2011. This paper is a fully expanded and rewritten version incorporating scientific description.

2 Research design

2.1 Research question (RQ)

The research questions of this study are as follows:

RQ1: How should we construct classes which will enable students to view social issues from multiple perspectives?

RQ2: How should we construct classes which will enable students to take the initiative in problem solving?

In RQ1, the ability to understand a social issue from several perspectives would include the following: Social

issues contain diverse aspects, and depending on various conditions and standpoints, interests of the people involved intricately overlap and make it complicated to solve problems. Consequently, people with various standpoints who are involved in social issues will be interviewed and the ability to understand multiple aspects of events and the views of different stakeholders will be nurtured.

Students also listened to their classmates views in the classroom and learn to internalize viewpoints which are different from their own.

Consequently, the teacher constructs a class in which students directly interview various interested parties and mutually listen to the content at the classroom, and thereby guide students from one-dimensional understanding of the event to multi-perspective understanding, and finally guide them from individual problem solving to an understanding from multiple perspectives with the aim of collaborative problem solving with their classmates.

In RQ2 the ability to take the initiative in problem solving does not always mean the ability to find a solution to a problem on your own. Instead it implies having an interest in social issues, clarifying the nature of the issue or problem at hand, carrying out a thorough investigation of the problem through survey and discussion activities, and striving with enhanced awareness for a solution to the problem.

2.2 Conceptual framework: strategies and measures

2.2.1. Measures for research question 1

A strategy to nurture an ability to view social issues from multiple perspectives will use dynamic social topics that occur in our own communities as educational materials, locate a suitable venue for learning through "investigation by interviewing" in local communities, and in addition build up a lesson structure that makes students think of social issues from various standpoints (Nishimura, 2005).

Measure 1 for RQ1: To roll out studies which a student learns in local communities

The site of learning is the community where students were born and brought up and handling social issues which occur in their backyards would strongly attract students to the issues. This would motivate students to face topics with an earnest desire to find and investigate problems by themselves. Furthermore, by actually interviewing, students would be aware of the need to understand issues from various standpoints, such as those of residents, public administration, etc. and grasping social issues multi-dimensionally.

Measure 2 for RQ1: To create a class with facts which students investigated with interviews used as materials

Materials which a teacher presents in a classroom reflect a teachers' intent and the initiative of learning remains in teachers' hands. In this regard, however, the

survey activities such as interviewing involve learning directly from the thoughts of people involved in the social issue, in other words reflect stakeholders positions rather than the intent of teachers. A class will be rolled out, in which students can solve problems according to their own strengths and according to their thoughts, with the facts students actually saw and heard and investigated used as main materials. In this way, students will be facilitated in grasping social issues in a multidimensional, multifaceted manner.

2.2.2. Measures for research question 2

In order to stimulate problem solving, “whole class” group discussion will be facilitated in order to compare different ways of thinking by individual students the problem as each student perceives it during the lesson unit (Mercer & Dawes, 2008; Ichikawa 2010).

Measure 1 for RQ2: To facilitate a class in which students present “what they found.”

After conducting learning by interviewing, a class takes place during which a discussion on what was understood and what was not understood takes place (see the unit structure in Table 1). Through presenting what they found out from their interviews, students are able to confirm and share the information they have acquired. At the same time, by mutual listening to friends’ comments, they should realize that there are diverse ways of looking at things, and would develop their thinking while going over their own questions.

In addition, modern social issues contain diverse aspects and at the same time consist of various conditions and factors. By discussing what students have found through interviewing, elements that remain unclear to the students should emerge at this point. Of those, the problems which draw attention of students are set as the next learning questions, and learning in which students could find problems by themselves and could carry out a thorough investigation will be rolled out (See Problem Solving Cycle in Figure 1)

Measure 2 for RQ2: A reflective class

Over the course of the unit, students’ thoughts may stagnate or become muddled. At such times, the teacher should not force the progression of the class but rather guide to reflection temporarily so that students can

determine the point at which comprehension broke down. The objective is to streamline students’ thought processes, check to where they should return and think, and help the course unit continue again with the consent of students. In such instances, the teacher should attempt to align learning questions with the students’ thought processes by setting learning questions using key words which students uttered.

3. Methodology

3.1 Context of the political issue

The authors selected a social issue, the construction of footbridge on a national road 419 (Route 419) which is about 200 meters away from school to nurture the capacities described above There is a crossing where the national road intersects with a city road. It is a busy crossing, where the road is severely jammed at peak times and traffic accidents show no sign of significant decline. Because it is the crossing which many students use almost daily, students are painfully aware of the



conditions.

The teacher heard that a footbridge was to be constructed at this crossing. It was welcome news in terms of both securing the safety of pedestrians and alleviating traffic jams.

In the meeting to explain the decision to local residents held last year, however, more than 30 community residents got together and many of them strongly opposed the plan. This was understandable in the light of the fact that a written request could not be submitted to the administration because the understanding of the residents was finally unable to be won, though the elementary school PTA had requested the installation of

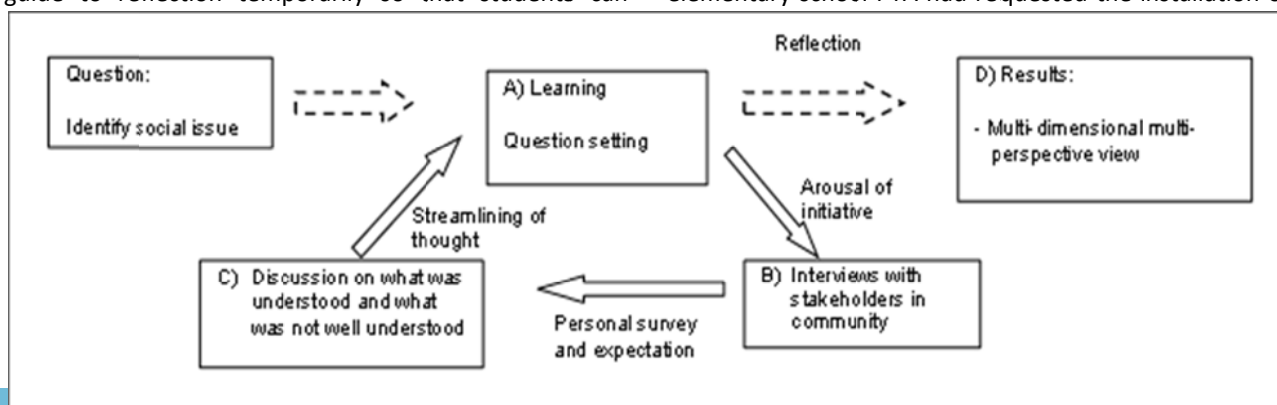


Figure 1

a footbridge. The recent decision to construct the footbridge was not made for safety reasons or at the request of local residents, but as a measure associated with the construction of a four-lane roadway for Route 419. This project had two aspects: one to construct a four-lane roadway for Route 419 to alleviate traffic jams of automobiles and the other to install a footbridge as a safety measure for pedestrians. The teacher thought that this social issue could be a good case for learning about complexity and conflicts in modern society and would give students an opportunity to observe society from multiple dimensions.

3.2 Context of Learner (Case Student “Yumiko”)

In this research, the authors chose a “Case Student” observation method (Dudley 2013). This focusses on the selected student’s learning process as deduced from written records and utterances in class.

The Case Student “Yumiko” acquires knowledge relatively quickly and has a high capacity to think. She is not a leader type, has few close friends and cannot be said to be sufficiently cooperative. She is generally modest and does not actively seek to be involved with classmates. Her hobby is reading. She likes music and once became a leader when a class singing group was being formed, but had too strong a one-dimensional thought process and forced her views on her classmates without knowing the situation, isolating herself several times.

Through participation in this unit, the teacher hoped that Yumiko would not cling to her way of viewing or way of thinking but would feel instead the need to look at things multi-dimensionally and in a multi-faceted manner. While interviewing people with various standpoints and listening to the diverse ways of viewing and ways of thinking of her classmates while they in turn listen to her, the teacher hopes Yumiko will come to appreciate the value of respecting other students and shaping her thinking together with her classmates.

3.3 Context of lesson

The central learning method of this unit is learning through interviewing. This method has the drawback of accepting the interview content without question and believing that the student has understood the problem. The teacher should advise students to understand the problem that is their own problem and to ask constantly themselves how they should think of the problem. In order to achieve this, after carrying out interviewing activities, a site for students to present what they have found should be set up and they should have a chance to observe social issues in a multi-faceted manner

In addition, in order for one public works project to take place, the desires of many stakeholders including residents come into play. Conflicts would exist but we should think that all public works projects are for

people’s happiness. This reflects the concepts of “confrontation and agreement” and “efficiency and fairness,” which have been newly stipulated in the national curriculum guidelines on Social Studies. The teacher assists students in realizing and understanding using the example of the construction site of a footbridge how both parties make some compromise and how the event of public work project comes into existence, under the judgment criteria of “efficiency and fairness” in order to form consensus as democratic value in Japanese society.

3.4 Data collection

In this research, data related to the above unit was collected with 9th graders for about 40 days from September 21 to October 29, 2010.

Two types of data were collected. The first set related to the class as a whole and the second to the case student.

Relating to the class as a whole is a lesson transcript. The lesson transcript is the record created by video-taping and transcribing main classes such as discussions, etc. The other data related to the lesson in general is the “notes and file” for lesson development. This “notes and file” was created by Go Ikura, the teacher, by scrupulously carrying out advanced resource research (Kyozaï Kenkyū) and collecting lesson content while the unit was being implemented. In the notes and file, 1) data obtained such as maps, construction plans, etc., 2) records of interviews with residents and records such as students’ notebooks, 3) hand-written memos relating to the design of the class, 4) Black board documentation, 5) lesson transcripts of main hours, etc. are recorded.


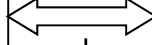


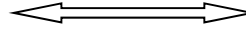
The other data collected for the case student took the form of “Pre-Lesson Commentary” and “Post-Lesson Commentary” which the case student, Yumiko, wrote. In many Japanese lower secondary schools, before starting the class, Pre-Lesson Commentary is practiced as preparation of the lesson, in which students’ thoughts are streamlined in advance with respect to the topics which will be the subject of the next class, and Post-Lesson Commentary is practiced, in which learning is reflected on directly following a class. This approach provides insights into the types of learning taking place for each student. Extracts from the pre- and post-lesson commentaries have been translated into English (below).

3.5 Lesson Unit

The Lesson Unit studied in this research was performed according to the following processes. The left sign of “A” to “D” relates to the problem solving cycle in the figure 1.

Cycle	Phase			
	Phase A			
<p>Question</p> <p style="text-align: center;">↓</p> <p>A₁</p> <p style="text-align: center;">↓</p>	<p>Talking about what Student G wants to appeal on the issue on the Route 419 "Many people including the elderly and small children cannot cross the 419, because traffic light changes so fast"</p> <p style="text-align: right;">(1/13hrs: September 21)</p> <ul style="list-style-type: none"> - "I have been getting irritated because we have to wait for a long time for the signal to change." - "Sometimes I see traffic accidents happening on that road." - "I feel that corner across the 419 is dangerous." <p>→ Learning Question 1: What should that dangerous corner on the 419 be like?</p> <p style="text-align: right;">(2/13hrs: September 22)</p> <ul style="list-style-type: none"> - "Is it possible to reset the time of traffic light to make it longer for pedestrians?" - "This "cross walk" should change to "pedestrian scramble"." - "Median strip on the 419 should be made wider." - "Footbridge is good solution!" - "More traffic lanes are needed to reduce the traffic jams on the 419." 			
	Phase B			
<p>B1</p> <p style="text-align: center;">↓</p>	<p>What the people living around the 419 would think of when a footbridge was built?</p> <p style="text-align: right;">(3/13hrs: September 27)</p> <p>Interview 1 (to local residents)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; padding: 5px;"> <p><u>Interview to vice principal of elementary school</u></p> <ul style="list-style-type: none"> - Our Principal sent demanding paper Letter of request? to the city council at the request of the parents asking them to approve the building of a footbridge. - While leaving school in big group, we often see long queues of children to wait for signal. If there would be footbridge, it is safe for pupils. - Drivers are in difficulties to turn left because pupils need time to cross the 419. </td> <td style="width: 33%; padding: 5px;"> <p><u>Interview to traffic director</u></p> <ul style="list-style-type: none"> - I have to stop small pupils because they can't walk fast - Sometimes pedestrians have to wait for signal on the median strip - On Mondays and Thursdays both of primary and secondary students come to the road in a crowd. </td> <td style="width: 33%; padding: 5px;"> <p><u>Interview to pedestrians</u></p> <ul style="list-style-type: none"> - It is dangerous for my little child that the 419 does not have a footbridge. - Horn from the road sounds quite noisy every day. - It is inconvenient to go up and down the footbridge by bicycle and I would not use it even if it were done. </td> </tr> </table>	<p><u>Interview to vice principal of elementary school</u></p> <ul style="list-style-type: none"> - Our Principal sent demanding paper Letter of request? to the city council at the request of the parents asking them to approve the building of a footbridge. - While leaving school in big group, we often see long queues of children to wait for signal. If there would be footbridge, it is safe for pupils. - Drivers are in difficulties to turn left because pupils need time to cross the 419. 	<p><u>Interview to traffic director</u></p> <ul style="list-style-type: none"> - I have to stop small pupils because they can't walk fast - Sometimes pedestrians have to wait for signal on the median strip - On Mondays and Thursdays both of primary and secondary students come to the road in a crowd. 	<p><u>Interview to pedestrians</u></p> <ul style="list-style-type: none"> - It is dangerous for my little child that the 419 does not have a footbridge. - Horn from the road sounds quite noisy every day. - It is inconvenient to go up and down the footbridge by bicycle and I would not use it even if it were done.
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<p>C1</p> <p style="text-align: center;">↓</p>	<p>→ Talking about What we have understood and not well understood: Part 1</p> <p style="text-align: right;">(4/13hrs: September 28)</p> <p>Sure enough, bridge is useful.</p> <ul style="list-style-type: none"> - Now everyone can across the 419 safety. - That is good news for drivers to reduce traffic jam. - Why did they not build it earlier? <p style="text-align: center;">↑</p> <p style="text-align: center;">↓</p> <p>Is it really useful?</p> <ul style="list-style-type: none"> - Footbridge is inconvenient for bikes and baby buggies - I think many people would not use it. Because it is inconvenient. - I suppose that there are people against it 			
<p>A2</p> <p style="text-align: center;">↓</p>	<p>→ Learning Question 2: What is purpose of construction of the footbridge?</p> <p>In order to clarify this Learning Question an officer from the construction office is invited to participate in an interview.</p>			
	Phase C			

B ₂ ↓	<p>Let's hear a story from the Chiryu construction office about the footbridge built newly built on the 419 (5+6/13hrs: September 30)</p> <p>Interview 2 (to administrative officer)</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center;">Present condition of the 419</p> <ul style="list-style-type: none"> - Traffic jam occurs every day in morning and evening at the peak - Accidents occur frequently caused by the traffic jam. </div> <div style="text-align: center; width: 20%;"> </div> <div style="border: 1px solid black; padding: 5px; width: 30%;"> <p style="text-align: center;">Benefits from construction</p> <ul style="list-style-type: none"> - Reducing traffic jams - Reducing traffic accidents - Frequency of goods transport from port - Reinforcement of the urgent transfer lines <hr/> <p style="text-align: center;">Measures for safety</p> <ul style="list-style-type: none"> - Construction of footbridge </div> </div>
C ₂ ↓	<p>→Talking about What we have understood and not well understood: Part 2 (7/13hrs.: October 4)</p> <ul style="list-style-type: none"> - If the enlargement to 4-lanes does not take place, will be footbridge not be built? - I think the construction of the footbridge should be earlier than the 4-lane enlargement, if the construction office considers the security of children to be the first priority. But why not? - Why did the written request from the elementary school arrive so late? Did the administration ignore the demands of inhabitants?
A ₃ ↓	<p>Phase D</p> <p>→Learning Question 3: Why did it take three years for the written request to be been delivered to the local government office? Let's think about the fact that it had taken three years for the written request paper to build the footbridge had to come to the local government office. (8/13hrs: October 7)</p> <ul style="list-style-type: none"> - I wonder had they collected supporting signatures? - I think they surveyed local people <p>Teacher mentions the fact to students that "the principal was not able to give the written request to the local government, because the chef of district did not allow it. The chef of district was not able to give permission while many people had opposed that proposal".</p> <ul style="list-style-type: none"> - I did not expect that there would be the people who strongly objected to the setting of the footbridge - Who would object?
B ₃ ↓	<p>Phase E</p> <p>Let's try to interview neighborhood inhabitants about a footbridge being built. (9/13hrs: October 8)</p> <p>Interview 3 (to neighborhood inhabitants)</p> <p>*Mr Mashiko: I wonder if it will be possible to see from the footbridge into my house. Even in Summer I would not be able to open windows beside the bridge. I feel that my rooms are watched from outside and am worried about the noise and vibration from traffic. When the road is made into 4 traffic lanes, traffic will increase, and the noise and vibration will become worse.</p> <p>* Mr Yamada, Yamada Dental Clinic: If the bridge is done, the building of the clinic passes out of sight from the 419 and the neighboring scenes will be spoiled, too. I am anxious about a falling rock from the bridge. And windows become covered with oil with the exhaust gas from cars. I want more information about the footbridge built in our town.</p>
C ₃ ↓	<p>→Talking about What we have understood and not well understood: Part 3 (10/13hrs: October 10)</p> <ul style="list-style-type: none"> - The inhabitants have a problem in that their privacy is infringed. - There is a problem in that inhabitants feel observed from the bridge and never relaxed. - It is troublesome that their houses shake whenever a truck goes past. - The noise from the road is serious. <p>→I am unsure of my opinion as to whether the footbridge should be built or not.</p>

<p>D₁</p> 	<p>Phase F</p> <p style="text-align: right;">Is this footbridge really necessary? (11+12+13/13hrs: October 14)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%; border: 1px solid black; padding: 5px;"> <p><u>To give priority to the security of the walker</u></p> <ul style="list-style-type: none"> - There are various problems, but it is the most important to keep human life. - If an accident happens, then it is late. - The footbridge is necessary for children in particular. - Many inhabitants still need it. <p><u>To give priority to reducing traffic jam</u></p> <ul style="list-style-type: none"> - Constructing 4 traffic lanes is required in order to solve traffic jams. - Because drivers are irritated under the present conditions of the route 419, accidents are easy to happen. - The route 419 is an important industrial road, and becoming it needs for 4 traffic lanes for the development of industry and our economy. </div> <div style="width: 45%; border: 1px solid black; padding: 5px;"> <p><u>To give priority to the Quality of Life of the inhabitants</u></p> <ul style="list-style-type: none"> - The breach of privacy is serious. - The noise and exhaust gas become worse by constructing 4 traffic lanes. - It becomes the infringement of access to sunlight and the environmental right. This is the issue of human rights. - One question is left whether it is business to perform spending a large amount of tax </div> </div> <div style="text-align: center; margin: 10px 0;">  </div> <div style="text-align: center; margin: 10px 0;">  </div> <div style="border: 2px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <ul style="list-style-type: none"> - I am troubled when I think of the person of various positions. - Is it only few people to be damaged? But I cannot decide it easily. - How may we get rid of uneasiness of Mr Mashiko? </div>
<p>D₂</p> 	<p>Phase G</p> <p>Thinking about why local government had given priority to 4-lane construction. (14+15/13hs: October 29)</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p><u>Pedestrians</u></p> <ul style="list-style-type: none"> - Safety - Life </div> <div style="width: 35%; text-align: center;"> <p>Local Government made decision through comparing between two positions (role of "Public")</p> </div> <div style="width: 30%; border: 1px solid black; padding: 5px;"> <p><u>Inhabitants</u></p> <ul style="list-style-type: none"> - Privacy - The noise and exhaust fumes - Human rights </div> </div> <div style="text-align: center; margin: 10px 0;">  </div> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 40%;"> <p><u>Drivers</u></p> <ul style="list-style-type: none"> - Reduction of traffic jam - Prevention of accident - Development of industry and economy </div>

4. Result

4.1 Teacher had raised students' interest in social issues using the school diary of student G (Phase A)

School diary of student G "Road and my life" (July 5)

I am constantly kind of concerned about a road at an intersection in front of Yamada Dentist, or rather think it dangerous.

The reasons are that sometimes there are people crossing even on a red light, or the green signal is shorter for the zebra zone going straight from a coffee shop than for the zebra zone from the coffee shop to Yamada Dentist. Therefore, the green light sometimes begins to blink before I finish going across the intersection or I am still at the middle of the intersection even when the signal has turned red. It is dangerous and I have to run to cross at the intersection. So, I am hoping that the green signal lighting time could be set a little longer. (underlines by authors)

When the teacher told students to write an essay on "Road," one student wrote an essay as above. It mentions the danger of this intersection, and his/her comment that "the green signal lighting time could be set a little longer" suggests that some kind of actions must be taken to rectify the current situation, in which priority is given to vehicles rather than pedestrians. The teacher thought to present this essay when introducing the unit in order to attract students to the learning subject.

Pre-Lesson Commentary by Yumiko: "Let's think of what student G wants to appeal" (September 21)

- In particular, children in their early elementary school years are not safe because they are unable to cross the intersection if the green signal lighting time is short and they are too small to be seen from cars.
- That place would be particularly problematic because the zebra crossing distance is too long.
- In actuality, I have a similar problem near my house, too. When I was small, I could not wait for the change of the longer signal and crossed at the zebra crossing against the red light. Considering the long red traffic signal, the traffic is not so busy and I think this is inefficient.
- The traffic signal is designed with priority given to vehicles.

In this Pre-Lesson Commentary, Yumiko accurately clarifies the problem of the intersection, "short period of green light for the long zebra crossing," from the viewpoint of pedestrians. She thinks of this problem with sympathy felt towards small children who cross at this intersection every day, saying "in particular, children in their early elementary school years are too small."

In addition, Yumiko usually does not use this intersection. However, in saying that "In actuality, I have

a similar problem near my house, too," she is relating the topic more closely to her own life.

In this regard, however, we can see that the Case Student feel displeased with the current situation which priorities vehicles in her view from here statement that "the traffic is not so busy" and "this is inefficient". This indicates a strong propensity for having one-sided views from the side of a pedestrian.

4.2 To become aware of the need for a footbridge by interviewing people in the community (Phase B)

The teacher wanted Yumiko to understand problem of this intersection multi-dimensionally and in a multi-faceted manner and encouraged activities such as interviewing people with various standpoints.

First of all, people in the community were interviewed. Before interviewing the people, the teacher told students to anticipate what the people to be interviewed would say with respect to "What the people in the community would think of when a footbridge is built?"

Anticipation of Yumiko: "What the people in the community would think of when a footbridge was built?" (September 22)

I think it would be a good idea to build a footbridge, but as Student G said, it is not only pedestrians who use that road but people who ride a bicycle use the road, too, and they would suffer inconvenience if a footbridge is built and they would have to use it. The footbridge would have a big disadvantage for senior citizens with poor mobility too. The footbridge would be effective from the viewpoint of the reduction of accidents, but this is a complex problem. Originally, at roads, drivers yield to pedestrians. A little more consideration should have been given, such as adopting a "scramble crossing" where traffic lights allow pedestrians to cross in any direction simultaneously, and so on.

Before interviewing, Yumiko thinks that "a footbridge is inconvenient for the people who use a bicycle" because she herself uses a bicycle as her main means of travel. Furthermore, she links the footbridge to the difficulty of use by elderly people and does not strongly feel the need for footbridge construction by commenting that a "footbridge would have a big disadvantage." Rather, she remains in the viewpoint from the standpoint of her own by proposing a "scramble crossing".



Yumiko enthusiastically interviewed teachers at Asahi Elementary School and passers-by at the intersection. After the interview, the teacher set up a discussion class incorporating presentations of what the students had discovered. According to the transcript, Yumiko talks about the need for footbridge construction on the basis of interviewing the first-grader teacher by commenting “first-graders walk slowly” (Yumiko15). This remark is extracted from remarks of C13 and C14 on the basis of interviewing the Vice-Principal and School Security Volunteers. Because remarks by classmates who interviewed other people were similar to the information which Yumiko obtained, she may be more convinced by what she herself had discovered.

Lesson Transcript of whole class discussion: “What the people in the community would think of when a footbridge was built?” (September 27)

*Yumiko = the Case Student; C = Other Students; T = Teacher

C13: I remember what the Vice-Principal of our elementary school said that Monday and Thursday we, elementary school students, simultaneously leave school and go home, causing inconvenience to vehicles drive on the road, and it is therefore a blessing for us if a footbridge is built.”

C14: According to the School Security Volunteers, too, children in the elementary school leave school and go home all together at same time twice a week, and said that footbridge construction would be a relief because children could go home safely.

Yumiko 15: I have heard from a first-grade teacher in the elementary school that first-graders walk slowly and it would be a great help for them if a footbridge were constructed, because it is much safer to walk on a foot bridge than to cross at a zebra crossing.

...

C25: I heard from Mrs. F of the PTA (Parent Teachers Association), that they have asked the police department to build a footbridge for a long time. I felt happy to hear that the footbridge was finally to be built after so many years.

T26: After listening to all these stories of the interview, what have you realized?

C27: Almost all the interviewees respond favorably. The footbridge has the disadvantages of being slippery when it rains or it is quite hard work for a person to climb up and down the footbridge, but not being involved in accident and being free of any damage comes first.

Yumiko28: By building a footbridge, we have the big advantage of securing safety and there are so many people who support the footbridge construction. In contrast, a footbridge suffers the disadvantages of causing hard work or being dangerous on wet days or others.

In the latter half of the class, the teacher asked a question “After listening to all these stories from the interviews, what have you realized?” (T26). Yumiko answered “we have a big advantage” (Yumiko28), indicating that she comes to feel the danger of the intersection and the need of footbridge construction through interviewing. At the same time, she still has the viewpoint from her own standpoint as a bicycle user, commenting that a footbridge “causes hard work.”

Post-Lesson Commentary by Yumiko: “What I have understood and what I could not understand well” (September 27)

A footbridge made me think of effort and difficulty because there are steps, but thinking of the feeling of the people from the local community before the footbridge was built in this way, I realized that the footbridge is an important means of crossing a street safely.

Although the footbridge has disadvantages, the advantages are greater, the first priority is safety as C27 mentioned and I thought that the footbridge is all in all necessary. In this regard, however, I wondered why the footbridge was not built much sooner.

In the post lesson commentary, Yumiko shows a certain level of understanding of the construction of a footbridge through discussions, commenting that the footbridge is a “important means of crossing a street safety” and “a footbridge is all in all necessary.” In addition, from the remark of Yumiko15 which the Case Student captured by interviewing the first-grader teacher of the elementary school and from the remark of C25 of “after so many years,” she finds that there are many people who await the footbridge construction and begins to consider a new

action assignment concerning “why the footbridge would not have been built much earlier.”

4.3 To continue looking at the problem multi-dimensionally and in a multi-faceted manner through interviewing the administration (Phase C)

The teacher provided an opportunity for interviewing an employee of the National Construction Office regarding unresolved issues around the construction of the footbridge. This particular employee is responsible for the recent footbridge construction project.

Mr. Nakata from the Construction Office explained the rationale for the project on the basis of data prepared for meetings with local residents held the previous year; however, almost all the explanations Mr. Nakata offered related to the construction of the four-lane motorway and related less to the footbridge. Mr. Nakata only briefly explained that “a footbridge would be installed at the intersection west of Asahi Elementary School as one of a range of safety measures relating to the four-lane roadway.”



Lastly, a question-and-answer session was held. What the students were most interested in was the issue around whether the construction of the four-lane roadway and the footbridge were linked, i.e. did the construction of the bridge depend on the completion of the four-lane roadway project. Mr. Nakata responded that “It would have been difficult (the footbridge was not constructed),” and this answer confused the students.

Yumiko’s Post-Lesson commentary written after the end of this class was as follows:

Post-Lesson Commentary by Yumiko: “After Interviewing to Mr. Nakata” (September 30)

•I did not know that Route 419 is an important road that is used in an emergency. In addition, I also learned that Route 419 has the important role of developing the industry of Aichi Prefecture, and I thought that Route 419 which has been familiar to me is really something remarkable.

•I understand that the project involving the construction of the four-lane Route 419 led to the

construction of the footbridge, but did they know of the residents’ request lodged many years before? How did they respond to that request?

The Case Student, Yumiko, consistently looked this event from the pedestrian perspective but as a result of the interview of Mr. Nakata, she realized the roles of Route 419 as a highway and an industrial road, saying “Route 419 is an important road and has an important role.” She began to realize that this event of footbridge construction not only had a safety aspect but also in addition an economic and industrial one. On the other hand, Yumiko had not yet found the answer regarding why the footbridge had not previously been constructed.

4.4 “Is anyone troubled by the construction of the footbridge?” Find a new action assignment (Phase D)

In the following class, the teacher asked the students to present what they had understood from Mr Nakata’s contribution. At the heart of the discussion was the issue as to why a footbridge was not already in place.

Lesson Transcript of whole class discussion: “What was well understood and not well understood: Mr. Nakata’s presentation and Q&A” (October 4)

C35: Mr. Nakata told us that the footbridge would be built after the four-lane roadway was built. I thought that the footbridge would have been built first.

C36: I have heard that 5 years have passed since the inquiry about a footbridge was made, but I did not think that it would take such a long time.

(Other student: I think it would take time, don’t you think? They must take various measures. Haven’t you really listened to Mr. Nakata?)

C37: The administration formulated a work plan in 2008 and the work began in 2010. If the administration formulated a plan immediately after the inquiry was made, the work should have been started much earlier.

C38: The prefectural administration must do many other things, and they surely have money issues, too. Even if they draw up a plan, they might be unable to implement that immediately.

Yumiko39: Mr. Nakata said that they receive money from the national government to execute the project. I thought 5 years would be needed because they need to make applications and need cooperation with various parties to execute the project of constructing a footbridge.

C40: But Mr. Nakata said that it was 2008 when he first heard the request for a footbridge. Until then, the prefecture could not do anything?

...(cut)

T52: (Lastly, the teacher told the students of the fact that the permission was not obtained from the District Manager.)

Taking the advantage of C35 starting to explain that “I thought that the footbridge would be built first,” critical voices against administration action continued, such as C36 “I did not think that it would take such a long time,” and C37 “If the administration formulated a plan immediately.” Following C38, *Yumiko* made mention in *Yumiko*39 “they have to make applications and need cooperation from various parties to execute the project of constructing a footbridge.” This indicates that she tries to solve his/her own action assignment while sharing the views with Mr. Nakata from the administration.

Thereafter, in response to the remark by C40, “it was 2008 when Mr. Nakata first heard the request for a footbridge,” the teacher explained “that permission was not obtained from the District Manager” and closed the class. The following is the *Yumiko*’s post-lesson commentary.

Yumiko’s Post-Lesson Commentary: “What was well understood and not well understood” (October 4)

The reason why the District Manager did not give his stamp of approval is that, I think, he was opposed to a footbridge. Because a District Manager must act for all residents, I think that some of the residents were opposed to the footbridge. The District Manager might have valued the opinion of such people and did not sign. In this regard, however, to think of what kind of people would oppose the footbridge, what kind of people would feel troubled by the construction of a footbridge, I cannot think of such persons. Maybe, I thought there might be some people who do not know exactly “such and such a footbridge is built” and might be opposed to the construction. I hope that such people would know “the administration” designs the footbridge taking various things into account and zebra crossings are decided to be left.

Based on the fact that the permission was not obtained from the District Manager, *Yumiko* assumed that “there were residents who were opposed to construction of the footbridge” but could not understand the reason why they were opposed to the construction, saying that “there would be no people who feel troubled by the construction of the footbridge.” In this point, she finds a new action assignment “is there any person disadvantaged by the construction of the footbridge?” This may suggest that she shows understanding of the work of the administration as a result of conducting interviews and begins to understand the advantages of footbridge construction.

In addition, since *Yumiko* has an inkling that “some people who do not know exactly such and such footbridge is built” and has a desire “I hope that such people would know ‘the administration’ designs the footbridge taking various things into account,” indicates that *Yumiko* has begun to view this problem multi-

dimensionally through the activities of interviewing the administration through several whole class discussions.

4.5 Becoming aware of and realizing seriousness through interviewing and discussing (Phase E)

In order to address the question as to whether there are peoples troubled by the proposal to construct a footbridge, the students returned to interview members of the community again. Students decided that they should interview with the residents who actually lived close to the location where a footbridge was to be constructed at this time.

Pre-Lesson Commentary of *Yumiko*: “What was found and thought after interviewing” (October 7)

• There are environmental problems of noise, vibration, etc. The residents feel concerned about privacy. But the four-lane roadway project attempts to reduce for noise in various ways, such as adopting low-noise pavement and others, and screens are constructed to respect privacy.

• There are people who want to move to other places. Considering that such desire is results from construction of the footbridge and four-lane roadway, I could understand the objections to the construction.

• I feel sorry for the people who complain that their relatives do not want to visit them to sleep over because of noises and vibrations.

By interviewing, Case Student *Yumiko* discovered the fact that there were people who were opposed to the recent project due to the problems of noise and vibration as well as privacy. In this regard she does not accept this as a compelling serious problem yet, however she had shown an understanding of the administration up to the previous class and had valued the administration that has recognized these problems and taken measures such as low-noise pavement or screens that are installed beside passage of a footbridge. In addition, *Yumiko* wrote “I could understand the objections to the construction” or “feel sorry for their relatives” but she does not realistically understand what kind of distress the residents have endured because of the problems of noise and lack of privacy. Therefore, the teacher organized a discussion-based class again incorporating what the students had found out.

Yumiko commented that there were people who had trouble primarily with vibration, while admitting her one-sided point of view, such as “I only thought of the people who use the footbridge” and “residents in the vicinity of the intersection feel annoyed about vibrations and others” (*Yumiko* 5). She was followed by another student, who mentioned the privacy problem saying “I was able to imagine that the people living around the intersection would hear the noise but I did not realize the privacy problem, such as catching the eye of a pedestrian who crosses the footbridge” (C6), indicating that they



had definitely expanded their viewpoints on this problem through interviewing. Thereafter, it was followed by remarks that specifically dealt with annoyance felt by residents resulting from violation of their privacy, such as “I just cannot stand catching the eye of a pedestrian when I wear less clothing” (C7) or “Feeling of paranoia. Feel as if I were looked even though I am not.” (C8)

Lesson Transcript of whole class discussion:

“What we have understood and have not understood, when I heard comments by local residents” (October 8)

Yumiko 5: I have only thought of the people who use the footbridge and never thought that there are people who are opposed to the footbridge construction, but I have realized that the people who are opposed to the footbridge construction are not those who use the footbridge but residents who feel annoyed about vibrations and others living nearby.

C6: When I saw the contrary opinions, I could imagine noise, etc., but I never realized that the position of the footbridge is on same level as the second floor and Mr. Inoue and Mr. Yamasaki may catch the eyes of pedestrians who cross the footbridge, and they cannot open windows, which is quite troublesome.

C7: I thought same way, too, when I heard that they could not open windows. In the summertime, we wear less clothing or sometimes wear only underwear at home. I just cannot stand catching their eye when I wear less clothing and I have to be aware of it all the time.

C8: This would be a mere addition, but Ms. M told us that she might catch the eyes of pedestrians, and it might be feeling of paranoia, feeling as if I were looked even though I am not. If I were Ms. M, I would be really nervous about it. I thought that they would not be opposed so much if the administration built the footbridge at a location, at least, where people do not have to worry about catching the eye of pedestrians.

Yumiko wrote in the transcript “to prevent a pervert from looking in from the footbridge” and “privacy is a serious problem.” By listening to classmates’ opinions, she has second thoughts that the seriousness of this problem lies in privacy rather than in vibrations, and specifically empathizes with the pain. She has shown an understanding of the workings of administration but expresses in her writing her frustration that administrative efforts have not been completely communicated to residents, saying “Mr. Nakata should have explained the project to residents...” The teacher felt that she has found a new action assignment and at the same time, at this point, there might be a tip for the development of better relations between the administration and residents when it comes to town planning.

Post-Lesson Commentary of Yumiko: “What was well understood and not well understood” (October 8)

The footbridge is designed with consideration given to privacy but still needs more features designed to ensure privacy.. Screens would not mean anything if a pedestrian’s head is higher than the screen. I thought that such features should prevent a pervert from forcibly looking in from the footbridge. I think that privacy is a serious problem for residents once again.

What I thought was that Mr. Nakata would have explained the project to residents in the same manner as he did to us but the explanation for the footbridge was not completely communicated to residents. Maybe, residents might not have listened carefully to his explanation and this may have caused the current problem

4.6 To identify problems by reflecting in class and identifying new action assignments (Phase F)

At the closing stage of the lesson unit, the teacher set up a class for discussing whether the footbridge was really necessary or not as well as for reflecting on what students have learnt from this lesson unit and comprehensively assessing this public project.

Pre-Lesson Commentary of *Yumiko*: "Is this footbridge really needed?" (October 14)

Even if we follow an opinion of the majority (approval), I do not think that we are able to obtain consensus. After all, the unpleasant feeling felt by those who oppose the idea would not disappear. Because whether or not the footbridge is necessary or where the footbridge should be located varies in accord with individuals, it would be impossible to organize their opinions into one. Above all, the construction has already been started and it is impossible to stop it now.

I could understand the meaning of "public welfare" but it seems to me that that's not the point. To ask me what is right, I cannot choose either one because opinions, for and against the project, are valid.

The teacher thought that based on what has been learnt to date, from the viewpoint of "efficiency and fairness," *Yumiko* would insist that the footbridge would be needed even if people whose human rights are infringed remain. In this regard, however, confusion of assertion rather resulted in her saying "whether or not the footbridge is necessary, where the footbridge should be located varies in accord with individuals," and "it would be impossible to organize their opinions into one."

The reason for this confusion seems to be attributed to problems in the course work itself. "Is this footbridge really needed?" is a two-alternative course work, to choose need or no-need, and the stage of discussing whether or not the footbridge is needed is already over as *Yumiko* says "the construction has already been started." Even if the human rights of neighboring residents are infringed, the significance of executing this project must be considered by students.

Therefore, the teacher set up an "a discussion class including presenting what they have found" to confirm "where the confusion occurred." When talking together, it was found that the majority of students were confused about the meaning of "public welfare." Students compared the "safety (of a large number of pedestrians)" with "human rights (of specific neighboring residents)," and said that they could understand that priority must be given to the safety of many people in accordance with public welfare but were not completely convinced by it as *Yumiko* writes in the latter half of transcript as follows: "I could understand the meaning of public welfare," and "I cannot choose either one because opinions for and against the project are valid."

Then, some students made the following remarks:

C: "Mr. Nakata said that if Route 419 had not been expanded to a 4-lane roadway, the footbridge might not have been constructed. Don't you think that if priority is given to the safety of pedestrians, a footbridge should have been built first before a 4-lane roadway is built?

This question links to the confusion the students experienced with Mr Nakata's answer in that if the four-lane roadway had not been planned, the footbridge might not have been constructed. (See 4.3 Phase C). This question would be linked to the project enhancing the multifaceted nature of this project, which cannot be solved simply by references to safety. The teacher hoped to set up this question for the next piece of course work and to allow students to realistically and deeply grasp the multifaceted nature of this project.

Pre-Lesson Commentary of *Yumiko*: "Let's think of the administration that aims at building a 4-lane roadway first" (October 26)

Does this mean that the world is unreasonable? In the previous class, safety was weighed against human rights and we came to the conclusion that "safety was more important than human rights" but in reality, "convenience was more important than safety, which was weighted more heavily than human rights?" The reason why the footbridge was not built unless a 4-lane roadway was built may be that there was an unsubstantiated view that no accident would occur on a two-lane roadway. There might be a flow in that with a two-lane roadway, it is inconvenient → a four-lane roadway should be built → accident may occur → a footbridge is constructed.

Apparently, the view of the majority, because there are more people using Route 419 by car than the people using the footbridge, has not changed.

4.7 Initial thoughts about the form that future local administration should take (Phase G)

With respect to the action assignment exposed by students in the previous class regarding why the administration has been aiming to build a four-lane roadway at first, *Yumiko* pointed out the reason that priority was given to convenience rather than to safety, and composed a picture of "convenience > safety > human rights" in her mind. According to the statement in her Pre-Lesson Commentary on October 26, *Yumiko* shows a certain level of understanding of giving priority to convenience of an overwhelmingly large number of people over the human rights of a small number of people. In this regard, however, we know from her final sentence that she has not been fully convinced as she states that, "...the view of the majority, (cut) has not changed".

Post-Lesson Commentary of *Yumiko*: "Let's think of the administration that aims at building a 4-lane roadway first" (October 29)

I could generally understand the reason why the administration gave priority to building a 4-lane roadway. Choosing the happiness of tens of thousands of people compared to that of four or five people can be justified. Also in terms of the economic effect, there may be no choice. This does not mean though that we should turn our backs on those four or five people. In particular, Dentist F. We cannot agree with the fact that Dentist F was not notified of construction of footbridge at all because Dentist F did not live in the doctor's office, though he actually worked at the office. The administration should make sure that it has all of the relevant information needed to contact those affected.

Those 4 to 5 people should have taken more action. Failure to get more interested in what affects them will be a source of regret later. Meetings had been held to inform local residents and they had abundant sources of information available to them such as direct inquiries to administrative bodies etc. The principle of local autonomy should have been much more fully applied.

The local administration must work more closely with communities. Residents must get more involved with local issues, These are action assignments found on this occasion. I felt the need to get to know the community better so that the local community which we will take up in years to come could clear these action assignments.

The transcript reveals that *Yumiko* has a greater understanding of the decision by the administration to implement this project as illustrated by her references to the happiness of tens of thousands over the happiness of four or five. This indicates that *Yumiko* viewed this project in a multidimensional manner from multiple perspectives and also took the needs of the economy and industry into account. At the same time she emphasizes the importance of respecting the view of the minority.

Yumiko feels the administrators must be fully informed of the circumstances of those impacted by their decisions and demanded that the administration have more humanity in communications to actually step into the site and communicate face to face with residents. She insists that the four or five residents who were unhappy should have taken more action and borne more responsibility themselves. She requests of them that they not leave the problem to others and insists that meetings help to inform them. She asks them to participate directly in politics, respecting the principle of local autonomy. Thus, we know that *Yumiko* does not judge the problem only according to convenience from the residents' perspectives but incorporates the views of admi-

nistration, car drivers and others in her analysis of the issue.

Yumiko lastly writes "the local community which we will take up in years to come" in the transcript and strongly realizes that she is a member of the community. Given also her recognition that residents should participate more in local politics, we can see an interest in social issues developing as a result of this unit.

5 Discussion

5.1. Discussion 1

In this study, the authors pose two Research Questions and four related measures: These are now considered in relation to the learning process undergone by *Yumiko* in this unit.

Research Question 1: Was the *Yumiko* able view social issues from multiple perspectives?

Measure 1 for RQ1: To roll out studies which students learn in local communities

Measure 2 for RQ1: To create a class with facts which student's gathered using interviews to generate data?

Measure 1

The teacher decided to develop learning within the local community. *Yumiko* learned throughout this lesson unit by using local material with keen feeling and concentration, and was able to work on this problem solving process.

In particular, the school diary of student G "Road and my life" which was introduced at the beginning of the lesson unit gave *Yumiko* a positive impetus to involve herself in this real social issue which needs to be solved for the stakeholders.

Measure 2

The teacher decided to introduce interviewing to stakeholders including the local inhabitants and administration who have different concerns and interests (Table 1). *Yumiko* was able to, in this way, understand each situation and way of thinking. From this, *Yumiko* was able to analyze this social issue from different angles and grasp difficult social phenomena.

5.2 Discussion 2

Research Question 2: How was *Yumiko* enabled to take the initiative in problem solving?

Re RQ2, the authors took the following two approaches. In the following section, we consider how these impacted upon *Yumiko*.

Measure 1 for RQ2: A class in which students presented what they had found out.

Measure 2 for RQ2: A class in which students reflected on what they had discovered.

Measure 1

The teacher decided to design lessons to talk about what students had discovered through interviews (Table 1). The discussions following the interviews exposed *Yumiko* to ways of thinking that differed from her own

and thus expanded her perspective on the issue. Furthermore, *Yumiko* identified a new problem by processing from interviewing to the discussion stage and was able to work on the investigation more eagerly.

Measure 2

The teacher organized reflective lessons on students' learning as needed. When the student were confusing their investigative goals, the teacher introduced a phase of reflection on their upcoming process of learning. During this phase, the progress of the unit was stopped and problem was clarified through reflection on the process of the lesson unit. And then the lesson unit could continue with the students' levels of motivation restored, (Kuramoto 2005).

6 Conclusion

The following is an article for the school paper written by *Yumiko* following completion of the unit described above:

"This class was really stimulating. I went the off school campus to hear from local citizens at the third period of the lesson unit. I had learned before in the conventional class based on established documents, but this activity was fresh. After interviewing, I returned to the classroom and discussed the responses with classmates. I repeated the procedure with administrators and continued to talk again afterwards.

Through "hearing" and "talking", "understanding" was born. In contrast, what I did not understand came to the fore.

However, it never became an unpleasant feeling to me. It was really worthwhile to talk about the questions that arose because focus comes from solving a difficult problem like in mathematics. We extended the lesson twice to solve unresolved questions and I have never been so engaged. I will not forget the inspiration when we solved the last question throughout my life.

"*This class was really stimulating.*" *Yumiko* began to write of the deep impression made by the learning through this unit explicitly. The reason why she was so excited was because the lesson unit is constituted with listening at its core unlike "*having learned in the conventional class based on established documents*". She felt that "*this activity was fresh*" and therefore she engaged eagerly with activities outside of the conventional classroom.

Yumiko felt fulfilled by engaging in a cycle of problem solving. She demonstrates an awareness of the process of independent thinking and has begun to ask herself why things are as they are.

In addition, *Yumiko* described how what she did not understand came to the fore but also wrote that [...] *it never became unpleasant feeling to Me.*" further

expressing her view that discussion around misunderstandings was particularly worthwhile. These comments show that *Yumiko* has changed as a result of this lesson.

Finally, *Yumiko* wrote that *we extended the lesson twice to solve unresolved questions and I have never been so engaged. I will not forget the inspiration when we solved the last question throughout my life.* She felt a strong sense of fulfillment as a result of this unit and has learned not only how to research social issues but values commitment to social issues in her own life.

Yumiko appears to have obtained a sense of fulfillment from the learning that resulted from this Lesson Unit. This encompasses her joy in replacing her one-sided view of social phenomenon with a more versatile one. She approached a social phenomenon following a process of inquisitive, deep learning. Setting a learning question, using the students' reality as a starting point, investigating an issue and interviewing stakeholders, class discussions and a focus on what is and is not understood represents a problem solving cycle.

The unit described above concerns administrative issues around an urgent local problem and concerns the difficulty of prioritizing the needs of different stakeholders. As a result, this unit led students towards an understanding of "opposition and agreement" and of "efficiency and fairness" as promoted by the National Guidelines on Social Studies in Japan since 2008. *Yumiko's* responses to the Unit indicate that this exercise in social studies was a useful way to approach these concepts.

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