Cooperative Learning In High School: Focus on "Japanese Lesson" Analysis

the World Association of Lesson Studies International Conference 2007

The Hong Kong Institute of Education, China, Hong Kong, 30 December 2007

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The purpose of this research

The purpose of this research is to analyze these two cases in order to: 1) clarify how the high school students cooperate to comprehend the text; and 2) clarify what kind of image high school students who have studied using cooperative learning methods have in relation to discussion.

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Cooperative Learning in High School

In a general class where many people are learning under the instruction of a teacher, there are limited opportunities for children and students to communicate with each other. In high school and later schooling, in particular, few students actively express their thoughts during a lesson, and there is a tendency for many students to take a passive and unmotivated approach to lessons. Cooperative learning using lesson units focused on group discussion among small groups is thought to be one method for promoting learning by improving communication within a class and allowing students to learn from each other.

Focus on "Japanese Lesson" Analysis

The positive interdependence relationships that children and students form during cooperative learning, where the children and students learn from each other and work together to reach a common goal through discussion and cooperative problem solving, contribute to the formation of study groups that have the essential properties of practical communities. In order to advance the research into this kind of cooperative learning, it is appropriate to focus this research on Japanese language lessons, where the primary goals of teaching materials are "increased communication abilities", "improved cognitive abilities", and "emotional enrichment".

Focus on "Japanese Lesson" Analysis

In comparison to primary school students, high school students are thought to be more highly developed psychologically and intellectually and have a wealth of previous knowledge, and are therefore capable of a higher level of cognition and thinking. In Japan, however, research into cooperative learning for high school students is not progressing.

Japanese language lessons for high school students are therefore the subject of analysis in this research.

Case Study 1: Comprehension Using a Strategy of Cooperative Problem Solving

Research Context and Method

At Nagoya City Kita High School, attempts were made to use groups for comprehension of text beginning in 2004 in some Japanese language classes. These attempts tried to move from a standard lesson format where the teacher-centric lecture occupies the majority of the time to cooperative learning which focuses on the students learning from each other. In order to improve the lessons, a lesson study was therefore performed that analyzed transcripts of the lesson and words spoken. Lessons were conducted for a total of 20 hours in 2005. There were 29 students (5 boys, 24 girls) who elected to take classes in the 2nd year (Grade 11) elective subject "Japanese comprehension and reading" (2 unit).

Case Study 1: Comprehension Using a Strategy of Cooperative Problem Solving

Research Context and Method

A single page of the main text of "The Tale of Genji" was handed out for each 1 to 2 hours of class time, and students were given the task of forming pairs or groups to work together to read and understand the sheets within that time. Although it is difficult for the students to read and understand classical works because both the vocabulary and grammar of classical Japanese are different from those of modern Japanese, the students cooperated and actively worked on their task.

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Text of The Chamber of Kiri (桐壺)

An English translation of a section that the students studied is as follows.

"In a certain reign there was a lady not of the first rank whom the emperor loved more than any of the others. The grand ladies with high ambitions thought her a presumptuous upstart, and lesser ladies were still more resentful.

はじめより我はと思ひ上がりたまへる御方がた、めざましきものにおとしめ嫉みたまふ。同じほど、それより下臈の更衣たちは、ましてやすからず。

Everything she did offended someone. Probably aware of what was happening, she fell seriously ill and came to spend more time at home than at court. The emperor's pity and affection quite passed bounds. No longer caring what his ladies and courtiers might say, he behaved as if intent upon stirring gossip.

It may have been because of a bond in a former life that she bore the emperor a beautiful son, a jewel beyond compare."

(The tale of Genji / Murasaki Shikibu; translated with an introduction by Edward G. Seidensticker)

Text of The Chamber of Kiri (The Tale of Genji) The conversation among a group of three students

The conversation among a group of three students (1)

Student C They were jealous.

They were discussing the or sentences of *The Tale of Ge*

Student C	They were jealous.	sentences of The Tale of Genji shown		
Student A	Who was jealous of who?	below.		
Student B	The other wives were jealous of the beautiful mother. (She, later, gave birth to the prince <i>Genji</i> .)			
Student A	Ahh. Ha, ha. Jealous of the mother. From the start, the grand ladies with high ambitions are the emperor's ladies. The emperor's ladies with high ambitions were jealous of the mother.			
Student C	Yes.			
Student B	I see.			
Student A	What are the lesser ladies (Gerou下臈)?			
Student B	The underclass.			

はじめより我はと思ひ上がりたまへる御方がた、めざましきものにおとしめ嫉みたまふ。 同じほど、それより下臈の更衣たちは、ましてやすからず。

Text of *The Chamber of Kiri (The Tale of Genji)*The conversation among a group of three students (2)

Student C	So it seems.
Student A	The emperor's underclass ladies were still more resentful.
Student C	More.
Student B	Much more.
Student A	Ahh. The grand ladies have high ambitions because they had a bit higher position.
Student B • C	Right. Yes.
Student A	Compared to grand ladies, the lesser ladies felt even more resentful. Jealous.
Student C	The ladies used their status.
Student A	Because the lesser ladies were the underclass, they couldn't do anything, and they were even more jealous.

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Text of *The Chamber of Kiri (The Tale of Genji)*The conversation among a group of three students (3)

This one set of speaking took 6.5 seconds on average. These three students were continuously listening to the words spoken by their partners and continuously producing words of agreement such as "Right" and "So it seems", promoting face-to-face interactions and processing. In a discussion involving the whole classroom where the teacher adjudicates to select the speaker, a single student is not able to speak this much. The three people sitting face-to-face used a strategy of continuously monitoring their partners' reactions and first reaching agreement between the three before proceeding on to the interpretation.

Text of *The Chamber of Kiri (The Tale of Genji)*The Conversation Among a Group of Three Students (4)

In this way they were able to gain a high level of understanding through insight into the fact that even though the ladies at a lower rank than the heroine (*Kiritsubo*) are jealous of the heroine, and because the lower-rank ladies have no way to resist the heroine, the lower-rank ladies have feelings of the more irritation and dissatisfaction, than higher-rank ladies.

The students used their own prior knowledge and the knowledge and understanding of each other to reason based on the context.

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Text of The Chamber of Kiri (The Tale of Genji)

The three students filled in a single worksheet

After this, the three students filled in a single worksheet for submission with the details of their comprehension. "The high status ladies were jealous of the women who were loved most by the emperor despite her low status. Furthermore, the ladies who were even lower status than her hated her even more." During the process of writing this statement, the three students actively presented their opinions, reexamined their interpretation of parts to match the overall story, and adjusted their thoughts to match the overall context.

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Research Findings: Students Strategies of Cooperative Problem Solving in Comprehension and Reading

The students worked together towards reaching a common goal of advancing their comprehension, and the "cooperative problem solving" strategies that the students used for this comprehension are as follows.

- 1. Promotion of frequent interaction within the groups;
- 2. Monitoring the speech and the reaction of other members;
- 3. Utilization of their own knowledge to compensate their lack of comprehension;
- 4. Reasoning and anticipating the story through contextual comprehension;
- Building a temporary interpretation with the agreement of all members; and
- 6. Modification of the partial comprehension of the story through the recognition of its whole structure.

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Case Study 2: Survey of Attitudes of Students Studying by Cooperative Learning

Method and Research Context (1)

At Nagoya City Nagoya Commercial High School, the author and Japanese teachers performed cooperative learning in many Japanese language classes starting in 2006. The lessons were taught in the period of approx. 3 months from 9th April 2007 until the beginning of July. The experimental group of classes with cooperative learning approach consisted of 3 classes of 120 students (11 boys and 109 girls) from first year high school who undertook lessons using cooperative learning (2times discussions and 4times thinking learning style).

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Case Study 2: Survey of Attitudes of Students Studying by Cooperative Learning

Method and Research Context (2)

For these three classes, after an initial reading of the text, the students were asked to suggest their impressions and questions and other points they want to discuss, and the teacher created a worksheet listing topics for discussion based on this. Based on a review of the entire unit, the students proceeded to learn through discussion.

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Cooperative Learning with 2times discussions and 4times thinking learning style

During the lessons, the students individually considered each of the topics before discussing the topics in small groups (4-person groups as a basic rule), and filled in a common worksheet based on the results. The contents of the discussion that were made in each group are next presented to the entire class.

times discussions, 4times thinking

Zumes discussions, 4umes umking		
1) Self-learning,		Thinking
2) Small group-discussion,	Discussion	Thinking
3) Whole class dialogue,	Discussion	Thinking
4) Self-reflecting		Thinking

Case Study 2: Survey of Attitudes of Students
Studying by Cooperative Learning

Method and Research Context (3)

By comparison, the control group of classes without cooperative learning approach consisted of 4 classes of 156 students (14 boys and 144 girls) from second year who undertook lessons from April using the standard whole classroom approach without any cooperative learning or group learning.

From the 6th to 10th of July, 2007, a questionnaire survey was conducted on all 7 classes in the research measuring the degree of discussion skills (Yasunaga, J., & Fujikawa, M., 1998) and the degree of discussion image (Yasunaga, J., Ejima, K., & Fujikawa, M., 1998).

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Discussion Skill Scale Survey

The students were asked to evaluate in 7 steps how easily they were able to perform the skills listed on the questionnaire during the "discussion".

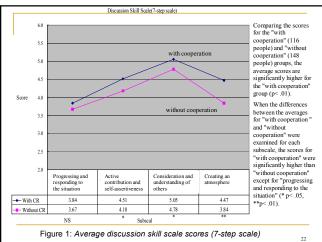
Explanations of each of the factors in the discussion skill scale are shown in Table 1, and the average scores under each condition are shown in Fig. 1.

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Table 1: Explanations of each of the factors in the discussion skill scale

Table 1: Explanation of each factor in the discussion skill scale

"Question: During a discussion, how easily are you actually able to perform the following skills? (7-step scale)"				
Progressing and responding to the situation:	Factors relating to skillfully advancing a discussion, such as "Skillfully advance a discussion" and " Presenting a topic that was in the discussion".			
Active contribution and self-assertiveness:	Factors including skills needed to actively solve a problem without letting unclear points remain unclear, such as "Clearly saying your own opinion" and "Asking questions".			
Consideration and understanding of others:	Factors from skills such as "Understanding the feelings of others" and "respecting the opinions of others".			
Creating an atmosphere:	Factors from skills for creating a good environment, such as "Creating a bright and enjoyable environment" and			



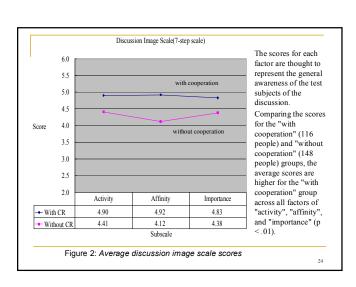
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Discussion Image Scale Survey

The students were asked to evaluate in 7 steps what kind of image they had of the "discussion". Explanations of each of the factors in the discussion image scale are shown in Table 2, and the average scores under each condition are shown in Fig. 2.

Table 2. Explanation of each factor in the discussion image scale

Activity 7 items	Affinity 4 items	Importance 2 items	
Talkative - Silent	Friendly - Unfriendly	Feel responsible - Not feel responsible	
Sociable - Unsociable	Cheerful - Uncheerful		
Active - Passive	Motivated -unmotivated	Deep - Shallow	
Brave - Cowardly	Like - Dislike	(Removed question on	
Motivated - unmotivated		"cautious - frivolous")	
Animated - Inanimate			
Lively - Unlively			



Student Impressions

- The method of first thinking by yourself and then forming a group and summarizing your thoughts was very easy to do and good.
- Compared to thinking about things by yourself, a lot of opinions come out and you are able to discover various things and enjoy the lesson.
- Even if you are reading the same thing, each individual's thinking is different. I was surprised that everyone had formed an opinion.
- My own thinking was expanded by listening to the opinions of everyone in the class.

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Student Impressions

 By reading the work and expressing my feelings in my own words, I realized during the lesson the difficulty and joy of creating my own sentences. I want to have more of this kind of lesson.

Evaluation by the students who had studied under the

cooperative learning method

The proportion of students with a positive evaluation of wanting to study using cooperative learning in future lessons was very high (92%, 110 of 119 students).

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Research Findings

By comparing students who had studied three months of Japanese lessons using cooperative learning (2 times discussions and 4 times thinking learning style) (experimental group) to students who had taken conventional teacher-centric whole class lessons (control group), the students who had studied under the cooperative learning method tended to: 1) evaluate their own skills in relation to discussion more highly; and 2) have a more positive image of discussion.

The fact that the students who studied by cooperative learning obtained higher average overall discussion skills indicates that discussion skills and image are able to be improved by a lot of experience with good discussion and cooperative problem solving by cooperative learning.

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Conclusion 1

In contrast to the discussions in lessons using whole class teaching where there is a tendency for the teacher to dominate the debate (Clark, Anderson et al., 2003), in lessons of comprehending a text using cooperative learning there is no need for the students to raise their hands to take their turn speaking, and instead lesson transcripts indicate that active face-to-face interactions promote reaching the common goal of understanding the contents of the text.

Groups of high school students used a strategy of cooperative problem solving of their own contrivance formed from 6 processes to understand "The Tale of Genji".

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Conclusion 2

Furthermore, when compared to students who studied Japanese language using the whole class system, the students who studied by "cooperative learning with 2 times discussions and 4 times thinking learning style" tended to 1) evaluate their own skills in relation to discussion more highly (Fig. 1); and 2) have a more positive image of discussion (Fig. 2).

Lessons of comprehending text using cooperative learning were able to change the passive, unmotivated learning state of high school students into an independent active learning.

Conclusion 3

By understanding mutual differences in opinions, students' awareness of themselves is deepened. One of the topics to be addressed in the future is improving the awareness of students who dislike discussion through lesson analysis.

There is a need for teachers to design lessons such that students can think by themselves and exchange opinions with other students to enjoy studying by repeating this kind of mutually beneficial experience.

Thank you very much for your kind attention

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Abstract

This study analyzes how a small group of Japanese high school students cooperated in reading and comprehending during Japanese lesson, *Genjimonogatan* ("The Tale of Genji") through lesson study. As a research result, I understand that students tried to comprehend the lesson story cooperatively in the following six processes as strategies of cooperative problem solving:

- 1. Promotion of frequent interaction within the groups;
- 2. Monitoring the speech and the reaction of other members;
- Utilization of their own knowledge to compensate their lack of comprehension;
- 4. Reasoning and anticipating the story through contextual comprehension;
- Building a temporary interpretation with the agreement of all members;
- Modification of the partial comprehension of the story through the recognition of its whole structure.

The lesson analysis shows that the strategies of cooperative problem solving in the Japanese lesson have impact on the subject matters as well as students attitudes of learning and doing well in school.