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<td>TAJIMA, Nobumoto; UEMURA, Kayoko; YAMAZAKI, Koichi; WAKAO, Yoshinori; KAMEI, Miyako</td>
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MASTERY AS SOURCES AND RESULTS OF APPROPRIATION: A COINCIDENTAL RELATION

Nobumoto TAJIMA
Tokyo University of Foreign Studies
Kayoko UEMURA
Bunkyo Gakuin University
Koichi YAMAZAKI
Musashino Women's University
Yoshinori WAKAO and Miyako KAMEI
Tokyo Metropolitan University

Abstract
The purpose of the present research is to identify the characteristics of discussion in the classroom as an open system education where no goal is readily set and to clarify the relationship between "mastery in learning" and "appropriation in learning," considering the significance of introducing discussion, and the effect of discussion on knowledge acquisition by pupils. Our observation revealed that, in a discussion session, several cultural tools were adopted for the purpose of creating a collaborative work through "mastery" and "appropriation" in learning. One of them was a "decision by majority" to facilitate pupils to express and exchange their own opinions, and to have them accept the absolute opinion positively. Several "formal or formulated phrases," a kind of catchword, were introduced to help pupils negotiate with peers, and also to put their own products of discussion into practice effectively. It was also found that the teacher's wording varied between formal or polite style and informal or casual/plain style depending on the form of discussion and the content of her utterances. This "speech style-switching" was carried out to impart what kind of situation is currently going on to the pupils indirectly to help them regulate their own behavior. Those cultural tools, however, impel "mastery in learning." The "decision by majority" requires pupils to obey the agreed opinion, the "formulated statement" forces pupils to acquire a certain pattern of speech genre, and the "differentiation of the use of speech styles" controls the pupils' behavior in the collaborative activity. This suggests that "mastery in learning" causes "conflicts" among pupils of minority side. However, conflict might impel development. "Mastery in learning" impels pupils themselves to the dialogue where voices of their own collision, then to their own knowledge, which may lead to "appropriation in learning." Appropriated knowledge also impels conflict in another situation of "mastery in learning" due to its variety. Furthermore, the conflict activates the dialogue with many voices colliding, and gives rise to appropriating knowledge. In conclusion, it can be suggested that "mastery in learning" and "appropriation in learning" are two sides of the same coin and play a great role in a process of pupil's acquiring knowledge through situated activities.

Key words: Mastery, Appropriation, Classroom discussion, Cultural tool, Decision by majority, Catchword, Speech style-switching
Classroom activity between teacher and pupils is often characterized as “I-R-E” or “instructional questions” (e.g., Mehan, 1985). A teacher usually asks his/her pupils some questions, although he/she knows the answers to them, then answers given by pupils are evaluated. A typical pattern of such questioning is as follows: “What is this?” – “It is A.” – “That's right!” or “This is ....” – “A!” – “Yes! This is A.” Though it occurs sometimes at home or in occupational societies, the point here is that most teacher-pupil interaction patterns in the classroom predominates in teacher-initiated interaction as shown above. This kind of closed communication pattern (closed system) seems to be based on the transmission model, the univocal function of “functional dualism of texts” (Lotman, 1988) and forces the pupils to do “mastery in learning” (Wertsch, 1998).

However, this instructional question pattern is said to have little positive impact on pupils' learning and achievement (Nystrand, 1993). So other systems, such as the open system, based on the dialogical model, multivocal function or “thinking device” (Lotman, 1988) is required for the attainment of “appropriation in learning” (Wertsch, 1998).

On observing a classroom activity, multivocal interactions undoubtedly can be seen even in the subject-matter lesson. This is discussion. In the discussion session, pupils are facilitated to express their own opinions rather freely, and to solve problems collaboratively.

This can be taken as a collaborative interaction in multivocal open system. There is also a special activity in the classroom mainly carried out by discussion, called the homeroom activity. In Japan, a short homeroom time is held usually every morning before class and a full period session, once a week. There, pupils themselves decide what to do, think how to solve an on-going problem in class, how to participate in school activities, and so on. They discuss matters without intended answers, or sometimes decide what to discuss. This activity is introduced as early as possible in school life.

However, the discussion in the classroom seems to be set by the teacher in order to proceed “mastery in learning” effectively. In fact, though the discussion is carried out searching for the consensus of many voices of pupils colliding, the teacher finally leads pupils to the univocal consensus readily given along with the school curriculum (Tajima & Uemura, 1998).

Here arises a question. Is it the only reason for setting discussion sessions in the classroom to proceed “mastery in learning” effectively? What relationship can be seen between “mastery in learning” and “appropriation in learning”? The purpose of the present research is, through the discourse analysis of the homeroom discussion in one first grade class in Japan, to identify the characteristics of discussion as an open system where no goal is readily set and to clarify the relationship between “mastery in learning” and “appropriation in learning,” considering the significance of introducing discussion, and the effect of discussion on knowledge acquisition by pupils.
Method

Subjects

Twenty-nine first graders (15 boys, 14 girls) and a female teacher participated in this study. This class belongs to a public school located in downtown Tokyo.

Procedure

Two observers visited the class and videotaped activities in and out of class during one whole school day.

Transcripts of the activities, mainly speech, were prepared for the analysis. The excerpt analyzed for this study was that of a homeroom discussion in the 45-minute-period.

Results

Cultural tools

In the discussion, three cultural tools were mainly observed as follows.

One of them was a “decision by majority” to facilitate the pupils to express and exchange their own opinions (see 4,5,7,8,10), and to have them accept an absolute opinion positively (see 12,13).

1. Teacher: So, let's discuss the plans for homeroom of September and October.
   Then I'd like you to begin the homeroom. Thursday is singing day.
   So, let's discuss what we are going to sing on Thursday.
2. (Some pupils raise their hands saying “me.”)
3. Teacher: So, first (putting a finger to the mouth as to say “shh!”)
   I'll give you some time to think. You may talk to your neighbors (putting a finger
   to the mouth) quietly.
   (The boy puts a finger to the mouth but imitates to talk loudly and excitedly to the
girl next to him.)

5. .......
6. Teacher: OK. I'll give you some time. Please select two songs.
9. Teacher: All right. Please raise your hand silently. Anyone likes the sports festival
   song?
11. Teacher: (Looking around the classroom) 2. (writes it on the blackboard.)
12. .......
13. Teacher: (Considering the disappointed pupils) Actually, I don't really like to decide
    in this way.

Several “formal or formulated phrases,” a kind of catchword (see 16), were intro-
duced for helping pupils to negotiate with peers, and also to put their own products of discussion into practice effectively.

14. Teacher: .... Last time, we decided like this, do you remember?
   Please have a look.
15. (The teacher moves to the corridor side and points at the paper on the wall.)
   The person who is responsible says this green part. Everybody says, um... the white part.
16. (Teacher reads out the letters on the paper by pointing them.)
   “Good morning everyone. We are going to start the homeroom now.
   Today is the blah, blah, blah day. (Pupils laugh.)
   Let’s enjoy it together.” We say in this way.

It was also found that the teacher's wording varied between formal or polite style (shown as the single-underlined sentences in the above instances) and informal or casual/plain style (double-underlined ones) depending on the form of discussion and the content of her utterances. The formal and informal utterances are clearly distinguishable by special grammatical markers in Japanese. This “speech style-switching” seems to be carried out for imparting what kind of situation (e.g., formal/polite style for the presentation of task and informal/casual/plain style to impel the pupils' expression of an active and free opinion or choice) is currently going on to the pupils indirectly for helping them to regulate their own behavior. In fact, our experimental study (Tajima & Uemura, 1998) controlling only the teacher's wording in small group discussion in a forth grade classroom revealed a strong effect of the teacher's wording such as “formal language style” and “informal language style” on his own communication style and also the process and results of discussion among his pupils. In “informal language style session,” forth-graders themselves tended to use informal speech style, showed equal-stand interaction with their teacher, expressed their opinions freely and also had more fruitful results of discussion compared with “formal language style session”.

Active Participation of Pupils
Throughout the discussion, pupils' active and positive participation was observed. Active hand-raising (see 2), spontaneous statements (7, 8, 10), private discussion (5), and compliance and discontent (12) were evident.

Discussion
The discourse analysis of the homeroom discussion among first graders suggests as follows:

The aim for introducing a collaborative interaction of “discussion” in the homeroom is to let pupils form a creative attitude such as creating their or his/her own aim through an equal-stand interaction and identify themselves to the whole class. This is shown from the pupils' expression of their strong motivation to participate and their expressed emotion toward the shared result. In this sense, it can be said that the discussion provides a situation for “appropriation in learning”.
The "decision by majority" is the main cultural tool adopted in the discussion, which presupposes a free demonstration of the participants' own opinions. This makes the pupils participate in the collaborative activity, or in other words, makes them participate actively and "decide their opinion as a whole by themselves," while it also induces the pupils to interact with one another and asks for their consent to the shared decision.

The "formulated phrase" facilitates pupils to acquire the shared product. It also offers them "speech genre" (Bakhtin, 1986) in class or in school.

And the "differentiation of the use of speech styles" , using formal / polite style for the presentation of task and using informal / casual-plain style to impel the pupils' expression of an active and free opinion or choice, is adopted to imply what situation the discussion is in, how they are supposed to participate and act, so that the pupils can control the discussion process by themselves.

Here, the cultural tools shown above which constitute the collaborative interaction in discussion seem to show the tendency to "mastery in learning." The "decision by majority" requires the conclusion of the univocal, agreed opinion. The "formulated statement" forces pupils to acquire a certain, univocal pattern of speech genre, and the "differentiation of the use of speech styles" controls the pupils' behavior in the collaborative activity. This suggests that discussion in the homeroom, which seems to be a free dialogical interaction, is controlled by the cultural tools with the tendency to "mastery in learning".

Coincidentally, this also suggests that the tendency to "mastery in learning" provides pupils with the starting point for the collaborative activity. The typical forms, such as mottoes, formulated dialogue, and manners, are supposed to be acquired according to social demand. In this way, we can say that a burden on pupils to get accepted for participating in society is reduced.

However, the problem here is that reducing the burden is one thing and whether it is comfortable for pupils is another. This is shown by compliance or discontent by pupils who ended up being on the minority side about the result. Hence "mastery in learning" causes "conflicts" in pupils. Under the circumstances of squeezing them into a certain mold or forcing "mastery in learning," conflicts emerge. Nevertheless, the conflict produces a situation where pupils challenge it with their own voices, then, in this way, leads to "appropriation in learning."

Collision of many voices during discussion is the situation of conflict. Many opinions collide which are consensus-oriented. The "decision by majority," the "formulated statement," and the "differentiation of the use of speech styles" which control the discussion show the tendency to "mastery in learning," and pressure of these tools also causes conflict. However, the notion that conflict impels development (Smolka, de Goes, & Pino, 1995) is especially important for identifying the relationship between "mastery in learning" and "appropriation in learning."

"Mastery in learning" as a starting point impels pupils themselves to the dialogue where voices of their own collide, then to their own knowledge, which may lead to "appropriation in learning." Appropriated knowledge conversely impels the shift to the new situation of "mastery in learning" due to its variety, generating new conflict. Then, the conflict activates the dialogue with many voices colliding, and gives rise to the new
stage of appropriating knowledge. It could be said that "mastery in learning" coincides with "appropriation in learning," that is, "mastery in learning" might be both sources and results of "appropriation in learning."

The coincidental relation shown above occurs not only among pupils, but also in the teacher. In our excerpt, the teacher confesses her own negative feeling toward the tool of "decision by majority" in response to the resistance of pupils against it (see 13). That is, conflict caused by "mastery in learning" also impels the teacher to "appropriation in learning."

In conclusion, it can be suggested that the coincidental relation of "mastery in learning" to "appropriation in learning" seen in the discourse of homeroom discussion with open task plays a great role in a process of pupils' acquiring knowledge through situated activities. It is also suggested that early introduction of this sort of activity in school life plays an important role in a process of pupils' adaptation to school culture.

Finally, this conclusion implies that the tendency to "mastery in learning" seen in the classroom with closed tasks is needed to be redirected to "coincidental system" which can be described as a collaboration of "mastery in learning" and "appropriation in learning." In fact, the effective discussion coincides with the classroom lesson characterized as "instructional questions."

References
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I'll give you some time to think. You may talk to your neighbors (putting a finger
to the mouth) quietly.
(The boy puts a finger to the mouth but imitates to talk loudly and excitedly to the
girl next to him.)
5. [during this time, pupils suggest various kinds of songs and simultaneously
express the feelings of likes and dislikes. Finally they decide by majority].
6. Teacher: OK. I'll give you some time. Please select two songs.
9. Teacher: All right. Please raise your hand silently. Anyone likes the sports festival
song?
11. Teacher: (Looking around the classroom) 2. (writes it on the blackboard.)
12. [during this time, two songs were chosen but the pupils express their feelings
of satisfaction and dissatisfaction].
13. Teacher: (Considering the disappointed pupils) Actually, I don't really like to decide
in this way.

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The discourse analysis of the homeroom discussion among first graders suggests as follows:

The aim for introducing a collaborative interaction of “discussion” in the homeroom is to let pupils form a creative attitude such as creating their or his/her own aim through an equal-stand interaction and identify themselves to the whole class. This is shown from the pupils' expression of their strong motivation to participate and their expressed emotion toward the shared result. In this sense, it can be said that the discussion provides a situation for “appropriation in learning”. 
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In conclusion, it can be suggested that the coincidental relation of "mastery in learning" to "appropriation in learning" seen in the discourse of homeroom discussion with open task plays a great role in a process of pupils' acquiring knowledge through situated activities. It is also suggested that early introduction of this sort of activity in school life plays an important role in a process of pupils' adaptation to school culture.

Finally, this conclusion implies that the tendency to "mastery in learning" seen in the classroom with closed tasks is needed to be redirected to "coincidental system" which can be described as a collaboration of "mastery in learning" and "appropriation in learning." In fact, the effective discussion coincides with the classroom lesson characterized as "instructional questions."

References