Applications of Idea-Generating Techniques to the Teaching of Argumentative Writing

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Argumentative writing is an important mode of communication in academia as well as the workplace, but it can be challenging for college students in Japan because many of them lack prior experience with it. In this paper, I propose 2 ways to reduce students' cognitive strain and enhance their productivity and enjoyment. One way is to incorporate Fahnestock and Secor's (1985) modern stasis theory as a way of helping students organize the information flow of their arguments. The other is to adopt group work and make extensive use of 2 idea-generating techniques, brainstorming and brainwriting, so that group members can collaborate on content formation. The research was carried out using classroom observation, including an analysis of students' idea-generation efforts, plus a survey of students' reactions to investigate the usefulness of these 2 techniques in teaching argumentative writing to groups of EFL college students in Japan.

　議論形式のライティングは教育やビジネスにおける重要なコミュニケーションの様式であり、大学の授業でも課題として出されることが多い。しかし、日本の大学生はこのような形式で文章を書く機会が少ないため、苦手意識を持つ傾向がある。この論文は、議論形式のライティングを教えるに際し、学生の抵抗を軽減し、内容の充実を図るための2つの試みを提案する。ひとつはFahnestock と Secor (1985) の現代版stasis theoryを使って、議論の構成に役立てること、もうひとつはグループワークにブレーンストーミングとブレーンライティングという2つのテクニックを取り入れ、協力してアイディアを練るために用いることである。この論文は、実際に生成されたアイディアの分析を含めたクラスの観察、そして学生の反応調査を元に、2つのテクニックが、英語を外国語として学ぶ日本の大学生のグループに議論の構成を教える際に有用か否かを調査することを目的とする。

ARGUMENTATIVE WRITING is considered a difficult mode of writing for nonnative speakers of English, who may have trouble making an effective argument due to their lack of training in this type of discourse (e.g., Connor & Kramer, 1995; Johns, 1993; Liebman, 1992). This difficulty is especially prominent in Japan because argumentative discourse is often viewed as a source of discord and something to be avoided (Connor & Kramer, 1995). Moreover, in Japanese education, explicit writing instruction itself is scarce, and learners are expected to learn mostly on their own (Hirose, 2003). When it comes to writing in English, they receive even less training because classes tend to focus on fundamentals such as grammar, vocabulary, and reading comprehension. This situation can put learners at a disadvantage in English, for their writing will be evaluated based on their ability to present and develop their viewpoints (Dirven & Verspoor, 1998; Liebman, 1992).

Making a Difference

Given this situation, group work may work well when EFL learners in Japan first learn argumentative writing. By helping each other, they can work through their writing processes with more assurance and possibly achieve better outcomes than when working individually. I propose that idea-generation is key to preparing successful arguments because it allows students to tap into each other's ideas and to deliberate on the content of the argument. However, the effect of group-thinking techniques on writing has not been researched extensively. One exception is Rao (2007), who compared EFL students' writing before and after learning a brainstorming technique, and the results indicated that training in brainstorming had a positive effect on their writing performance.

Similar to Rao's (2007) study, I compared two idea-generating techniques, brainstorming and brainwriting, in terms of productivity and enjoyment when EFL college learners in Japan produced argumentative writing in a group setting. In this paper I present observations of how the activities went in class, including discussion of the ideas that were generated, and survey data that measured students' reactions to the activities, so as to evaluate the success of the two techniques in a Japanese context.

Definitions of Argument

In the field of rhetoric and composition, argument has been defined in various ways. In the broadest sense, it refers to any discourse that makes a claim about a controversial issue and is supported by evidence based on social and cultural values (Emmel, Resch, & Tenney, 1996; Fulkerson, 1996; Goshgarian, Krueger, & Minc, 2003). This definition encompasses various types of discourse, and traditional composition categories such as exposition, description, narration, and argument are no longer relevant because the first three can be considered types of argument (Fulkerson, 1996). Argument can also be defined as persuasive discourse whose purpose is to move others to take certain actions (Kinneavy, 1980). For instance, position arguments on subjects such as gun control, same-sex marriage, consumerism, and racial profiling fit this definition.

Although there are various definitions, I use argument to refer to discourse that is consistent with the organizational framework proposed by Fahnestock and Secor (1985) in their modern version of stasis theory. Fahnestock and Secor's approach is different from others in that it delineates not only the subcategories of argument, but also its canonical rhetorical organization. Their approach is derived from ancient stasis theory, which was a form of forensic rhetoric in ancient Greece. Stasis allowed a court to examine a case in light of a series of questions, thus helping the point of dispute to be identified in a methodical manner (Conley, 1990). Fahnestock and Secor have rediscovered the relevance of stasis theory and modified it in order to broaden its applications and use it as a general "principle of invention" (p. 219). Just as classical stasis theory was used to locate the point at issue, modern stasis theory helps to clarify the purpose of an argument. Also, in the same way that the four stases formed a sequence in ancient court procedures, the order of modern stases can shape the logical flow of an argument. To use stasis theory in modern contexts, Fahnestock and Secor proposed some modifications so that it addressed the following four questions:

1. What is it? (definition)
2. How did it get that way? (causal analysis)
3. Is it good or bad? (evaluation)
4. What should we do about it? (proposal)

For the purpose of clarity, however, the first question is referred to here as "fact/definition" because delineating the problem as an existing fact is an important part of the initial discussion (Takagi, 2009). Hence, the canonical structure of an argument can be illustrated as in Figure 1.

Fact & Definition → Causal Analysis → Evaluation → Proposal

Figure 1. Canonical Argument Structure

In my study I propose that understanding this canonical structure is beneficial for EFL learners in Japan, assuming that an insufficient understanding of it often results in an illogical progression of the argument (Takagi, 2009). Learning the common structure of an argument has other practical benefits as well because it can be usefully applied to future academic and professional communication. For instance, in academic discourse, investigating the causes of a phenomenon (causal analysis) or critiquing others' work (evaluation) is a regular practice, and in the workplace, a project proposal is often organized in the manner depicted by stasis theory. In this way, Fahnestock and Secor's (1985) modern version of stasis theory can be practical and useful for EFL students in Japan because knowledge of common rhetorical structures helps them produce argumentative writing with more confidence and assurance.

Idea-Generating Techniques

The idea-generating techniques employed in this study are brainstorming and brainwriting. Brainstorming, or "the oral generation of ideas by a group" (VanGundy, 1984, p. 68), was first introduced by an American advertising executive named Alex F. Osborn in his book *Your Creative Power,* published in 1948. Osborn explained that this group-thinking activity began in his advertising agency in 1939. In the activity, five to ten people of different backgrounds and experience levels gathered and generated as many ideas as possible to find creative solutions to

a problem. After publication of his book, brainstorming spread quickly as an effective way to make the most of people's diverse resources to come up with creative ideas.

Empirical studies of brainstorming, however, soon revealed that brainstorming was perhaps not as effective as it first appeared in light of both the number of ideas and creativity (Taylor, Berry, & Block, 1958). Some of the reasons behind these problems were (a) free-riding (negligence in doing one's share of the work), (b) evaluation apprehension (fear of others' judgment), and (c) production blocking (forgetting one's idea or loss of confidence about it due to the necessity of turn-taking) (Diel & Stroebe, 1991). Also, brainstorming requires an adroit leader, and the outcome is very much affected by the leader's handling of the session (Sutton & Hargadon, 1996).

In this context, brainwriting has been considered as an alternative or a supplement to brainstorming. Briefly, it is a technique that prompts a group of people to state their opinions in the form of writing; thus, it is "silent, written generation of ideas by a group of people" (VanGundy, 1984, p. 68). Brainwriting has drawn scholarly attention as a way for participants to collaborate effectively without interference from the sources of ineffectiveness mentioned above. Brown and Paulus (2002), for instance, recommended brainwriting as a promising method that could complement the shortcomings of brainstorming. Heslin (2009) also argued that brainwriting is likely to trigger cognitive and social stimulation, which results in effective idea generation for a group.

There are various kinds of brainwriting, each involving different materials or manners of communication among group members (VanGundy, 1984). In this study I adopted the pin card technique (explained below) for its simplicity and time efficiency, and compared this technique with brainstorming.

Pedagogical Context

Participants

Participants were 28 first-year university students (14 women, 14 men) in my English class at Ibaraki University. Before engaging in group work, they had learned the basics of paragraph and essay writing.

Procedure

The participants were divided into groups of five or six. They were assigned to write an argument as a group that included the four parts of Fahnestock and Secor's (1985) modern version of stasis theory. The groups were allowed to choose their own topic, though they were advised to select one that was closely connected to their daily lives. For each of the four parts, they generated ideas, alternating brainstorming and brainwriting (pin cards); that is, they used brainstorming for fact/definition and evaluation, and brainwriting for causal analysis and making proposals. Thus, by the time they had covered all four parts, they had tried each technique twice. The two methods were alternated in this manner for the purpose of comparison, though it should be added that brainstorming was used first because participants were likely to be more familiar with that than brainwriting. Students were free to use either English or Japanese in the idea-generating sessions, and except for a few cases in the first brainwriting session, they used Japanese as their chosen language. The brainstorming and brainwriting sessions were conducted in the manner described in Table 1.

Table 1. Brainstorming and Brainwriting Procedures

Step	Brainstorming	Brainwriting
1	Members spent about 5 minutes thinking individually about the topic.	
2	For about 15 minutes, members stated their ideas verbally while a leader facilitated the discussion and the recorder took notes.	Members wrote their ideas on a piece of paper. When they had finished writing, they passed their papers clockwise and wrote another idea to develop, or add to, the previous person's idea. They repeated this process for about 15 minutes.
3	When the session was over, they had about 10 minutes to organize their ideas and create an outline.	

In order to compare the usefulness of the two techniques in producing in-depth ideas, as well as the students' enjoyment of the two techniques, several kinds of data were gathered. First, each idea-generating session was observed and notes were taken. Second, the ideas generated during the activities were collected and analyzed. Third, when all four sessions were complete, an informal survey was conducted. Students were asked to evaluate the two techniques and explain the reasons for their choices in the comment section. Selected data are discussed in the following sections.

Observations and Analysis

Brainstorming: Fact/Definition and Evaluation

Brainstorming was used to generate ideas for the first and third parts of the argument: fact/definition and evaluation. In the brainstorming session for fact/definition, the students aimed to consider ways to demonstrate the existence of the chosen problem, while in the session for evaluation, they mainly focused on discussing what would happen if the problem remained unsolved. In spite of these different purposes, the two sessions yielded similar results. That is, students were engaged in the activity, and the class was filled with talk, smiles, and laughter. However, students' brainstorming sheets contained only a few ideas, and the content was superficial.

For instance, one group dealt with the issue of college students coming to class late. For their fact/definition session, the group needed to demonstrate the prevalence of this problem, but the only method they came up with was to interview the instructor with questions such as "How many students have been late for class more than once?" and "Is there a day of the week, period, or month when students tend to come late?" Another group, whose topic was the large number of traffic accidents in Ibaraki Prefecture, came up with various methods including taking pictures that revealed the problem, searching the Internet, or interviewing people who had experienced a traffic accident. However, they did not provide details as to what information they would look for, leaving most of the work to the person in charge of the fact/definition session.

The second brainstorming session for evaluation yielded similar outcomes. For instance, one group was dealing with the topic of cyclists' poor manners and generated only a few ideas for evaluation. They outlined a chain of effects, but made no further effort to explain each effect in detail (see Figure 2).

Leaving the problem unresolved

↓

Decline of guilty conscience

↓

Decline of public morality

↓

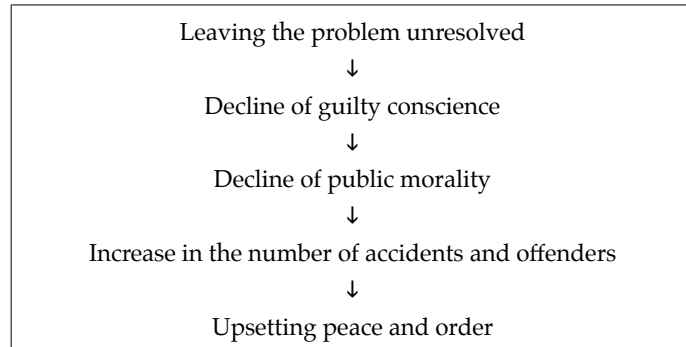Increase in the number of accidents and offenders

↓

Upsetting peace and order

Figure 2. Sample Ideas Generated for Evaluation

The group that dealt with the large number of traffic accidents in Ibaraki Prefecture managed to list some concrete effects of this problem, but they failed to expand those effects in their outline. Thus, in spite of the lively classroom atmosphere, these sessions turned out to be less productive than expected. Most groups produced only a few general ideas in both sessions, and they had to rely on the person(s) in charge to fill the content gap.

Brainwriting: Causal Analysis and Proposal

Brainwriting was used for the second and last part of the argument, causal analysis and the proposal. In the brainwriting session for causal analysis. the students aimed to delve into the causes behind the chosen problem, while in the session for making the proposal, they explored solutions to the problem based on prior analyses. The level of engagement in the two sessions was high, and students continued writing until the time was up, but the results indicated some different problems with, and benefits of, brainwriting.

In the brainwriting session for causal analysis, results were mixed because some groups were able to generate more ideas than others. Four out of the six groups had no more than one member missing and came up with approximately 32 ideas on average, while the two groups who suffered from absenteeism produced many fewer ideas (8 and 15). This result suggests that the presence of members is important for successful brainwriting.

Another aspect of success hinged on the specificity of the problem. For instance, the group that dealt with students' tendency to be late for class had a problem definite enough for the members to specifically explore, and they approached the problem from different angles from the outset:

• being tired from one's part-time job,
• going to bed late the day before,
• having no consequences for coming to class late, and
• being deterred by inclement weather.

The other members developed these points further, referring to their own observations and experiences. On the other hand, the groups that chose a large, multi-dimensional topic seemed to feel perplexed because they had several problems to grapple with and each of them seemed to have different causes. For example, the group that chose the topic "How to make college life more meaningful" seemed to have difficulty in listing causes because the topic did not specify a problem. They managed to narrow down their topic later on, but not having a specific problem at the beginning complicated the process of analyzing the causes.

The brainwriting session also revealed other practical issues. The first was that several members coincidentally made the same point at the beginning, which could have resulted in similar lines of reasoning (see Appendix A). Another issue was that there were quite a few cases in which students started to deviate from the purpose, that is, some students started to talk about solutions instead of sticking to causal analyses. This was certainly a tempting move because it made them feel that they were developing the discussion, but it ended up diverting from the aim of the session.

In the second brainwriting session for making the proposal, groups were advised to be creative and original instead of repeating commonplace solutions, in order to avoid overlapping ideas. Also, they were reminded of the importance of sticking to the purpose, which was to consider solutions in detail, so as to avoid inadvertent digression.

In terms of number, most groups were successful in yielding as many ideas as the first session. Excluding one group whose brainwriting documents were incomplete, the other five groups produced 31 ideas on average. Even when the number of ideas itself was lower, those groups' ideas were substantial. For instance, the group that dealt with the large number of traffic accidents in Ibaraki Prefecture produced only 24 ideas, but each idea was developed and elaborated in a detailed manner (see Appendix B). For example, the first person addressed the possibility of founding a traffic accident center where people could learn about the danger of accidents from an early age, and the succeeding ideas addressed how many times people should go there or what they could see and do at the center. Similarly, the same group proposed the development of a cellphone application or devices to be installed in cars and bicycles that monitor and regulate speed. Although those ideas may not be practical or feasible, they show the members' attempts to be experimental and imaginative in solving the problem.

Thus, the groups produced more ideas in brainwriting than in brainstorming as long as most members were present. The first session revealed possible issues with brainwriting, such as idea overlap and digression, but the second session showed students' improvement in these regards as well as their adroitness in content development and creativity.

Students' Reactions

After the four idea-generating sessions were complete, an informal survey was conducted in order to elicit participants' reactions to the two techniques. All 28 students were present on the day of the survey. The questions were written in Japanese to reduce the possibility of misunderstanding and asked students to choose one of five choices and explain their answer.

Asked about the effectiveness in generating ideas and demonstrating a problem, more students chose brainwriting over brainstorming (see Figure 3).
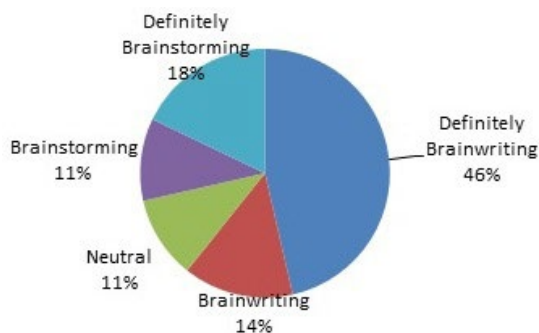

Figure 3. Participant Responses Regarding Effectiveness of Brainstorming vs. Brainwriting

Their responses to the open-ended question reveals some of the reasons behind their choices. First, those who chose brainwriting over brainstorming stated that the former allowed them to delve into the matter more easily because they had more time to think in writing than in speaking. Because they did not engage in face-to-face conversations, they could focus on developing their own views. Also, a couple of students stated that the ideas produced in brainwriting were more varied because they were developed with less influence from others.

Many participants also pointed out that brainwriting was fairer because they had an equal number of opportunities to state their opinions, and they also enjoyed receiving feedback on their ideas from all the members as they proceeded with brainwriting. Furthermore, one student pointed out that writing was a better way of keeping record. In oral discussions, good opinions sometimes did not receive due recognition from the group. On the other hand, writing ensured that all the ideas got a chance to be heard and considered.

Conversely, some students felt strongly in favor of brainstorming. They stated that they could develop ideas more effectively because they became inspired by someone else's opinions; others felt that brainstorming was just a quicker and easier way of communicating their ideas because they could verbalize them as soon as they came to mind. Also, they felt that they could convey their messages more accurately in verbal, face-to-face communication. In addition, some revealed their preference for brainstorming because in brainwriting they were pressured to pass sheets to the next person quickly.

Students who were neutral also addressed some crucial aspects of the two techniques. One student indicated that the choice depended on one's personality. Another student stated that she preferred brainwriting because she was not good at talking. Yet another student suggested that the method should be determined according to the topic at hand. The student did not provide further details, but it is certainly interesting to consider whether one method is better than the other when dealing with, say, an analytical or a creative topic.

When it came to enjoyment, however, more students preferred brainstorming. Actually, the number of brainstorming supporters in general doubled in this regard, while that of brainwriting supporters decreased significantly (see Figure 4).
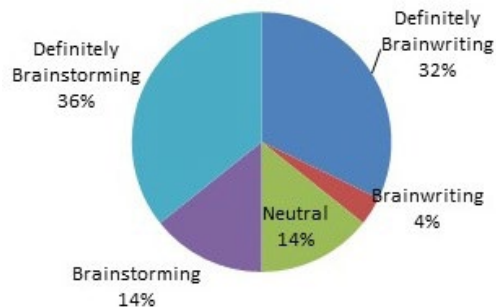
Figure 4. Participant Responses Regarding Enjoyment of Brainstorming vs. Brainwriting

Not many comments were made to account for their choices, but several students stated that they found brainstorming more fun because they could communicate with others verbally. However, it should be added that many of them also found brainwriting enjoyable. In fact, 32% said brainwriting was *definitely* more enjoyable, almost as many as the number of students who supported brainstorming. As reasons, one student said that they enjoyed reading what others had written, and another said that they got a sense of fulfillment even though the process was not easy. Nonetheless, the number of brainstorming supporters increased dramatically, which shows that objectively speaking, many students value brainwriting as an effective idea-generating method, but when it comes to personal enjoyment, they preferred brainstorming.

Discussion

From the above results, it can be inferred that brainwriting was favored over brainstorming in terms of effectiveness in generating ideas, while in terms of enjoyment, brainstorming gained more support. According to observations and survey results, one of the key differences between the two techniques is productivity and members' participation levels. In brainstorming, members' contributions could vary greatly depending on their personalities and communication abilities, as well as the leader's skills in handling the session. This seemed especially noticeable in the current study because leaders were elected randomly without regard to their communication skills. Without effective management, talkative members stated their views while the others offered nods of approval, thus generating few substantial ideas. In brainwriting, on the other hand, members made more balanced contributions as they got an equal number of opportunities to state their ideas. Also, they did not need to wait for others to finish talking, so those sessions produced more ideas than the brainstorming ones in a limited time frame (see Figure 5).
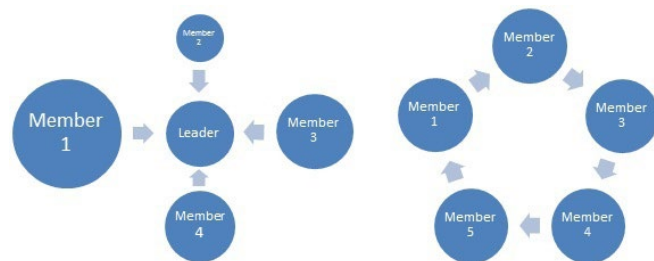

Figure 5. Communication Dynamics in Brainstorming (Left) and Brainwriting (Right)

That being said, brainstorming's cognitive benefits were clear from students' reactions. As some of their comments revealed, they drew a sense of pleasure from face-to-face communication, which was keenly felt when they managed to expand or

produce interesting ideas inspired by what others had said. Conversely, brainwriting was generally a silent and individual procedure. Students were able to focus on writing down their ideas, but the sense of connection with others could be tenuous. This may account for some students' reactions in that they felt anxious and pressured to write down their ideas and pass them on to the next person quickly. The anxiety and pressure may have been exaggerated because no one was talking to soften or lighten the atmosphere.

Given that the two techniques have both benefits and drawbacks, instructors may want to provide visual demonstration beforehand so that members become aware of possible issues that may arise in the process. Also, they may want to use both activities in the group work process so that students of different communication styles can participate in idea-generating activities. In this sense, the current study concurs with Van-Gundy (1984), who stated that an appropriate strategy needs to be chosen depending on the situation, and brainstorming and brainwriting should supplement each other.

There are some additional issues that became apparent in the course of this study. The first is the language choice in idea-generating activities. Ideally, students ought to communicate in English in the EFL classroom, but the use of English may not be practical if they have to keep looking up words in a dictionary or adding translations of their ideas. Thus, students might be better off if they are allowed to use Japanese and translate their ideas into English later when they draft their papers (R. Weisburd, personal communication, 1 Oct 2012). Also, idea-generating sessions can be time-consuming. Instructors are often under pressure to cover many other topics in class. In addition, explanation and practice time is necessary before students are proficient with these techniques.

Conclusion

Two group-thinking techniques were explored in this study—brainstorming and brainwriting—for use when EFL college learners are assigned a challenging mode of writing. The results revealed that participants' opinions were divided over the effectiveness and enjoyment of these techniques, though brainwriting seemed superior when it came to the actual production of ideas. These results, however, were obtained in a short period of time and the number of participants was small. The results could also be biased because the data was gathered in the classroom, using impressionistic observations and a survey that was not anonymous. Hence, it is premature to draw any definite conclusions and a more rigorous study using objective methods and a larger data set is needed to verify the findings of this study. Also, such a study could see whether or not the two techniques yield differences in the quality of participants' writing.

In spite of these shortcomings, the results have drawn attention to the importance of spending time on idea-generation. Two idea-generating techniques that may make group work more reflective and collaborative were compared, applied in the classroom, and the results analyzed. As Thomas and Turner (1994) put it, "Intellectual activities generate skills, but skills do not generate intellectual activities. The relationship is not symmetric." Learning the basics of essay writing does not make students become good writers but learning to think does. Making use of idea-generating techniques is one way of helping EFL learners to look into their knowledge and experience, learn from others, and grow as writers as well as thinkers.

Bio Data

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Appendix A: *Samples of Idea Overlap*

(Sheet 1)	(Sheet 2)
• Staying up late	• Going to bed late the day before
• Watching TV till late at night	• Because we play games and so on.
• Those who live alone can stay up late without being reprimanded by anyone.	• Because recent games are fun.
• No one wakes them up in the morning.	• Playing with friends till late at night
• When they bring their friends to their apartments, they can't go to bed early.	• When our friends say that they'll go to class late, we feel tempted to do the same.
• After having fun with friends, they get tired.	• We become off our guard, thinking, "It'll be ok because I have no class in the first period!"
• Without their noticing it, it gets light outside, and they give up on going to bed.	• Time passes when we hang out idly with friends before the second period…
• They don't feel refreshed when they wake up if they don't get enough sleep.	• We end up sleeping, feeling it's too much trouble to attend a class in the second period.

Appendix B: *Sample Brainwriting for the Proposal Section*

(Sheet 1)	(Sheet 2)
• Establish a traffic accident center and display models that simulate damages of various accidents.	• Disseminate the stories of those who actually caused accidents and their victims.
• Going there should be compulsory in driving school. Drivers should be required to go there once a year.	• When we hear of accidents in news, we tend to take not much notice of them, saying "Oh, isn't it dangerous…," so it might be a good idea to hear the stories of those who were involved in them.
• Those who were in traffic accidents should give lectures to inform others of the danger.	• Disseminate the understanding of how much trouble we have to go through if we were in accidents.
• Elementary, middle, and high school student should visit the traffic accident center regularly so that they will be imbued with the fear of traffic accidents.	• Display the enormous burden of traffic accidents at noticeable locations.
• Create a system that allows us to go through mock accidents.	• The government should support the efforts of those organizations which disseminate the experiences of those who were involved in traffic accidents.

(Sheet 3)

- In order to change their attitude, punish those bikers who conduct dangerous deeds (such as speeding, using cellphones, and ignoring traffic lights).
- The police and people in the neighborhood go on patrol.
- Increase the number of rounds the police officers make.
- If the police wear something more conspicuous, they will be a deterrent. Create a circumstance in which people think, "Oh, here they are!"
- If bikers get caught several times due to their dangerous behaviors, they should be forbidden to ride bikes (for a certain period).

(Sheet 4)

- The police and local communities should cooperate and go out on patrol so that offenders will be conscious of being watched constantly.
- When the patrol troops find offenders, they should not only warn them but also explain why their actions are wrong so that they can understand the danger.
- Put up posters that plainly explain the danger of accidents at places where people gather.
- Install surveillance cameras on roads that are wide and where people tend to speed or get into accidents.
- So that those delinquents can see that those cameras are there.

(Sheet 5)

- It would be nice to have a cell phone that gives a "warning" when we exceed a certain speed.
- Make cars so that they cannot speed to begin with.
- Install a speedometer to bikes, too, just like in cars, and establish a lawful speed limit.
- Create a system that alerts the police if drivers exceed or attempt to exceed a speed limit.