

The Study of English Teaching Methodology
Utilizing Physical Learning from
Cross-curricular Viewpoints:
Elementary School and Junior High School
English Teaching for Communication Skills

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Chapter 1

Introduction

The present English language education policy in Japan does not necessarily lead to improving communication skills. For elementary schools, their main emphases tend to be on how children enjoy learning English through singing, dancing and playing games. Although these enjoyable activities may motivate children to study English, it has not been proved what aspects of the activities are effective for the development of communication skills. For junior high schools, while New Government Guidelines for Teaching, which were announced in 1998 and enforced in 2002 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), state the importance of “practical communication skills” for foreign language education, there are some unfavorable problems.

First, the emphasis in English teaching methodology has been on uniformity, disregarding the existence of various types of learners, as represented by large-size classes and evaluation based on written tests. How can learners acquire communication skills in the silent classroom associated with a teacher-centered instruction? Second, for entrance examinations, learners may show knowledge of linguistic forms, but have little opportunity for language use. How can they communicate with others outside the classroom without any practical use of language? Third, with the narrow discussion in the framework of one subject “English,” there is a limit to developing overall English proficiency, not to mention communication skills.

Considering these problems, this study aims to examine how effective English teaching methodology using the body or hands is in developing communication skills, both in elementary schools and junior high schools. Using the body or hands does not only mean moving them simply, but also solving problems with them, producing products and other complex physical activities closely linked with communication. Interestingly enough, the effectiveness of these physical activities in developing communication skills may differ on the part of learners between elementary schools and junior high schools. This physical English learning is also examined over the existing framework of English from cross-curricular viewpoints especially in the case of junior high schools.

Before discussing physical English learning, it is necessary to define communicative competence and communication skills. In chapter 2, in order to clarify how the theories concerning communication have changed since the 1960s, some celebrated scholars are listed. The early studies focus on Hymes, Widdowson, and Canale and Swain's theories with the expanding concept of communicative competence. Then Krashen and Terrell's "Natural Approach" is picked up to consider the role of grammar as the Monitor and "comprehensible input" in natural communication, while Swain lays stress on the role of "comprehensible output." In the 1990s, Scarcella and Oxford's "Tapestry Approach" further expanded the concept of communicative competence into non-verbal fields and suggested some significant points for the acquisition of communicative competence on the part of instructors. In recent years, Brown (2001), who used the term of "communication skills" instead of "communicative competence," attempted

to define them in view of diverse proficiency levels and language skills. It is needless to say that all the above-mentioned theories are examined in the context of English teaching. At the end of chapter 2, the author's own definition will be presented for further specific study in the following chapters.

On the basis of the definition of communication skills, in chapter 3, physical English teaching and learning in elementary schools will be discussed in theory and practice. Theoretically, Piaget's classification of child cognitive development is adopted to give a rationale to the necessity of concrete physical learning for elementary school children, in contrast to that of abstract physical learning for junior high school students. Also, chapter 3 refers to Asher's "Total Physical Response (TPR)," which is generally thought to be suitable for beginning English learners. It is important to discuss the advantages and disadvantages of Asher's theory in developing communication skills. Practically, the author of this paper first surveys the goals and content of "The Hiroshima Type of English Curriculum," which was experimentally introduced in the fifth and sixth grades of model elementary schools of Hiroshima City in 2007. Next, the author discusses some practical examples of English classes in the fifth and sixth grades, from the perspective of physical English learning with the aim of developing communication skills. This discussion is chiefly based on a field study of one of the model schools, Noborichou Elementary School (NES), with the total of 125 students in both grades. Finally, for enhancing communication skills more effectively, the possibility of introducing cross-curricular English teaching into elementary schools will be suggested

in chapter 3.

Comparing with the theory and practice of elementary schools, chapter 4 handles physical English teaching and learning in junior high schools. Although a number of studies have proved Asher's TPR to be favorable in elementary schools, the effectiveness of his theory in junior high schools is doubtful, especially in terms of communication. Instead of it, Howard Gardner's new idea of bodily-kinesthetic intelligence (BKI) will be applied to junior high school English teaching. In chapter 4, therefore, the author studies to what extent Gardner's theory is significant in gaining communication skills of junior high school students, while spotlighting learners' diversity with multiple intelligences, more opportunity for English use, and cross-curricular viewpoints of Physical Education (PE), mathematics, science, music and other subjects. Gardner's theory of multiple intelligences, including BKI, has been already applied to practical classes of Armstrong (1994; 2000) and Christison (1996) in America, where the practices indicate positive learning effects for communication. Without any practice in Japan, however, a questionnaire survey of physical English learning was conducted for 140 second-year junior high school students in Hiroshima. Besides the survey, the author's class observations in the participating school over a long period will reveal how Gardner's theory is effective for improving communication skills.

It is unlikely that teaching methodology to promote communication skills effectively has been established in elementary and junior high schools. Thus, this paper aims to open a new door for English teaching in light of physical learning, cross-curriculum, and multiple intelligences theory.

Chapter 2

Approaches to Communicative Competence and Communication Skills

1. Hymes, Widdowson, and Canale and Swain's Theories

Since the Chomsky's theory of language acquisition had emerged in the decade of the 1960s, linguistic competence had been discussed in the field of grammatical knowledge, and a number of linguists had been interested in the variety of grammatical constructions acquired by learners. Thus English teaching methodology with their emphasis on grammar had not necessarily developed communication skills.

Hymes (1972), one of those who expanded the former concept of linguistic competence into the field of communication, focused on how we should convey our intentions to people we engage in conversation. He paid close attention to communicative competence acquired by learners and its importance in their language development. According to Hymes, grammatical knowledge is meaningless unless it is used in an appropriate way for individual situations. In the context of English education, his idea implies that our practical use of language is more important than our theoretical knowledge of language.

Similar to Hymes' insistence, Widdowson (1978) also states that the past English teaching based on school grammar is far apart from usual communication activities. This is because even if learners can make grammatically correct sentences like "This is a pen" and "I am walking," they cannot apply these sentences to a real scene without any knowledge of

how these are used outside the classroom.

Widdowson made a clear distinction between the two terms of “usage” and “use.” “Usage” is to make a correct sentence with some grammatical knowledge. On the other hand, “use” is to utilize this acquired knowledge for effective communication. As Widdowson points out, learners need to become proficient in “use” as well as “usage” in order to perform meaningful verbal communication with another person.

Relating to the definition of communicative competence, Canale and Swain (1980) and Canale (1983) proposed the following four areas of knowledge and skills.

- a) **Grammatical competence** includes the knowledge of vocabulary, word-formation rules, pronunciation, orthography, and sentence structure. This competence is essential because grammatical rules and language use are closely related to each other. Without any knowledge of grammar, our communication would be limited to only specific situations.
- b) **Sociolinguistic competence** includes the knowledge of utterance acts such as imperative/request expressions (Open the window/Would you please open the window?) and apologetic ones (Sorry/I’m very sorry). With this competence, speakers can change their own language into a suitable form for listeners, while they adjust the degree of courtesy and politeness.
- c) **Discourse competence** enables learners to connect a language form with its meaning and to constitute a consistent spoken or written text

peculiar to respective genres and situations. When speakers have this competence in a spoken language, they can start their conversation with a proper greeting expression and make it run smoothly without any unnatural breaks.

- d) **Strategic competence** is used to compensate for a lack of grammatical knowledge and the above-mentioned competences. This competence is necessary for actual communication because it improves the efficiency of communication or adjusts the suspended communication through paraphrase and euphemism.

What Canale and Swain (1980) and Canale (1983) mentioned certainly conveys significant messages to English education for communication. To begin with, both scholars suggest the necessity of grammatical knowledge to promote communication on a wide range of topics. But grammatical competence must be complemented by sociolinguistic competence. In other words, grammatical knowledge will be of practical use as long as speakers can choose an appropriate language form for listeners in request and apology. Indeed, since even grammatically correct sentences may hurt others' feelings with an impolite language form, English education is obliged to prevent this risk for more smooth communication. The views of Canale and Swain (1980) and Canale (1983) have something in common with those of Hymes and Widdowson in terms of the relations between knowledge of linguistic forms and language use. Next, the importance of discourse competence seems evident under the necessity to keep consistency of the conversation. In order for learners to notice its various rules and develop this competence,

English education needs to introduce a lot of interactive activities into the classroom, with emphasis on the exchange of meaning. Further, strategic competence is important as well in the classroom environment. This is because each learner can challenge a higher level of communication with this competence. Considering all these competences, Canale and Swain (1980) and Canale (1983) highly contribute to the increasing number of important factors, relevant to English education, for effective communication.

2. Krashen and Terrell's "Natural Approach"

Krashen and Terrell (1983) advocated one of the most influential models in developing communicative competence called "Natural Approach," which consists of five input hypotheses. Of these, there are two important hypotheses to be considered in relation to communication. One is the Monitor Hypothesis. While Krashen and Terrell assumed that learners develop their knowledge both through acquisition and learning, only the acquired competence was thought to be responsible for initiating speech. They believed that the learned competence as the Monitor acts to modify the output of the acquired competence. This means that the learned knowledge of grammar merely plays the role of the Monitor and does not necessarily lead to natural communication in itself.

The other is the Input Hypothesis which is central to Krashen and Terrell's model. In this hypothesis Krashen proposed a concept of "comprehensible input" which bears some relevance to the effective development of communicative competence. He defined learners' current state of knowledge as i and the next step as $i+1$. That is to say, "if the

students understand most of what is said, *i+1* is supplied for everyone, and language acquisition will take place” (Krashen and Terrell, 2000, p.72). In the context of language education, Krashen’s idea (1985, p.2) has some implications for the classroom as follows:

- a) Speaking is a result of acquisition and not its cause. Speech cannot be taught directly but “emerges” on its own as a result of building competence via comprehensible input.
- b) If input is understood, and there is enough of it, the necessary grammar is automatically provided. The language teacher need not attempt deliberately to teach the next structure along the natural order— it will be provided in just the right quantities and automatically reviewed if the student receives a sufficient amount of comprehensible input.

In contrast to Krashen’s “Input Hypothesis”, Swain (1985) also proposed “Output Hypothesis,” which means that learners need to communicate their knowledge to others in the most productive and suitable way. His study on a French immersion class in Canada shows that those learners who are good at listening and reading frequently make simple grammatical mistakes in speaking and writing. Based on these findings, Swain claims that “comprehensible output” plays an important part in the second language acquisition. This will be similarly applied to developing communicative competence. There is no doubt that output as well as input is an essential factor for language use in the classroom environment. Indeed, one of the largest reasons why most Japanese cannot speak English

well will be attributed to few opportunities for speaking practices in English classes.

3. Scarcella and Oxford's "Tapestry Approach"

Scarcella and Oxford (1992) gave an extended interpretation of Canale and Swain (1980) and Canale's (1983) framework of communicative competence. For instance, they treated guessing in context (in reading) and brainstorming and modification (in writing) as communicative competence, as well as paraphrase and euphemism. In addition to Canale and Swain's verbal strategies, Scarcella and Oxford claimed that non-verbal ones such as gestures and eye contact frequently play an important role in communication.

In "Tapestry Approach" advocated by Scarcella and Oxford, there are some important principles which instructors should follow in order for learners to acquire communicative competence most effectively. First of all, instructors should make learners contact an extensive language register through role playing, simulation, and problem-solving activities in and outside the classroom. It is noticeable that within this register each learner is given a lot of opportunities for interaction. Second, instructors need to use as much authentic language as possible, so that learners can acquire natural communicative competence. Third, instructors should place great stress on meaning, because how we understand the intention of speakers and writers through interaction is an essential part of communicative competence. Finally, other principles are to promote bilateral communication activities with feedback from other learners, to give learners an opportunity for presentation based on their own reflections, to make the most of a

cooperative learning group to smooth communication activities among shy learners, and to provide learners with a number of scenes and activities to use various communication skills.

4. Brown's Definition of Communication Skills

Brown (2001, pp.98-112) refers to communication skills in all the four areas of listening, speaking, reading, and writing in an integrated way and classifies these skills into three different proficiency levels. "Skills" imply something more practical and technical than "competence." Besides, "skills" involve more concrete means and goals to acquire with an effort for effective communication, while "competence" is something general and innate. At the beginning level, listening and speaking skills intend to introduce meaningful and authentic communication tasks to attain many communicative functions, although these tasks are limited by grammar, vocabulary, and length of utterance. In topics, reading and writing skills are confined to brief but nevertheless real-life written materials. Beginners' reading is effective in advertisements, forms and recipes, while written work may involve forms, lists, and simple notes and letters.

At the intermediate level, listening and speaking with communicative goals increase their linguistic complexity steadily. "Along with the creation of novel utterances, students can participate in short conversations, ask and answer questions, find alternative ways to convey meaning, solicit information from others, and more" (2001, p.109). Reading materials are also characterized by increasing complexity in terms of length, grammar, and discourse. Students are expected to read paragraphs, and short, simple

stories, and to use skimming and scanning skills. Writing materials similarly become more sophisticated.

At the advanced level, the listening and speaking skills that students need to acquire are all the sociolinguistic nuances of language. In particular, pragmatic constraints increasingly become important as students adjust their production and comprehension. Reading and writing skills equally progress closer to native-speaker competence as students learn more about critical reading and writing related to one's profession.

When we discuss communication skills, we tend to focus on listening and in particular speaking. However, Brown's suggestion makes us notice the necessity to consider all the four skills in a balanced way. Picking up only one of these is not enough to talk about English learning for communication skills. Another important Brown's suggestion concerns a proficiency level of each learner. None of the English teaching methodology to improve communication skills is effective without carefully examining his/her present state of language knowledge.

5. Defining Communication Skills

Taking all the above-mentioned definitions of communication skills into consideration, the last thing to do is to present the author's own definition of communication skills. First, term "skills" rather than "competence" is used in this paper because its main focus is on the physical aspects of English learning. The author of this paper highly evaluates non-verbal communication skills through gestures and other bodily activities as well as verbal communication skills. Second, adopting partly Canale and

Swain's views and partly "Tapestry Approach," this paper claims that communication skills are closely related to interaction for mutual understanding of meaning. In this sense the development of communication skills should not be based on unilateral activities from instructor to learner but on bilateral activities between the two parties or among just learners. Third, as seen in Hymes and Widdowson's insistence, language use is more important than language usage in actual communication. In other words, as "Natural Approach" also implies, mere knowledge of grammar does not necessarily lead to useful communication skills outside the classroom. Fourth, similar to Brown's definition, the development of communication skills should be attained through the four integrated language skills. What is more, this development should be deliberately achieved in accord with the proficiency degree of each learner.

Chapter 3

Physical English Learning in Elementary Schools

1. The Theories of English Education in Elementary Schools

In Japan the issue of the introduction of English education in elementary schools is still controversial (see Ohtsu, 2005; Hayashi, 2007). With regard to the necessity of elementary school English education, MEXT (2006) states that elementary school children can make use of their flexible adaptability to a new language and develop their positive attitudes towards communication through English study. Matsukawa (2003) also points out that homeroom teachers can play an important role in promoting children's positive participation in English study because they understand children's individuality in the instructions of other subjects. On the other hand, quite a few people oppose the introduction of English education in elementary schools. Some of the reasons are that studying foreign language at this stage may have a harmful influence on the acquisition of the mother tongue, that children tend to forget easily what they studied, that there is a lack of instructors for the unestablished teacher education system, and that the study of other subjects may be prevented in the reduction of the class hours. Although these various issues can be seen in opposition to the introduction of English education, the main point of issue is focused on the importance of the first language and cognitive development. In chapter 3, first of all, it needs to be considered from the viewpoints of child cognitive development and language acquisition around this age.

1.1. Piaget's Classification of Child Cognitive Development

Piaget (1959; 1972) asked two important questions: "How does the child think?" and "How does he speak?" As a result of his research, Piaget revealed the close relationship between language and cognition. He claimed that cognitive development is at the heart of the human organism, and that language is dependent upon and originates from cognitive development, as the result of children's interaction with their environment. To put it simply, children's language development is highly determined by the degree of their established cognition about the world.

With this idea of language and thought, Piaget argued that children's cognition develops rapidly throughout the first sixteen years of their life. He classified the course of children's intellectual development into the following four various stages:

- 1) Sensorimotor stage (birth to two)
- 2) Preoperational stage (ages two to seven)
- 3) Concrete operational stage (ages seven to eleven)
- 4) Formal operational stage (ages eleven to sixteen)

After the first stage, where infants' cognition of objects is largely based on their senses and movement, according to Piaget, children continue to assume an ego-centric nature of thought without any understanding from the viewpoints of others. The second stage enables children to picture their simple images and to internalize them into easy language expressions, as seen in playing doctor and playing store, although they cannot achieve

operational cognition such as a long-term memory and a reversible way of thinking. Piaget states that “childish ego-centrism seems to us considerable only up till about 7 or 8, the age at which the habits of social thought are beginning to be formed”(1959, p.127). Namely, this decentralized process is caused by the fact that children have more and more opportunities for socialization and interaction with others at school and other public places. In this third stage, therefore, it is possible that children understand others’ positions, acquire the concept of conservation of numbers and quantity with reversible operation, and think logically about concrete scenes and tasks. Beyond the range of this concrete experience and direct perception, in the fourth stage, children become capable of abstraction and of formal thinking. With scientific experiments, they also begin to develop deductive thinking on the basis of a hypothesis.

To apply Piaget’s theory of developmental stages of thinking to the context of English education, a crucial distinction can be found between the concrete operational stage (relating to practical examples of elementary schools in chapter 3) and the formal operational stage (relating to those of junior high schools in chapter 4). Because the former emphasizes visible and concrete work with the help of external materials, a number of physical English activities are likely to be effective including singing songs with bodily rhythms, playing physical games, dancing, showing gestures for communication, and memorizing words with picture cards. By contrast, because the latter emphasizes invisible and abstract work with internal imagination of our brain, these same activities are not always suitable for junior high school students over the age of 11. Rather, some of the

effective physical English activities may involve role-playing of social issues discussed by learners from scenario to performance, scientific experiments and observations with abstract reasoning, and problem-solving with a body or tools to find out a multidirectional solution, all of which require a higher level of interaction and communication skills.

The concrete operation is similar to the concept of basic interpersonal communicative skills (BICS), which consist of accent, oral fluency and sociolinguistic competence. On the contrary, formal operation is similar to the concept of cognitive/academic language proficiency (CALP), which is strongly related to general cognitive skills and linguistic proficiency used in classroom exercises and tests. The distinction between BICS and CALP was proposed by Cummins (1980, p.176). Cummins' sociolinguistic competence is similar to that of Canale and Swain (1980), and develops students' communicative competence. Thus, in order to develop communication skills, Piaget's theory as well as Cummins' theory provides us with significant implications of what kinds of physical learning activities are effective for elementary schoolchildren in the fifth and sixth grades.

1.2. Asher's TPR for Elementary Schoolchildren

As an example of physical English teaching methodology, it is important to take up "Total Physical Response" (TPR), advocated by Asher (1977; 2003). In this methodology, learners are required to use their whole body to express what they heard from instructors and to do other related physical activities in the classroom. When we take Piaget's theory of children's intellectual development into account, without a doubt, Asher's

TPR is effective for English learning in elementary schools. This is partly because children around this age enjoy moving around in their learning environment, partly because starting with listening and speaking is thought to be the natural order of English study similar to that of the first language acquisition, and partly because the instructions closely linked with the body and classroom objects are very understandable, even in all English.

However, does Asher's TPR truly lead to the development of communication skills? To examine this, we cite an outline of "Class One" of *TPR in First Year English* edited by Asher (1985; 2006, pp.1-3) which is likely to target elementary schoolchildren. This class consists of some parts. First of all, in "Introduction," the instructor reads the following ten commands as quickly as possible:

- | | |
|--------------|------------------------|
| 1. Stand up. | 6. Jump. |
| 2. Sit down. | 7. Point to the door. |
| 3. Walk. | 8. Point to the chair. |
| 4. Stop. | 9. Touch the table. |
| 5. Turn. | 10. Touch the window. |

Then the instructor asks three or four volunteers to come to the front of the classroom, utters the commands with his/her own performance, and indicates with gestures to these volunteers to do what the instructor is doing at the moment. In "Expansion of Utterances," the instructor shows the students as he/she utters the commands the first time, and has them do it, too. After the students have some confidence, the instructor lets the students do it

by themselves without showing them. In “Novelty,” the students are asked to practice slightly different sentences from the original ten commands by changing some words partly. For example, they need to listen to “Point to the table” (for 7 and 8) and “Walk to the chair and sit down” (for 2, 3, and 8) with their physical demonstration. And finally, in “Introduction of New Vocabulary,” the instructor introduces such new items in commands as “light” and “clock,” using them with the verbs already introduced.

Despite some effectiveness in the field of listening, this TPR class is unlikely to promote children’s communication skills. It is possible to indicate some reasons for this in light of the author’s above-mentioned definition of communication skills. First, all the instructions and gestures are unilateral from the instructor to the students. Without any bilateral interaction, this physical teaching methodology highly ignores the mutual exchange of meaning as one of the most important features of communication skills. Second, the only thing the students do in this class is to practice the same sentence with some slight changes again and again. Just as seen in the Audiolingual Method, it has been already proved that this type of mechanical pattern practice is not involved in flexible and creative communication skills. Judging from the criticism of Scarcella and Oxford, learners are expected to acquire practical communication skills, while thinking on their own and expressing their intentions more freely through various meaning-centered activities. Third, the given artificial and stereotyped sentences seem to be limited to language “usage” (in Widdowson’s views) and to be valid only in the classroom. This means that learners may have difficulty in understanding how to use these sentences in actual communication activities

outside the classroom.

Bearing in mind this theoretical background on communication skills, child cognitive development, and physical English teaching methodology, the next section focuses on some class examples of the elementary school English education program which has actually been introduced in Hiroshima City. Through these class examples, this section is to examine what kinds of English learning activities are effective for communication skills, mainly from the viewpoint of physical aspects.

2. The Practice of Elementary School English Education

2.1. The Hiroshima Type of English Curriculum

In March 2007, “The Hiroshima Type of English Curriculum” was announced ahead of the coming commencement of nationwide English study for elementary schools planned by MEXT. Herein, English, as one of the formal subjects, was experimentally introduced into two research and development elementary schools (Yasunishi and Noborichou) on the basis of a three-year plan. This introduction aims to ease children’s burdens and facilitate a smooth transition to study English at junior high schools by putting a stress on listening and speaking activities at elementary schools.

2.1.1. Goals for English Study

The Hiroshima Type only targets elementary schoolchildren in the fifth and sixth grades in light of its balance with Japanese and other subjects. As for class periods, one 45-minute class and three 15-minute classes a week, equal to the total of 70 hours a year, are arranged for English study in each

grade. The goals in both grades (Hiroshima City's Board of Education, 2007) similarly refer to the importance of communication skills with some slightly different descriptions between the two as below:

- A. The goals in the fifth grade are to make learners notice the difference of language and culture by country, to improve their basic abilities in listening to and speaking English, and to develop their attitudes towards communicating with others enjoyably, through English activities.
- B. The goals in the sixth grade are to make learners notice some rules of word connections, to improve their basic abilities in listening to and speaking English, and to develop their attitudes towards communicating with others positively, through English activities.

2.1.2. Content of Instruction for English Study

The Hiroshima Type mainly targets listening and speaking skills, partly because children around this age are still flexible in acquiring these skills and partly because the number of those who like English is expected to increase through various enjoyable activities with a spoken language. This fact may have a favorable influence on junior high school English education.

There are two gradual stages for the content of instruction. In the fifth grade, listening skills, paying a close attention to English pronunciation and accent, are taught to understand familiar and simple instructions, and to understand easy conversations and songs. Speaking skills are taught to carefully imitate English pronunciation and accent, and

to exchange greetings and other simple words in English. In the sixth grade, paying a close attention to English rhythm and intonation, and understanding easy stories and tales are added to those fifth grade listening skills. Also, having an everyday conversation with English rhythm and intonation, and asking and answering questions about oneself and something familiar are added to those fifth grade speaking skills. The most important thing here is how these learning activities are effective for the development of communication skills, which should be later considered through some English class examples.

Concerning the content of instruction, some other important points are considered. First, because this instruction gives priority to children's familiarity with English, they are not forced to memorize words and give presentations. This may help to create a friendly and relaxed atmosphere for communication. Second, despite its emphasis on listening and speaking, some opportunities to have contact with Romanized letters are gradually provided depending on children's intellectual development, in order to increase their interest in the alphabet and spelling. As Brown mentions, it is necessary to acquire the four integrated skills for effective communication. Third, children are not asked to learn grammar or sentence structure consciously. According to this methodology of instruction, these will be unconsciously acquired through verbal communicative activities. As already shown in Krashen and Terrell's theory, it is desirable that grammar or sentence structure will automatically appear on its own through a sufficient amount of comprehensible input (in case of Swain, output as well) in preparation for junior high school English education.

Moreover, it is interesting to see the distinction in teaching content between a 15-minute class and a 45-minute class. The former short class centers on vocabulary learning while children are seated and have some mechanical repetition of pronunciation. On the other hand, the latter long class, based on the acquired knowledge of vocabulary, introduces a number of physical learning activities, including singing songs with bodily rhythms, showing physical expressions with English, and attempting communication with the assistance of gestures.

2.2. Class Examples and Discussion

Looking at one of the two public model elementary schools, Noborichou Elementary School (NES), this paper discusses some of its class examples mainly from the standpoint of physical English learning targeted at communication skills. NES, located in the central part of Hiroshima City, has two classes in the fifth grade (68 students in total) and two classes in the sixth grade (57 students in total). Each English class is generally taught in cooperation of a homeroom teacher and an ALT. In accordance with “The Hiroshima Type of English Curriculum,” NES puts particular emphasis on the development of communication skills and on English teaching methodology, making use of the body, such as gestures, hand clapping, big smiles and eye contact. Uniquely, this school also aims to improve children’s ability to express themselves on the basis of their own thinking and cooperative learning both through Japanese and English classes.

2.2.1. The Fifth Grade

One of the fifth grade English classes utilizing physical learning at NES is a class titled “How is the weather?” (2007-6-21). The goal of this class is to understand weather expressions and get used to them. Its evaluation standards are that learners can communicate with their friends enjoyably using weather expressions, and that they can listen to words related to weather and ask some questions about weather. After greetings and a song, a physical activity called the “Gesture Game” is introduced in the middle of the class. In this game, first of all, children are expected to pronounce some words related to hotness and coldness by repeating after the instructor. Then they are asked to make a gesture about the weather expressions that the instructor pronounces. Most importantly, the learners need to think about this gesture on their own and change the words they heard into their original physical expression. An example of the gestures can be enumerated as follows:

- It’s hot. Fanning their face with their both hands.
- It’s humid. Wiping their sweat off their face.
- It’s warm. Opening their arms as they feel comfortable.
- It’s cool. Stroking the opposite arm with one hand.
- It’s cold. Shivering.

Finally, after a lot of listening and physical activities, the learners and the instructor totally exchange their roles. This time the instructor makes gestures of the weather and the learners guess and answer in English.

Despite some repetition of pronunciation and the pattern practice of answering, a series of learning activities are to some extent appreciated in terms of physical English learning. One of the important reasons is that these activities are not always stereotyped. Different from the above-mentioned TPR example, thinking about a gesture in this class apparently requires flexibility and creativity on the part of the learners, which is thought to be linked with effective communication in the author's definition. The other important reason is that these activities are not unilateral, from the instructor to the learners, but rather bilateral with the changing roles of the two. This bilateral verbal or non-verbal interaction is also considered significant for communication skills in the author's definition.

In addition to this class example, another physical learning activity can be seen in a class featuring "Numbers" (2007-11-29). A certain part of this class requests the learners to sing a song titled "Seven Steps." While children obviously enjoy singing the song, this activity is not just limited to their enjoyment. Interestingly, they are asked to understand the words of the song and to move their body in harmony with its meaning. Although to enjoy oneself often becomes a strong motivation to learn English, an activity without any understanding of teaching materials is useless and mere "play." On the contrary, this study's focus on understanding of the meaning may lead to more positive attitudes towards communication.

2.2.2. The Sixth Grade

As further examples of physical English learning, it is interesting to

cite two more classes in the sixth grade, both of which adopt a learning activity of “playing a game.” One is a class about “My Favorite Things” (2007-7-6). In the latter half of the class, children play two consecutive games. The first one is a card game called “Nervous Breakdown” where two sets of picture cards are prepared for each group and children turn up two cards one after another. Each stage of the game, closely linked with bodily movement, gives a lot of opportunities to use English through asking and answering questions such as “What sport do you like? — I like soccer” and “How many cards do you have? — One, Two, Three” The second one is a research game where children need to move around, ask as many friends as possible about their favorite sport in English, and write it down in a card. Both the homeroom teacher and the ALT also join this activity to check and promote children’s conversations. These two games include not only enjoyable bodily activities, but also many interactive activities in English between the learners and the two instructors or among children, the latter of which seems to be important in the development of communication skills. However, a big problem can be found in this class. That is to say most of the learners’ speaking activities are based on the similar pattern practice with few variations. As Hymes implies, it is not certain to what degree their language knowledge, acquired through artificial game activities, can be applied in the appropriate way into individual situations. In Widdowson’s views, it is doubtful whether these conversations are regarded as “use” instead of “usage.”

The other class concerning “What do you want?” (2007-11-29) clearly attempts to create an everyday communication scene in the classroom. The

outline of an English learning activity called “Let’s go shopping!” consists of the following five points. Children should;

- 1) Collect their original dinner moving around shops.
- 2) Complete dinner after collecting six kinds of staple foods, a side dish, vegetables, fruits, drinks and sweets.
- 3) Enter the shop and have the following conversation.

Customer: Hello!

Salesclerk: What do you want for dinner?

Customer: I want rice.

Salesclerk: How many?

Customer: I want five.

Salesclerk: Here you are. (In case of no cards, “Sold out.”)

Customer: Thank you.

Salesclerk: You are welcome.

Customer: Bye bye.

- 4) Return to their own group and change their role into a salesclerk after all the six kinds are collected.
- 5) Introduce their original dinner in English after all members of a group finish this activity.

Based on the author’s class observations (2007-11-29), it is necessary to discuss and evaluate some points of this sixth grade role-playing activity. First, it is highly evaluated that children’s physical expressions play an important part in communication throughout this learning activity. For

example, children pronounce all drink items of cola, milk, cocoa, and coffee on the cards before choosing one, while they point to all these items one by one with their fingers. And they often use gestures and facial expressions (eye contact and big smiles) in conversation with their partners. There is no doubt that all these physical expressions help to make mutual communication more enjoyable and understandable.

Second, despite some fixed patterns of the conversation, this class seems to have more freedom and flexibility in communication activities than the last class (2007-7-6). For example, in the model conversation, children are willing to use different expressions which they have already learned, especially with greetings and gratitude. In explaining their original dinner in English, they also enjoy a free conversation with their friends. This changing attitude may make it possible for children to acquire more practical communication skills. Obviously, output as well as input plays an important role in this sixth grade class.

Third, in Scarcella and Oxford's "Tapestry Approach," it has been already shown that to use as much authentic language as possible is important for the acquisition of natural communication skills. Judging from this idea, this material is partly useful but partly not so outside the classroom, because it is partly authentic but partly not so. For example, the salesclerk's utterance of "What do you want for dinner?" after the customer's one of "Hello!" is unnatural without knowing the intension of the customer at this stage. No mention on prices is strange in contrast to real life conversation. These matters are clearly caused by simplification suitable for elementary schoolchildren. Too much simplification is also likely to

generate some inappropriateness in the degree of courtesy and politeness from the viewpoint of sociolinguistic competence proposed by Canale and Swain. In any case, it is difficult to say exactly how authentic this material is. However, the most important point is that the degree of authenticity is considered to influence the effective development of communication skills.

2.3. Proposals for Cross-curricular English Learning in Elementary Schools

The results of the class observations at NES showed some limitations especially in the criteria of language use and the four integrated English skills. As more effective English teaching methodology in enhancing communication skills, therefore, the author makes a suggestion that cross-curricular viewpoints should be introduced in elementary schools. This does not mean that all subjects should be taught in English as seen in an immersion school, but means that a part of the content of other subjects should be incorporated into English classes by rotation every week. For example, learners may study science content in English this week and PE content in English next week.

There are some advantages in this rotated cross-curricular English learning. First, since we live an everyday life with the knowledge of various subject areas, this natural learning environment may make it possible for learners to use authentic language even in the classroom. Undoubtedly, this authenticity is closely linked with the natural development of communication skills. Second, similar to the content-based instruction, the cross-curriculum requires learners to integrally use the four language skills.

For example, can we study arithmetic content effectively just by listening and speaking? Apart from calculating mentally, we need to read a difficult problem and solve it by writing numerical formulas and sentences. This necessity will develop more balanced communication skills. Third, the cross-curricular study treasures learners' individuality. Some children like social studies and other children like music. So studying English with their favorite subjects is likely to produce the utmost effects of language study. The rotated cross-curriculum will also maintain their motivation for English, while singing and playing games every time are sometimes boring. Fourth, learning English in other subject areas provides learners with a variety of communication scenes, where they can unconsciously acquire a wide range of vocabulary. This is clearly different from the vocabulary study by mechanical pattern practices as is the case with many elementary schools. Finally, other advantages of the cross-curricular English study are to make the most of the characteristic of elementary school teachers basically in charge of all subjects and not to disregard the study of other subjects by reviewing their learning content in English, while some critics regard playing games as a waste of time.

Chapter 4

Physical English Learning in Junior High Schools

1. Background: Theory and Practice

1.1. Asher's Theory and its Practice for Junior High School Students

American psychologist James J. Asher (1977; 2003) paid attention to children's acquisition of a first language, where they had many listening activities with physical responses, such as holding objects, moving around and staring before speaking. Asher also noticed that the function of the right brain of action associated with the motor nerve precedes that of the left brain of language processing. As a result of these facts, he developed a teaching methodology of "Total Physical Response," literally meaning that learners react with their whole body to the words they heard. The advantages of this methodology are to increase the frequencies of learners' exposure to English without any intervention of their native language, to make learning content more understandable, memorable and even enjoyable with the help of action, and to give the natural order of language acquisition from listening to speaking, which initially reduces learners' tension of speaking and finally causes the continuity of their English study. But some problems can be observed in the application of Asher's theory into practice in junior high schools. The following example is an extract from a first-year English immersion class of Physical Education (PE) at *K Private Junior High School* in Tokyo.

All right. Stand up. Stand up, everybody. Left leg straight. *Left leg*

straight. Let's stretch. Switch. Switch. *Switch*. (with actions of jumping and changing legs) Left leg forward. *Left leg forward*. Good! Right leg straight. *Right leg straight*. Relax! Relax! Shake. Shake.....(with swinging legs) Hey, look! Right leg crossed. Right leg crossed.....*Right leg crossed*. Down. Down. (with bending the upper body down) Touch your toes. Touch your toes.....*Touch your toes*. (* Italic words show a joint utterance of teachers and students.)

(This citation is based on oral production in an animation class of Kosei, 2006)

The above scene of warm-up exercises suggests that the overuse of imperative sentences is likely to result in a unilateral teaching methodology from teacher to student, rather than in bilateral communication between the two or among students. In chapter 2, the author has already realized the importance of bilateral learning activities to facilitate communication skills, on the basis of Scarcella and Oxford's "Tapestry Approach." Another problem is that this class centers chiefly on listening, except for learners' oral repetition of several stereotyped expressions. It is questionable how reading and writing as well as listening and speaking could be acquired as integrated skills in this methodology. Similarly, the author has already shown that the integration of these four language skills is indispensable for the development of communication skills, adopting Brown's insistence. Although Asher's TPR has some effect on listening skills for beginners, the application of this theory is not enough to achieve balanced communication skills of more advanced junior high school learners.

1.2. Howard Gardner's Theory and its Practice

Howard Gardner (1983; 2006), who specializes in psychology at Harvard University, advanced a novel theory of multiple intelligences that ran counter to our traditional notion of IQ, mainly based on literate and calculating abilities. According to Gardner, human beings have more or less eight different forms of innate abilities, including linguistic, logical-mathematical, visual-spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal and naturalist intelligences. While all these intelligences are considered to have equally important educational implications, the main points of bodily-kinesthetic intelligence (BKI) we are to treat in this paper can be summarized on the basis of some of Gardner's elaborate books (1993; 1999) as follows:

1. BKI entails the ability "to solve problems" or "to fashion products" using one's whole body, or parts of the body (like the hand or the mouth). So the learning activities of BKI are incorporated not only into PE but also into all other subjects.
2. BKI is closely linked to the function of the motor cortex which each controls bodily movements on the contra-lateral side. This fact means that BKI is not the unconscious activity induced by a behavioristic view of stimulus-response but the conscious one demanding learners' deliberate intakes and schemes before their actual output.
3. The evidence of the cognitive features of body usage, inherent in BKI, consists in the ability to use one's body "to express an emotion (as in a dance)," "to play a game (as in a sport)," or "to create a new product

(as in devising an invention).” It is not favorable to degrade use of the body against the mind, because these physical performances involve an enormous amount of computation, practice, and expertise, just in the same way that solving a complicated mathematical equation needs the high ability for information processing. That is why BKI plays an important role to bridge a gap between cognition and action.

4. Concerning the movement for the enhancement of BKI, it is believed that going through certain motions activates or exercises specific intelligences. Again, this intelligence is effectively utilized when we actively “solve a problem” or “fashion a product” valued in society. Purposeless or meaningless learning activities, such as simply moving arms and running/crawling around, generates the least educational effects irrelevant to BKI.

In America, some educators have already attempted to apply Gardner’s theory of BKI to practical classrooms. Armstrong (1994; 2000) indicated the validity of physical learning from the standpoint of increasing one’s retention, understanding and imagination. He also integrated one’s BKI-oriented learning activities into academic subjects like math, science, and social studies as well as into practical skill subjects like PE and technical arts. His ideas give the teaching of English two important points. One is that Armstrong’s practice is most likely to promote communication skills based on learners’ creative conceptions instead of training hackneyed expressions. For the class models featuring “cell mitosis,” “supply and demand” and “subtraction of numbers,” learners are required to translate

abstract linguistic or logical information they read in a textbook or listen to from an instructor into concrete bodily-kinesthetic one. To put it simply, they need to express these specific terms or concepts through physical gestures and movements as a means of better communication. The other is that his practice can provide more opportunity for communication and interaction among students. In the group learning of dramatizing or role playing scenes of photosynthesis and a battle, each learner might enjoy communicating with their peers in the broad situations where they discuss the details of a drama script, cast the parts of a play, give a verbal and bodily performance, and exchange their comments on its results.

Furthermore, Christison (1996) proposed to introduce lessons teaching with BKI and other intelligences into foreign language classrooms. When her discussion focuses on learning activities regarding BKI, the instructor first asks learners to describe an object in the light of its sensory properties of sight, sound, smell and touch, or its directions for use. To be concrete, learners are asked to answer the following questions as “How does your object smell?” “How does it feel?” and “What is it used for?,” but not to show the object to each other. Their task is to walk around and describe the object by giving their partners the answers to the questions. This guessing activity on physical senses is initially conducted in a small group in order to facilitate communication among group members with feeling little embarrassment. Then the instructor makes a larger group, prepares 20 or more cards with the names of animals or objects written on the cards and tapes a card to each learner’s back. Asking and answering questions such as “Is it as small as a dime store novel? Is it soft? Hard?” all the learners

move around and show their cards to the partners until they have spoken with five of them. This bodily activity involving listening and speaking, not sitting down before they find out what is on their cards, will continue for about 10 minutes. After this stage, the instructor puts many questions about today's lesson on the board and learners read the questions, write their own reflections on what they learned with their hands, share their comments with the partner, and finally join a large-group discussion. Undoubtedly, a series of these BKI-centered activities makes it possible for learners to acquire four skills of listening, speaking, reading and writing in an integrated way. Another noteworthy point is that the whole class finishes by suggesting the application of BKI and other intelligences into learners' daily lives outside the classroom, such as solving problems and challenges in the real world.

1.3. Comparison between Asher's and Gardner's Theory

Asher's TPR and Gardner's BKI have something in common, since both ideas pay attention to the function of the brain on physical activities, deepen one's understanding of the lesson content with the utilization of one's body and increase opportunities of English use. However, there are significant differences between the two. TPR is apt to fall into stereotyped and unilateral communication skills, drawn from listening-centered learning for beginners. On the other hand, BKI can develop flexible and bilateral communication skills closely tied to more balanced and integrated learning. In addition, it can meet a higher level of learning content through problem-solving and information processing. Therefore, it seems

appropriate that BKI rather than TPR should be applied to advanced learners with diversity at junior high schools.

1.4. Research Questions

Based on the above discussion of two American scholars' theories and practices, this paper mainly focuses on BKI in contrast to TPR. Although we have already seen some practices of BKI in ESL situations like America, the pedagogy directly adopting this intelligence has not yet been practiced in EFL situations like Japan. Because of this fact, alternatively, the author of this paper will take up the case of a Japanese junior high school that teaches PE and other subjects in English, relate its class activities to BKI, and assess the learning effects of this pedagogy. From the viewpoint of the introduction of BKI to EFL learners in Japan, three research questions are presented as follows:

1. How do learners anticipate English study using BKI in various areas of subjects other than PE?
2. Of all the learning activities making use of BKI wholly or partly, can we recognize any differences in the effect of each activity on English study as learners feel?
3. What are the advantages and problems in incorporating the subject content of PE into junior high school English education?

2. Method

2.1. Participants

140 second-year students from five classes at A Private Junior High School in Hiroshima participated in this research. Except for only three returnee children, the majority of the students started to study English with alphabet learning in earnest when they entered this private school. All participants already had ten 45-minute English classes a week in the first year and were having eight in the second year for the total of forty class periods. This means a quarter to one-fifth of all the classes are English in the school curriculum. These students have also studied math, science, PE, music and other subjects with the considerable ratio of English.

2.2. Participating School: Educational Goals and Teaching Methodologies

A Private Junior High School has been recently established and targeted at Japanese children who intend to play an active part in the world. Its educational goals are stated in the following:

1. English is “a common language” in today’s global society and a means of communication. A Private Junior High School positively introduces English into the instruction of subjects except for Japanese and social studies so that children can acquire English as a means of communication and have a good command of it. (A School, 2006a, p.4)
2. Each subject never exists as a simple substance. The abilities and thoughts to be developed in one subject are always related to the ones

in other subjects. Our class places great importance not on memorizing the knowledge but on developing the ability to use it. The acquired ability can be used in various scenes beyond fences among subjects. (A School, 2006a, p.5)

Derived from A School's belief in "not to learn about English but to learn in English," the first goal reveals that communication skills should be cultivated through many subject domains. To upgrade academic ability, the second goal emphasizes the importance of actual use of the knowledge, "language use" in the case of English, over the established frame of each subject.

Concerning the methodology of instruction, A School takes a team teaching system of Japanese and foreign teachers in each class of 27-29 students, with a variety of textbooks and supplementary materials. For communication skills, this private school also adopts a methodology of learner-centered instruction, where individuals of a small group think on their own, discuss and solve problems closely associated with their real life. Although A School's English education is not necessarily based on the theory of multiple intelligences, interestingly enough, a number of tasks using the body and hands given in PE and other subjects have some relevance to the definition of BKI.

2.3. Procedures and Analysis

To give answers to the three research questions, an unsigned questionnaire survey was carried out for 140 above-mentioned participants. This questionnaire uses both answering methods of multiple-choice and free-description types. In analysis the former adopts a four-point scale with the indicators of percentages, the mean and standard deviation values, while the latter reflects participants' honest opinions on this survey. Further, various learning activities set in the questionnaire are based on the author's on-site class observations as many as possible and partly based on class practices introduced in A School's official blog. Finally, the English learning effect of A School students can be measured by TOEIC results taken two times.

3. Results and Discussion with Class Examples

3.1. English Learning with BKI in Various Subjects for Communication Skills

Traditionally, Japanese learners used to sit down and listen to instructors in the uniform way, when they studied English and other subjects. But not all the learners have preferred this type of study. Rather, the results of the survey show that quite a few learners expected English study using their body or hands in various areas of subjects, not to speak of PE.

Table 1 Interest in English Study Using the Body or Hands (BKI)
by Subjects

N=140 (% of 140)

	1. Very	2. Fairly	3. Not very	4. Not at all	Mean	SD
①Math	32 (22.9)	63 (45.0)	32 (22.9)	13 (9.3)	2.19	0.89
②Science	42 (30.0)	67 (47.9)	23 (16.4)	8 (5.7)	1.98	0.84
③Music	18 (12.9)	50 (35.7)	43 (30.7)	29 (20.7)	2.59	0.96
④Fine Arts	21 (15.0)	48 (34.3)	43 (30.7)	28 (20.0)	2.56	0.98
⑤PE	61 (43.6)	57 (40.7)	12 (8.6)	10 (7.1)	1.79	0.88
⑥Design Technology	43 (30.7)	63 (45.0)	25 (17.9)	9 (6.4)	2.00	0.86
⑦English	30 (21.4)	69 (49.3)	29 (20.7)	12 (8.6)	2.16	0.86

Judging from the total of “Very” and “Fairly” (Table 1), learners’ expectations for this learning methodology were high in math (67.9%), science (77.9%), Design technology (75.7%) and English (70.7%), other than PE (84.3%), but relatively low in music (48.6%) and fine arts (49.3%). As far as it is based on our class observations, this difference is attributed to how each student can enjoy his or her interactions with others while engaging in BKI-centered activities (mentioned below). In the former subjects the instructors frequently divided the learners into a small group for communication and provided them with a lot of opportunities for their interactions. In contrast, such an opportunity was limited in the latter when the learners sang a song or painted a picture.

Looking at two class examples making the most of BKI, the first example is a science class with the theme of “Sound” (2006-11-07). In this class the instructor raised a question of “Light travels in a straight line. What do you think how sound travels?” To find an answer to this question, the learners framed their own hypotheses, exchanged their opinions about them in a small group and finally verified them in the whole class. One important point for communication skills is that this class focused on how intelligibly the learners convey their thoughts to others through the means of making gestures (of the body and hands) and drawing illustrations. The other important point in a series of activities is that in the process of the verification the learners were required to study English using their physical senses on the characteristics of the traveling sound.

The second example is a sequence of two English classes featuring “Planet” (2007-5-31/6-08). In the former half of the classes, after reading about the planet, the learners carefully listened to the instructor’s exposition as to how they would create an imaginary planet with plants, animals, and minerals on it. Then each of the learners joined a small-group discussion about the potential planet, designed it on a work sheet and actually produced their own model planet of fermented soybeans, cheese, fruit and the like. At the same time, they wrote some explanatory notes beside the planetary design they drew up ,while answering such questions given by the instructor as “Is your planet a liquid, solid, or a gas?” and “What has your planet got (trees, flowers, rocks...)?” In the latter half of the classes, each learner gave a presentation in front of the whole class, physically exhibiting the model planet of their own making. These

BKI-centered activities will be fully appreciated partly because of enabling the integrated learning of four English skills for more balanced communication (as seen in Brown's views) and partly because of expanding their vocabulary knowledge in science, both of which can be attained only by the cross-curriculum methodology of incorporating science content into the English class. Importantly, individual interests in learning content and ways are diverse, so some students can improve their English ability through science study with BKI activities.

3.2. The Differences in the Effect of Learning Activities with BKI on English Learning

Comparing the total of "Very" and "Fairly," Table 2 shows that the effects of painting (27.2%), dancing (45.7%), cooking (45.7%), and singing (53.6%) on English study unexpectedly record low numerical values of all the learning activities utilizing BKI wholly or partly. If the similar questionnaire is conducted in an elementary school, these figures must be higher. For second-year junior high school students, however, the physical learning activities which simply obey the instructions of the teacher and need fewer interactions among students, especially in practical skill subjects, are likely to lead to the negative effect of English learning.

Table 2 Effect of Learning Activities Using BKI on English Study

N=140 (% of 140)

	1. Very	2. Fairly	3. Not very	4. Not at all	Mean	SD
① A drama with role playing	48 (34.3)	66 (47.1)	21 (15.0)	5 (3.6)	1.88	0.79
② Learning while making products	32 (22.9)	65 (46.4)	33 (23.6)	10 (7.1)	2.15	0.86
③ Painting and sculpture	6 (4.3)	32 (22.9)	73 (52.1)	29 (20.7)	2.89	0.77
④ Learning with a dance /exercises	15 (10.7)	49 (35.0)	58 (41.4)	18 (12.9)	2.56	0.85
⑤ Experiments and observations	46 (32.9)	64 (45.7)	23 (16.4)	7 (5.0)	1.94	0.83
⑥ Cooking practices	20 (14.3)	44 (31.4)	54 (38.6)	22 (15.7)	2.56	0.92
⑦ Experience learning outdoors	48 (34.3)	68 (48.6)	13 (9.3)	11 (7.9)	1.91	0.86
⑧ Explanation with gestures/designs	45 (32.1)	60 (42.9)	29 (20.7)	6 (4.3)	1.97	0.84
⑨ Physical games	33 (23.6)	63 (45.0)	32 (22.9)	12 (8.6)	2.16	0.89
⑩ Singing with bodily rhythms	25 (17.9)	50 (35.7)	47 (33.6)	18 (12.9)	2.41	0.93
⑪ Presentation	84 (60.0)	39 (27.9)	12 (8.6)	5 (3.6)	1.56	0.80
⑫ Problem-solving with the body/tools	30 (21.4)	55 (39.3)	42 (30.0)	13 (9.3)	2.27	0.90

In contrast, the activities which involve a high level of communication skills in a group typically in academic subjects are considered to generate the desired effect of English learning. Some of the class examples in science (①/②) and math (⑦/⑫), all of which make the abstract content more concrete and understandable with BKI activities, can be summarized as follows:

- Role playing of noise pollution (e.g. a construction site, a noisy car and a police officer, etc.) whose cast and scenario are decided by the talks in a group (2006-11-09).
- Learning about the cause, effect, and control of sound while making a poster/model and discussing the topic in the cooperation of the group of 4-5 students (2006-11-18).
- Learning by experience in the tennis court where the learners grope for the effective measurement way of the white-line areas through their interactions (2006-05-23).
- Problem-solving learning where each learner thinks about how they demonstrate the Pythagorean theorem with really cutting paper in various triangles and how effectively they communicate with others to find out a multidirectional solution (2006-11-16).

Another remarkable point in Table 2 is that the English learning effect of presentation is strong (87.9%) in the total of “Very” and “Fairly.” Presentation is an integrated learning activity of BKI in using gestures for communication, logical-mathematical intelligence in making its logical

thread, linguistic intelligence in persuading others by words, and visual-spatial intelligence in using images. It was found that the activities intertwining BKI with various intelligences were very effective for English study.

3.3. Advantages and Problems in Incorporating PE Content into English Teaching

Table 3 indicates that 60 % of the learners enjoy learning PE with English more or less. Some reasons for this enjoyment are interests in English learning to move their bodies, the easiness of terms for sports, and natural language acquisition with fun. Other reasons have a close relationship with the importance of communication as seen in the free descriptions as “In playing sports we need verbal communication” and “The content of PE is easier to communicate in English than the one of other subjects.” On the contrary, the majority of those who can not enjoy English PE points out the difficulty in hearing complex sport rules and in the teacher’s way and speed of speaking. To solve this, it is desirable to paraphrase technical terms and use gestures for a plain explanation.

It is also shown in Table 3 that 55% of the students appreciate the effects of English PE on language learning to some extent. By English skills acquired in PE classes (Table 4), listening (92.1%), speaking (68.6%), and words and phrases (60.7%) were high in the total of two favorable factors, while reading (40.8%), writing (34.3%), and grammar (22.9%) were relatively low. Nevertheless, these 20-40% positive answers largely originate in a fully worked-out PE class at A School. In a class example of

“Basketball” (2007-05-18), the learners read and understood the meaning of each exercise the instructor put on the whiteboard beforehand and wrote their impressions of its practice afterward. Evidently, reading and writing activities are integrated into this PE class.

Table 3 Pleasure and English Learning Effect of PE Classes with English

N=140 (% of 140)

	1. Very	2. Fairly	3. Not very	4. Not at all	Mean	SD
Pleasure	26 (18.6)	58 (41.4)	43 (30.7)	13 (9.3)	2.31	0.88
Learning effect	14 (10.0)	63 (45.0)	46 (32.9)	17 (12.1)	2.47	0.83

Table 4 Acquired English Skills in Learning PE with English

N=140 (% of 140)

	1. Very	2. Fairly	3. Not very	4. Not at all	Mean	SD
①Listening	73 (52.1)	56 (40.0)	6 (4.3)	5 (3.6)	1.59	0.74
②Reading	11 (7.9)	46 (32.9)	59 (42.1)	24 (17.1)	2.69	0.85
③Writing	13 (9.3)	35 (25.0)	67 (47.9)	25 (17.9)	2.74	0.86
④Speaking	35 (25.0)	61 (43.6)	29 (20.7)	15 (10.7)	2.17	0.93
⑤Grammar	5 (3.6)	27 (19.3)	64 (45.7)	44 (31.4)	3.05	0.81
⑥Words and phrases	30 (21.4)	55 (39.3)	40 (28.6)	15 (10.7)	2.29	0.92

3.4. English Learning Effect in TOEIC Results

A School's second-year students first took TOEIC in September, 2006 and their average score was 540, strikingly higher than the 2005 national average of high school/university students (383/435). The second TOEIC they took in January, 2007 recorded 619 on average. Undoubtedly, these scores prove the students' English study effects, though TOEIC does not always measure communication skills.

Chapter 5

Conclusion

This paper attempted to clarify the effectiveness of utilizing the body or the hands in learning English, especially with the purpose of developing communication skills, both in elementary schools and junior high schools. Referring to the theories of communication skills, child cognitive development and physical English learning (TPR and BKI), the author discussed the practices of both schools, chiefly based on actual class observations and a questionnaire survey. As a means of promoting communication skills, cross-curricular viewpoints were also complemented to this discussion.

In order to establish the framework for talking about physical English learning, chapter 2 has focused on the gradually expanding concept of communicative competence and communication skills since the 1960s. In the beginning phases, Hymes and Widdowson thought it important to actually use the grammatical knowledge so that learners can acquire communicative competence. In addition to grammatical competence, Canale and Swain expanded its definition into sociolinguistic, discourse, and strategic competences, all of which are essential for effective communication. As for the role of grammar, Krashen and Terrell proposed the Monitor Hypothesis that grammar merely acts as the Monitor of the unconsciously acquired knowledge. Another proposal called the Input Hypothesis led to the big difference between Krashen and Swain. In the context of English teaching, Krashen's idea implied that enough

comprehensible input would automatically result in natural communication with speaking and grammar. By contrast, Swain emphasized the necessity of comprehensible output in the classroom, which has long been one of the weakest points in Japanese English teaching. Furthermore, expanding the concept of communicative competence, Scarcella and Oxford mentioned the significance of non-verbal competence. At the same time, they pointed out the necessity of instructors' arrangements for an extensive language register involving interaction, authentic language, the exchange of meaning, and various types of bilateral learning activities with feedback from others, in order that learners can acquire communicative competence. In the last decade, Brown's study, replacing "competence" with "skills," indicated that each part of listening, speaking, reading and writing constitutes the whole of communication skills at the different proficiency levels.

Looking at all these theories, chapter 2 clarified several important criteria concerning communication skills, which should be attained by elementary and junior high school learners. To sum up, these include the importance of (1) language use rather than knowledge of linguistic forms, (2) non-verbal skills such as gestures and other physical means as well as verbal ones, (3) interaction or bilateral learning activities, and (4) the four integrated English skills.

By these criteria of communication skills, chapter 3 discussed theories and practices of physical English learning in elementary schools. To begin with theories, the examination of Piaget's classification of child cognitive development clarified a great difference of effective English learning between the concrete operational stage (ages seven to eleven) and the formal

operational stage (ages eleven to sixteen). In other words, concrete physical learning is suitable for elementary school children, while abstract physical learning is desirable for junior high school students. According to Piaget's theory, therefore, effective physical English activities in elementary schools may range from singing songs with bodily rhythms, playing physical games, showing gestures for communication, and dancing, to memorizing words with picture cards. Adopting Piaget's theory, the examination of Asher's TPR suggested some favorable effects of physical English learning for elementary school children, because TPR activities enable children of this age to enjoy moving with listening and understand the study content with the help of the body and classroom objects. In view of enhancing communication skills as defined above, however, some unfavorable effects can be seen in Asher's theory. First, the instructions and gestures by TPR are not interactive or bilateral but unilateral, which does not lead to the mutual exchange of meaning as an inherent purpose of communication. Second, mechanical pattern practices do not generate flexible language use outside the classroom. Third, learners can not acquire balanced communication skills through too concentrating on listening. Thus, Asher's TPR does not necessarily enhance genuine communication skills.

The latter half of chapter 3 deals with practices of physical English learning in elementary schools. Its aim is to investigate "The Hiroshima Type of English Curriculum" that targets the fifth and sixth grade children mainly in the areas of listening and speaking. The results of the field study of some class examples at NES showed that there were both positive and

negative aspects for the enhancement of communication skills. One of the positive aspects is that a number of non-verbal skills as well as verbal ones are utilized in the English classes with the aim of making mutual communication more enjoyable and understandable. These physical learning activities include gestures of the weather, moving the body in harmony with the song's meaning, card games involving bodily movement, pronouncing and pointing to the drink items with the fingers, and various facial expressions (eye contact and big smiles). Another positive aspect is that gestures and other bodily activities are not always stereotyped and unilateral, but rather creative and bilateral. Importantly, these activities are based on learners' own ways of thinking and the changing roles of students and teachers, which will enable learners to acquire flexible communication skills. On the other hand, the negative aspects concern language use and the four integrated English skills. For the former, artificial materials and too much simplification may cause unnatural communication outside the classroom. For the latter, reading and writing are not considered in earnest in the Hiroshima Type. In order to overcome these disadvantages, finally, the author proposed to introduce cross-curricular viewpoints into elementary school English education. For enhancing communication skills, this cross-curricular English study will be effective in terms of language authenticity, the content-based instruction integrating the four language skills, English teaching methodology making the most of individuality, and the natural acquisition of vocabulary in various subject areas.

In comparison with chapter 3, chapter 4 discussed theories and

practices of physical English learning in junior high schools. First of all, the study of Asher's TPR and its practice at *K School* in Japan indicated some effects of physical English learning especially on listening skills for junior high school learners. But it was proved that the repetition of uniform imperative sentences led only to stereotyped and unilateral learning activities. In enhancing communication skills, therefore, TPR is not always an effective bodily teaching methodology for more advanced learners at junior high schools.

Then the author proposed to apply Gardner's BKI as a substitute for TPR into this stage of English education. As a result of the examination of his theory and its practices in America, the advantages of this BKI-centered teaching methodology were to develop flexible and bilateral communication skills through the various kinds of creative physical activities in a small group, to enable more balanced communication through the integrated learning of four skills with BKI than with TPR, and to meet highly abstract content by using their bodies or making a product while tying it to real life.

Last of all, because there have been no BKI practices in Japan, a questionnaire survey was conducted at *A School* to consider the possibility of introducing BKI into EFL learners. Related to gaining communication skills, the analyses of this questionnaire suggested three significant points. First, English study with BKI is more or less anticipated in various subjects other than PE. More importantly, this English education from cross-curricular viewpoints can provide numerous communicative scenes for English use and meet diverse needs for English study with each learner's best subjects. Second, enjoyable physical activities such as "dancing" and

“singing” are not so desirable for second-year junior high school students. They rather prefer the BKI activities demanding advanced communication skills with “problem-solving” and “information processing,” which are more effective for English study. This difference between elementary and junior high schools has a close relevance to Piaget’s theory of concrete and abstract learning activities. Third, the analyses show the beneficial learning effects of listening, speaking, and words and phrases in incorporating PE content into English education, but how other skills should be integrally taught is for further investigation.

For Further Study

There are two problems to tackle for the future study. One is about multiple intelligences theory. While this paper focused on BKI, it is necessary to examine how other seven intelligences can be effectively applied to elementary school and junior high school English teaching in Japan. The other is about cross-curriculum. In order to introduce cross-curricular viewpoints into Japanese English teaching, it is also required to consider the relationship between English and Japanese language, issues of a lack of instructors, and an effective combination of English and other subjects.

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Appendix

アンケート

中学2年生 クラス名 ()

＊ このアンケートは、体育およびその他英語で学ぶ科目について、体を動かしたり身体を利用することによる学習効果を見るためのもので、テストではありません。

< 1 > あなたが①～⑦の科目を**英語で学習する時**、手や体を使って、自ら課題に取り組んだり相手とコミュニケーションをとったりする学習が好きですか。下の1～4から一つ選んで () 内に番号を書いてください。

- ①数学 () ②理科 () ③音楽 () ④美術 ()
⑤体育 () ⑥技術家庭 () ⑦英語 ()

- | | |
|--------------|--------------|
| 1. とても好きである | 2. まあまあ好きである |
| 3. あまり好きではない | 4. 全く好きではない |

< 2 > あなたがいろいろな科目を**英語で学習する時**、①～⑫のような学習活動はどの程度**英語の勉強になる**と思いますか。下の1～4から一つ選んで () 内に番号を書いてください。

- ①役割を決めた劇 () ②実際にものを作りながらの学習 ()
③絵を描いたりや彫刻 () ④ダンスや体操しながらの学習 ()
⑤理科の実験や観察 () ⑥技術家庭の調理実習 ()
⑦教室外での体験学習 () ⑧身振り・手振り・図を使って説明 ()
⑨体を動かすゲーム () ⑩体でリズムをとりながらの歌 ()
⑪プレゼンテーション () ⑫体や道具を使う問題解決学習 ()

- | | |
|-------------------|------------------|
| 1. とても英語の勉強になる | 2. まあまあ英語の勉強になる |
| 3. あまり英語の勉強にはならない | 4. 全く英語の勉強にはならない |

また、その他に英語の勉強になると思う学習活動があれば自由に書いてください。
()

< 3 > あなたは体育で、スポーツなどを**英語で学習することは楽しい**ですか。以下から一つ選んで番号を○で囲んでください。また、楽しい(楽しくない)理由があれば、具体的に自由に書いてください。

1. とても楽しい 2. まあまあ楽しい 3. あまり楽しくない 4. 全く楽しくない
()

< 4 > あなたにとって、体育の授業は**英語の勉強になりますか**。以下から一つ選んで番号を○で囲んでください。

1. とてもなる 2. まあまあなる 3. あまりならない 4. 全くならない

< 5 > あなたが体育を**英語で学習する時**、①～⑥のような項目はどの程度学べるといいますか。下の1～4から一つ選んで () 内に番号を書いてください。

- ①リスニング () ②リーディング () ③ライティング ()
④スピーキング () ⑤文法 () ⑥単語や熟語 ()

- | | | | |
|-----------|------------|------------|-----------|
| 1. とても学べる | 2. まあまあ学べる | 3. あまり学べない | 4. 全く学べない |
|-----------|------------|------------|-----------|

また、その他に体育の授業で、英語に関し学べることがあれば自由に書いてください。
()

ご協力ありがとうございました。

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