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Shiritori Card Game:

A *Hiragana* Learning Activity for the Introductory Level

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## Abstract

Many researchers and educators consider the application of games to the classroom settings appropriate. They particularly recognize that cooperative games help students learn better by providing meaningful, authentic settings, lowering anxiety, and promoting motivation for further learning. However, *Karuta* game, which is often used as an activity for mastering hiragana, is competitive and lacks the features of learning enhancement. Therefore, it may not be suitable for the early stage of mastering hiragana. To compensate the shortcomings of *Karuta*, the author developed *Shiritori* card game, which is cooperative and better suited to the period that student has not yet reached in the mastery of hiragana.

## Introduction

Various positive effects of games and activities are recognized in different educational fields by many researchers and educators including Japanese language instruction. In this paper, the application of the *Karuta* game, one of the traditional card games in Japan which is widely used by native children, to students' learning *hiragana* will be examined and the *Shiritori* card game, which is developed for the purpose of compensation for the shortcomings of *Karuta* game, will be introduced.

In order to justify the application of games in classrooms and evaluate *Karuta* and *Shiritori* card games from various perspectives, the contribution of games to education will be first reviewed, followed by a debate between cooperative and competitive activities, including games, in classroom settings. And then different aspects of the *Karuta* game will be examined based on the issues discussed in the first two sections. The introduction of the *Shiritori* card game will follow the evaluation of *Karuta*.

### Contribution of Games to education

Games seem to be applied to classrooms in many different fields. If you search on the internet and academic databases, a great number of educational games and research papers on the educational application of games can be found. Some examples are as follows: mathematics (Kraus, 1981; Powell, Cangelosi, & Harris, 1998), music (Howle, 1997), social studies (Marsh, 1981; Wolf & Myerscough, 2008), stock market (Lopus & Placone, 2002), pharmaceutical education (Persky, Steall-Zanation, & Dupuis, 2007), media (Delwiche, 2006), Religion (Shapiro, 2000), Language (Morrison, 2002) and ESL (Ersöz, 2000; Huyen & Nga, 2003; Kim, 1995; Saricoban & Metin, 2000). While the application methods and means vary between the games, the researchers and educators agree that such activities create authentic settings in a classroom for students' realistic experience, help their learning, and promote their motivation.

There are, of course, both up sides and downsides in the application of games to leaning. Cruickshank and Telfer (1980) point out positive and negative features of game applications as follows. Positive features are, for example, to promise the students real-world experience and allow them to actually solve the problems rather than remaining outside observers: games are also "psychologically engaging" (p. 77) since the realistic settings are safe to fail and fun. On the other hand, the negative features are, for example, that if the teacher is not familiar with the game and skeptical about its effect, she may be hesitant to use it as a part of her teaching and cause confusion to the students due to her poor instructions: games can be time consuming and expensive: games are not the center of teaching the target material. However, it is quite obvious that many researchers and teachers consider the benefit of games much greater than the negative aspects.

The benefits of learning through authentic experience are closely related to the mechanism of forgetting and remembering. Brown argues that the materials which are learned in meaningful contexts are more likely retained in memory storage while the ones which are learned as an isolated item rather disappear (2000, p.86 – p.89). Since the meaningful contexts can ultimately be considered as realistic contexts, it can be said that games provide the learners with the meaningful context through authentic experience.

*Connectionist's* approach to memory also explains why the authentic settings created by games can help learning. Gee (1992) argues that there is a number of neuron-like networks in mind which work as tools by which we play memory games in order to engage in social practices. Connectionist's theory explains that when two particular objects or events occur many times in the same manner, an association between these two units will be created in the networks in mind. And each of these two units is also connected to other units, and by the first two units being activated, "other units" are also activated. From this chain of activation of different units, one can take a chunk of information out of his mind as memory.

Gee also claims that the ties of such networks can be strengthened by repeated similar, if not the same, experiences (p. 123 – p. 124). The problems are that students can easily get bored on repetition of works, especially on lower-level skill trainings. They may also get frustrated in solving higher-level tasks when working alone. The application of games to classrooms can most certainly make such repetition of similar experience possible in enjoyable ways.

Games seem to greatly contribute to learning from the perspectives of the lateralization of left and right hemispheres as well. Lateralization is particular functions being assigned to either left or right hemisphere. It is widely known that the logical, analytic functions are largely assigned to the left hemisphere and the process of emotional, intuitive message is assigned to the

right hemisphere (Brown, 2000; Danesi, 1987; Wheatley, Mitchell, Frankland, & Kraft, 1978, Baumgarte & Franklin, 1981; Fromkin, Rodman, & Hyams, 2007). Such separate function assignments once biased educational methodology. Education of mathematics and language, for example, were considered to better focus on logics and analytical thinking, thus left hemisphere oriented learning, while education of music and art on emotional and intuitive aspect, thus right hemisphere oriented learning.

However, more recently, joint operation of two hemispheres is emphasized. Brown (2000), for example, explains that “the left and right hemispheres operate together as a *team*” (p.118) and argues for the benefit of right-brain oriented activities such as games in the language classroom context. The interaction between right and left hemisphere in language learning is also emphasized by Danesi (1987) and Fromkin, Rodman, and Hyams (2007). In mathematics education, Wheatley, Mitchell, Frankland, and Kraft (1978) argue that problem-solving and higher-ordered thinking skills benefit from right hemisphere oriented instructions. In music education, too, Baumgarte and Franklin (1981) claim that the participation of both hemispheres is the key to success. Taken into account such emphasis of joint operational features of both hemispheres, the authentic context that games can provide to the classroom seem to have positive effects in learning of the subjects, particularly those which tend to have bias to left hemisphere orientation.

#### Cooperative vs. Competitive

Classroom activities including games can be divided into two types by nature, cooperative or competitive, and games are no exception. The operational characteristics of cooperative activities are that members of a group work together to achieve their mutual goals in highly organized, social setting. Since all the participants are rewarded by reaching the goals, the

climate of the classroom is often pleasant. Competitive activities, on the other hand, are characterized by having one, or a few winners who have outperformed others. While such competition can be exciting and stimulating, there is a great risk that the classroom atmosphere becomes hostile and students suffer anxiety because so many have to experience failure.

Taking these characteristics into account, cooperative activities are generally considered better suited to educational settings. Compared to individual competitors, members of a cooperative group better engage in activities (Johnson & Johnson, 1974) and better deal with higher-order thinking or problem-solving tasks (Johnson & Johnson, 1974; Qin, Johnson, & Johnson 1995) and also lower-level tasks such as memorizations (Qin et al., 1995). Calderón, Hertz-Lazarowitz, & Slavin (1998) also found that Hispanic students in transitional bilingual programs benefit from cooperative activities in their transition to reading in English.

Another issue that needs to be considered is learning anxiety. Anxiety is known to be harmful to learning, particularly language learning. When anxiety becomes serious, students may not participate to activities in classroom, for example, or may even refuse to communicate in the target language (Young, 1991, p. 430). Creating what is called *safe place*, where students can make mistake without experiencing embarrassment, is emphasized in language learning settings.

Another question from the anxiety issues is whether cooperative or competitive games help teachers create such safe spaces. In order to answer this question, it is important to understand the cause of such anxiety. Social anxiety emerges from the perspectives of students' self-evaluation in comparison with their evaluation of others. Based on this perspective, Young (1991) argues that low self-esteem and competitiveness are the two major sources of anxiety. She explains that generally speaking, the structure of competitive games that produces mass failures with one winner in the classroom can easily cause anxiety. The effect is even stronger on

the low self-esteem students who tend to evaluate themselves low. Wight (2006) also points out that competitive games are potentially “destructive, making players anxious” (p.1). This is supported by the interesting result of Hurlock’s experiment with children, in which he found the members of a “failure” group remain poor players throughout the experiment period (cited by Johnson & Johnson, 1974, p. 224). They all argue that competition between individuals do not create a safe space and can possibly damage such a space.

Considering the relationship between the source of anxiety and competitiveness, cooperative activities and games seem to better suit to classrooms. According to Johnson and Johnson (1974), cooperative activities promote students positive attitude toward tasks and subject area. They also help them to develop better relationship with the teacher and classmates. The good human relationship can certainly be the base of safe space in classroom.

Then, are competitive games completely unsuitable to classroom settings? Oxford (1997), warns us the possibility that not all students may benefit from cooperative activities (p. 445). There seems to be some perspectives that competitive activities can be beneficial under certain condition and in limited use. For example, Johnson and Johnson (1974) claims that learners are rather willing to match their skills and abilities and see who will win in safe space, or low-anxiety environment (p. 231). Brown (2000) also points out the anxiety that actually helps students in learning, which is called *facilitative anxiety* (p. 151). Since such positive anxiety is closely related to competitiveness, it may not be realistic to completely dismiss competitive activities from learning settings. Perhaps, the students are at the similar mastery level, for example, and when their friendship has been established, some competitive games may work well as a stimulus to students’ motivation for further learning.

Taking all the aspects discussed above, it seems to be reasonable to conclude that as cooperative activities are more appropriate in classroom instructions. However, if teachers decide to use competitive games, they must plan the activity with a great caution. Whichever type of games and activities is used, they should be learning enhancement rather than the cause of learning anxiety.

#### Issues of *Karuta*

Just as any foreign language learning, learning Japanese is challenging in many areas such as grammar, conjugations, and vocabulary. Among these difficulties, *hiragana* acquisition is one of those which the students must deal with in the very early stage when they have not even grasped the idea of Japanese writing system. Although many students start the course with a strong image of *kanji* as Japanese characters, which are the ideographic characters borrowed from Ancient China, as Japanese characters, they first have to deal with hiragana, one of two sets of syllabaries, each of which contains forty-six characters. Mastering hiragana is often perceived as not only a challenging but also boring and rather discouraging because unlike *kanji* hiragana is phonetic symbols each of which does not have any meanings.

To make this matter worse, the task of mastering hiragana often depends on the student's individual effort, because in the course curriculum which aims at developing all four skills, reading, writing, listening and speaking, instructors are required to teach many different aspects of the language within the extremely limited time. Such a lonely task as memorizing 46 individually meaningless phonetic symbols one by one at home, isolated from the social interaction, can certainly accelerate boredom and discouragement.

Thus, in order to solve the issues of boredom associated with the memorizing task and to enhance learning, *Karuta* has been widely used as an effective activity. *Karuta* is a traditional

card game in Japan, in which the participants, a group of 4 to 6 ideally, compete against each other by collecting the letter cards on which pictures are also printed. *Karuta* cards come in two types: one each of which contains a poem and the other each of which complementarily contains a hiragana letter. The hiragana letter cards are all spread on the floor (or a large table) right in the middle of the participants in circle. The teacher reads aloud a poem on a card once, but at the end of the poem, says the designated sound, usually the sound at the very beginning of the poem. The participants respond to it by finding the card that contains the hiragana letter which represents the sound. When this task is completed, the teacher reads the next poem and the procedure is repeated. The participant who has collected the cards most is the winner. Since 46 letters are all presented in front of the participants, finding a particular letter can be quite challenging and thus great activity for letter recognition.

*Karuta* is actually a very popular family game among native speakers of Japanese for the purpose of their children's hiragana acquisition. Children learn letters and polish their letter recognition skills through the game, while they also enjoy the poem which is read immediately before the letter to be found is pronounced. Thus, *Karuta* is a very authentic material with regard to the letter acquisition. And by introducing this game to the classroom, teachers can provide non-native speakers of Japanese with authentic cultural experience.

However, there are a few critical problems with using *Karuta* in the early stage of learning hiragana. First, in the language classroom setting, *Karuta* becomes the game that treats each letter merely as a discrete item, because the poems that actually provide native children players with the meaningful settings are completely meaningless to the non-native participants at the beginner level. While it may work well to match a sound and its representing symbol, it lacks "real examples" of how those symbols are used in the language and thus lacks meaningful setting.

Second, each letter has the student's attention only once and momentarily during the game. Based on the theories of memory mechanism previously discussed, such features less likely contribute to the participants mastering hiragana. Therefore, it is not practical to expect the participants to learn the letters not yet mastered through the game.

Third, *Karuta* is a competitive game which produces one winner and makes all others failures. As previously discussed, competitive games are discouraged by many researchers and educators in language learning settings. And if it is chosen to be used, students need to be ready for the game by their mastery level, and teachers need to proceed with a great caution to minimize the anxiety which may cause negative effect on students learning in the future.

*Karuta* game lacks the effect of learning through the game and in the meaningful settings. At the same time, since it is a competitive game, anxiety is inevitable. Therefore, it seems to be reasonable to conclude that *Karuta* may not suit as an activity at the early stage when they are still trying to memorize them, but perhaps after students completely or nearly mastered the entire set of hiragana.

#### The Feature of *Shiritori* Card Game

In an attempt to overcome the shortcomings of *Karuta* discussed above, I developed the *Shiritori* Card Game. It is carefully designed not to lose *Karuta*'s up-side features such as solving the boredom of simple memorization and exposing students to the authentic Japanese culture. *Shiritori* is one of authentic Japanese games just as *Karuta* that the participants make a chain of words by presenting the word that begins with the last syllable of the word that the last player has presented. For example, if the game started with the word *shiritori*, the first player says the word that begins with /ri/ such as *ringo* (apple). The next player takes the last syllable of this word, that is, /go/, and says the word that begins with /go/ such as *goma* (sesame seeds).

Thus the game continues until one of the players cannot continue this chain any longer. And this player loses the game.

While the original *Shiritori* game challenges the participant's vocabulary, *Shiritori* card game challenges the Japanese-learner's letter recognition; instead of searching for a word in one's vocabulary, the participants choose a card which has the word written in hiragana that begins with the last syllable of the word presented by the last player. As turning in the card, the player is required to read the word loud to the members of the group. As a team, each group attempts to make a longer chain of words; the longer, the better.

Unlike the original form which produces one failure, *Shiritori* card game does not produce any failures because the result depends on the order of the words and the participants cannot single out who did wrong. For example, when the card which contains the word that begins with /mo/ is to be found, the players find a few choices of such cards. Depending on which one is chosen, the following chain of words becomes different. Since players have a few selections for every sound, it is nearly impossible to figure out which card really caused a "short" chain. It is more likely caused by a multiple wrong connections of words, which are not identifiable. Therefore, there is no particular failure. Perhaps they failed as a group. However, since failing the game is not due to their lack of language ability but rather a bad luck, there is no threat to the participants. In fact, they can immediately start a new chain of words as long as the time permits.

Since words on the cards are solely formed with hiragana letters, the participants will naturally grasp an idea how such a set of syllabary as hiragana can be used in the writing system. This is impossible in *Karuta* game in which hiragana letters are treated as discrete items. At the

same time, the meaning(s) of each word is provided in English, so that the learners who know English can play the game in semantically meaningful contexts.

With regard to the issue of learning through games, unlike *Karuta*, the participants have plenty of time to examine the letters and repeatedly encounter them during the game. Since a part of the game procedure requires the learner not only find a card but also read the word on it aloud to the members, the connection between visual and audio information will be strengthened every time the participants take their turn. This process corresponds to the mechanism of memory, which allows the participants to work on the letters not yet mastered through the game.

In addition to this, the participants can identify the letters they have not mastered yet through the game. Therefore, they can intentionally focus on those letters to memorize during the game and in other occasions. It is particularly important for adult class instructors to explain why they are playing this particular game, since adult learners may be skeptical about the effect of games in their learning and may feel resistance to them. Their engaging in the game can be earned by simply adding a comment to the instruction, such as “I want you to find out which letters you still need to work on” and encourage them to work on them through games and at home.

And finally, the cooperative feature of this game makes the participation of the struggling learners equally possible, who would be bystanders in competitive games such as *Karuta*. Since *Shiritori* card game is a non-competitive game, such an environment as challenging but safe becomes possible. In other words, while the materials are challenging, the potential anxiety that such students may experience is minimized in the safe environment.

Is *Shiritori* card game in favor of only the participants who have not mastered a set of hiragana yet? The answer is no. Since cooperative activities usually benefit from having a group

leader who is capable of monitoring the members' production, those who have already mastered hiragana are perfect for the position. At the same time, provided with the meaning(s) of each word in English, these participants can expand their vocabulary. Because of the nature of the game, many unusual words which are rarely seen in the textbook but rich in culture are included such as のき (*noki* - eaves), つくし (*tsukushi* - a spore shoot of the field horsetail), and こたつ (*kotatsu* - a quilt-covered coffee table that comes with heating device underneath). By satisfying the learners' cultural curiosity, it seems that the learners who do not have difficulty in hiragana can also find the game interesting.

As an additional feature, *Shiritori* card game is designed to be used without waiting until all the letters are introduced. It consists of three sets, A, B, and C. Set A and B are to be combined for the game which includes only the first twenty five letters. By combining set B and C, the letters included in the game will expand to all forty-six. This feature enables teachers to use the game halfway to introducing hiragana and after the introduction of the entire syllabary is completed. Especially, with set B and C, learners can work on the recently taught letters as they keep practicing on the previously learned letters for better memory retention.

### Conclusion

*Shiritori* card game may not have the thrill that *Karuta* can provide since there is not much competitiveness. However, I argue that it is equally engaging and culturally rich. It also highly stimulates letter recognition skills. Additionally, meaningful settings and the correspondence with memory mechanism are exclusive features of *Shiritori* card game.

I actually used this *Shiritori* Card Game for the last 5 years and observed its effects on mastering Hiragana and the positive effect on the student's attitude toward the task. Through the

game, students work on the characters they have not mastered yet in enjoyable way, grasp an idea of how to use hiragana, and expand vocabulary, without experiencing terrible anxiety. Students rather build friendship in the classroom, which has a great positive influence on classroom instructions in the future. Therefore I argue that *Shiritori* card game better suits to the early stage of hiragana learning when many students are still halfway through to mastery.

And then, perhaps once all the students become quite comfortable with hiragana, *Karuta* game can be used. It will be more stimulating, fun, and perhaps even promote better letter recognition. However, until then, such thrill can be the cause of learning anxiety or discouragement to the students, so that the game had better be avoided.

The area that can be, or should be, improved in *Shiritori* card game is the way that the meaning(s) of a word is presented on each card. Currently, the English equivalent or explanation is provided. However, this can be replaced with illustration. By doing so, the participation of right hemisphere will be better encouraged, and the game may have even better effect on mastering hiragana.

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