

Review of Studies Concerning Noun Countability and Implications for Teaching Countability to Japanese Learners of English

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要旨 本研究では、先行研究を概観することにより、日本人英語学習者が可算性判断を困難とする原因を整理した。具体的には、日本人英語学習者が可算性を固定的なものとして考える傾向があること、抽象名詞で具象的ではない名詞の場合には境界性の判断が困難であること、などについて考察した。また、先行研究に基づき、日本人英語学習者が困難とする名詞の可算性判断に関する、現実的・実践的な指導方法についても考察した。

1. The difficulty in deciding noun countability

Japanese learners of English have difficulty in deciding English noun countability. According to Butler (2002, p. 462), “noun countability remained problematic even for advanced learners”, thus indicating the importance of teaching English noun countability to Japanese learners of English.

As Lock (1996, p.23) points out, it is very difficult to understand the criteria to decide whether a given noun is countable or not:

Although the distinction between mass and count nouns in English is not an arbitrary one, it is hard for a learner of English to see why certain nouns should be mass rather than count, or vice versa.

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furnitures, traffics, informations,
luggages, sceneries, advices,
equipments, homeworks, machineries,
punctuations

Since the understanding of noun countability significantly affects the accuracy in the use of the English articles (Hiki, 1990, p.23), it is very important to search for possible reasons for Japanese learners' difficulty in deciding noun countability, through a literature review of previous research concerning the teaching of noun countability.

2. Possible reasons for learners' difficulty in deciding noun countability

2.1 L1 Influence on noun countability judgment

Yoon (1993) conducted an experiment where the subjects (Japanese) were asked to judge the countability of a group of words in Japanese and then were later instructed to judge the countability of the corresponding English translations in word and sentence context. Yoon (1993) found that there was a strong correlation between the countability judgment in L1 and that in English (e.g., a particular Japanese word judged as non-countable tended to be used as non-countable in both word and sentence conditions) and suggested that L1 affected the noun countability of Japanese learners of English.

Since the Japanese language does not have an equivalent linguistic device to mark noun countability (e.g., the indefinite article and plural-s), it is not certain how it was possible for the subjects in Yoon's study to judge Japanese noun countability. Nonetheless, as Celce-Murcia and Larsen-Freeman (1999, p.273) point out, it seems to be true that what is countable and what is non-countable "varies to some extent from language to language" (e.g., *information* and *furniture* are non-count nouns in English but count nouns in French) (Kodera, 2004, p. 49.). *Advice* and *research* are non-countable in English but they are countable in German (Taylor & Seto, 2008, p. 225). Similarly, "In Russian both *onion* and *garlic* are mass nouns reflecting their eating habits." (cf. Kodera, 2004, p.57). In English, *light* (in the sense of a stream of light) and *toast* (in the sense of a piece of toast) are non-countable but they are countable in Japanese (cf. Nago, 2006, p. 82).

Since English words which are not in the same countability class as their Japanese counterparts are expected to cause learners great difficulty, it would be best to draw students' attention to such English words as *chalk*, *advice*, etc.

2.2 The effect of concreteness on decisions concerning English noun countability

English noun countability is strongly related to the concreteness (or abstractness) of a noun (cf. Ikegami, 1993). For example, the word *language* is a count noun when used as an instance of languages and perceived as an individual entity. On the other hand, it is used as a non-count noun when it refers to language as a whole, denoting no clear individuality (cf. Shinohara, 1993, p. 47).

When asked to judge the correctness of the article usage in the sentence "As for its appeal to the WTO, the U.S. gave FORMAL NOTIFICATION that it would file its claim within the next 45 days." (Hiki, 1996, p. 38), a native English speaker was reported as saying that *formal notification* sounds perfect and that *a formal notification* "sounds good". The native speaker added that *a formal notification* reminds "a picture of an envelop containing the notification form or a picture of the form itself" (Hiki, 1996, p. 39), thus illustrating the relationship between the countability of a given noun and the visual image.

Takahashi (1995) conducted a cluster analysis of the results obtained from a cloze test type article insertion test, which was given to 56 Japanese university students studying English as a foreign language. The analysis identified roughly three groups of the questions in the test that behave similarly or show similar characteristics: The three groups

are (1) questions on the definite article (concrete nouns), (2) questions on the indefinite article (concrete nouns), (3) questions on the zero article (concrete), questions with mass nouns, questions on the either definite, indefinite, or zero articles (abstract nouns). Thus, it seems that the learners are only able to make a distinction between definite and indefinite articles in cases of concrete nouns and they seem to have difficulty in deciding noun countability regarding abstract nouns.

According to research conducted on 36 Japanese ESL learners in university by Takahashi (1996a) and that conducted on 63 Japanese ESL learners in university by Takahashi (1996b), the accuracy in the use of the English articles is higher in the concrete-noun conditions than in the abstract-noun conditions irrespective of the noun countability (i.e., whether the noun is countable or not). It seems to indicate that Japanese learners have more difficulty with countability judgments when the noun is abstract than when it is concrete. This seems to be consistent with a description of a student quoted by Butler (2002, p. 469) as saying “I don’t know whether or not you can count something that you cannot see, such as *feelings* and *time*. I don’t think they can be counted, but I sometimes see them used with *a*. So I don’t know what to do.”

2.3 Noun countability is not fixed: Is it correct?

Many students, especially lower proficiency students, tend to think that noun countability is fixed (cf. Butler, 2002). As a matter of fact, it is true that most nouns are almost always used either as a count noun or as a non-count noun: nouns such as *cat*, *house*, *car* are usually used as count nouns and nouns such as *water*, *traffic*, *music* are used as non-count nouns (see Taylor & Seto, 2008, p. 230, p. 232).

However, noun countability is not fixed and varies depending on the context. Learners should be aware of this when selecting English articles (cf. Butler, 2002).

2.4 Noun countability preferences

Many learners tend to think nouns are divided into either count nouns or non-count nouns. Yet, this supposition may not be correct. For example, Allan (1980, p. 562) divides English nouns into 8 groups of “noun countability preferences” on the basis of whether a particular noun can co-occur with unit denumerators such as *a* or *one* (e.g., *admiration*), whether it can co-occur with fuzzy denumerators like *(a)few*, *several*, *many* (e.g., *cattle*), etc.(cf. Koderá, 2004, p. 51).

Although it appears to be a scientific truth that English noun countability involves more than making binary distinctions between count / non-count nouns, it is doubtful whether the 8 levels of classification of English nouns (Allan, 1980) contributes to a better understanding of how Japanese ESL learners can distinguish between count and non-count nouns. For example, Koderá (2004, pp. 51-52) points out that the Allan’s classification is not particularly helpful. He explains that although the words “experience” and “car” pass 5

out of the 8 countability criteria, there does not seem to be anything in common between these nouns, thus not making the understanding of countability easier for Japanese ESL learners. Similarly, Bond and Ogura (1993, p. 107) (which utilized the idea of “noun countability preferences” (Allan, 1980) to make countability judgments in Japanese to English machine translation) points out that over classification would not be efficient. Therefore it appears to be wise (at least pedagogically) to not make the distinctions too fine between “always countable nouns” and “always non-countable nouns”.

On the other hand, it is also true that some nouns are (almost) always used as count nouns while other nouns are (almost) always used as non-count nouns. For example, nouns like “equipment” is always used as a non-count noun and it would be very useful to remember to what degree a particular noun is used as a count or a non-count noun (i.e., noun countability preferences).

2.5 Whether the noun refers to something in general or not

Master (1994, p. 239) proposes the use of “dual nouns” (nouns which can be used as either count nouns or as non-count nouns depending on the context) to teach English noun countability. Since they represent the two different entities in the two forms (e.g., *an iron* (an appliance) vs. *iron* (metal) or *a stone* (an object) vs. *stone* (material)), it is considered to be easy for learners to understand that the non-count form refers to something “more general in concept” than the countable form. Like a student who is quoted by Butler (2002, p. 470) as saying “I judge whether [a reference] is countable or not based on the context. When it refers to something as a whole, then it should be uncountable”, the criteria of whether the noun refers to something in general seems to affect the judgment of English noun countability.

2.6 Relationship between English noun countability and the boundedness of the referent

There is considerable body of research indicating that the boundedness of the referent is related to the judgment of the countability of English nouns. Although the description of the idea of the boundedness of the referent is extremely important, it is out of the scope of the present article to go into detail on this subject. For a detailed account of the “boundedness” along with “homogeneity”, “expansibility/contractibility”, and “replicability”, please refer to Langacker (1990, pp. 69-70). Also see: Hewson (1972), Igarashi (2003), Imai (2009), Ishida (2002), Lakoff (1987), Langacker (1987), Lock (1996), Nomura (2005), Shinohara (1993), Taylor & Seto (2008) and Wierzbicka (1988).

Nouns that refer to discrete (= bounded / individuated) entities that have a boundary (e.g., *car*, *cat*, etc.) are typically countable whereas those that refer to non-bounded entities (e.g., *milk*) are typically non-countable. However, it is not easy for ESL learners to discern whether a given noun phrase refers to a bounded entity or not.

It is often pointed out that when a mass or abstract noun is seen to refer to “a unit (serving) of” something (Igarashi, 2003; Ishida, 2002; Langacker, 1987; Pelletier, 1975; Shinohara, 1993; Takahashi, 1998; Taylor & Seto, 2008), it can be used as a count noun (e.g., I’ll have a coffee / a beer). However, students might have a hard time understanding why it is not usually possible to say “I drink 2 waters every day.” (Note: Although both “coffee” and “water” are liquids, the latter is not countable. According to Takahashi (1998, p. 135), that is because the latter does not have a “standard portion”, which is a “portion of food or drink suitable for one person.” (Jackendoff, 1997, p. 53))

Similarly, when a mass or abstract noun is seen to refer to “an instance of” something (Igarashi, 2003; Ishida, 2002; Taylor & Seto, 2008) or “a kind (type) of” something (Butler, 2002; Hiki, 1996; Ishida, 2002; Kodera, 2006; Ross & Ross, 1988; Shinohara, 1993; Taylor & Seto, 2008), it can be used as a count noun (e.g., “This is a red wine.”). However, Japanese learners would have difficulty understanding why they cannot say “This is a cold wine.”

In fact, Butler (2002, p. 471) reports that many of the learners in her study did not recognize the possibility that an uncountable noun (or non-bounded noun) (e.g., *environment*) “can be considered countable if one thinks that there are different kinds” of bounded entities (i.e., “different kinds of *environments* such as *a warm environment*, *a cold environment*”).

Butler (2002, p. 471) also points out the difficulty Japanese learners have in drawing boundaries and deciding when a mass or abstract noun can be countable. One student in her study seems to think it possible to say “a warm water” since it means “a kind (type) of” water.

2.7 Even native speakers of English do not agree in their judgment of English noun countability

In some cases, even native speakers of English do not agree in their judgment of English noun countability. For example, the judgment of countability of “knowledge” is not necessarily unanimous: almost all native speakers in Hiki’s study (1996) prefer “a working knowledge” while many others accept “working knowledge” in the sentence “This manual assumes that you have at least working KNOWLEDGE of the Apple Macintosh and its conventions”(Hiki, p. 33). Sometimes, both countable and non-countable judgments are equally acceptable. An almost equal number of native speakers accept both “common practice” and “a common practice” in the situation where U.S. elementary schools are explained to a foreign visitor: “Each grade level has an established curriculum. It is COMMON PRACTICE, for example, to teach children multiplication in the second grade”(Hiki, 1996, p. 36). The difference seems to lie in that the former (“common practice”) refers to, in the general sense, what is usually done, whereas the latter (“a common practice”) refers to “one way of” doing thing (Hiki, 1996, pp. 37-38).

2.8 The validity of the universal grinder

Pelletier (1975) put forward first in print the idea of a universal grinder, “into which can be fed any object labeled by a countable; the grinder chops and grinds it into a homogeneous mass, which is then appropriately labeled by the same noun used uncountably” (Allan, 1980, p. 547). The idea of the universal grinder is useful in explaining why a mass interpretation of typically a count noun is possible (e.g., “After I ran over the cat with our car, there was cat all over the driveway” (Langacker, 1991a, p. 73)).

However, Koderá (2004, p. 53) points out that the idea of the universal grinder “does not bear much importance in the analysis of the countability of nouns” because the idea cannot be generally applicable to the cases of abstract nouns. In addition, even in the cases of count nouns, the application of the universal grinder is essentially restricted to the area of food.

3. Implications for teaching countability to Japanese learners of English

3.1 It is necessary to teach that English noun countability is not fixed

It has long been common practice in Japan to tell students that English nouns are classified as either countable or uncountable nouns and to get them to learn the countability of English nouns one by one (Imai, 2009, p. 27). For example, they have been told that a noun with an indefinite article is classified as belonging to the category of count nouns, and count nouns require the presence of an indefinite article (when the nouns are singular) (Ishida, 2002, p. 67).

Despite the fact that most nouns can be treated as either countable or uncountable, depending on the context (Allan 1980), Japanese ESL learners (especially lower-level learners) tend to perceive English noun countability as “a fixed and static entity” (Butler, 2002, p. 466). For example, they often regard concrete nouns as countable and abstract nouns as non-countable nouns.

Thus, it is important to teach Japanese learners that this formula does not hold (Koderá, 2004, p. 48; Nishida, 2005, p. 145; Takahashi, 1998) and that a majority of English nouns can be used as either countable or uncountable nouns depending on the context (Butler, 2002; Imai, 2009; Ishida, 2002; Langacker, 1991; Nago, 2006; Petersen, 1988; Wierzbicka, 1988).

In order to help Japanese learners better understand the countability of English nouns, “various exercises in countability detection” would be required so that the students can “experience how native speakers change their perception of an entity depending on the context (Butler, 2002, p. 476).”

3.2 It is useful and practical to teach the countability preferences of English nouns

As discussed in 2.3, it is not appropriate to believe that English noun countability is fixed since it is possible to use prototypically countable nouns such as “book” or “shelf” as

uncountable nouns (Allan, 1980 cf. Gleason) when they get a mass reading as in “Johnny is very choosy about his food. He will eat book, but he won’t touch shelf.” (Gleason, 1965, p.136. cf. Nago, 2006, p. 76).

While this is true, it is quite useful and practical to teach the countability preferences of English nouns (Allan, 1980; Takahashi, 1998; Wierzbicka, 1988).

First, there are not many real-life situations where the count-mass shift is possible. That is, it is not common for typically count nouns such as “book” or “shelf” to be used as non-count nouns (cf. Shobo, 1979). While there are many words which “can be used as either countable or uncountable, depending on the meaning intended (Butler, 2002, p. 466; Wierzbicka, 1988, p. 507), there are also many words which are fully countable (e.g., *boy*, *car*) as well as those that are fully uncountable (e.g., *advice*, *information*, *equipment*). In fact, Christophersen and Sandved (1969, p. 110) admit that “even if in theory any noun can be used in both functions, it remains true to say that a number of nouns are far more often used as countables than as uncountables and vice versa” (cf. Shobo, 1979, p. 130).

Therefore, if a given word is a fully countable word or a fully non-countable word, it seems to be useful and practical to remember the word as such (cf. Wakana, 2007). In other cases (i.e., nouns except for the two extremes of fully countable nouns or fully uncountable nouns), students are better advised to decide the countability of English nouns (such as *cake*) depending on the context.

Second, as Kodera (2004, pp. 53-54), points out, the idea of the universal grinder is basically restricted to the area of food. Therefore, it would be efficient to tell students that the count-mass shift¹ will be required when they refer to portions of non-individuated food stuff such as *chicken*.

3.3 The demarkation problem and its practical solution

According to Swan (1994, p. 47), a pedagogical rule “is useless unless it demarcates clearly the area within which a given form is appropriate, so that a learner will know when to use the form and when not to.” This criterion also applies when students have to make countability judgments: however good the criterion may be, if it does not help students to determine whether a noun is countable or not, it is useless.

As mentioned earlier, the conception of boundedness is related to how an entity is perceived as countable or not. However, such a distinction is difficult for Japanese learners of English. As a practical solution to this problem, an exercise proposed by Kishimoto (2007, p. 55) would be very useful for learning what kind of noun is considered to have a boundary (or considered to be bounded). The exercise requires students to draw stereotypical images of four English words (apple, car, music, breakfast) and compare the images they have drawn. Through this exercise, the students will understand the images of bounded entities (i.e., apple, car) have strong similarities while those of unbounded entities (i.e., music, breakfast) have wide variations.

3.4 For understanding of the dynamic relationship between countability and intended meaning

There are many nouns that can be used as either countable or uncountable depending on the context (e.g., countable nouns such as *a rock*, *a glass*, etc. vs. uncountable nouns such as *rock*, *glass*, etc. (Langacker, 1987, 66)). Japanese learners have great difficulty understanding why a given noun is countable in one context and uncountable in another, or vice versa.

One solution to this problem is to provide a different meaning of a word and the corresponding schematic visual image to associate it with (Kishimoto, 2007(1); Kishimoto, 2009). For example, a schematic visual image of a discrete or individuated (or bounded) object is presented with the word “a whale” (Note: There are a few whales dotted about the picture to illustrate that “a whale” is referring to “one of many” whales). On the other hand, a schematic image of an unbounded mass is presented with an example of the uncountable usage of the word “whale” (denoting substance or meat). It seems that the use of a schematic visual image enhances the understanding of the relationship between noun countability (or the idea of boundedness) and word meaning. However, as Kishimoto (2007(5), p. 68) herself points out, this method is not applicable to those words that are difficult to illustrate graphically (e.g., “a strong wind”). Therefore, an alternative method should be used when the noun refers to an abstract concept.

One of the alternative solutions to the problem is to explain that the judgment of noun countability is based on the intended meaning. For example, the noun “point”, which is often used as a count noun, is used as a non-count noun in the sentence “I see little point in discussing this further” (Igarashi, 2003, p. 18). Thus, the noun is countable when it denotes “a small round mark”, whereas the same noun is non-countable when it denotes “purpose”.

As discussed in 2.5, it would be also useful to explain that non-count form of a given word (e.g., “stone”(as a material)) refers to something “more general in concept” than the countable form of the same word (e.g., “a stone”(as an object))(Butler, 2002; Master, 1994; p. 239, Matsui, 2000).

3.5 How to make students understand the relationship between countability and intended meaning

As VanPatten (1993, p. 438) points out, it is important “to direct learners’ attention to relevant features of grammar in the input and to encourage correct form-meaning mappings that in turn result in better intake” but how is it possible to do so?

One good way is to use a consciousness-raising task where students are asked to think about such questions as “What is the difference in meaning?: (a) I ate chicken last night., (b) I ate a chicken last night.” or “How does the meaning change as noun countability changes: (a) Jack drunk a few beers at the bar., (b) There’s beer in the fridge.”(Imai, 2009,

pp. 41-42. The translations are mine.).

Another way to make learners aware of the countability and intended meaning of a given noun is to give them implicit negative feedback in the form of clarification request and confirmation check. For example, when a student makes a mistake (such as saying “This is dog.”), it would be more effective and useful to ask, “Do you mean flat pieces of a dog’s body or dog meat?” (together with a schematic visual image of the substance) than to correct the mistake by saying “The dog is singular and the indefinite article is required.” (Kishimoto, 2007(1), p. 55. The translations are mine.).

3.6 Other considerations

As discussed in 3.1, Japanese learners of English have difficulty in deciding noun countability regarding abstract nouns. As regards concrete nouns (especially count nouns), it is relatively easy to decide whether they refer to bounded, individuated concepts (or objects) or whether they have a boundary. It seems easier to provide a schematic graphic image to associate with a given noun. Furthermore, previous research shows that even advanced learners have difficulty in countability judgment in abstract nouns. Therefore, it seems most useful to teach the concept of countability by using concrete nouns.

Finally, previous research suggests L1 influence on English noun countability. Therefore, extra caution should be given when dealing with English nouns which are considered “countable in Japanese (e.g., *a flash* / **a lightning* (Allan, 1980; Igarashi, 2003; Langacker, 1987; Nago, 2006); *information*, *advice*; *furniture* (Ikegami, 2000; Imai, 2009; Nago, 2006); *corn* / *grapes*, etc.).

Note

1. A count to mass shift of English nouns occurs in various other situations. For example, if *beer* refers to a subtype of *beer* or a serving of *beer*, it can be countable (e.g., *a beer*). In a particular situation (such as ordering food in a restaurant), even *water*, which is typically used as an uncount noun, can be countable (e.g., “Can I have *two waters*, please?”). Thus, it is important to explore to what extent or on what conditions a count to mass shift can occur.

References

- Allan, K. (1980). Nouns and countability. *Language*, 56, 541-567.
- Bond, F., & Ogura, K. (1993). Determination of whether an English noun phrase is countable or not using 6 levels of lexical countability. *46th Annual Convention of the IPSJ*, 3, 107-108 (in Japanese).
- Butler, Y. G. (2002). Second language learners’ theories on the use of English articles: An analysis of the metalinguistic knowledge used by Japanese students in acquiring the English article system. *Studies in Second Language Acquisition*, 24, 451-480.

- Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book*, 2nd Ed. Boston: Heinle & Heinle Publishers.
- Christophersen, P., & Sandved, A. O. (1969). *An advanced English grammar*. London: Macmillan.
- Gleason, H. A. (1965). *Linguistics and English grammar*. New York: Holt, Rinehart & Winston.
- Hewson, J. (1972). *Article and noun in English*. The Hague: Mouton.
- Hiki, M. (1990). The judgment of noun countability by Japanese college students: Where is the difficulty? *JACET Bulletin*, 21, 19-39.
- Hiki, M. (1996). On so-called optional article usage. *The JACET 35th Annual Convention*, 353-356 (in Japanese).
- Igarashi, K. (2003). A pragmatic view of the relation between countability of nouns and their meanings. *Niigata Studies in Foreign Languages and Cultures*, 9, 15-27 (in Japanese).
- Ikegami, Y. (1993). Japanese and Japanese linguistics – Virtual image and real image (8)-(10) [Nihongo to nihongoron — Sono kyoizou to jitsuzou]. *Language [Gengo]*, 22 (4-6) (in Japanese).
- Ikegami, Y. (2000). *Welcome to Japanese linguistics* [Nihongoron heno shoutai]. Tokyo: Kodansha (in Japanese).
- Imai, T. (2009). A reconsideration of how to teach count / mass nouns and perfective / imperfective verbs from the viewpoint of cognitive grammar. *Bulletin of Segi Gakuen [Segi Gakuen Kiyou]*, 3, 27-47 (in Japanese).
- Ishida, H. (2002). *Easy lecture on English articles* [Wakariyasui eigo kanshi kougi]. Tokyo: Taishukan (in Japanese).
- Jackendoff, R. (1997). *The architecture of the language faculty*. Cambridge, MA: The MIT Press.
- Kishimoto, E. (2007). A simple way to teach a grammatical number and English articles [Wakariyasui meishi no kazu to kanshi no shidou (1)-(5)]. *The English Teachers' Magazine*, 55(12)-56(2), Tokyo: Taishukan (in Japanese).
- Kishimoto, E. (2009). How to teach a grammatical number and articles of English nouns through cognitive grammar. *The Shiga Review of English Studies*, 14-15, 147-167 (in Japanese).
- Kodera, M. (2004). Conceptualization and countability of English nouns. *Bulletin of Seibo Jogakuin Junior College*, 33, 47-77 (in Japanese).
- Kodera, M. (2006). Mass-to-count shift of English nouns and type specification. *Bulletin of Seibo Jogakuin Junior College*, 35, 72-84 (in Japanese).
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago Press.
- Langacker, R. W. (1987). Nouns and verbs. *Language*, 63(1), 53-94.

- Langacker, R. W. (1990). *Concept, image, and symbol: The cognitive basis of grammar*. Berlin: Mouton de Gruyter.
- Lock, G. (1996). *Functional English grammar: An introduction for second language teachers*. Cambridge: Cambridge University Press.
- Master, P. (1994). The effect of systematic instruction on learning the English article system. In T. Odlin (Ed.), *Perspectives on pedagogical grammar* (pp. 229-252). Cambridge, England: Cambridge University Press.
- Matsui, H. (2000). Some suggestions for teaching countable/uncountable nouns to students: An attempt of error analysis. *Bulletin of Yonezawa Women's Junior College*, 35, 23-34 (in Japanese).
- Nago, A. (2006). A study on the acquisition of English noun countability: Based on the results of the countability judgment test [Nihonjin eigo gakushuusha niyoru meishino kasansei gakushuu ni tsuite]. *Bulletin of Showa Women's University [Gakuen]*, 787, 74-87 (in Japanese).
- Nishida, K. (2005). Problems in classification of abstract nouns and common nouns in English. *Bulletin of Aichi Sangyo University College*, 18, 143-162 (in Japanese).
- Nomura, M. (2005). Perspective on the countability of English nouns [Kasan meishi to fukasan meishi no kangae kata]. *The English Teachers' Magazine*, 54(7), 13-15. Tokyo: Taishukan (in Japanese).
- Pelletier, F. J. (1975). Non-singular reference: Some Preliminaries. *Philosophia*, 5, 451-465.
- Petersen, M. (1988). *English spoken by Japanese* [Nihonjin no eigo]. Tokyo: Iwanami Shoten (in Japanese).
- Ross, P., & Ross, N. (1988). *Common English mistakes made by Japanese speakers* [Nihonjin ga machigai yasui eigo]. Tokyo: Asahi Shuppan (in Japanese).
- Shinohara, S. (1993). Classification criterion of English noun countability [Kasan fukasan no bunrui kijyun]. *Language [Gengo]*, 22 (10), 44-49 (in Japanese)
- Shobo, T. (1979). Countable nouns without articles [Kanshi no tsukanai kasan meishi]. *English and Japanese: A festschrift for Eiichi Hayashi on the Occasion of His Eightieth Birthday* [Eigo to nihongo to: Hayashi Eiichi kyoujyu kanreki kinen ronbunshuu] (pp. 123-139). Tokyo: Kuroshio Shuppan (in Japanese).
- Swan, M. (1994). Design criteria for pedagogic language rules. In M. Bygate, A. Tonkyn & E. Williams (Eds.), *Grammar and the language teacher* (pp. 45-55). Englewood Cliffs, NJ: Prentice Hall International Ltd.
- Takahashi, G. (1998). Grading in English nouns (3): The continuum of count/uncount nouns and conversion phenomena revisited. *The Kassui Review. Studies in English Literature and Language*, 41, 125-145 (in Japanese).
- Takahashi, T. (1995). Important distinctions for the acquisition of English determiners by EFL learners. *Studies in English language education* [Eigo kyouikugaku kenkyuu] (pp.

- 134-144). Hiroshima: Keisuisha.
- Takahashi, T. (1996a). Analysis of factors affecting the acquisition of English articles. *Journal of the Hiroshima University Curriculum Research and Development Association*, 11, 1-10.
- Takahashi, T. (1996b). Causes of inaccurate article use by less proficient learners. *ARELE (Annual Review of English Language Education in Japan)*, 7, 91-100.
- Taylor, J. R., & Seto, K. (2008). *The essence of cognitive grammar* [Ninchi bunpou no essensu]. Tokyo: Taishukan (in Japanese).
- VanPatten, B. (1993). Grammar teaching for the acquisition rich classroom. *Foreign Language Annals*, 26, 435-450.
- Wakana, T. (2007). Detecting errors in English article usage based on the mass/count distinction [Meishi no kasan / fukasansei wo riyoushita eibun no kanshi ayamari kenshutsu ni kansuru kenkyuu] (Master's dissertation, Mie University, 2007) (in Japanese). Retrieved from <http://miuse.mie-u.ac.jp:8080/handle/10076/9111>
- Wierzbicka, A. (1988). *The semantics of grammar*. Amsterdam: Benjamins.
- Yoon, K. K. (1993). Challenging prototype descriptions: Perception of noun countability and indefinite vs. zero article use. *IRAL*, 31, 269-289.