

Abstract

早稲田大学大学院教育学研究科
博士学位請求論文

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This research consists of the following chapters. In Chapter 2, collocation date is reviewed in terms of five study fields; and the importance of collocation study is clarified in order to define collocation. In Chapter 3, the empirical research on collocation to date and the research on collocation in Japan to date are introduced. In Chapter 4, a definition of collocation in this research is given, based on previous theoretical and practical research on collocations in Chapters 2 and 3, and research questions are posed, following some pilot studies. In Chapters 5 and 6, in order to identify basic collocations for Japanese learners of English, corpus-based research is undertaken and

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Chapter 1. Introduction

This research intends to identify basic collocations for Japanese learners of English, investigate their collocation acquisition process, and propose their effective instruction. It is important to conduct this investigation because there has been little empirical research on collocations in Japan. The definition and features of collocations have not been sufficiently identified, no consensus on basic collocations for Japanese learners of English has been reached, and no evidence which supports the mechanism of development of their collocational knowledge has been established. In order to explicate these problems and help learners develop a better command of English with collocations, both theoretical and practical studies need to be conducted.

This research consists of the following chapters. In Chapter 2, collocation is compared with free combinations and idioms; the study of collocation to date is reviewed in terms of five study fields; and the importance of collocation study is clarified in order to define collocation. In Chapter 3, the empirical research on collocation to date and the research on collocation in Japan to date are introduced. In Chapter 4, a definition of collocation in this research is given, based on previous theoretical and practical research on collocations in Chapters 2 and 3, and research questions are posed, following some pilot studies. In Chapters 5 and 6, in order to identify basic collocations for Japanese learners of English, corpus-based research is undertaken and

the results are discussed. In Chapters 7 and 8, in order to clarify the mechanism of collocation acquisition by Japanese learners of English, empirical research is conducted and the results are discussed with the presentation of the findings. In Chapter 9, summary of all the previous chapters; pedagogical implication for the effective compilation of English textbooks; limitations of this study; and proposals for future research are mentioned as the conclusion.

It is because they can easily obtain new objective facts about English collocations, i.e. how collocations are actually used via computers without relying on native speakers' intuition.

Chapter 2. Literature review (1): Definition of *collocation*

Chapter 2 reviews the literature on collocation studies in terms of the distinction of collocations, idioms and free combinations, as well as in terms of five study domains and the importance of collocations. First, it is found that many researchers have reached a consensus that semantic opacity and collocational restriction are the two criteria to distinguish phraseological combinations. However, as these criteria are a matter of degree along a continuum, it has been difficult to clearly divide the above three phraseological combinations.

Second, previous literature on collocations is examined in five domains: descriptive studies, semantic studies, computational studies, lexicographical studies, and pedagogical studies. Researchers present their own perspectives on collocations in the different domains and on criteria to define collocation clearly. They are mainly divided into two groups: objective criteria and subjective criteria. Objective criteria are related to statistics such as z-score and t-score, frequency of co-occurrence, collocational range and adjacency

(span), while subjective criteria are concerned with features of collocations such as collocational restriction and semantic opacity which can not be calculated because they are degrees along a continuum. Both criteria have been regarded as important to explain collocations by many researchers, but we consider that objective criteria are landmark for EFL teachers and learners who have had to depend on native speakers' intuition to judge acceptability of collocations. It is because they can easily obtain new objective facts about English collocations, i.e. how collocations are actually used via computers without relying on native speakers' intuition.

Third, it is found that many researchers have pointed out importance of collocations in terms of memorization, fluent and appropriate language use, aspects of knowing words, word models and teaching effectiveness. Based on these assumptions, empirical research is needed to clarify how collocations are acquired, what factors are related to the acquisition and so on. These are introduced in the next chapter.

Chapter 3. Literature review (2): Empirical research on collocation

Chapter 3 summarizes previous empirical research on the acquisition of collocations. This research has been conducted mainly from two perspectives: from L2 influence and from various influential factors such as lack of vocabulary knowledge and overgeneralization including L2 influence. Although this research has intensively been carried out for the last two decades the world over, research on collocations in Japan is extremely

limited. Only recently, however, collocation research has begun to be spotlighted mainly in the lexicographical domain and corpus studies. Yet empirical research on the collocation acquisition by Japanese learners of English has not started.

All the researchers reviewed in this chapter urge the necessity and importance of collocation teaching and learners' development of collocation competence by contrastive analysis, error analysis or comparison of strategies of native speakers of English and non-native speakers of English. What are needed are materials and workbooks which present a selection of collocations focused on learners' specific difficulties, especially with their L1 background. However, research conducted so far is not enough to clarify what the mechanism of acquisition of collocations is like, how collocations should be taught in a classroom, and what kind of materials should be provided. Further research on collocations from different angles of an L2 perspective is to be done.

Chapter 4. Pilot study

Chapter 4 proposes an original definition of collocation for the following two types of research, referring to previously examined theoretical and practical research on collocation, and then, presents pilot studies to clarify purposes, research questions and experimental procedures before main data analyses.

First, both objective and subjective criteria are adopted to define collocations in this study. Objective criteria such as high frequency of

occurrence, z-score and $N\pm 4$ span are adopted in corpus-based study. They are very important and useful for EFL teachers and learners because new objective facts about English collocations, i.e. how collocations are actually used, can be obtained easily via computers without relying on native speakers' intuition. On the other hand, subjective criteria such as collocational restriction, syntactic structure, and semantic opacity are also broadly applied in empirical collocation research and all the multiword expressions except pure idioms in the figure by Fernando (1996, p. 32) are adopted as collocations. The reason why subjective criteria are still taken into consideration is that corpora in which the objective criteria are examined still have some shortcomings such as incomplete and lopsided record of fact in spite of the usefulness (Cook, 2003, pp. 104-111). In order to make up for the shortcomings of objective criteria, subjective criteria are still important.

Second, in order to conduct research on collocation acquisition by Japanese learners of English, two purposes are set up in this thesis: the identification of basic collocations for Japanese learners of English and the investigation of the development of their collocational knowledge. Before the research is conducted, some pilot studies are carried out.

What should first be done is to examine the reality of collocation teaching in Japan. In order to do it, the treatment of collocations in English textbooks should be investigated because they are the main materials to teach basic English to secondary school students. Therefore, the following four corpus research was piloted: English I textbook corpus; English II textbook corpus; former English I textbook corpus and revised English I textbook corpus; and

UK history textbook corpus. After the four pilot studies revealed the reality of the poor collocation treatment in English textbooks for upper secondary school students, new research questions have brought up and the study is conducted in Chapters 5 and 6.

What should second be done is to examine the process of productive and receptive collocation acquisition at different stages of language learning and factors influencing it by focusing on verb-noun combinations. After the pilot study was conducted, the some points should be improved to measure more reliable results and new study is conducted to answer some new research questions which have brought up in this pilot study (Chapters 7 and 8).

Only verb-noun collocations were targeted in this analysis because they play the most important role in communication. The nouns were all based on

Chapter 5. Methodology: Phase I. Corpus-based research

In Chapter 5, in order to identify basic collocations for Japanese learners of English, high frequency collocations used by native speakers of English are examined, and compared with high frequency collocations in English textbooks for secondary school students in Japan. In order to achieve the purpose of this investigation, the following research questions are set up:

“What are basic collocations?”

1. What are high-frequency collocations in large corpora collected from native speakers of English?
2. What are features of those high-frequency collocations by native speakers of English?

2a. Which levels of words are included in the high-frequency verb-noun collocations, in the word list of basic words for Japanese learners of English?

2b. Are high-frequency collocations of native-speaker English related to topics?

3. How are collocations presented in English textbooks for upper secondary school students in Japan deviated from those of native-speaker English?

Only verb-noun collocations were targeted in this analysis because they play the most important role in communication. The nouns were all based on *JACET 8000*, intended for Japanese learners of English to identify the basic collocations. Actually, one's collocational competence is best reflected in its native speaker's ability in establishing or confirming rules of the grammar and the usage of language (Crystal, 1992). Their use of collocations should never be ignored in identifying basic collocations for Japanese learners of English because we have no alternative ways other than relying on it at present. However, native speaker's intuitive collocations are not necessarily equal to what is expected as the basic collocations for Japanese learners of English and they have to be examined in terms of the importance of collocations for Japanese learners of English. Therefore, nouns which were the node in verb-noun collocations were all selected from *JACET 8000* which present words needed for Japanese learners of English.

Chapter 6. Results and discussion: Phase I. Corpus-based research

Chapter 6 summarizes the findings of corpus-based research and identifies basic collocations for Japanese learners of English. The findings are shown in relation to the postulated research questions.

1. *What are high-frequency collocations in large corpora collected from native speakers of English?*

Based on the analyses of high-frequency collocations in the BNC and the TIME corpus, many high-frequency collocations overlapped within the rank 100 in both corpora, which can be interpreted as high-frequency collocations by native speakers of English. Among 31 collocations which occur more than 10 times in the TIME corpus, 25 were also ranked within 100 in the BNC. The extremely frequent collocations were in the order of frequency: *take place, do thing, have effect, do work, take time, make decision, do job, ask question, open door, play role, make sense, find way, take step, take care, answer question, tell story, make mistake, play game, have trouble, pay attention, make money, raise money, make choice, take risk and lose job.*

2. *What are features of those high-frequency collocations by native speakers of English?*

2a. *Which levels of words are included in the high-frequency verb-noun collocations, in the word list of basic words for Japanese learners of English?*

In addition to common collocations in the BNC and the TIME corpus referred to in research question 1, it was found that high-frequency

collocations consisted of basic verbs and nouns as a result of the analyses of the BNC and the TIME corpus. This was seen among the 25 extremely high-frequency collocations. *Take risk* was the only one collocation which consisted of an L2 node and an L1 collocate.

2b. *Are high-frequency collocations of native-speaker English related to topics?*

The analysis of high-frequency collocations and the topic types where they occurred in the TIME corpus indicated that more than 15 time collocations which appeared occurred in all four topics set for this research. Since the analysis is a small scale, however, more investigation is needed to confirm this research question.

3. *How are collocations presented in English textbooks for upper secondary school students in Japan deviated from those of native-speaker English?*

In fact, the treatment of collocations in the English I textbook corpus was problematic in that few collocations were used in all the English I textbooks and they were not used repeatedly to be fixed firmly in learners' mind. There were 39 collocations which were ranked within the 100 in the BNC.

From these findings and a pedagogical point of view that we should include more words used in a daily life for the educational effectiveness, the 61 collocations are finally selected as basic collocations.

Chapter 7. Methodology: Phase II. Empirical research on the development of learners' collocational knowledge

Chapter 7 shows the methodology in detail to conduct learners' development of the basic collocations. The research especially focuses on the relationship between their general vocabulary knowledge and their collocational knowledge, and between their productive knowledge of collocations and their receptive knowledge of collocations, as well as influential factors affecting the development of collocational knowledge and the importance of collocational knowledge in communication. The specific research questions are as follows:

1. How are vocabulary knowledge and collocational knowledge related to one another? Will the learners' collocational knowledge expand at the same rate as their vocabulary knowledge in general?
2. What development occurs in learners' receptive and productive knowledge of collocations for different types of collocations at different stages of language learning? Will learners acquire receptive knowledge of collocations first and then productive knowledge of collocations for some types of collocations and various stages of language learning?
3. What influences learners' collocational knowledge? Shortage of general vocabulary knowledge, L1 equivalence, semantic transparency of collocations, collocational restriction, core meanings, collocational structure?

4. How important is collocational knowledge in the acquisition of English communication skills for Japanese learners of English? When collocations cannot be used properly, how will learners express themselves instead of them?

4. Three kinds of tests, a vocabulary size test, a productive collocation test, and a receptive collocation test were administered with the basic collocations identified in Chapters 5 and 6 on 130 university students.

Chapter 8. Results and discussion: Phase II. Empirical research on the development of learners' collocational knowledge

The results and discussion are summarized as follows:

1. There was a close correlation between learners' general vocabulary knowledge and their collocational knowledge. In other words, the more vocabulary knowledge learners had, the more collocational knowledge they tended to acquire.
2. Receptive knowledge of collocations appeared to be deeper than productive knowledge of collocations. Therefore, learners' productive knowledge of collocations would be broadened as they learned more receptive collocations.
3. Factors which influence the development of productive collocational knowledge were the vocabulary knowledge, semantic opacity, delexicalized

verbs, core meanings of nouns and verbs, collocational structure and L1 equivalence. The vocabulary knowledge, L1 equivalence, delexicalized verbs and core meanings of verbs affected the development of their receptive knowledge of collocations.

4. Neither easier nor more difficult collocations the 2000 vocabulary level learners could correctly answer. As learners' vocabulary was broader, they could answer easier collocations more correctly and more difficult collocations remained to be acquired.

Chapter 9. Conclusions

5. When learners could not produce the target collocations, they would have little chance to succeed in communication because alternative collocations were rarely used by even over the 3000 vocabulary level learners and paraphrasing or describing expressions in alternative ways was also difficult for almost all learners.

6. Learners between the 2000 vocabulary level groups and 4000 vocabulary level groups gave incorrect answers with the common techniques, leaving an answer blank, when they did not know the appropriate expressions. Learners whose general vocabulary knowledge was lower tended to resort to it. The second most often used way was by verbalizing nouns, which learners in all the groups resorted to. The structural errors were the third most frequently used technique but more errors of this kind were made by learners whose vocabulary level was higher.

Based on the results of this study (Chapters 7 and 8), we should suggest to textbook writers the compilation of new English textbooks in the

7. The 5000 vocabulary level learners used different techniques from other vocabulary level learners. Leaving an answer blank was the second most often used technique, followed by general errors. This means they attempted to produce some words to express themselves, although they were not regarded as correct answers. Their structural errors were closer to correct collocations than other level groups' but adjective errors still occurred after correct collocations were acquired.

Chapter 9. Conclusions

To summarize all these chapters, the points of my research are (a) a clearer definition of collocations based on a previous literature review was established, (b) basic verb-noun collocations for Japanese learners of English were identified, and (c) how to develop students' knowledge of verb-noun collocations was clarified. All of them will contribute to the effective instruction in collocations in the classroom in Japan and to the effective compilation of English textbooks and collocation exercise books. The research will also provide a clearer definition of collocations for Japanese teachers of English and Japanese learners of English and concrete answers for ambiguous descriptions of "basic collocations" in the government guidelines for foreign language teaching compiled by the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

On the basis of the findings and the discussion of corpus-based research (Chapters 5 and 6) and empirical research (Chapters 7 and 8), we should suggest to textbook writers the compilation of new English textbooks in the

light of effective collocation acquisition. First, textbook writers have to present basic collocations in the English textbooks because collocations should be acquired to develop learners' better command of English as is mentioned in previous chapters. In order to facilitate learners' collocation acquisition, they should take account of the appropriate order of presentation of basic collocations: (a) in the order of the importance of words to be acquired and (b) in the order of the difficulty of collocations to be acquired. Second, English textbooks for lower and upper secondary school students should be compiled on the basis of the same basic collocations so that students can learn them with any textbook which English teachers select at different schools. In order to do it, MEXT should concretely specify basic collocations to be learned in each grade in the government guidelines for foreign language teaching. Third, textbooks writers have to show basic collocations repeatedly in context. Previous studies confirm that basic collocations should appear six times in context in English textbooks. However, it may force many basic collocations to appear in an unnatural context because of the limited pages of English textbooks. In that case, collocation exercise books are useful for repeatedly raising learners' attention on collocations in different ways such as a collocation box, producing example sentences and collocation dominoes.

Further research should be conducted in some fields based on the limitations of this study: use of limited corpora in corpus-based research, too intentionally chosen distracters in the receptive collocation test, unproved affecting order of influential factors for the development of learners' collocational knowledge and no collocation research based on the concept of

English as an International Language (EIL). Final limitation of this research should be especially overcome with the view to the present situation of English use in the world that 80 percent of communication in English takes place among non-native speakers.

Collocation study has regarded native English speaker's collocations as the best model to intimate. This is because it is widely accepted that native speakers establish and confirm the rules of the grammar and the usage of language (Crystal, 1992) and therefore their collocations should be used as a model. However, the notion of EIL has spread among us since Smith proposed it in his 1976 seminal paper (cited in Yano, 2004a). EIL is "a loose league of regional standard Englishes with high mutual intelligibility and spoken and understood by the educated speakers of any varieties" (Yano, 2004a, p. 133). In short, EIL is a universally international norm which is intelligible and acceptable among all the English speakers and English language teachers are expected to take it into consideration in their teaching.

In order to examine acceptable collocations for both native speakers of English and non-native speakers of English based on the concept of EIL, we need corpus samples collected from various speakers of English – both native and non-native – around the world. It is because the most critical shortcoming of the concept of EIL at present is that it is not supported by data analysis, as is admitted by Yano (2004b). None of proponents have shown concrete examples of EIL which share grammar and basic vocabulary with all English varieties. Therefore, international corpora such as an International Corpus of English (ICLE) should be made good use of to do

such research. ICLE is a database collected from samples of 19 English-speaking and ESL countries and each corpus consists of one million spoken and written words. As the project is expanding steadily, English corpora from more various countries will be available in the near future. Collocation analysis based on the concept of EIL is to be done as our project.

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