# A Comparison Between COBUILD, LDOCE5 and CALD3: Efficacy and Effectiveness of the Dictionaries for Language Comprehension and Production<sup>1</sup>

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Keywords: Language Comprehension and Production, Dictionary Use, Comparisons of Monolingual Dictionaries.

## Abstract

This paper reports on the results of a research study which compared the effectiveness of different monolingual dictionaries for language comprehension and production by advanced Cantonese ESL learners in Hong Kong. A group of 31 students majoring in English participated in the study. This included a meaning determination task which required students to use a dictionary to determine the meanings of nine familiar words used in unfamiliar contexts, a sentence completion task which required students to use a dictionary to complete ten English sentences based on some given Chinese contexts, as well as a sentence construction task which required students to use a dictionary to construct ten English sentences using some given English prompts. Different monolingual dictionaries were used in the tasks by different sub-groups of participants, namely *Collins COBUILD Advanced Dictionary 6<sup>th</sup> edition (COBUILD6)/ Collins COBUILD Learner's Dictionary Concise Edition (COBUILD Concise), Longman Dictionary of Contemporary English 5<sup>th</sup> edition (LDOCE5), and Cambridge Advanced Learner's Dictionary 3<sup>rd</sup> edition (CALD3). The accuracy rates at which the participants performed the tasks were calculated, and their perception of the usefulness of the dictionaries was collected. It was found that monolingual dictionary consultation does not depend on the dictionary being used. Learners' dictionary skills and their abilities to extract relevant information from a dictionary are more important than the choice of dictionaries.* 

#### 1. Introduction

Dictionaries are indispensable self-learning tools. Much effort has been put into the design and improvement of dictionaries for English as Second Language (ESL) learners (Chan 2011). Although a number of dictionaries are available for learners at different levels and for different learning purposes, very often learners ignore or misread the most informative elements of an entry (Nesi and Meara 1994). Many problems in learners' dictionary skills have been identified, such as their difficulties in understanding the symbols and abbreviations used, their failure to interpret examples accurately, and their excessive reliance on inappropriate examples (Chan 2005). A lack of understanding of how dictionary information relates to the word learners are looking up is also one major problem (Nesi and Meara 1994). Although it is true that learner's deficient dictionary skills may be the major cause of dictionary consultation problems, the effectiveness and comprehensiveness of dictionary information may also be at issue.

# 2. Objectives

The study aimed at comparing and contrasting the efficacy and effectiveness of different monolingual dictionaries for helping ESL learners comprehend and produce target English sentences.

## 3. Participants

Thirty-one participants participated in the study, including eight males and twenty-three females. They were all English majors at a local university. Their ages ranged from twenty to twenty-four at the time of the study: one year 1 student, eleven year 2 students, and nineteen year 3 students. Twenty of them had learnt English for fifteen to nineteen years and eleven had learnt English for twenty years or above.

# 4. Procedures

The students participated in three dictionary consultation tasks, including a meaning determination task which required students to use a dictionary to determine the meanings of nine familiar words used in unfamiliar contexts, a sentence completion task which required students to use a dictionary to complete ten English sentences based on some given Chinese contexts, as well as a sentence construction task which required students to use a dictionary to construct ten English sentences using some given English prompts. In each task, the participants were divided into three groups, with each group using a different monolingual dictionary and doing a different self-reporting protocol, namely introspective written questionnaires, retrospective written questionnaires, and think-aloud verbal recordings. The monolingual dictionaries used in the tasks included Collins COBUILD Advanced Dictionary 6<sup>th</sup> edition (COBUILD6)/ Collins COBUILD Learner's Dictionary Concise Edition (COBUILD Concise), Longman Dictionary of Contemporary English 5<sup>th</sup> edition (LDOCE5), and Cambridge Advanced Learner's Dictionary 3<sup>rd</sup> edition (CALD3). The groupings of the participants in the three tasks were done in a way that all students had a chance to use all the different dictionaries and to be engaged in all the three different self-reporting protocols. The numbers of participants using a certain dictionary in a certain task were comparable (about ten to eleven in each group)

For the Meaning Determination Task, the participants were given a total of nine sentences and asked to determine the most appropriate meaning of the italicized expression in each sentence with the use of a dictionary by circling the correct answer from a list of five choices. For each sentence, the target lexical item for dictionary consultation was also underlined. For the Sentence Completion task, a sentence context was invented and given in written Chinese for a total of ten target words. The target English words and some parts of the corresponding English sentences were also given. The participants had to complete the sentences with the help of a monolingual dictionary. For the Sentence Construction task, three to four prompts, one of which being a target word, were given to the participants for a total of ten target words. They had to use the given prompts to construct a grammatical and meaningful English sentence with the help of a monolingual dictionary, making whatever changes to the prompts deemed necessary but following the order of the prompts (see Appendix for some sample sentences used).

# 5. Self-Reporting Protocols

The Introspective Questionnaires aimed at soliciting the participants' instant and detailed feedback on the way a certain dictionary entry helped them in making a decision. Of relevance to the objectives of the present study were forced-choice questions requiring the participants to report on their feelings when they ended a search, as well as open-ended questions requiring the participants to write out the information they used to make a final decision and the ways in which such information showed that their decisions were correct, to account for the reasons why they were doubtful about their decisions, and to report on the difficulties, if any, they encountered. All the questions were given in written English and all the participants responded in written English.

The participants in the Think-aloud group were instructed to record the whole of their decision-making processes during dictionary consultation using whatever language they were comfortable with in a sound-proof room. The whole process of searching for the appropriate examples and/or definitions, deciding on the appropriate examples and/or definitions, and making decisions on the correct meanings or usage of the target words, was recorded.

The Retrospective Questionnaires completed immediately after the participants had finished one whole task aimed at investigating their general evaluation of the usefulness of the dictionary or its different parts and other information not relevant to the scope of the present study. All the questions were given in written English and all the participants responded in written English.

## 6. Target Words

Different words were targeted in the different dictionary consultation tasks. For the Meaning Determination Task, all the words included were simple words familiar to advanced ESL learners rather than new or exotic words, such as *occur, charge*, but they all had (subtly) different meanings when used in different grammatical contexts. The grammatical contexts appearing in the given sentences were largely contexts less familiar to Hong Kong ESL learners.

For the Sentence Completion Task, the target words included were also simple English words familiar to advanced ESL learners, but the uses of the words necessitated by the Chinese contexts were again mostly unfamiliar to Hong Kong ESL learners or often misused. To ensure that the completed English sentences matched the Chinese contexts, the participants had to use the target words correctly with appropriate grammatical associations, such as the correct choice of prepositions, the correct choice of phrasal verb particles, or verb complementation, etc.

For the Sentence Construction Task, the target words included were often misused by Hong Kong Cantonese ESL learners (Bunton 1989, 1994, Heaton and Turton 1987, Jenkins 1990). The grammatical patterns focused on included the choice of prepositions for a certain target noun (e.g. knowledge *of*), or the use of a target verb in a certain transitivity pattern (e.g. befriend).

# 7. Data Analysis

The participants' performance in the various dictionary consultation tasks, as well as their reports in the written and verbal self-reporting protocols, was analyzed to uncover the effectiveness of the various dictionaries used. For the dictionary consultation tasks, the accuracy rates at which the students accomplished the tasks using a certain dictionary were calculated. For the written and verbal self-reporting protocols, the participants' explicit reference to the dictionary's special features, such as boldface, capitals, symbols, etc., as well as their explicit complaints about the lack of certain information in a dictionary, and their subjective opinions of the overall usefulness of the dictionaries, were also analyzed and compared.

#### 8. Results

The accuracy rates at which the participants accomplished the dictionary consultation tasks using the different dictionaries were comparable, with an overall accuracy rate of 72.3% for all the three tasks for CALD3, an overall accuracy rate of 71.2% for COBUILD and an overall accuracy rate of 71.8% for LDOCE5. When individual tasks were analyzed, the accuracy rates were also comparable: For the Meaning Determination Task, the accuracy rates for CALD3, COBUILD and LDOCE5 were 64.4%, 65.7%, and 50.5%, for the Sentence Completion Task, the accuracy rates were 74.5%, 73%, and 79%, and for the Sentence Construction Task, the accuracy rates were 76.4%, 75% and 84.5% respectively. Despite these comparable figures, a number of participants (a total of four) using LDOCE5 achieved a very low accuracy rate of 40% or below. This pattern was not found in the performance of any participants using the other two dictionaries.

The majority of the participants relied on and made explicit reference to the definitions and examples in the dictionaries for completing the language comprehension and production tasks. Although different special features (e.g. bold, capitals, special symbols) were used in the different dictionaries, only a minority of these features were made explicit reference to in the participants' dictionary consultations. A detailed analysis of the introspective written questionnaires and the think-aloud verbal reports revealed that only 1.5% of the dictionary consultations made reference to the use of boldface in CALD3, 2.5% to that in COBUILD, and 11.9% to that in LDOCE5. 8% of the consultations made reference to the use of capitals in CALD3, 0% to that in COBUILD, and 1% to that in LDOCE5. 0% of the consultations made reference to the use of special symbols in CADL3 and COBUILD, whereas 5.5% made reference to that in LDOCE5.

Examples of reference making to boldface included reports such as "Just now the second phrasal verb *frighten away* are in bold (Sentence Completion, dictionary used: *LDOCE5*)", examples of reference making to capitals included the words in capitals given by different participants in explaining the information which led them to the decisions, and examples of reference making to special symbols included reports such as "A (caution) Do not say that something 'comprise of' things or people. (Sentence Construction, dictionary used: LDOCE5).

Also a minority of the participants were not satisfied with the information included in the different dictionaries and complained about the lack of information or their unclear presentations. 0.5% of the dictionary consultations using CALD3, 2% using COBUILD and 0.5% using LDOCE5 included explicit verbal/written complaints by the participants. Examples of complaints included reports such as "Actually there is no example of this usage in the entry, I have to guess whether I should use *of* or *for* after *monument* in the task (Sentence Completion, dictionary used: *COBUILD*)".

Regarding the overall usefulness of the dictionaries used, 81.8%, 80% and 63.6% of the participants found CALD3, COBUILD and LDOCE5 extremely useful or very useful. While no participants regarded CALD3 and LDOCE5 not very useful or not useful at all, 20% of those using COBUILD had that feeling. 68.9% and 68% of the participants using CALD3 and COBUILD were sure that their decisions were correct, but a higher proportion of 83.6% of those using LDOCE5 were sure about their decisions.

## 9. Discussion

It can be seen from the above results that a monolingual dictionary is useful in helping learners determine word meanings and word usage, yet the successfulness of dictionary consultation does not depend on the dictionary being used. None of the three monolingual dictionaries used in the study, which are all popular monolingual dictionaries used in Hong Kong, is more or less effective than the others. Though learners' dictionaries are more often used for meaning seeking purposes (Chan 2005), their effectiveness is not just limited to language comprehension but is equally effective for language production.

Different special features, such as boldface, capitals and special symbols, are adopted by different dictionaries, yet explicit reference to such special features is very rare, if any, because learners rely mostly on the definitions and examples for helping them solve their learning problems. The clarity and comprehensiveness of dictionary definitions or examples are of greater concern to most learners and are much more frequently attended to, and learners' dictionary skills and their abilities to extract relevant information from dictionary examples and definitions are more important than the choice of dictionaries. Lexicographers are suggested to enrich their inventory of examples and definitions to enhance the effectiveness of their dictionaries. Relevant explicit grammatical information should be given emphasis, and more eye-catching special features or highlighting techniques should be used to attract users' attention. A general guideline for lexicographers is that dictionary compilation should be user-sensitive and guided by learner-oriented empirical research.

#### 10. Conclusion

This paper has reported on the results of a research study which investigated the effectiveness of CALD3, COBUILD and LDOCE5 for helping advanced Cantonese ESL learners determine word meanings and word usage. It is found that the successfulness of dictionary consultation is not contingent on the choice of dictionaries. Despite possible differences in the inclusion and presentation of information, learners find the different dictionaries equally useful. Further research is needed to investigate the use of monolingual dictionaries by learners of other linguistic backgrounds, such as those at a lower English proficiency level. It may also be enlightening to conduct research studies which compare the effectiveness of bilingualized dictionaries (Hartmann and James 1998) and monolingual dictionaries for language comprehension and production, as bilingualized dictionaries contain examples and definitions in the source language (i.e. learners' mother tongue) and may be beneficial or detrimental to learners' learning process.

#### Note

<sup>1</sup>The work described in this article was fully supported by City University of Hong Kong (CityU Strategic Research Grant Number: 7008005). The support of the university is acknowledged. I would also like to thank all the respondents of the survey for their participation and my research assistant for her administrative help.

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# Appendix

# Sample Sentences Used in the Dictionary Consultation Tasks

#### Meaning Determination Task (Target words underlined)

- 1. The minister *is <u>alive</u> to* the responsibility of his position.
  - A. is not dead to
  - B. is happy about
  - C. continues to take
  - D. realizes
  - E. I don't know.
- 2. It didn't *occur to him* that his wife had an affair.
  - A. come into his mind.
  - B. surprise him
  - C. happen.
  - D. appear to him.
  - E. I don't know.

## Sentence Completion Task (Target words given in brackets)

- 我不想草率下決定.
   (rush): I don't want to \_\_\_\_\_\_rush into\_\_\_\_\_\_a decision.
- 警方會控告他謀殺.
   (charge): The police will \_\_\_\_\_ charge him with \_\_\_\_\_ murder.

# Sentence Construction Task (target words underlined)

- 1. (little) (<u>knowledge</u>) (linguistics)
- 2. (what) (reason) (reject) (proposal)?