

# AWSuM User's Manual

Version 1.10

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## About AWSuM

### What is AWSuM?

AWSuM (Academic Word Suggestion Machine) is an online tool that supports English academic research writing through an approach that integrates move analysis particularly promoted in ESP (English for Specific Purposes) with lexical bundles used in corpus research. AWSuM suggests high frequency lexical bundles for each move within a section of a paper in a specific discipline. AWSuM (<http://langtest.jp/awsum/>) has been available free of charge since February 2016.

The screenshot shows the AWSuM interface. At the top, the logo 'AWSuM' and the title 'Academic Word Suggestion Machine' are displayed. Below the title, there are three dropdown menus: 'Discipline' (set to 'Applied Linguistics'), 'Section' (set to 'abstract'), and 'Move' (set to '02\_presenting\_research'). Under the 'Keyword' section, there are five tabs labeled 1, 2, 3, 4, and 5, with tab 1 selected. To the right of the tabs are three buttons labeled '3R', '4R', and '5R', with '4R' selected. A checkbox labeled 'Auto-suggest' is checked. Below the tabs, a text input field contains the word 'The'. A dropdown menu is open below the input field, showing several suggestions: 'The extent to which', 'The purpose of this', 'The present study investigates', 'The results of a', 'The present study investigated', and 'The aim of this'.

### Why AWSuM is awesome.

- It can show frequent lexical bundles within a section of a paper in a specific discipline according to the rhetorical structures (i.e., moves).
- It can suggest most frequent lexical bundles with the auto-complete user interface.
- Checking collocations and formulaic sequences in a specific discipline will be much easier because AWSuM shows the words before and after the search terms.
- With the concordance feature, AWSuM can show how words are actually used in the context of discipline-specific research articles.
- Thanks to these above features, AWSuM is more useful than conventional reference tools such as dictionaries.

## Target Disciplines and Journals

As of December 2016, users can select only two academic fields: (1) Applied Linguistics and (2) Computer Science. In 2017, Materials Science shall be added, and there is a plan to cover other fields after that.

(1) Articles in the following journals in the Applied Linguistics field are included in AWSuM (About 1,400 papers).

1. *Applied Linguistics*
2. *ELT Journal*
3. *English for Specific Purposes*
4. *Journal of Second Language Writing*
5. *Language Learning*
6. *Language Teaching Research*
7. *Modern Language Journal*
8. *Studies in Second Language Acquisition*
9. *System*
10. *TESOL Quarterly*

(2) Articles in the following journals in the Computer Science field are included in AWSuM (About 300 papers).

1. *Applied Ergonomics*
2. *Behaviour & Information Technology*
3. *Communications of the ACM*
4. *Ergonomics*
5. *Human Factors*
6. *IEEE Transactions on Computers*
7. *IEEE Transactions on Knowledge and Data Engineering*
8. *IEEE Transactions on Parallel and Distributed Systems*
9. *IEEE Transactions on Pattern and Machine Analysis*
10. *IEEE Transactions on Software Engineering*
11. *International Journal of Human-Computer Interaction*
12. *International Journal of Industrial Ergonomics*

The work involved in the preliminary steps for creating AWSuM were to (1) download the target paper in pdf or html format, and (2) attach a mark (tag) for the rhetorical structures (moves) within each section of the paper. We tagged all the sections of the paper.

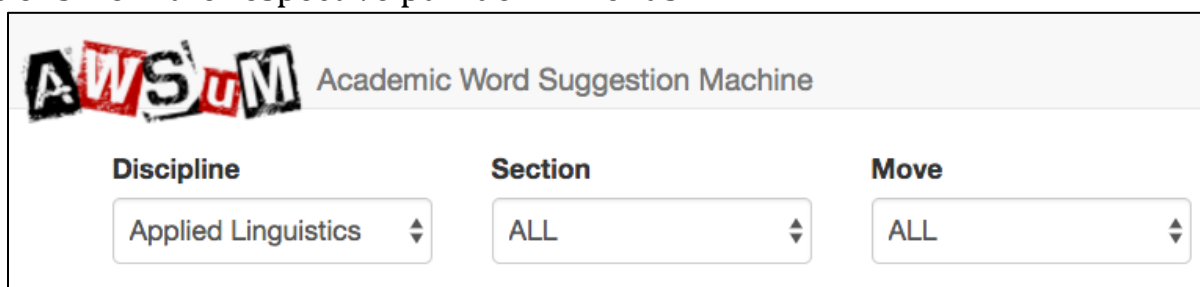
AWSuM was created with a grant from the 2015-2016 Kansai University Outlay for Establishing Research Centers (Issue name: Establishment of Kansai University English Writing Hub as an International Research Point and the Development of an Academic Writing Support Tool). AWSuM has been developed with the help of Mr. Akio Ohnishi from VERSION2 Inc. (<http://ver2.jp/>).

We shall explain how to use AWSuM below.

## 1. Selection of Disciplines, Sections, and Moves

### 1.1 Selection of Disciplines, Sections, and Moves

When you access AWSuM (<http://langtest.jp/awsum/>), you select the **"Discipline"** for choosing the target field, the **"Section"** for choosing the section of research articles, and the **"Move"** to choose communicative functions within specific sections from the respective pull-down menus.

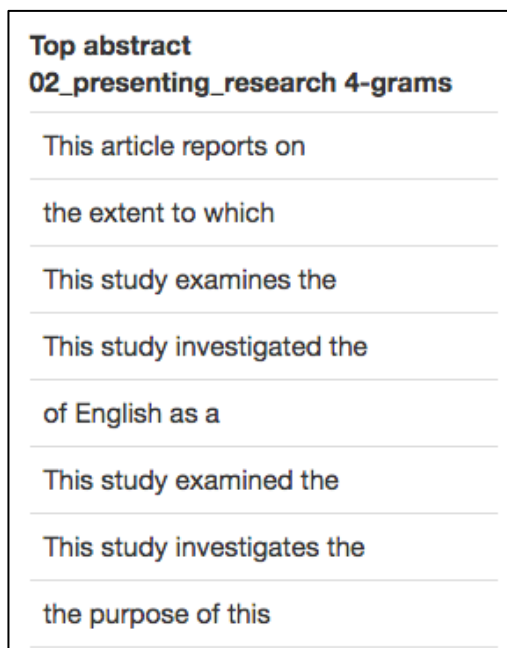


The screenshot shows the AWSuM interface. At the top, there is a logo 'AWSuM' and the text 'Academic Word Suggestion Machine'. Below this, there are three pull-down menus labeled 'Discipline', 'Section', and 'Move'. The 'Discipline' menu has 'Applied Linguistics' selected. The 'Section' menu has 'ALL' selected. The 'Move' menu has 'ALL' selected.

For Discipline, Section, and Move, it is possible to select all disciplines, all sections, and all moves by choosing "ALL." In the following example, we select "Applied Linguistics" for Discipline, "abstract" for Section, and "02 presenting research" for Move.



The screenshot shows the AWSuM interface with the following selections: 'Discipline' is 'Applied Linguistics', 'Section' is 'abstract', and 'Move' is '02\_presenting\_research'.



The screenshot shows the 'Top abstract' section. The title is 'Top abstract' and the subtitle is '02\_presenting\_research 4-grams'. Below this, there is a list of lexical bundles: 'This article reports on', 'the extent to which', 'This study examines the', 'This study investigated the', 'of English as a', 'This study examined the', 'This study investigates the', and 'the purpose of this'.

On the right edge of the screen, the most frequently selected lexical bundles are displayed in frequency order, in accordance with the selected Section and Move, so you can gain hints about "what lexical bundles are often used in specific Section/Move."

For the list of move categories used with AWSuM, refer to the next page.

## 1.2 List of 25 Move Categories Used in AWSuM

Sections	Moves	Steps
Abstract	[01] Introduction (Establishes context of the paper)	<ul style="list-style-type: none"> <li>Arguing for topic prominence (Claiming centrality)</li> <li>Making topic generalizations</li> <li>Defining terms, objects, or processes</li> <li>Identifying a gap in current knowledge</li> <li>Justifying the research study</li> </ul>
	[02] Presenting the research	<ul style="list-style-type: none"> <li>Stating the purpose directly</li> </ul>
	[03] Describing the methodology	<ul style="list-style-type: none"> <li>Describing the participants</li> <li>Describing the instruments or equipment</li> <li>Describing the procedure and conditions</li> </ul>
	[04] Summarizing the findings	<ul style="list-style-type: none"> <li>Describing the main features or properties of the solution or product</li> </ul>
	[05] Discussing the research (Interprets or extends results beyond the scope of the paper, draws inferences, points to applications, or wider applications.)	<ul style="list-style-type: none"> <li>Deducing conclusions from results</li> <li>Evaluating value of the research</li> <li>Presenting recommendations</li> </ul>
Introduction	[06] Establishing a territory (Announcing the importance of the field)	<ul style="list-style-type: none"> <li>Claiming the centrality of the topic</li> <li>Making topic generalizations</li> <li>Summarizing existing studies (Reviewing items of previous research)</li> <li>Drawing inferences from previous studies</li> <li>Reference to main research problems</li> </ul>
	[07] Establishing a niche (Preparing for the present study)	<ul style="list-style-type: none"> <li>Indicating a gap</li> <li>Adding to what is known</li> <li>Presenting positive justification</li> <li>Raising a question</li> </ul>
	[08] Presenting the present work (Introducing the present study)	<ul style="list-style-type: none"> <li>Announcing present research descriptively and/or purposively</li> <li>Stating purpose(s)</li> <li>Presenting research questions or hypotheses</li> <li>Definitional clarifications</li> <li>Reference to main research procedure (Summarizing methods)</li> <li>Predicting results (Announcing principal outcomes)</li> <li>Stating the value of the present research</li> <li>Indicating RA (Research Article) structure</li> </ul>
	[09] Describing the sample [10] Describing research instruments [11] Describing the procedures [12] Describing data analysis procedure	
Results (or Results & Discussion)	[13] Preparing for the presentation of results	<ul style="list-style-type: none"> <li>(Re)stating data collection and analysis procedure</li> <li>Restating research questions or hypotheses</li> </ul>
	[14] Reporting specific / individual results	<ul style="list-style-type: none"> <li>Location of results</li> <li>Reporting most important findings</li> <li>Substantiating (or invalidating) results</li> <li>Indicating non-consistent observations</li> </ul>
	[15] Commenting on results	<ul style="list-style-type: none"> <li>Interpreting results</li> </ul>
	[16] Summarizing results	<ul style="list-style-type: none"> <li>Presenting integrated results on the basis of a number of specific results</li> </ul>
Discussion (or Conclusions)	[17] Preparing for the presentation of the discussion section	<ul style="list-style-type: none"> <li>Giving background information (Restate the aims, objectives, procedural information, theories, and research questions)</li> </ul>
	[18] Highlighting overall research outcome	<ul style="list-style-type: none"> <li>Reporting results (Expected or unexpected outcome)</li> </ul>
	[19] Discussing the findings of the study	<ul style="list-style-type: none"> <li>Interpreting / discussing results</li> <li>Indicating significance of the outcome</li> <li>Comparing results with a hypothesis</li> <li>Comparing results with literature</li> <li>Exemplifying</li> </ul>
	[20] Drawing conclusions of the study Stating research conclusions	
	[21] Evaluating the study	<ul style="list-style-type: none"> <li>Indicating significance / advantage</li> <li>Indicating limitations</li> <li>Evaluating methodology</li> </ul>
	[22] Deductions from the research	<ul style="list-style-type: none"> <li>Recommending further research</li> <li>Making suggestions / drawing (pedagogic) implications</li> </ul>
	[23] Summarizing the study	<ul style="list-style-type: none"> <li>Providing summary</li> </ul>
Conclusions (or Pedagogic implications)	[24] Evaluating the study	<ul style="list-style-type: none"> <li>Indicating significance / advantage</li> <li>Indicating limitations</li> <li>Evaluating methodology</li> </ul>
	[25] Deductions from the research	<ul style="list-style-type: none"> <li>Recommending further research</li> <li>Making suggestions / drawing (pedagogic) implications</li> </ul>

## 2. Presentation of lexical bundles (suggestion function)

### 2.1 Word Input

After selecting the discipline, the section, and the move, users input the character string. For the pre-determined number of words (Keyword), you will be presented with the lexical bundles in that section/move in frequency order as an incremental search.

The following is an example of when you want to know what kind of words come after “the” for the abstract-presenting research. If you enter a space after inputting “the,” you can see that the words that follow are presented.

If you do not want to use the suggest function, remove the check mark from “☒ Auto-suggest” on the right side of the screen.

The screenshot displays the AWSuM interface. At the top, there are three dropdown menus: 'Discipline' (Applied Linguistics), 'Section' (abstract), and 'Move' (02\_presenting\_research). Below these is the 'Keyword' section, which includes a row of buttons numbered 1 to 5, and another row with buttons 3R, 4R, and 5R. The '4R' button is currently selected. To the right of the keyword buttons is a checkbox labeled 'Auto-suggest', which is checked and highlighted with a red box. Below the keyword buttons, a text input field contains the word 'The', which is also highlighted with a red box. A dropdown menu is open below the input field, showing several suggestions: 'The extent to which', 'The purpose of this', 'The present study investigates', 'The results of a', 'The present study investigated', and 'The aim of this'.

※ If there is no suggestion, try re-entering the immediately previous character or space.

It has been confirmed that AWSuM runs on all browsers including the iOS browsers. Please contact us if you discover any defects.

## 2.2 Designating Reference Words (Keyword) and Presented Words (R)

With AWSuM, it is possible to designate by referencing keywords from the left and (R) words from the right. This allows you to present words with a more restricted linguistic context.

Below, we shall explain in more detail how to specify the reference words on the left and the presented words on the right.

For example, for the abstract, if you wish to write something like “The purpose of this study is...,” by setting Keyword **1** + **4R** (referencing **1** word on the left, present **4** words on the right), and inputting “the,” the following suggestions appear.

Section: abstract

Move: 02\_presenting\_research

Keyword: 1 2 3 4 5

3R 4R 5R

The

- The extent to which
- The purpose of this
- The results of a
- The present study investigated
- The aim of this
- The present study investigates

Next, with the Keyword to reference as word 2, we enter “the purpose” and set this to Keyword **2** + **4R** (reference **2** words on left and present **4** words on the right), the left side becomes “the purpose” and you can check the most frequent **4** words that continue after that.

Keyword: 1 2 3 4 5

3R 4R 5R

The purpose

2 words

- The purpose of this study
- The purpose of this article
- The purpose of the study
- The purpose of this research
- The purpose of the present
- The purpose of this paper



Next, with the Keyword to reference set to word 3, and entering “the purpose of,” if we set Keyword **3** + **4R** (reference **3** words on the left, and present **4** words on the right), suggestions for the words that continue after that will be displayed.

The screenshot shows the AWSuM interface. At the top, under the 'Keyword' section, there are two rows of buttons. The first row contains buttons labeled 1, 2, 3, 4, and 5. The button labeled 3 is highlighted with a red box. The second row contains buttons labeled 3R, 4R, and 5R. The button labeled 4R is highlighted with a red box. Below the buttons, there is a text input field containing the text 'The purpose of'. To the right of the input field, there is a list of suggestions. The first suggestion is 'The purpose of this study is', which is highlighted in blue. The other suggestions are 'The purpose of this study was', 'The purpose of this article is', 'The purpose of the study was', 'The purpose of this research was', and 'The purpose of the present study'.

Alternatively, with Keyword **4** + **4R** (reference **4** words on the left, and present **4** words on the right), suggestions for the words that continue after that will be displayed.

The screenshot shows the AWSuM interface. At the top, under the 'Keyword' section, there are two rows of buttons. The first row contains buttons labeled 1, 2, 3, 4, and 5. The button labeled 4 is highlighted with a red box. The second row contains buttons labeled 3R, 4R, and 5R. The button labeled 4R is highlighted with a red box. Below the buttons, there is a text input field containing the text 'The purpose of this'. To the right of the input field, there is a list of suggestions. The first suggestion is 'The purpose of this study is to', which is highlighted in blue. The other suggestions are 'The purpose of this study was to', 'The purpose of this article is to', 'The purpose of this research was to', 'The purpose of this paper is to', and 'The purpose of this replication study is'.

In this way, the more that you increase the number of reference words for the phrase you wish to get suggestions for, the more the context will be limited, which allows you to check what kind of words follow in more detail. This is extremely useful as a reference when writing a research article.

Until now in the above example, we have always used **4R** (4 words on right) suggestions, but if we set this to **3R** it will suggest 3 words on the right, and with **5R**, it will set 5 words.

**3R**

The screenshot shows the AWSuM interface with the 'Keyword' section. A row of five buttons (1, 2, 3, 4, 5) is visible, with button '4' highlighted in blue. To the right, a row of three buttons (3R, 4R, 5R) is shown, with '3R' highlighted in a red box. Below the buttons, a text input field contains the text 'The purpose of this'. A dropdown menu is open, displaying three suggestions: 'The purpose of this study is', 'The purpose of this article is', and 'The purpose of this study was'.

**5R**

The screenshot shows the AWSuM interface with the 'Keyword' section. A row of five buttons (1, 2, 3, 4, 5) is visible, with button '4' highlighted in blue. To the right, a row of three buttons (3R, 4R, 5R) is shown, with '5R' highlighted in a red box. Below the buttons, a text input field contains the text 'The purpose of this'. A dropdown menu is open, displaying three suggestions: 'The purpose of this study is to examine', 'The purpose of this study was to examine', and 'The purpose of this investigation was to examine'.

The purpose of AWSuM is to suggest “lexical bundles common to moves for academic research papers in a particular field,” but as there may be times when word sequences with low frequency are presented for reference (we intentionally designed it so) or those with special examples are displayed, you will need to take special care to avoid plagiarism when using such examples in your own paper. It is also necessary for teachers to be aware of this when utilizing AWSuM for teaching L2 research writing.

## 2.3 Displaying Words (1L–3L) That Come on the Left

With AWSuM, it is possible to display 1 to 3 high frequency words (1L–3L) that come to the left of the searched Keyword. This feature is “off” by default.

The screenshot shows the AWSuM interface. At the top, there's a 'Keyword' section with a text input containing 'this study'. Above the input are buttons for 1, 2, 3, 4, and 5. To the right of the input are buttons for 3R, 4R, and 5R, and a checked 'Auto-suggest' checkbox. Below the input, there's a section for 'Word(s) used for \*'. To the left of this section, there's a dropdown menu for '1L-3L' which is currently set to 'off'.

For example, in the Results section, if we wish to confirm the two words used before (to left of) “this study,” by selecting **2L**, we can display what is on the right (in this example 4R).

The screenshot shows the AWSuM interface in the 'Results' section. The 'Section' dropdown is set to 'results'. The 'Move' dropdown is set to 'ALL'. The 'Keyword' section has 'this study' entered. The '1L-3L' dropdown is now set to '2L'. A list of suggestions is displayed for the keyword 'this study'. The suggestions are:

- this study was whether the
- this study also found that
- this study has suggested that
- this study viewed the contributors
- this study were high-achieving international
- this study all the students
- this study when they felt
- this study can be summarized
- this study has explored listening
- this study because a collocation
- this study suggest that to
- this study was to determine
- this study provide empirical support

By doing this, as shown in the left figure below, the 2 words used on the left side of “this study” are displayed. If we set this to 3L, and use the suggestion function in the same way, the three words (3L) used to the left of “this study” shall be displayed in frequency order, as shown in the right figure below.

off	1L	2L	3L
participants in			
used in			
learners in			
teachers in			

off	1L	2L	3L
the participants in			
the teachers in			
the purposes of			
the scope of			

The display of words coming to the left (1L–3L) corresponds to the suggestion function for the right side (3R–5R), so it will not be displayed just by selecting the off, 1L, 2L, or 3L buttons without searching terms.

## 2.4 Wildcard Searches Using Asterisks

When you are performing an AWSuM search and do not know what word to use, you can use wildcard searches to search for strings containing any word in a particular place. When using the suggestion function, it is possible to see an asterisk (\*) as 1 word, so if you enter, for example, “the \* of this,” it is possible to perform a search regardless of what word is found in place of the asterisk (\*).

The screenshot shows the AWSuM interface. The 'Section' dropdown is set to 'abstract' and the 'Move' dropdown is set to '02\_presenting\_research'. The 'Keyword' section has five tabs labeled 1, 2, 3, 4, and 5, with tab 4 selected. To the right of the tabs are three buttons labeled 3R, 4R, and 5R, with 4R selected. The search input field contains the text 'The \* of this'. A dropdown menu is displayed below the input field, showing five suggestions: 'The \* of this study was to', 'The \* of this article is to', 'The \* of this study is to', 'The \* of this research was to', and 'The \* of this study are intermediate'.

It is also possible to search using 2 wildcards, by inserting two asterisks, such as in The \* of \*.

## 2.5 Displaying Words Corresponding to Asterisks

With AWSuM, when performing the wildcard search, it is possible to display high frequency words corresponding to the asterisks (\*).

The screenshot shows the AWSuM interface. The 'Section' dropdown is set to 'abstract' and the 'Move' dropdown is set to 'ALL'. The 'Keyword' section has five tabs labeled 1, 2, 3, 4, and 5, with tab 5 selected. To the right of the tabs are three buttons labeled 3R, 4R, and 5R, with 4R selected. The search input field contains the text 'the \* of \* study'. A dropdown menu is displayed below the input field, showing four suggestions: 'the purpose of this study', 'the results of this study', 'the results of the study', and 'the aim of this study'. A red arrow points from the input field to the dropdown menu. Below the input field, there is a section labeled 'off' with three buttons labeled 1L, 2L, and 3L. To the right of this section is a box titled 'Word(s) used for \*' containing the same four suggestions as the dropdown menu.

### 3. Concordance Line Functions

There are likely to be many times when you need to check examples in context to see how words and phrases are used in the actual papers. There is free software, such as AntConc (<http://www.laurenceanthony.net/software.html>) and CasualConc (<https://sites.google.com/site/casualconc/>), that uses such concordance functions, which make it possible to confirm examples within context. With AWSuM, as well, you can check the usage of the word within the original research papers. Furthermore, with Google's custom searches, you can confirm how words and phrases are used in academic texts that are not covered by corpus in AWSuM.

#### 3.1 Showing AWSuM Concordance Lines

You can search by selecting the words or phrases you wish to search for in the upper text area or directly inputting them into the Concordance text area and clicking the Search button.

The screenshot shows the AWSuM interface. At the top, there is a large text area containing the phrase "the extent to which". A red arrow points from this text to the Concordance section below. In the Concordance section, there is a search input field containing the same phrase "the extent to which", and a red box highlights the "Search" button next to it. Below the search input, there is a table of concordance results.

Concordance		
s stimulated recall and the analysis of draft revisions this study investigates	<b>the extent to which</b>	self- peer and tutor
authors contemplating article submission may wish to consider	<b>the extent to which</b>	the number of nega
this study examined	<b>the extent to which</b>	# students enrolled
for task-based learning this study explores whether task complexity affects	<b>the extent to which</b>	learners focus on f
presentations of culture were co-constructed by teachers and students and	<b>the extent to which</b>	the observed cultur
atic and instead adopts a corpus-based register analysis tool to investigate	<b>the extent to which</b>	soap opera compa

The content displayed in Concordance corresponds to the selected section and move.

## 3.2 Google Custom Search

In the Google search area, it is possible to use the Google custom search function. With this custom search, the domain specified is higher educational institutions in countries where English is the first language, which means it can be used to confirm words and phrases from academic texts other than those covered by AWSuM corpus.

The method of searching is, as with Concordance, to select the words or phrases you want to know from among the input in the upper text area, after which this is automatically input into the Google custom search box below. Of course, this can be input by yourself as with normal searches.

Google search

“the \* of this” Search

About 90,800,000 results (0.53 seconds) Sort by: Relevance ▾

**PURPOSE STATEMENTS**  
 “The purpose of this paper/letter/document is to...” “In this paper, I will describe/ explain/review/etc. the...”  
 “My reason for writing is to...” “This paper will discuss the ...  
 faculty.washington.edu/ezent/imwps.htm

**The purpose of this agreement is to set forth the terms and ...**  
 File Format: PDF/Adobe Acrobat  
 The purpose of this agreement is to set forth the terms and conditions under which. Auxiliary may operate  
 as an auxiliary organization pursuant to Chapter 7 Part ...  
 auxiliary.calstate.edu/wp-content/.../DH\_Foundation\_OpAgr.pdf

If you search using double quotations, text strings such as “the \* of this” will be searched as a complete match search, but if double quotations are not attached, any search result that contains “the” or “of” or “this” will be displayed. (By the way, when using \* as a wildcard in Google, it will display cases when \* for words or phrases covering one or multiple words.)

## 4. Links

At the bottom of the AWSuM screen, there are links to (free) sites useful for English research writing and its instruction. Currently, the registered links are as shown below. We are interested in registering any other links that may be useful, so please contact us if you find something that you think may be useful.

### < Wording/thesaurus/collocation >

1. Sketch Engine (<https://the.sketchengine.co.uk/open/>)  
Possible to search the British Academic Written English Corpus (BAWE), etc. With Word sketch, it is possible to use collocation, and with Thesaurus you can search for replacement expressions.
2. StringNet Navigator 4.0 (<http://nav4.stringnet.org/>)  
If you enter a word, wording, collocation, and examples are displayed.
3. WriteAway (<http://writeaway.nlpweb.org/>)  
If you enter a word, patterns such as wording or grammar, and examples are displayed.
4. Just The Word (<http://www.just-the-word.com/>)  
If you enter a word, patterns such as wording or grammar, and examples are displayed. Uses BNC.
5. FLAX [Resource Collections] (<http://flax.nzdl.org/>)  
If you enter a word or phrase, high frequency collocation or wording is displayed in a list.
6. ozdic.com (<http://ozdic.com/>)  
If you enter a word or phrase, high frequency collocation or examples are displayed.

### < Collections of Phrases for Research Articles >

7. Academic Phrasebank (<http://www.phrasebank.manchester.ac.uk/>)  
The University of Manchester Academic Phrasebank is collection of phrases summarized according to function or section containing the phrases you might want to use in a research paper.
8. Online PhraseBook (<http://englishforresearch.com/phrasebook/>)  
Collection of phrases you may want to use in research articles according to rhetorical functions.

### < Corpus Search >

9. Words and phrases (<http://www.wordandphrase.info/academic/analyzeText.asp>)  
Enables searching of the COCA (Corpus of Contemporary American English).  
In the case of single terms, it displays similar terms. It is also very useful for searching phrases.
10. Springer Exemplar (<http://www.springerexemplar.com/>)  
Corpus of journals and books published from Springer.
11. Corpus of Research Articles (<http://rcpce.engl.polyu.edu.hk/RACorpus/>)  
Corpus of research articles covering 39 fields (More than 5.5 million words).
12. COCA (<http://corpus.byu.edu/coca/>)  
Able to search the Corpus of Contemporary American English.
13. BNC (<http://corpus.byu.edu/bnc/>)  
Able to search the British National Corpus.



## 5. Miscellaneous Info

### 5.1 Publications

As of December 2016, the research results have been reported in two papers (one published, the other under review).

Mizumoto, A., Hamatani, S., & Imao, Y. (2016). Analysis of research articles in applied linguistics using an approach combining moves and lexical bundles: Toward developing a support tool for writing research articles in English. *English Corpus Studies*, 23, 21–32. [Written in Japanese]

Mizumoto, A., Hamatani, S., & Imao, Y. (2017). Bundle-move connection approach: Applying its concept to the development of an online writing support tool for research articles. Manuscript submitted for publication.

In 2017, we are going to publish a book in Japanese, entitled “English academic writing instruction using ICT: Development of a support tool and its applications.”

### 5.2 Future Research and Development Plan

Moving forward, we plan to promote the following R&D, while applying for external grants such as Grants-in-aid for Scientific Research in Japan.

- Instruction of writing articles using AWSuM
- Covering many fields from both science and humanities
- Automation of move tagging
- Investigating a method of presenting lexical bundles that are not based solely on frequency
- Presenting synonyms and antonyms
- Presenting collections of expressions

We are constantly on the lookout for research collaborators, so please get in touch with us if you are interested. We would also like to hear the opinions and impressions of those who have used AWSuM for research writing.

### 5.3 Credits

AWSuM is powered by VERSION2 Inc. (<http://ver2.jp/>), an innovative Japanese company specializing in web technology for education.

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