Building a Semi-Technical Political News Word List for Political Science Students

Bussayamas Namwong
Faculty of Hospitality Industry, Kasetsart University
Email: bussayamas.n@ku.th

Papassara Vorakhan
Faculty of Hospitality Industry, Kasetsart University
Email: papassara.v@ku.th

Wachiraporn Suntorn
Faculty of Hospitality Industry, Kasetsart University
Email: wachiraporn.sun@ku.th

Piyapong Laosrirattanachai*
Faculty of Hospitality Industry, Kasetsart University
Email: piyapong.l@ku.th
*Corresponding author's email: piyapong.l@ku.th

Received: August 18, 2022
Revised: November 21, 2022
Accepted: December 09, 2022

Abstract

A lack of knowledge of the political terminology used in news writing makes it difficult for L2 learners of English in the field of political science to keep themselves abreast of current worldwide political situations. This study built a semi-specialised word list for political science students interested in international political news. The Political News Corpus (PNC) was compiled between January 1, 2019 and June 30, 2021 from 6 news agencies: CNN, Politico, BBC, *The Sun*, ABC News, and 9News. The PNC contained 4,814 news items with a total size of 3,837,958 running words. Five criteria based on Laosrirattanachai and Ruangjaroon's (2021) Filters (lexical frequency, lexical range, lexical profiling, lexical keyness, and expert consultation) were used to build the Semi-Technical Political News Word List (S-TPNWL). The AntWordProfiler programme (Anthony, 2014) and the Key-BNC programme (Graham, n.d.) were used to extract candidate words. The findings showed that the S-TPNWL contained 172 word families and covered approximately 5.28 per cent of the PNC. Political science students interested in international political news could utilise the S-TPNWL to increase their vocabulary range and understanding when reading political news. Also, teachers can benefit from the S-TPNWL by using it as a reference for creating teaching materials.

Keywords: Politics, Semi-Technical Political News Word List, word list

For a long while now, English has been a very important language for communication in many countries around the world, especially among high-level academics, government officials, and lawyers (Reddy, 2016). It is an important asset for achieving personal professional goals in many other vocations as well. Consequently, acquiring vocabulary is crucial in education and everyday life since it can lead to a better comprehension of the meaning of words in different contexts. Vocabulary is the foundation for many subjects or fields of study. Knowing the meaning of words provides learners with the confidence to use a language in a variety of situations. Vocabulary is an important factor in teaching and learning English because even though learners may possess a knowledge of grammar, they may not be able to convey their opinions and communicate without having adequate vocabulary knowledge (Wilkins, 1972). In particular, those who desire to study English for a specific purpose should gain specialised vocabulary for effective use when required. Therefore, vocabulary is essential and beneficial in order for people to develop fluency in another language when conversing, reading, and writing in various settings (Nation, 2022) including politics.

Nowadays, adolescent learners are paying greater attention to politics around the world. Smith and Pennock (1964) defined politics as everything concerning authority, institutions, and organisations in society that are acknowledged as having power over that society in the maintenance of social order. Certainly, politics influences affairs in daily life, and political science students should be aware of them as political affairs are directly related to their studies. Up-to-date information about issues like subsistence, quality of life, the economy, and education is also important if learners in the field of political science are to have a better understanding of what is going on around the world.

News helps learners evaluate and decide what actions to take into political matters, whether, for example, to reward or punish the government at election time for its performance (Andrew, 2013). Because of the development of technology and online media, there are more channels for learners to access news. Online media can be used as an influential platform for learners to discuss political issues with others (Choi, 2014). Therefore, online news is one of the channels that allow learners, who have the right to express their opinions, to participate in acknowledging and expressing political opinions conveniently and freely, such as the government's election news (Michels & de Graaf, 2010). English is one of the most frequently used as a medium to distribute news. News written in English, especially by native countries such as the United States, the United Kingdom, and Australia, reaches readers across the world. Today major news agencies also present news online. Some news agencies even organise political news in a separate section which makes it easier for readers to click and access political news, for example, CNN, Politico, BBC, The Sun, ABC News, and 9News.

However, reading and understanding news written in English, whether the medium is newspapers, television, online media, the internet, or other channels (Hwang & Lin, 2010; Nation, 2022), can be problematic if learners are struggling with unfamiliar terminology. Therefore, it is very important to learn political terminology because it will help readers/learners to correctly interpret and comprehend the meaning of words and avoid misunderstandings or distortions of important new items. One way to help learners increase their vocabulary loads is preparing a word list for them. Two of the most well-known word lists are 1) the General Service List or GSL (West, 1953) which contained 2,000 high-frequency words used in daily life, and 2) the Academic Word List or AWL (Coxhead, 2000) which contained 570 high-frequency words used in academic fields. Most later constructed word lists position themselves as either an academic technical word list, for example, environmental academic word list (Liu & Han, 2015) or a pure technical word list, for example, airline cabin crew service word list (Cho, 2015). Some factors affecting positioning a word list are academic or non-academic texts used to compile a corpus, approaches used to create a word list, purposes of a word list, and targets or word list users of a word list. In the current study, we employed non-academic texts as sources for compiling a corpus and combined both academic and non-academic methods to create a word list, to help political science students enhance their vocabulary required to comprehend political news. As undergraduates, some students in the political science field might have low English proficiency. Therefore, the list is created to cover the GSL, AWL, and technical words. To clarify, apart from the pure technical words of political news, words that 1) have polysemous meanings - words which have one or more general English language meaning and which in political news contexts take on extended meanings such as '*wing'* and *'debate'* and 2) words allocated in the GSL and AWL with an unusually high rate of occurrence in the Political News Corpus (PNC) such as '*civil,*' are also included in the word list. As a result, the word list is called the Semi-Technical Political News Word List (S-TPNWL) to show its purpose and the characteristics of words contained in the list.

Despite the many specialised word lists available at present, for example, the academic article word list for social sciences (Kwary & Artha, 2017), the plumbing word list (Coxhead & Demecheleer, 2018), the economics academic word list (O'Flynn, 2019), the traditional Chinese medicine word list (Lu et al., 2021), the technical words in spoken rugby discourse (Benson & Coxhead, 2022), and the Written Academic Legal Vocabulary (Alasmary, 2019), it is rare to see a word list related directly to political news. Consequently, we proposed building a technical word list specially constructed from political news, namely the Semi-Technical Political News Word List (S-TPNWL), as one method to assist autonomous learners in political science to better understand information presented via online political news.

Theoretical Background

Word list

Word lists are one of the most familiar learning materials for those wanting to learn English. It is crucial to understand English vocabulary since it has a direct impact on the development of all four of the language skills of reading, listening, speaking, and writing. Four categories of vocabulary have been identified for learners to improve their vocabulary: high-frequency words, academic words, terminology, and low-frequency words (Nation, 2022).

The General Service List (GSL) is a conventional word list of English first proposed by West in 1953 that is still influential in the development of learning vocabulary. The GSL contains 2,000 high-frequency words used in daily life. Following from this, various specialised word lists for specific purposes were created including numerous technical word lists in various specific disciplines, for example the Academic Word List (AWL) by Coxhead (2000). The AWL is a database of academic words and is suited for academic purposes. The AWL contains 570 words covering about 10 percent of academic content (Coxhead & Byrd, 2007). The Technical Word List (TWL) refers to a list containing terminology relevant to specific fields of study. Many scholars suggested vocabulary load for at least 95 per cent coverage to comprehend a text (Coxhead & Demecheleer, 2018; Dang & Webb, 2014; van Zeeland & Schmitt, 2013). Consequently, a technical word list mostly aims to constitute at least 5 percent of the corpus to achieve the target of 95 per cent coverage. The remaining 5 percent belongs to low-frequency words which are not in the high-frequency, academic, or terminology word groups.

The long history of word lists shows that there have been many variations in building such lists. Originally, word lists were built by sequencing the most-used vocabulary using a software programme, but nowadays there are more complex procedures for building word lists (O'Keeffe et al., 2007). Recently, Laosrirattanachai and Ruangjaroon (2021) proposed a systematic method called the Six Filters (6Fs) which applies 5 criteria and 1 data organisation process. The 6Fs process was designed to build technical or specialised word lists containing polysemy or words that are not very specific but frequently used in a specific discipline. The 6Fs are: Filter lexical frequency, Filter lexical range, Filter lexical profiling, Filter lexical keyness, Filter expert consultation, and Filter lexical difficulty.

According to Lindquist (2009), frequency is one of the most common ways to build a word list. Therefore, Filter lexical frequency was suggested as the first filter. Some examples of word lists applying frequency as a criterion are the GSL (West, 1953), the Business Word List (Konstantakis, 2007), and the Nursing Academic Word List (Yang, 2015). According to Scott and Tribble

(2006), the disadvantage of solely using frequency to create a word list is that the list would mainly comprise function words and basic words used in daily life rather than those used in a specific discipline. Therefore, creating a word list based on frequency alone could result in a prejudiced list (Thorndike, 1921). Range consideration was then proposed to reduce bias and bring equilibrium to a word list (Coxhead, 2000).

Filter lexical range refers to the filter used to extract words that appear in a designated number of sources. Some samples of word lists considering range value as one of the criteria are the Medical Academic Word List (Wang et al., 2008), the Basic Engineering English Word List (Ward, 2009), and the Beverage Service Word List (Arunvong Na Ayutthaya et al., 2022).

Filter lexical profiling involves filtering out those words appearing in the referent word lists. The main concept of lexical profiling is that a word should be allocated in only a single word list (Coxhead, 2000). Generally, the GSL and AWL are used as mandatory referent word lists, though other referent word lists can be added to develop a fine-grained filter depending on the field. The lexical profiling method is very useful since it can filter out those words believed irrelevant to the field. However, its disadvantage is that some words with meanings related to specific fields may be eliminated as they appear in the GSL, AWL, or other referent word lists set in the lexical profiling (Gardner & Davies, 2014; Valipouri & Nassaji, 2013). Some examples of word lists utilising lexical profiling to extract words are the Academic Word List for Applied Linguistics Research Articles (Khani & Tazik, 2013), the Vocabulary of Agriculture Semi-Population Article (Muñoz, 2015), and the Technical Word Lists for Thai Tourist Guides (Laosrirattanachai & Laosrirattanachai, 2021).

Filter lexical keyness employs keyword analysis to extract a word list. Keyword analysis, used in various sub-disciplines of applied linguistics (Pojanapunya & Todd, 2018; Schutz, 2013), refers to the method of comparing words with an unusually high- or low-frequency rate in a target corpus against a referent corpus (Baker, 2006). In keyword analysis, a self-compiled corpus is used as a target corpus and a large corpus, such as the British National Corpus (BNC) or the Corpus of Contemporary American English (COCA) is used as a referent corpus (Johnson & Esslin, 2006; Scott, 2001). Log-likelihood (LL) value of words is considered to identify whether the occurrence of words is from chance alone or disciplinary choices (Hyland, 2012). Some examples of word lists using keyword analysis to extract words are the Engineering Word List (Todd, 2017), the Business Word List (Tangpijaikul, 2014), and the Food Service Word List (Rungrueang et al., 2022).

Expert consultation filter was recommended as the last filter. After successfully passing through the various filters, the word list is crystallised by consulting with experts in the specific discipline (Chung & Nation, 2004; Martinez et al., 2009). Chung and Nation (2004) suggested that expert advice be

collected using a questionnaire containing a list of specific words with the provision of a 4-category rating scale. Scale 1 identifies a word with irrelevant meaning to the specific discipline. Scale 2 refers to a word with little relevant meaning to the specific discipline. Scale 3 represents a word very relevant to the specific discipline. Scale 4 specifies a word that is only used in the specific discipline. Some examples of word lists applying such expert feedback are the Medical Academic Word List (Wang et al., 2008) and the Hospitality Service Review Word Lists (Laosrirattanachai & Ruangjaroon, 2020). In contrast to the first 5 filters discussed above, the lexical difficulty filter is used to divide a long word list into sub-word lists by considering word difficulty. It has been generally mentioned that a long list of words might be troublesome for learners needing to learn autonomously (Nation & Hwang, 1995). Therefore, splitting a list into shorter sub lists enables learners to study the whole list gradually. Word lists are presented in various sub-word lists in the Academic Word List (Coxhead, 2000) and the Tourism, Hotel, and Airline Business Word Lists (Laosrirattanachai & Ruangjaroon, 2021).

The current study aimed to create the S-TPNWL for learners and people interested in worldwide political news using 5 criteria based on Laosrirattanachai and Ruangjaroon's Filters: lexical frequency, lexical range, lexical profiling, lexical keyness, and expert consultation (2021). The Filter lexical difficulty was not utilised in this study as the proposed list was already short and did not need to be further sub-divided.

Research Methodology

Data collection

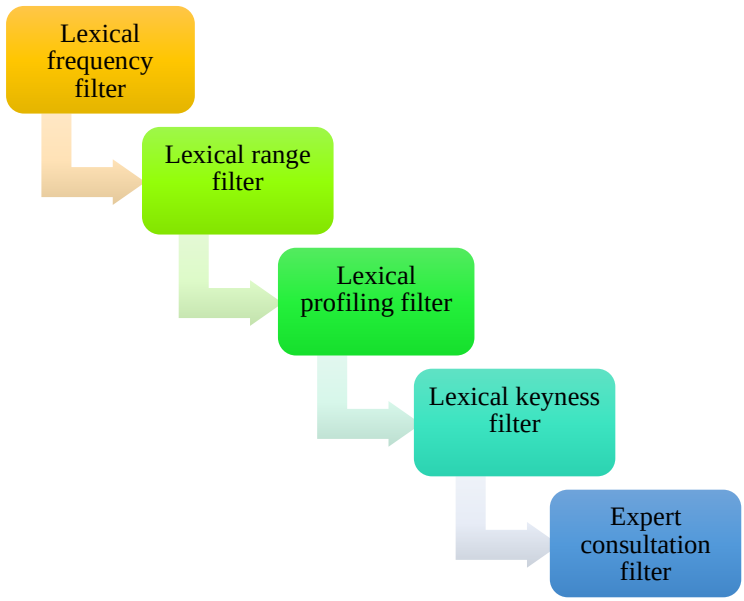
Online political news was required to compile a corpus used as a source for building the S-TPNWL, so 6 news agencies in a separate section on their official websites were randomly selected from three native-English-speaking countries: the United States, the United Kingdom, and Australia. Also, there is no strict rule about defining a cut-off point as an appropriate period of time to collect the data, especially the data concerning news. An example of a word list using news as a core source is the Newspaper Word List (Chung, 2009), for which the news texts used in the study were obtained from 23 February to 23 May 2006 (three months). Commonly, the size of the corpus is defined by the number of words in the corpus which has no fixed rules on how many words should be contained in a corpus, only that it should be appropriate for the research topic at hand. However, the larger the corpus, the better (Sinclair, 1991). Hence, we extended the period for collected news to 30 months, from January 1, 2019 to June 30, 2021, Sources were CNN and Politico (U.S.), BBC and *The Sun* (U.K.), and ABC News and 9News (Australia). As a result, the self-

compiled corpus, namely the Political News Corpus or PNC, was collected from 4,814 news items and contained 3,837,958 running words.

Data processing and research instruments

To accomplish the purpose of this study, 5 of the 6 filters were used to build the S-TPNWL using 3 main research instruments: the AntWordProfiler programme (Anthony, 2014), the Key-BNC programme (Graham, n.d.), and a questionnaire containing a list of words for expert consultation. The process applied to all words is summarised in Figure 1.

Figure 1 *Process of building the Semi-Technical Political News Word List*



To create the S-TPNWL, the procedure started with the filter lexical frequency, followed by the filter lexical range. To do this, the cut-off point of frequency and range values had to be decided. In the current study, we applied the criteria of frequency and range proposed by Coxhead (2000).

The AntWordProfiler programme (Anthony, 2014) was used for the lexical frequency filter. The cut-off point for the frequency criterion was set by calculating the following equation from Coxhead (2000).

$$\frac{100}{3{,}500{,}000} = \frac{X}{3{,}837{,}958}$$

$$X = 110$$

According to Coxhead's frequency criterion, words that appear at least 110 times across the PNC pass the lexical frequency filter.

The AntWordProfiler programme was also used in the lexical range filter. In this study, 4,814 news items were grouped by considering their presented time and news agencies. The news was collected between January 1, 2019 and June 30, 2021 (30 months) from 6 news agencies and resulted in 180 sources. According to Coxhead (2000), words must appear in at least 50 per cent of the total sources to pass the range criterion. Therefore, words that appeared in at least 90 or more sources were considered as having passed the range criterion. However, words had to pass both the frequency and range criteria to pass the lexical range filter.

The lexical profiling filter was conducted by allocating words that had passed the lexical frequency and range filters using the AntWordProfiler programme. In this study, 6 word lists were used as referent word lists, comprising the first and second 1,000 words in the GSL (West, 1953), the Academic Word List or AWL (Coxhead, 2000), the Function Word List or FWL (Nation, 2018), the Abbreviation List or AL (Nation, 2018), and the Proper Name List or PL (Nation, 2018). The FWL, AL, and PL were proposed by Nation and available at https://www.wgtn.ac.nz/lals/resources. Words allocated in the referent word lists were eliminated, whereas words allocated outside the referent word lists were considered to have passed the lexical profiling filter.

The lexical profiling filter is useful to remove possibly irrelevant words. However, it also possibly eliminates words related to political news but allocated in the GSL and AWL. Thus, the lexical keyness filter was used to return these words to the list. The Key-BNC programme (Graham, n.d.) was utilised to do a keyword analysis using the LL statistics. The cut-off point for keyword analysis ranking was determined by the value used by Todd (2017) and shown in the equation:

$$\frac{500}{1{,}150{,}000} = \frac{X}{3{,}837{,}958}$$

$$X = 1{,}669$$

Consequently, in calculating the size of the corpus, the first 1,669 words with the highest LL values were chosen. Then, these 1,669 words were investigated to determine whether they passed the frequency and range criteria. Only keywords that passed these criteria were used into the AntWordProfiler programme to extract words allocated in the GSL and AWL. Finally, these words were added to the list of words and considered to have passed the lexical keyness filter.

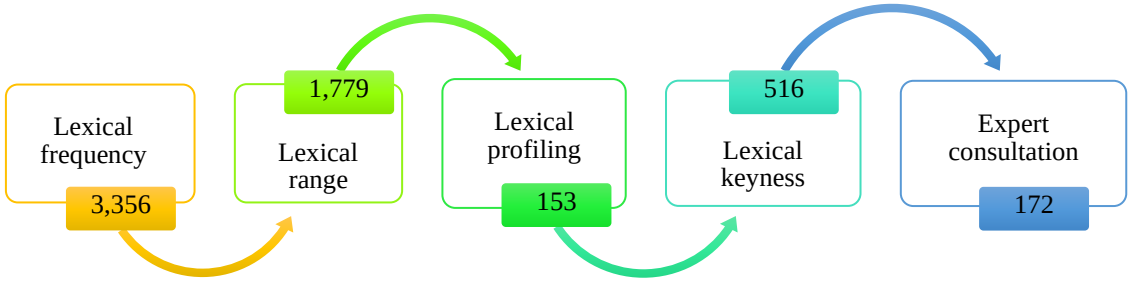
Expert consultation involved the selection of words from experts. In the current study, three experts who were lecturers teaching political science in

Bachelor's degree programmes with more than five years of experience in reading international political news and teaching political science were selected. The criterion for this filter was based on the 4-category rating scale. The first scale referred to words irrelevant to political news. The second scale referred to words of little relevance to political news. The third scale referred to words relevant to political news. The fourth scale referred to words specific to political news but not included in other fields. Words that rated 3 or 4 from two or more experts were considered to have passed the expert consultation filter.

Findings

After processing all the 3,837,958 running words in the Political News Corpus (PNC) using the lexical frequency, range, profiling, keyness, and expert consultation filters, the findings of the current study were as follows.

Figure 2 *Results of each filter*



Lexical frequency filter

After processing the lexical frequency filter using the AntWordProfiler programme, the results showed that 3,356 words appeared at least 110 times across the PNC. Some examples were t*he, to, of, a, and, in, that, for, on, is, was, with, as, has*, and *at*.

Lexical range filter

According to Coxhead (2000), this filter only passes words that occur in at least 50 percent of all sources, namely 90 sources. The findings showed that there were 1,799 words occurring in 90 sources or more. However, to pass the lexical range filter, a word must appear at least 110 times and occur in at least 90 sources. Thus, the 1,799 words were investigated for their number of appearances. As all 1,799 words appeared at least 110 times, they all passed the lexical range filter. Some examples were *ability, able, about, above, absolutely, abuse, accept, acceptance, access, according, believes, benefits, beyond, cash,* and *support*.

Lexical profiling filter

The 1,799 words from the previous filters were allocated in 7 different profiles using the AntWordProfiler programme. The results are shown in Table 1.

Table 1 *Number and percentage of words appearing in 7 profiles*

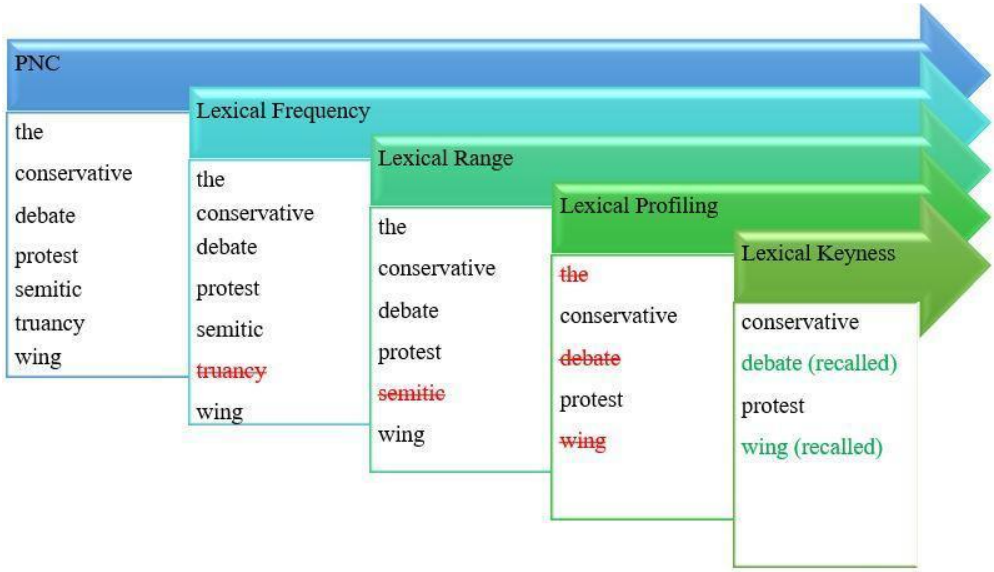
Profile	Types	Percentage
1st1,000 words in General Service List	1,028	57.14
2nd 1,000 words in General Service List	162	9.02
Academic Word List	204	11.34
Abbreviation List	197	10.95
Function Words List	4	0.22
Proper Name List	51	2.83
Off profile	153	8.50
Total	1,799	100.00

From Table 1, the GSL covered the largest proportion (approximately 66.16 per cent) of the words passing the previous filters. The off profile contained 153 words covering about 8.50 percent. The 153 words allocated in the off profile passed the lexical profiling filter and were later combined with the words passing the lexical keyness filter. Some examples from the 153 words were *ally, ballot, candidates, congress, veteran, lawmakers, opponents, agenda, senator, racial, polling, rally,* and *scrutiny.*

Lexical keyness filter

Since the lexical profiling filter might remove words relevant to political news that appear in the GSL and AWL, keyword analysis was applied to put them back in. Based on Todd (2017), the cut-off point used in this study was 1,669 words. After processing the data utilising the Key-BNC programme, the first 1,669 keywords with the highest LL values were compared with the 1,799 words that had passed the lexical frequency and range filters; from the 1,669 keywords, 573 keywords passed the first 2 filters. After that, the 573 keywords were analysed using the AntWordProfiler programme to identify and extract words that appeared in the GSL and AWL. Below are examples of words that were filtered out by the filter of the lexical frequency, range, lexical profiling and brought back into the list.

Figure 3 *Examples of filtered out words and put back by the lexical keyness filter*



From Figure 3, seven words from the PNC were filtered out gradually. The lexical frequency filter eliminated 'truancy'. Then, 'semitic' was filtered out by the range criterion. After that, 'the' and 'wing' were deleted because of their appearance in the GSL while 'debate' was removed due to its occurrence in the AWL. This showed that even though the lexical profiling filtered out many irrelevant words, it also removed some words with high potential to appear in the S-TPNWL. Therefore, the lexical keyness filter recalled some removed words based on log-likelihood, frequency, and range values. Finally, 'debate' and 'wing' were recalled. As a result, 492 keywords were allocated in the GSL and AWL. Some examples were *govern, crime, justice, military, right, administration,* and *legislate*.

Before applying the last filter, the 153 words from the lexical profiling filter and the 492 keywords from the lexical keyness filter were combined. Words appearing in both were only included once, so in total, 516 words were selected for consideration by the experts.

Expert consultation filter

First, the 516 words were narrowed down by transforming them from word types into word families. For example, govern-government-governance were transformed into govern. Consequently, the 516 words were shortened to 398 words. Words that rated a 3 or 4 from two or more experts were considered to have passed this filter. Feedback from experts with knowledge relevant to politics ensured that the final set of words was appropriate and applicable for inclusion in the S-TPNWL. The expert feedback resulted in 172 words being considered relevant and appropriate to the S-TPNWL. Some examples included

alliance, attorney, ballot, debate, nominate, senator, spokesperson, policy, justice, rally, democracy, criticism, parliament, and *conspiracy.*

Below are examples of words from the S-TPNWL with their authentic context from the PNC.

Alliance

Example 1: *The fragile **alliance** wants doctors, rather than politicians, to be the arbiters on medical transfers, and a bill is due to be voted on in parliament on Tuesday.*

Example 2: *That left May as the leader of a minority Conservative government and forced her into an **alliance** with Northern Ireland's Democratic Unionist Party.*

Example 3: *The new Senate is likely to comprise 35 coalition members, 26 Labor, nine Greens, two One Nation, two Centre **Alliance**, one Australian Conservatives and Senator Jacqui Lambie.*

Attorney

Example 4: ***Attorney**-General Christian Porter has reportedly set his sights on reforming whistleblower protections for public servants.*

Example 5*: ASIO shifted into the Home Affairs portfolio in May last year, having been in the **attorney**-general's portfolio since the agency began in 1949.*

Example 6: *With Israel's **attorney** general set to decide in the coming weeks on whether to indict Mr. Netanyahu in a series of corruption cases, the longtime Israeli leader could come under heavy pressure to step aside.*

Ballot

Example 7: *She called on voters to cast their **ballots** for the SNP and thereby strengthen Scotland's position.*

Example 8: *"In a democracy, we do not elect saviours, we cast our **ballots** for those who see our struggles and pledge to serve."*

Example 9: *The mail **ballots** already returned in several states dwarf the entire total in prior elections.*

Debate

Example 10: *Queensland's border policy and the state's economy have dominated a **debate** between Anastacia Palaszczuk and Deb Frecklington just days out from the state election.*

Example 11: *While a divisive **debate** among Democrats emerged over how far to go, they spent Wednesday celebrating their quick reversal of fortune after being so long out of power.*

Example 12: *Scott Morrison and Bill Shorten have faced their third leaders' **debate** of the election campaign.*

Nominate

Example 13: *"I do believe we are a party at risk if we **nominate** someone who's never held a higher office than the mayor of South Bend, Indiana," Biden told reporters on Saturday.*

Example 14: *Guaido said he ordered Congress to **nominate** executive boards for PDVSA and Citgo to "guarantee that Citgo continues to be for Venezuelans," according to a statement posted on his official Twitter account.*

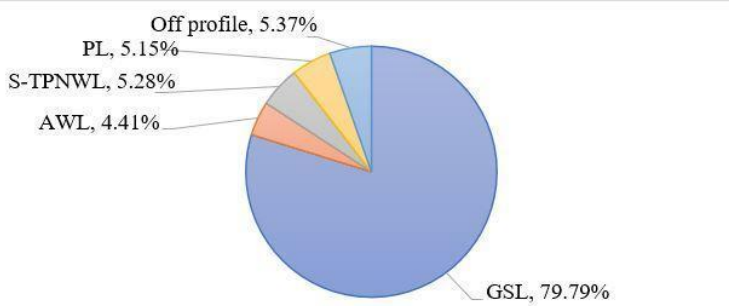
Example 15: *"At a time when climate chaos is the greatest global challenge we face, it's incredibly disturbing that President Trump has **nominated** a UN Ambassador with deep personal ties to and a financial stake in the coal industry," Democratic Sen…*

Conclusion and Discussion

This study aimed to enhance vocabulary range required by learners of and people interested in worldwide political news. The online news presented in English by native English news agencies was sampled to compile the PNC. The 6Fs, comprising the lexical frequency filter, lexical range filter, lexical profiling filter, lexical keyness filter, expert consultation filter, and lexical difficulty filter were adapted to build the S-TPNWL. However, since the total number of words contained in the S-TPNWL was limited (172 words), the lexical difficulty filter was not used in this study.

The S-TPNWL was built from news that included vocabulary required to understand political news. It should help word list users to understand the news and keep them abreast of political situations around the world. We conducted a coverage test to evaluate whether the S-TPNWL was beneficial in reading political news. See Figure 3.

Figure 3 Proportion of different word lists' coverage



The results revealed that the S-TPNWL covered approximately 5.28 percent of the PNC. Totally, when learning the GSL, AWL, and S-TPNWL, the three word lists help learners to comprehend 89.48 percent of text coverage. According to Klassen (2021), when L2 learners of English experience proper names in continuous texts, L2 learners can remember and comprehend them with no difficulty. Therefore, when combined, the GSL, AWL, S-TPNWL, and PL, with 94.63 per cent text coverage, almost satisfy the goal of 95 percent of text coverage.

One of the questions requiring clarification is whether general and academic political vocabulary that non-specialists would know should also be counted as technical vocabulary, or should only highly topic-specific words unique to the subject area be counted? According to Nation (2016), counting words as technical vocabulary depends on the purpose of the study. Since the main objective of creating the Political Science technical word list was to help learners in the field of Political Science to be familiar with specialised words used in political news and understand what they read more easily, some words that appear in the first 2,000 high frequency words and academic field but have a meaning related to political science must appear in the list. Therefore, even though the main source used to build the word list was from non-academic texts, i.e. news, using the process of creating a vocabulary list from academic texts, for example, the 6Fs could satisfy the need of learners to understand technical vocabulary used in news. Moreover, from reviewing recently conducted word list studies, many technical word lists have adapted the approach of creating a vocabulary list from academic texts to create a technical vocabulary list which is based on non-academic texts (Laosrirattanachai & Ruangjaroon, 2020, 2021; Arunvong Na Ayutthaya et al., 2022, Rungrueang et al., 2022).

The S-TPNWL can be recommended for learning autonomously or as supplementary learning material outside the classroom (Laosrirattanachai & Ruangjaroon, 2021; Todd, 2017). In classroom settings, teachers can apply it as material in the political field to expand students' vocabulary knowledge. For example, we recommend that teachers integrate game-based teaching with the S-TPNWL. According to various scholars, game-based teaching is an effective in-class tool since it has a considerable impact on motivation, experience, and understanding of learners and should be included in the curriculum (Haungs et al., 2008; Hanghøj & Brund, 2010; Kafai, 2006; Leutenegger & Edgington, 2007; Shawer, 2010; Simpson & Stansberry, 2008. Therefore, we suggest using the S-TPNWL as a source for creating Kahoot activities to maintain students' attention while in class. In this way, learners should be able to remember words more easily in a more entertaining manner than by simply memorising vocabulary from general word lists. Learners were more content and less stressed using Kahoot as an assessment tool instead of a paper test. Exercises on Kahoot should start from an easy task and then gradually increase in difficulty.

For example, an initial task might be matching definitions with provided choices. Then, learners can be challenged by providing short and long sentences with blanks and asking them to fill in the blanks with given choices. In addition, the sentences used in the cloze test should be authentic language extracted from the PNC. Then learners could compete with other classmates and could be stimulated with rewards for the winner.

Limitation of the study

This study only collected data from native-speaking news agencies in 3 countries (the United States, the United Kingdom, and Australia). Collecting data from additional countries that use English as their official language, such as Canada, New Zealand, and South Africa, may increase the variety of vocabulary. It is also suggested that political news from English countries be collected for future studies. Future word lists might reveal other aspects, for example, political terminology used by L2 users in English or some specific territory where English is spoken that are not generally used by L1 users of English.

References

Alasmary, A. A. (2019). Keywords in written academic legal texts: A corpus-derived list. *International Journal of English Linguistics, 9*(3), 40–56. https://doi.org/10.5539/ijel.v9n3p40

Andrew, B. (2013). Political journalism represented by headline news: Canadian public and commercial media compared. *Canadian Journal of Political Science, 46*(2), 455–478.

Anthony, L. (2014). *AntWordProfiler* (Windows 64-bit version 1.2.1) [Computer software]. Laurence Anthony's Website. https://www.laurenceanthony.net/software.html

Arunvong Na Ayutthaya, J., Kunthonjinda, K., Somwang, K., & Laosrirattanachai, P. (2022). Making beverage service word list for English for specific purposes classroom. *rEFLections, 29*(2), 325–343. https://so05.tci-thaijo.org/index.php/reflections/article/view/259524

Baker, P. (2006). *Using corpora in discourse analysis.* Continuum.

Benson, S., & Coxhead, A. (2022). Technical single and multiword unit vocabulary in spoken rugby discourse. *English for Specific Purposes, 66*, 111–130. https://doi.org/10.1016/j.esp.2022.02.001

Cho, H. (2015). Creating a specialized word list for ESP college students. *The Jungang Journal of English Language and Literature, 57*(1), 541-564. http://doi.org/10.18853/jjell.2015.57.1.026

Choi, S. (2014). Flow, diversity, form, and influence of political talk in social-media-based public forums. *Human Communication Research, 40*(2), 209–237.

Chung, M. (2009). The newspaper word list: A specialised vocabulary for reading newspapers. *JALT Journal, 31*(2). 159–182.

Chung, T. M., & Nation, I. S. P. (2004). Identifying technical vocabulary. *System, 32*(2), 251–263. https://doi.org/10.1016/j.system.2003.11.008

Coxhead, A. & Demecheleer, M. (2018). Investigating the technical vocabulary of Plumbing. *English for Specific Purposes, 51*, 84–97. https://doi.org/10.1016/j.esp.2018.03.006

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly, 34*(2), 213–238.

Coxhead, A., & Byrd, P. (2007). Preparing writing teachers to teach the vocabulary and grammar of academic prose. *Journal of Second Language Writing, 16*(3), 129–147.

Dang, T. N. Y., & Webb, S. (2014). The lexical profile of academic spoken English. *English for Specific Purposes, 33*, 66–76. https://doi.org/10.1016/j.esp.2013.08.001

Gardner, D., & Davies, M. (2014). A new academic vocabulary list. *Applied Linguistics, 35*(3), 305–327. https://doi.org/10.1093/applin/amt015

Graham, D. (n.d.). *Key-BNC*. [Computer software]. Centre for Research Support. http://crs2.kmutt.ac.th/Key-BNC/

Hanghøj, T. & Brund, C. E. (2010). Teacher roles and positionings in relation to educational games. In B. Meyer (Ed.), *ECGBL 2010 Proceedings* (pp. 115–122). Academic Conferences and Publishing International.

Haungs, M., Clements, J. & Janzen, D. S. (2008, June 22–25). *Improving engineering education through creativity, collaboration, and context in a first year course* [Conference session]. American Society for Engineering Education Annual Conference and Exposition, Pittsburgh, Pennsylvania.

Hwang, Y., & Lin, S. (2010). A study of medical students' linguistic needs in Taiwan. *Asian ESP Journal, 6*(1), 35–58.

Hyland, K. (2012). *Disciplinary identities: Individuality and community in academic discourse*. Cambridge University Press.

Johnson, S., & Esslin, A. (2006). Language in the news: Some reflections on keyword analysis using WordSmith Tools and the BNC. *Leeds Working Papers in Linguistics and Phonetics, 11*, 13.

Kafai, Y. B. (2006). Playing and making games for learning: Instructionist and constructionist perspectives for game studies. *Games and Culture, 1*(1), pp. 36–40. https://doi.org/10.1177/1555412005281767

Khani, R., & Tazik, K. (2013). Towards the development of an academic word list for applied linguistics research articles. *RELC Journal, 44*(2), 209–232. https://doi.org/10.1177/0033688213488432

Klassen, K. (2021). Proper name theory and implications for second language reading. *Language Teaching, 55*(2), 149–155. https://doi.org/10.1017/S026144482100015X

Konstantakis, N. (2007). Creating a business word list for teaching business English. *Estudios de Linguistica Inglesa Aplicada (ELIA), 7*, 79–102.

Kwary, D. A., & Artha, A. F. (2017). The academic article word list for social sciences. *MEXTESOL Journal, 41*(4), 1-11.

Laosrirattanachai, P., & Laosrirattanachai, P. (2021). Applying lexical profiling to construct technical word lists for Thai tourist guides. *PASAA, 62*, 61–91.

Laosrirattanachai, P., & Ruangjaroon, S. (2020). The word lists of hospitality service review construction. *Journal of Studies in the English Language, 15*(1), 107–158. https://so04.tci-thaijo.org/index.php/jsel/article/view/211119

Laosrirattanachai, P., & Ruangjaroon, S. (2021). Corpus-based creation of tourism, hotel, and airline business word lists. *LEARN Journal: Language Education and Acquisition Research Network, 14*(1), 50–86.

Leutenegger, S., & Edgington, J. (2007). A games first approach to teaching introductory programming. *ACM SIGCSE Bulletin, 39*(1), 115–118. https://doi.org/10.1145/1227504.1227352

Lindquist, H. (2009). *Corpus linguistics and the description of English.* Edinburgh University Press.

Liu, J., & Han, L. (2015). A corpus-based environmental academic word list building and its validity test. *English for Specific Purposes, 39*, 1-11. https://doi.org/10.1016/j.esp.2015.03.001

Lu, C., Boers, F., & Coxhead, A. (2021). Exploring learners' understanding of technical vocabulary in Traditional Chinese Medicine. *Studies in Second Language Learning and Teaching, 11*(1), 71–101. https://doi.org/10.14746/ssllt.2021.11.1.4

Martinez, I. A., Beck, S. C., & Panza, C. B. (2009). Academic vocabulary in agriculture research articles: A corpus-based study. *English for Specific Purposes, 28*(3), 183–198. https://doi.org/10.1016/j.esp.2009.04.003

Michels, A., & de Graaf, L. (2010). Examining citizen participation: Local participatory policy making and democracy. *Local Government Studies, 36*(4), 477–491.

Muñoz, V. L. (2015). The Vocabulary of agriculture semi-popularization articles in English: A corpus-based study. *English for Specific Purposes, 39*, 26–44. https://doi.org/10.1016/j.esp.2015.04.001

Nation, I. S. P. (2016). *Making and using word lists for language learning and testing*. John Benjamins.

Nation, I. S. P. (2022). *Learning vocabulary in another language* (3rd ed.). Cambridge University Press.

Nation, I. S. P. (2018, April 10). *Resources*. Victoria University of Wellington. Retrieved April 10, 2018, from https://www.wgtn.ac.nz/lals/resources

Nation, I. S. P., & Hwang, K. (1995). Where would general service vocabulary stop and special purposes vocabulary begin? *System, 23*(1), 35–41. https://doi.org/10.1016/0346-251X(94)00050-G

Nation, I. S. P., & Waring, R. (1997). Vocabulary size, text coverage and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 6–19). Cambridge University Press.

O'Flynn, J. A. (2019). An economics academic word list (EAWL): Using online resources to develop a subject-specific word list and associated teaching-learning materials. *Journal of Academic Language and Learning, 13*(1), A28-A87. https://journal.aall.org.au/index.php/jall/article/view/592

O'Keeffe, A., McCarthy, M., & Carter, R. (2007). *From corpus to classroom: Language use and language teaching*. Cambridge University Press.

Pojanapunya, P., & Todd, R. W. (2018). Log-likelihood and odds ratio: Keyness statistics for different purposes of keyword analysis. *Corpus Linguistics and Linguistic Theory, 14*(1), 133–167. https://doi.org/10.1515/cllt-2015-0030

Reddy, S. (2016). Importance of English language in today's world. *International Journal of Academic Research, 3*(4-2), 179–184.

Rungrueang, T., Boonprasert, P., Poempongsajaroen, S., & Laosrirattanachai, P. (2022). Corpus-based approach to generate a word list for food service. *THAITESOL Journal, 35*(1), 57–76.

Schutz, N. (2013). How specific is English for academic purposes? A look at verbs in business, linguistics and medical research articles. In G. Andersen & K. Bech (Eds.), *Language and Computers* (Vol. 77, pp. 237–257). Brill.

Scott, M. (2001). Mapping key words to problem and solution. In M. Scott & G. Thompson (Eds.), *Patterns of text: In honor of Michael Hoey* (pp. 109–128). John Benjamins.

Scott, M., & Tribble, C. (2006). *Textual pattern: Key words and corpus analysis in language education.* John Benjamins.

Shawer, S. F. (2010). Classroom-level curriculum development: EFL teachers as curriculum-developers, curriculum-makers and curriculum-transmitters. *Teaching and Teacher Education, 26*(2), 173–184. https://doi.org/10.1016/j.tate.2009.03.015

Simpson, E. & Stansberry, S. (2008). Video games and teacher development: Bridging the gap in the classroom. In C. T. Miller (Ed.), *Games: Purpose and potential in education* (pp. 163–184). Springer.

Sinclair, J. (1991). *Corpus, concordance, collocation: Describing English language*. Oxford University Press.

Smith, D. G., & Pennock, R. J. (1964). *Political science: An introduction*. Macmillan.

Tangpijaikul, M. (2014). Preparing business vocabulary for the ESP classroom. *RELC Journal, 45*(1), 51–65. https://doi.org/10.1177/0033688214522641

Thorndike, E. L. (1921). *The teacher's word book.* Columbia Teachers College.

Todd, R. W. (2017). An opaque engineering word list: Which words should a teacher focus on? *English for Specific Purposes, 45*, 31–39. https://doi.org/10.1016/j.esp.2016.08.003

Valipouri, L., & Nassaji, H. (2013). A corpus-based study of academic vocabulary in chemistry research articles. *Journal of English for Specific Purposes, 12*(4), 248–263.

van Zeeland, H., & Schmitt, N. (2013). Lexical coverage in L1 and L2 listening comprehension: The same or different from reading comprehension? *Applied Linguistics, 34*(4), 457–479. https://doi.org/10.1093/applin/ams074

Wang, J., Liang, S.-I., & Ge, G. (2008). Establishment of a medical academic word list. *English for Specific Purposes, 27*(4), 442–458. https://doi.org/10.1016/j.esp.2008.05.003

Ward, J. (2009). A basic engineering English word list for less proficient foundation engineering undergraduates. *English for Specific Purposes, 28*(3), 170–182. https://doi.org/10.1016/j.esp.2009.04.001

West, M. (1953). *A general service list of English words*. Longman.

Wilkins, D. (1972). *Linguistics in language teaching*. Edward Arnold.

Yang, M.-N. (2015). A nursing academic word list. *English for Specific Purposes, 37*, 27–38. https://doi.org/10.1016/j.esp.2014.05.003

Appendix

1. Abuse	2. Accuse	3. Act	4. Address	5. Administration
6. Affair	7. Agenda	8. Agree	9. Ahead	10. Allege
11. Alliance	12. Ambassador	13. Announce	14. Appeal	15. Attack
16. Attorney	17. Ballot	18. Ban	19. Bill	20. Blame
21. Border	22. Boss	23. Budget	24. Cabinet	25. Call
26. Campaign	27. Candidate	28. Cast	29. Centre	30. Challenge
31. Chamber	32. Charge	33. Chief	34. Cite	35. Citizen
36. City	37. Civil	38. Claim	39. Coalition	40. Commission
41. Committee	42. Community	43. Concern	44. Congress	45. Conservative
46. Conspiracy	47. Constitution	48. Controversy	49. Convention	50. Corrupt
51. Counsel	52. Counter	53. Court	54. Crime	55. Crisis
56. Critic	57. Deal	58. Debate	59. Decision	60. Declare
61. Defend	62. Deliver	63. Democracy	64. Deny	65. Department
66. Deputy	67. Document	68. Elect	69. Enforce	70. Engage
71. Executive	72. Federal	73. Fellow	74. File	75. Force
76. Fraud	77. Free	78. Fund	79. General	80. Govern
81. Handle	82. House	83. Immigrate	84. Impeach	85. Independent
86. Inquire	87. Insist	88. Intelligence	89. Interfere	90. Interview
91. Investigate	92. Issue	93. Justice	94. Labour	95. Law
96. Lawmaker	97. Lawyer	98. Legal	99. Legislate	100. Liberal
101. Majority	102. Mayor	103. Member	104. Message	105. Military
106. Minister	107. Minor	108. Moderate	109. Nation	110. Negotiate
111. Nominate	112. Office	113. Official	114. Opponent	115. Oppose
116. Parliament	117. Party	118. Platform	119. Pledge	120. Policy
121. Politics	122. Poll	123. Post	124. Power	125. Prime minister
126. President	127. Press	128. Probe	129. Process	130. Programme
131. Progress	132. Promise	133. Protect	134. Protest	135. Quit
136. Race	137. Rally	138. Reform	139. Report	140. Represent
141. Republic	142. Resign	143. Rights	144. Rival	145. Rule
146. Run	147. Scandal	148. Scrutiny	149. Seat	150. Secretary
151. Senate	152. Sign	153. Speech	154. Stand	155. Spokesperson
156. State	157. Strategy	158. Support	159. Swing	160. Tax
161. Territory	162. Threat	163. Tie	164. Trial	165. Troop
166. Union	167. Veteran	168. Vice	169. Victory	170. Violence
171. Vote	172. Wing			