

Using the Four Strands to Help Students Learn the Academic Word List

David Truxal

Abstract: In this paper, I will briefly describe the Academic Word List (Coxhead, 2000), outline its importance for learners with academic pursuits, and introduce a short vocabulary course based on Paul Nation's idea of the four strands (Nation, 2007). This vocabulary course will incorporate the four strands of language-focused learning, meaning-focused input, meaning-focused output, and fluency development. It will focus on vocabulary from the Academic Word List in a well-balanced manner so as to increase learners' overall, usable, academic vocabulary size and to enable them to gain control over a variety of vocabulary learning activities for each of the four strands. It will also provide rationale for decisions regarding the various vocabulary activities which will be included.

Keywords: *Four strands, Academic word list, Vocabulary learning, Fluency development*

The Academic Word List

The Academic Word List (AWL) (See Appendix A) is a list of vocabulary words that was compiled from a corpus of 3.5 million running words of written academic text and contains 570 word families accounting for “approximately 10.0% of the total words (tokens) in academic texts but only 1.4% of the total words in a fiction collection of the same size” (Coxhead, 2000, p.213). This significant difference in coverage is evidence that the list predominantly contains academic words. The list highlights words that university students (or anyone with academic pursuits) will meet in a wide variety of academic texts and helps them to understand which words are most worth studying. The list is crucial for these types of learners to learn because academic vocabulary can cause a great deal of difficulty as students are usually not as familiar with academic words as they are with technical vocabulary (i.e. words specific to a particular field of study) and also because academic words occur less frequently than general-service list (i.e. a list of the most widely useful 2,000 word families in English) vocabulary items do (Coxhead, 2000). Academic words are not highly salient in academic texts, and they perform more of a supportive role than a central one to the topics of the texts in which they occur (Coxhead, 2000). That being said, since academic words account for approximately 10% of the tokens in an academic text, their knowledge is crucial for students to be able to more fully comprehend what they are reading or listening to.

Overall Plan of the Vocabulary Course

Planning is perhaps the most important job of the vocabulary teacher for conducting a successful vocabulary course. If planning results in making tomorrow's work easier, then the teacher has succeeded. The overall plan of this course will be to teach the vocabulary from the AWL equally across the four strands (about 25% of total time for each strand) of language-focused learning, meaning-focused input, meaning-focused output, and fluency development. This type of approach allows for a complementary style of learning whereby each of the strands brings a different strength, altogether providing a balanced system of learning. Learners need to focus on this vocabulary in both message-focused and language-focused ways so as to make it a part of their working knowledge of English and thus "help make their academic study more manageable." (Coxhead, 2000, p.229). A wide range of vocabulary activities will be used and incorporated into this course so as to offer learners the best chance of maximizing their academic vocabulary learning.

Language-focused Learning

This strand of the course involves deliberate learning of language features and aims to deal with messages and learn language items. Though the vocabulary in the AWL is "closely related to high frequency vocabulary" (Chung, T.W., & Nation, P., 2003, p.104), for the purposes of this paper, academic vocabulary will be treated as low-frequency words. One of the most effective ways of dealing with low-frequency words (as they have to be dealt with differently than high-frequency words) is through vocabulary learning strategies such as: (1) guessing from context, (2) analyzing word parts, (3) using dictionaries, (4) direct learning using word cards, and (5) direct learning using Quizlet.

(1) Guessing from context

According to Nation (2004), guessing from context is "the most important of all vocabulary learning strategies." (p.25). This strategy is important because: (1) it accounts for most vocabulary learning by native speakers, (2) it has numerous benefits in contributing to reading and listening comprehension, (3) it is effective, and (4) it is necessary for dictionary use. In situations where this strategy will be used, it is imperative that learners know approximately 95% of the running words of what they are reading or hearing. The steps involved in this strategy include:

Step 1. Decide on the part of speech of the unknown word and ask, "What does what?"

Step 2. Look at the immediate context of the unknown word and simplify if necessary

Step 3. Look at the wider context of the word and the relationship it has with adjoining sentences or clauses

Step 4. Guess

Step 5. Check the guess- Is the guess the same part of speech as the unknown word?

Substitute the guess for the unknown word and ask if it fits comfortably in the context

Break the word into word parts and ask if the meaning of the parts supports the guess
Look the word up in a dictionary. (Nation, 2001)

The goal for knowing these steps is to become more fluent and skillful at guessing from context so that the guessing does not substantially interrupt the normal flow of reading.

(2) Analyzing word parts

Research has shown that one of the main ways a native speaking learner's vocabulary increases is through recognizing and building new words by gaining control of prefixes and suffixes. A knowledge of these affixes, as well as word roots, is beneficial for a learner of English in two ways: (1) it can be used to help the learning of unfamiliar words by relating these words to either known words or affixes, and (2) it can be used as a way of checking whether an unfamiliar word has been successfully guessed from context. Most learners learning the AWL are aware that words are made up of word parts, however it will be imperative to raise their awareness in order to gain the knowledge necessary to become more fluent and comfortable with this vocabulary learning strategy. Since "more than 82% of the words in the AWL are of Greek or Latin origin" (Coxhead, 2000, pp.228-229) and since a large proportion of the words coming from Latin or Greek make use of affixes (Nation, 2001), concentrated study on the various affixes of academic vocabulary will be not just necessary, but of vital importance. The word part strategy for learning new complex words involves two steps:

Step 1. Break the unknown word into parts

This will require being able to recognize affixes when they occur in words. The time-on-task principle (Nation, 2007) states that the more practice a learner has at recognizing these affixes, the better he/she will be at doing it.

Step 2. Relate the meaning of the word parts to the meaning of the word

To prepare learners for the ability to comprehend new words as they encounter them, they will do some listing and classifying exercises as well as use word cards or Quizlet for more direct learning. Once learners are more comfortable with various affixes, they will do various activities such as "word-making and word taking" (Fountain, 1979, as cited by Nation, 2001, p.279) as well as "Bingo-type games" (Bernbrock, 1980, as cited by Nation, 2001, p.279).

(3) Using dictionaries

According to Nation (2010), dictionaries can help learners in three major ways: (1) they can help learners understand words they meet while reading and listening, (2) they can help learners find words that they need for speaking and writing, and (3) they can help learners remember words. For academic vocabulary, learners should use both monolingual and bilingual dictionaries, as, according to Laufer & Hadar (1997), monolingual dictionaries can provide more detailed and precise information about the word than the bilingual dictionary but the bilingual dictionary is useful for "quick consultation." (p.189). To more effectively use a monolingual dictionary, learners will be instructed in the following techniques:

(a) Find the core meaning among the various definitions given for a word

(b) Look for related words

If the word being investigated is related to a known word, learning the new form and meaning will be much easier and should account for generative thought processing as well.

(c) Read and picture the example sentences

Reading the example sentences illustrating the meaning of the word and its typical use increases knowledge about the word, and making a visual picture in the mind of the meaning of the sentence will help that word and its meaning to be remembered. (Nation, 2001).

(4) Using word cards

As vocabulary learning is a cumulative process, one of the first steps in learning a word is the use of word cards, and as a direct learning strategy of vocabulary, is fast, efficient, widely applicable, and helps incidental learning “by raising consciousness of particular words and providing knowledge that can be enriched and strengthened through incidental meaning-focused learning.” (Nation, 2001, p.316). The words for this activity will come primarily from the meaning-focused input and output strands of the course and will include additional words the learners encounter in their reading and listening activities. Some of the techniques learners will be instructed on are:

(a) Spacing between learning repetitions

(b) What information to include on the word card itself, i.e. sentence context or collocations

(c) What words to put on cards giving special attention to higher-frequency (at first) academic words

(d) What to do with each word, i.e. practicing its spoken form and using mnemonic techniques like the keyword technique (Nation, 2001), whenever a word is difficult to remember

(e) How to avoid the serial learning effect by changing the order of the words in the pack

(f) How to be aware of interference effects of semantically related words and to avoid including such related words in the same pack (Nation, 2000)

In terms of the above techniques, it is quite possible that spacing between learning repetitions (i.e. spaced repetition or distributed practice) is the most important technique of them all. There are numerous studies that have shown the benefits of spaced practice over massed practice (Cepeda, Pashler, Vul, Wixted & Rohrer, 2006) and a recent comprehensive review of various learning strategies gave distributed practice one of the highest ratings overall based on the available research evidence (Dunlosky, Rawson, Marsh, Nathan & Willingham, 2013).

In learning with word cards, attention needs to be paid to both the formal and semantic aspects of words and the deeper the associations that are made with existing knowledge, the better are the chances that the new information will be retained. (Laufer, B., & Hulstijn, J., 2001).

(5) Quizlet

Along the same lines of using word cards in terms of being a direct learning vocabulary strategy, Quizlet is a mobile and web-based study application that allows teachers and students to create and share online learning materials. It provides interesting and customizable activities that can be shared with other students in their class or with people all around the world. Teachers can make sets of vocabulary items which students can access at any time to study or take quizzes. Teachers can also track students' progress online to gauge how well their students are progressing. Students can create flashcards of their own lists which can be tailored more specifically to their learning needs. They can also practice spelling, play learning games and collaborate with other students. Statistics vary of course, but there is no doubt that smartphones have become extremely popular with younger people. Some estimates are as high as 96% of UK 16-24 year olds (UK: Smartphones, 2017, August), 94% of American 18-29 year olds (Mobile Fact Sheet, 2018, February 5), and 70.6% of Japanese 10-18 year olds (Ishikawa, 2012, February 28) owning their own smartphones. Therefore, as ubiquitous as smartphones have become, applications like this can play a very useful role in academic vocabulary learning.

Meaning-focused Input

This strand of the course involves learning through listening and reading, or receptive language use (Nation, 2007). Here, the learners' main focus should be on understanding and "gaining knowledge or enjoyment or both from what they listen to or read." (Nation, 2007, p.2). For this strand to exist, it is imperative that: (1) the learners are interested in the input and want to understand it, (2) most of the material they are listening to or reading is familiar to them (95-98% of the running words should be within the learners' previous knowledge), (3) the learners "can gain some knowledge of the unknown language items through context clues and background knowledge" (Nation, 2007, p.2), and (4) there is a large amount of input. Three activities will be included in this strand.

(1) Reading academic texts, newspapers and online news sources

Academic texts in this context do not mean academic textbooks per se, but any written material that is of an academic nature, preferably materials that are interesting and relevant to the learner. The materials should be varied in subject matter so as to provide the learners with a wide array of academic vocabulary. So for example if a learner is primarily studying biology as their field of study, he/she should also read material about history, economics, or law, in order to get a well-rounded coverage of academic vocabulary.

Newspapers can also be a good way of encountering academic vocabulary "probably because newspaper writing is largely formal and serious and is marked by the Latinate vocabulary found in a range of texts." (Nation, 2006, p.71). Newspapers are especially varied in scope and contain almost any subject imaginable, and thus are able to appeal to

a wide variety of learners.

Nowadays, due to the popularity of smartphones and computer-based technology, online news applications have become efficient and convenient ways to access news. Online versions of traditional paper-based newspapers allow readers to read their favorite paper anywhere at anytime. Computer and smartphone applications like Flipboard allow users to customize what kinds of articles they read and allow readers a wide variety of academic material.

(2) Listening to news programs

Learners will listen to various news programs on the radio, TV, or the internet, focusing on the academic vocabulary they encounter. Though spoken discourse is often less formal than written discourse, news programs are good sources of input for encountering academic vocabulary and are often enjoyable for learners to listen to.

(3) TED Talks

Since 1984, TED (Technology, Entertainment and Design) Talks has featured short (18 minutes or less), powerful lectures on virtually any topic from science to business to global issues. It has become an invaluable English-learning resource since going online in 2007 (TED Talks, n.d.). The talks are given by both native and non-native English speakers which gives listeners great opportunities to listen to a wide variety of English accents. Also free English transcripts and subtitles are available for most of the lectures which are useful for students learning academic vocabulary.

Meaning-focused Output

As contrasted with the meaning-focused input strand, meaning-focused output involves learning through speaking and writing, or productive language use (Nation, 2007). Productive use of academic vocabulary is important for academic success and using academic vocabulary “helps users by letting them put their knowledge on display.” (Nation, 2001, p.197). The same types of conditions (e.g. familiar, interesting material, etc.) for meaning-focused input need to exist for meaning-focused output as well. Two main activities will be included in this strand.

(1) Written summaries

This activity will involve writing summaries of the material that was encountered in the meaning-focused input strand. Learners will be able to choose which input material they would like to summarize (e.g. newspaper article, internet news story, TV program, TED Talk etc.) and will focus on the academic vocabulary that they encountered in the material they chose.

(2) Text/reading discussions

This activity will involve spoken production of the material encountered in the meaning-

focused input strand as the learners will orally present the material they chose to summarize. Learners will be able to present reading material to the class (i.e. in individual or group presentations) or choose topics to lead class discussions.

Fluency Development

This strand of the course should involve the four skills of listening, speaking, reading, and writing. In this strand, the learners' goal is to receive and convey messages, making the best use of what they already know. The activity that will be used in this strand comes from an idea developed by Nikhat Shameem and Alison Hamilton-Jenkins at the English Language Institute at Victoria University of Wellington called *issue logs* (italics mine-Nation, 2001, p.197). Issue logs work something like this: learners choose a topic (e.g. global warming, ecotourism, American politics, etc.) that they will follow and become an expert on for a few weeks. Each learner finds and reads newspaper or internet reports about their topic, listens to TV, the internet, and/or news radio and then writes a summary of events related to their topic. They then orally present (weekly) their summary/report to the other members of the class or group who in turn discuss the learner's report.

This activity involves learners using the four skills "with repeated attention to the same topic area" (Nation, 2001, p.197), and brings "a lot of background knowledge to their reading and discussion" (Nation, 2001, p.197), which are ideal conditions for fluency development.

Summary

In this brief paper I have described the AWL and outlined its importance for learners with academic pursuits. I have also introduced a brief academic vocabulary course designed on the four strands idea. Equal time will be given to the four strands of language-focused learning, meaning-focused input, meaning-focused output, and fluency development, in an effort to increase learners' usable academic vocabulary size and to help them gain control over important vocabulary learning strategies. Various activities across the four strands have been incorporated into the course that will encourage receptive and productive retrieval, and generative use of the target vocabulary, and the rationale for including these activities has a sound basis. Knowledge of the AWL will allow learners with academic pursuits to achieve greater academic success and will broaden their English academic vocabulary horizons as a whole.

References

- Cepeda, N.J., Pashler, H., Vul, E., Wixted, J.T., & Rohrer, D. (2006). Distributed practice in verbal recall tasks: A review and quantitative synthesis. *Psychological Bulletin*, 134, pp.354-380.
- Chung, T. W., & Nation, P. (2003). Technical vocabulary in specialized texts. *Reading in a Foreign Language*, 15 (2), pp.103-116.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34 (2), pp.213-238.
- Dunlosky, J., Rawson, K.A., Marsh, E.J., Nathan, M.J., & Willingham, D.T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14, pp.4-58.
- Ishikawa, Y. (2012, February 28). Smartphones and teens consumed by connectedness. Retrieved from <https://www.nippon.com/en/currents/d00292/>
- Laufer, B., & Hadar, L. (1997). Assessing the effectiveness of monolingual, bilingual, and "bilingualised" dictionaries in the comprehension and production of new words. *The Modern Language Journal*, 81 (2), pp.189-196.
- Laufer, B., & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22 (1), pp.1-26.
- Mobile Fact Sheet, (2018, February 5). Retrieved from <http://www.pewinternet.org/fact-sheet/mobile/>
- Nation, I. S. P. (2000). Learning vocabulary in lexical sets: Dangers and guidelines. *TESOL Journal*, 9 (2), pp.6-10.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, I. S. P. (2004). Vocabulary learning and intensive reading. *EA Journal*, 21 (2), pp.20-29.
- Nation, I. S. P. (2006). How large a vocabulary is needed for reading and listening? *The Canadian Modern Language Review*, 63 (1), pp.59-82.
- Nation, I. S. P. (2007). The four strands. *Innovation in Language Learning and Teaching*, 1 (1), pp.1-12.
- TED: Ideas worth spreading, (n.d.). Retrieved from <https://www.ted.com/talks>
- UK: Smartphone ownership by age from 2012-2017. (2017, August). Retrieved from <https://www.statista.com/statistics/271851/smartphone-owners-in-the-united-kingdom-uk-by-age/>

Appendix A

Headwords (i.e. stem noun or verb forms) of the Word Families in the Academic Word List

abandon	abstract	academy	access	accommodate	accompany
accumulate	accurate	achieve	acknowledge	acquire	adapt
adequate	adjacent	adjust	administrate	adult	advocate
affect	aggregate	aid	albeit	allocate	alter
alternative	ambiguous	amend	analogy	analyze	annual
anticipate	apparent	append	appreciate	approach	appropriate
approximate	arbitrary	area	aspect	assemble	assess
assign	assist	assume	assure	attach	attain
attitude	attribute	author	authority	automate	available
aware	behalf	benefit	bias	bond	brief
bulk	capable	capacity	category	cease	challenge
channel	chapter	chart	chemical	circumstance	cite
civil	clarify	classic	clause	code	coherent
coincide	collapse	colleague	commence	comment	commission
commit	commodity	communicate	community	compatible	compensate
compile	complement	complex	component	compound	comprehensive
comprise	compute	conceive	concentrate	concept	conclude
concurrent	conduct	confer	confine	confirm	conflict
conform	consent	consequent	considerable	consist	constant
constitute	constrain	construct	consult	consume	contact
contemporary	context	contract	contradict	contrary	contrast
contribute	controversy	convene	converse	convert	convince
cooperate	coordinate	core	corporate	correspond	couple
create	credit	criteria	crucial	culture	currency
cycle	data	debate	decade	decline	deduce
define	definite	demonstrate	denote	deny	depress
derive	design	despite	detect	deviate	device
devote	differentiate	dimension	diminish	discreet	discriminate
displace	display	dispose	distinct	distort	distribute
diverse	document	domain	domestic	dominate	draft
drama	duration	dynamic	economy	edit	element
eliminate	emerge	emphasis	empirical	enable	encounter
energy	enforce	enhance	enormous	ensure	entity
environment	equate	equip	equivalent	erode	error
establish	estate	estimate	ethic	ethnic	evaluate
eventual	evident	evolve	exceed	exclude	exhibit
expand	expert	explicit	exploit	export	expose
external	extract	facilitate	factor	feature	federal
fee	file	final	finance	finite	flexible
fluctuate	focus	format	formula	forthcoming	foundation
found	framework	function	fund	fundamental	furthermore
gender	generate	generation	globe	goal	grade
grant	guarantee	guideline	hence	hierarchy	highlight
hypothesis	identical	identify	ideology	ignorance	illustrate
image	immigrate	impact	implement	implicate	implicit
imply	impose	implicit	imply	impose	incitative
incidence	incline	income	incorporate	index	indicate
individual	induce	inevitable	infer	infrastructure	inherent
inhibit	initial	initiate	injure	innovate	input

insert	insight	inspect	instance	institute	instruct
integral	integrate	integrity	intelligence	intense	interact
intermediate	internal	interpret	interval	intervene	intrinsic
invest	investigate	invoke	involve	isolate	issue
item	job	journal	justify	label	labor
layer	lecture	legal	legislate	levy	liberal
license	likewise	link	locate	logic	maintain
major	manipulate	manual	margin	mature	maximize
mechanism	media	mediate	medical	medium	mental
method	migrate	military	minimal	minimize	minimum
ministry	minor	mode	modify	monitor	motive
mutual	negate	network	neutral	nevertheless	nonetheless
norm	normal	notion	notwithstanding	nuclear	objective
obtain	obvious	occupy	occur	odd	offset
ongoing	option	orient	outcome	output	overall
overlap	overseas	panel	paradigm	paragraph	parallel
parameter	participate	partner	passive	perceive	percent
period	persist	perspective	phase	phenomenon	philosophy
physical	plus	policy	portion	pose	positive
potential	practitioner	precede	precise	predict	predominant
preliminary	presume	previous	primary	prime	principal
principle	prior	priority	proceed	process	professional
prohibit	project	promote	proportion	prospect	protocol
psychology	publication	publish	purchase	pursue	qualitative
quote	radical	random	range	ratio	rational
react	recover	refine	regime	region	register
regulate	reinforce	reject	relax	release	relevant
reluctance	rely	remove	require	research	reside
resolve	resource	respond	restore	restrain	restrict
retain	reveal	revenue	reverse	revise	revolution
rigid	role	route	scenario	schedule	scheme
scope	section	sector	secure	seek	select
sequence	series	sex	shift	significant	similar
simulate	site	so-called	sole	somewhat	source
specific	specify	sphere	stable	statistic	status
straightforward	strategy	stress	structure	style	submit
subordinate	subsequent	subsidy	substitute	successor	sufficient
sum	summary	supplement	survey	survive	suspend
sustain	symbol	tape	target	task	team
technical	technique	technology	temporary	tense	terminate
text	theme	theory	thereby	thesis	topic
trace	tradition	transfer	transform	transit	transmit
transport	trend	trigger	ultimate	undergo	underlie
undertake	uniform	unify	unique	utilize	valid
vary	vehicle	version	via	violate	virtual
visible	vision	visual	volume	voluntary	welfare
whereas	whereby	widespread			