

***Cracking the Academic Vocabulary Code:
Expanding Opportunities for English Language Learners***

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By Raise of Hands,

How Many of You are Literate?

温度告诉我们有些

东西的热或冷。 在

夏天，空气的温度常常

是热的，但是在冬天，

空气的温度常常是冷的。



Rosetta Stone
(discovered in 1799)

← **Egyptian Hieroglyphs** (unknown)

← **Demotic Script** (known)

← **Ancient Greek** (known)

温度告诉我们有些

东西的热或冷。 在

夏天，空气的温度常常

是热的，但是在冬天，

空气的温度常常是冷的。

温度告诉我们有些

wēn dù gào sù wǒ mén yǒu xiē

东西的热或冷。在

dōng xī de rè huò lěng zài

夏天，空气的温度常常

xià tiān kōng qì de wēn dù cháng cháng

是热的，但是在冬天，

shì rè de dàn shì zài dōng tiān

空气的温度常常是冷的。

kōng qì de wēn dù cháng cháng shì lěng de

(temperature)(tells)(us)(some)

温度告诉我们有些

wēn dù gào sù wǒ mén yǒu xiē

(things) hot or cold in

东西的热或冷。在

dōng xī de rè huò lěng zài

(summer) (air) (temperature)(often)

夏天，空气的温度常常

xià tiān kōng qì de wēn dù cháng cháng

is (hot) (but) in (winter)

是热的，但是在冬天，

shì rè de dàn shì zài dōng tiān

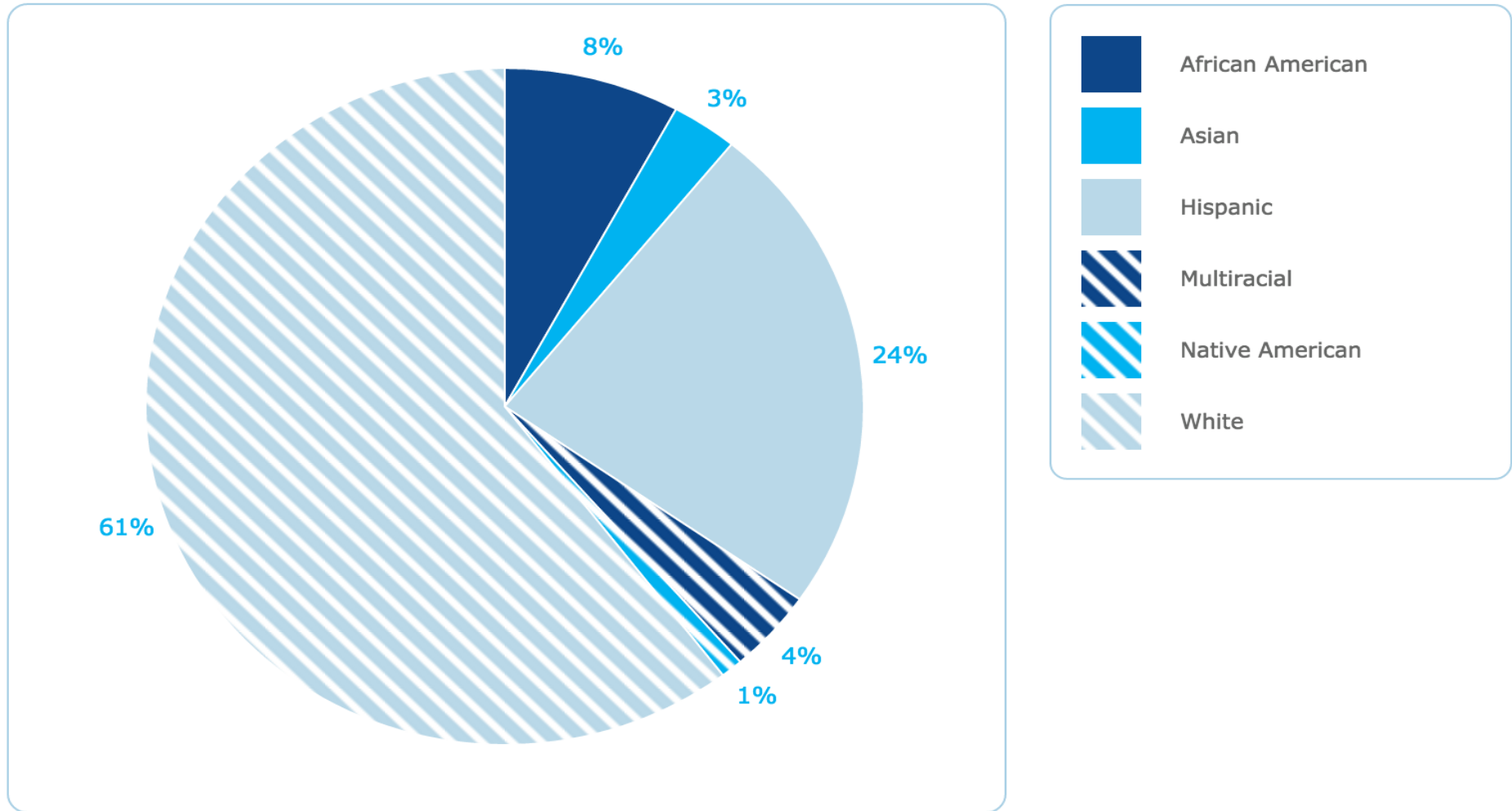
(air)(temperature)(often) is (cold)

空气的温度常常是冷的。

kōng qì de wēn dù cháng cháng shì lěng de

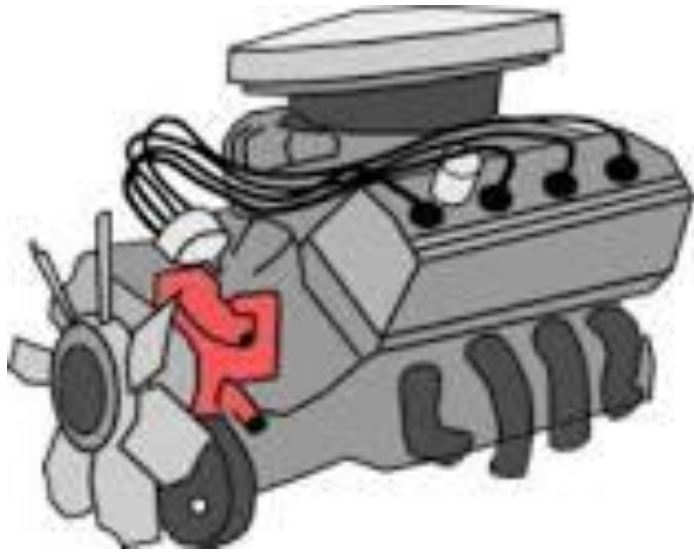
Students from Various Racial/Ethnic Backgrounds

Rhode Island



Data chart generated on 11/2/2015

From: <http://infoworks.ride.ri.gov/state/ri/student-characteristics/racial-ethnic-backgrounds/2014/1>



Grammar



Vocabulary

Difficulty with Vocabulary Learning and Teaching

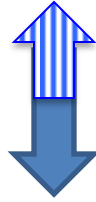
Over TWO MILLION Lexemes

and Growing

Why academic vocabulary?

Academic vocabulary knowledge is recognized as an indispensable component of academic reading abilities (Biemiller, 1999; Corson, 1997), which, in turn, have been directly linked to academic success, economic opportunity, and societal well-being (Goldenberg, 2008; Ippolito, Steele, & Samson, 2008; Jacobs, 2008)

Academic Vocabulary Knowledge



Academic Reading Skills



Academic Success



Economic Opportunity



Societal Well-Being

Goldenberg (2008) – Based on 2007 National Assessment of Educational Progress (NAEP) Report

“...fourth-grade ELLs scored 36 points below non-ELLs in reading and 25 points below non-ELLs in math. The gaps among eighth-graders were even larger—42 points in reading and 37 points in math.”

“Whatever the explanation for these achievement gaps, they bode ill for English learners’ future educational and vocational options.”

“They also bode ill for society as a whole, since the costs of large-scale underachievement are very high” (p. 11)

Chall (2000) – on “Preventing the Fourth-Grade Slump”

“Students seem to need three kinds of strengths in order to progress to Stage 3 [Reading to Learn]: sufficient knowledge of the meanings of more academic and abstract words, sufficient reasoning ability to understand the more difficult texts, and facility with reading skills—word recognition, and decoding, and fluency” (introduction)

Consider our English Language Learners'
Academic Vocabulary Development
with the End in Mind



Academic Literacy

The Gate-keeping Tests of Education are Primarily Tests of Reading Ability

By Extension,

They are also Tests of
Robust Vocabulary Knowledge

SAT

ACT

LSAT

GRE

GMAT

MCAT

NECAP

The number one problem for ELLs taking the WIDA, CRT, and SAGE tests is VOCABULARY, in terms of both understanding the instructions and actually comprehending the content of the tests.

From Personal Communication with Delia Allan (ELL Liaison and Test Proctor for Nebo School District) on October 28, 2014

“I am currently tutoring children in an orphanage in beautiful Nepal. The children go to a private English-medium school. One of the boys has been placed in remedial classes because of his math. Everyone has assumed that he is slow, but after I started tutoring him I realized that he has no idea what his teachers are saying in his math class (he has BICS, no CALP). I spent time tutoring him in English vocab for math (based on his textbook), and he can finally complete his math homework in less than 4 hours! Now I spend my time writing math-based English materials for him while he's at school. . . If more teachers understood these issues, a lot more ESL/EFL children would be able to succeed in school!”

Rachel Wood (BYU TESOL MA Graduate)

USOE CRT PROFICIENCY RESULTS

All Students in all Grades Tested (2011)

	<u>Science</u>	<u>Math</u>
All Students	70%	69%
<u>Ethnicity</u>		
Asian	67%	71%
African American	42%	45%
Caucasian	76%	74%
Hispanic	43%	48%
American Indian	42%	45%
Pacific Islander	46%	56%
<u>ELL</u>		
ELL	18%	30%
Non-ELL	73%	71%
<u>Migrant</u>		
Migrant	NA	NA
Non-Migrant	NA	NA
<u>Eco. Disadv</u>		
Eco. Disadv	56%	58%
Non-Eco Disadv	78%	75%

http://www.schools.utah.gov/assessment/Reports/Results_CRT_State_10-11.aspx

NECAP 2015 Results – Science Proficiency

Student Group	Grade 4
	% Prof. 2015
State Average	40
Males	37.2
Females	43
IEP	8.5
Non-IEP	44.9
LEP	6.1
LEP Monitored	27.6
Non-LEP	43.7
Low Income	23.1
Non-Low Income	57.8
American Indian	20.3
Asian	38.6
Black	18.5
Hispanic	19.9
White	52.1

Repurposed from NECAP Public Data

NECAP 2015 Results – Science Proficiency

Student Group	Grade 8
	% Prof. 2015
State Average	22.4
Males	21.3
Females	23.7
IEP	2.9
Non-IEP	25.7
LEP	0.8
LEP Monitored	4.4
Non-LEP	24
Low Income	7.7
Non-Low Income	35.6
American Indian	4.1
Asian	33.9
Black	4
Hispanic	6.7
White	30.4

Repurposed from NECAP Public Data

NECAP 2015 Results – Science Proficiency

Student Group	Grade 11
	% Prof. 2015
State Average	31.5
Males	30.5
Females	32.4
IEP	5.5
Non-IEP	35.1
LEP	0.5
LEP Monitored	3.1
Non-LEP	33.1
Low Income	15.6
Non-Low Income	42.6
American Indian	15.2
Asian	38.1
Black	10.9
Hispanic	11
White	40.4

Repurposed from NECAP Public Data

95-98%

Vocabulary Threshold
for
Basic Reading
Comprehension

When we are -----, I ---- that
your ---- of the -----
----- will be -----* -----,
----- with ----- to the -----
----- between ----- and
-----.

44% Word Knowledge

When we are ----- today, I ---- that
your ---- of the ----- facing -----
language ----- will be -----
forever, ----- with ----- to the
----- -----between reading
----- and vocabulary -----.

63% Word Knowledge

When we are finished today, I hope that your view of the ----- facing second language learners will be changed forever, ----- with ----- to the ----- relationship between reading abilities and vocabulary knowledge.

88% Word Knowledge

When we are finished today, I hope that your view of the challenges facing second language learners will be changed forever, especially with regard to the ----- relationship between reading abilities and vocabulary knowledge.

97% Word Knowledge

Test Question:

What kind of relationship exists between vocabulary knowledge and reading abilities?

When we are finished today, I hope that your view of the challenges facing second language learners will be changed forever, especially with regard to the **reciprocal** relationship between reading abilities and vocabulary knowledge.

100% Word Knowledge

From WIDA Standards Framework

“Lexicon in academic settings consists of general, technical and academic words.”

Sample Science Text

Source: CK-12 Foundation

The early earth had no oceans and was frequently hit with meteorites and asteroids. There were also frequent volcanic eruptions. Volcanic eruptions released water vapor that eventually cooled to form the oceans. The atmosphere slowly became more oxygen rich as solar radiation split water molecules and cyanobacteria began the process of photosynthesis. Eventually the atmosphere became like it is today and rich in oxygen. The first complex organisms on earth first developed about 2 billion years ago.

Read the article explaining how to make a compass. Then answer the questions that follow.

How Can You Make a Compass?

by Gabriel Reuben

Gather the following equipment: A bar magnet, a 6-inch piece of thread, a needle, a pin, a small piece of cellophane tape, an empty jar with a cover, and a compass.

Follow this procedure:

1. Tie one end of the thread around the middle of the magnet so that the magnet balances when you hold it by the thread. When the magnet stops swaying, see which way the north pole is pointing. Compare this with the way the compass needle is pointing.

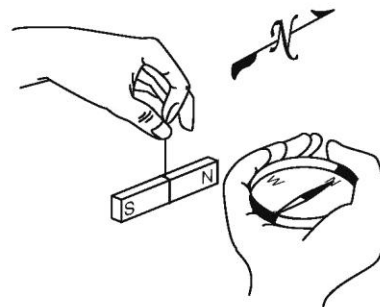
WARNING: Don't let the magnet get too close to the compass. The magnet can attract the compass needle and weaken its effectiveness.

You will observe: When the magnet comes to rest, the north pole points north.

2. Rub the needle lengthwise along one of the poles of the magnet; each stroke must be in the same direction, not back and forth. When the needle is magnetized enough to attract the pin, tie the thread around the middle of the needle so that it balances. Tape the other end of the thread to the inside of the jar cover. Lower the needle into the jar so that it hangs freely when you tighten the cover. Compare the way the compass and the needle point.

You will observe: The needle is now a compass. It points north, as does the compass.

- 7 The earth itself is a tremendous magnet. The magnetic poles of the earth are said to be huge deposits of magnetite. The north



magnetic pole is about 1400 miles away from the geographic North Pole, and the south magnetic pole is about 1400 miles away from the geographic South Pole. The earth's magnetic poles change position from time to time. Magnets are attracted to the magnetic poles. This is why the poles of magnets are called north-seeking and south-seeking, and why magnets can serve as compasses.

Because the magnetic poles and geographic poles are not at the same place, mariners and others who must get accurate information from their compasses correct their compass reading with a chart which compensates for the error of the compass in various locations. The disparity between the magnetic and geographic poles is called the *angle of declination*. The magnet points to true north only in those places which lie in a straight line with the north geographic pole and the north magnetic pole.

It is said that the earth's magnetic field causes objects made of iron, nickel, or cobalt anywhere in the world to become magnetized if they remain unmoved for very long periods of time.

NECAP Example 5th Grade

This is why the poles of **magnets** are called north **seeking** and south **seeking** and why **magnets** can **serve** as compasses. Because the **magnetic poles** and **geographic poles** are not at the same place, mariners and others who must get **accurate information** from their **compasses** correct their compass **reading** with a chart which **compensates** for the **error** of the **compass** in **various** locations. The **disparity between** the **magnetic** and **geographic poles** is called the **angle of declination**. The **magnet** points to true north only in those places which lie in a **straight** line with the north **geographic pole** and the north **magnetic pole**

This newspaper article describes the first census that has ever been taken of all species living in the world's oceans. Read the article to learn what scientists have discovered. Then answer the questions that follow.

Sea Census Scores Scads of Surprises

Mike Toner

Carnivorous sponges, globetrotting tuna and an eerie underwater "dead zone" at the epicenter of last year's tsunami are just a few of the surprises turned up in the first census of the world's oceans.

- 2 Having reached the midpoint of the unprecedented 10-year census, which involves scientists in over 73 nations, researchers reported Wednesday that the 230,000 marine species now known to science are only the tip of the iceberg.

"By the time the census is completed in 2010, we expect to have collected a million new species," said Ron O'Dor, the senior scientist for the international Census of Marine Life. He said just describing and naming the flood of new species might take many years.

"One of our research vessels went to a site off the coast of Africa and discovered 400 new species of copepods—microscopic crustaceans—living in the sediment at the bottom of the sea," O'Dor said.

The pace of discovery is due in part to the fact that scientists, equipped with deep-diving robotic vehicles and new technology, are looking for life where few have looked before—abyssal plains 2 miles or more below the surface, polar seas and remote underwater mountain ranges.

"These regions of the ocean are the last vast unexplored regions on the planet," said O'Dor. "But even if you wade 10 meters off the shore and pick up a handful of mud, you're likely to find something we didn't know about before," he said. "We didn't know what was there because no one was interested before now."

The goals of the 10-year, \$1 billion series of programs, launched in 2000 with seed money from the Alfred P. Sloan Foundation, include an ambitious effort—dubbed "fish with chips"—to implant tiny tracking devices in thousands of marine animals, large and small, and track them for years at a time.

By satellite, scientists are already tracking more than 21 species of fish, turtles and sea lions. They tracked one bluefin tuna as it made three crossings of the Pacific Ocean—covering 25,000 miles in 18 months.

And an ambitious new network of acoustic sensors stretching along 800 miles of the continental shelf, from Washington state to the Alaska panhandle, is tracking salmon and other migratory fish as they move to and from rivers of the Pacific Northwest—recording the serial number, time and location of passing fish implanted with almond-sized electronic tags that are expected to last up to 20 years. This information compiled about marine migration may be valuable to both fishermen and biologists.

"We're not trying to put chips in every fish in the ocean, but the ocean used to be a black box that fish just disappeared into," said the project's chief scientist, David Welch of Malaspina University in British Columbia. "Now we can determine where they're going and when."

Most new species are likely to be very small—no great surprise in an environment where 90 percent of the total living mass is microscopic.

- 12 At the halfway point of the census, however, the list of discoveries includes a number of noteworthy finds:

- In the South Atlantic and Southern oceans, three new species of carnivorous sponges that engulf other organisms with their mouths rather than filter-feeding like most sponges, as well as previously unknown one-celled animals that live in deep ocean sediment and construct delicate shells that resembled soccer balls.
- In the North Atlantic, four new species of sea cucumbers, sluglike creatures that live on the bottom; two possibly unknown

NECAP Example 11th Grade

at the halfway point of the **census however** the **list of discoveries includes a number of noteworthy finds** in the south Atlantic and southern **oceans** three new **species of carnivorous sponges** that engulf other **organisms** with their mouths **rather than filter-feeding** like most **sponges** as well as **previously** unknown **one-celled** animals that live in deep **ocean sediment** and **construct** delicate shells that **resembled soccer balls**

Is there a “common core” of academic vocabulary?

neutron research

noteworthy statutory

provide immunize

celestial concurrent

metabolism result

incompatible anthropological

Academic core words are saturated with “academic sense”

Finding the Academic Core

University Word List (Xue & Nation, 1984)

1. Compiled from four small manually- assembled corpora
2. Resulted in **800 word families** (covered **8.5%** of academic texts)

Academic Word List (Coxhead, 2000)

1. Compiled from a 3.5 million-word corpus
2. Four major registers (arts, commerce, law, science)
3. Approximately 875,000 words (tokens) each
4. Four major registers subdivided into 7 subject areas (28 total)
5. Words had to occur 100+ times in corpus
6. Words had to occur 10+ times in each of the four major registers
7. Words had to occur in 15 or more of the 28 subject areas
8. Resulted in **570 word families** (covered **10%** of the academic corpus)

Concerns with *Academic Word List* (Coxhead, 2000)

- Size of corpus: **3.5** million words
- Placed “on top of” the 2000 word families of *General Service List* (West, **1953**)—based largely on texts from the early 1900s
- These **2000** GSL “word families” have **12,498** word forms (e.g. *decide, decides, deciding, decided, decidedly, decision, decisive*)
- Many of these GSL words are not focused on academic needs
 - fiction**: *bed, cup, door, eye, floor, hair, hang, laugh, leg, morning, nice, night, pretty, pull, room, shake, sit, smile, window*
 - magazines**: *baby, big, car, cook, cup, dog, fun, glass, heat, hot, lot, minute, pick, ride, roll, shop, stick, tonight*
 - newspapers**: *beat, big, finish, game, gun, hit, night, park, police, run, sale, season, shoot, stock, street, throw, week, win*

- Many GSL words are actually “academic,” but were not considered in AWL

company business account capital exchange rate

- Many AWL words are actually high frequency in large modern corpora

AWL Word Families in the Highest Frequency Bands of COCA

<u>COCA Lemma Ranks</u>	<u># of AWL Word Families</u>
1-1000	81
1001-2000	155
2001-3000	137
3001-4000	78
TOTAL	451

COCA: Academic (120 million words)

Disciplines	Total Size	Journals / Magazines	Examples of titles
Education	8,030,324	J: 8,030,324	Journals: <i>Education, J Instructional Psychology, Roeper Review, Community College Review</i> ; Magazines: (none)
Humanities	11,111,225	J: 11,111,225	Journals: <i>Music Educators Journal, African Arts, Style, Art Bulletin, Hispanic Review, Symposium</i> ; Magazines: (none)
History	14,289,007	J: 11,792,026 M: 2,496,981	Journals: <i>Foreign Affairs, American Studies International, J American Ethnic History</i> , Magazines: <i>American Heritage, Military History, History Today</i>
Social science	16,720,729	J: 15,782,359 M: 938,370	Journals: <i>Anthropological Quarterly, Geographical Review, Adolescence, Ethnology</i> ; Magazines: <i>National Geographic, Americas</i>
Philosophy, religion, psychology	12,463,471	J: 6,659,684 M: 5,803,787	Journals: <i>Theological Studies, Humanist, Current Psychology, Church History, J Psychology</i> ; Magazines: <i>Psychology Today, Christian Century, U.S. Catholic</i>
Law and political science	12,154,568	J: 8,514,782 M: 3,639,786	Journals: <i>ABA Journal, Perspectives on Political Science, Harvard J of Law & Public Policy, Michigan Law Review</i> ; Magazines: <i>American Spectator, National Review, New Republic</i>
Science and technology	22,777,656	J: 13,363,151 M: 9,414,505	Journals: <i>Bioscience, Environment, Mechanical Engineering, Physics Today, PSA Journal</i> ; Magazines: <i>Science News, Astronomy, Technology Review</i>
Medicine and health	9,660,630	J: 5,714,044 M: 3,946,586	Journals: <i>J Environmental Health, Orthopaedic Nursing, American J Public Health</i> ; Magazines: <i>Prevention, Mens Health, Total Health</i>
Business and finance	12,824,831	M: 5,256,801 N: 7,568,030	Journal: (none); Magazines: <i>Forbes, Money, Fortune, Inc., Changing Times</i> . Newspapers: "finance" section.
TOTAL	120,032,441	Academic journals: 84,914,694 Magazines: 31,496,816 (Newspapers: 7,568,030: just Business and Finance)	

One Word Family (AWL)

=

Four Lemmas (AVL)

Proceed

Proceeds

Procedural

Procedure

Procedures

Proceeded

Proceeding

Proceedings

Proceed (v)

Proceeds (v)

Proceeding (v)

Proceeded (v)

Proceeds (n)

Proceedings (n)

Procedure (n)

Procedures (n)

Creating the Academic Vocabulary List

High Frequency (All Genres)	Core Academic (AVL)	Technical Academic (e.g. Law, Business, Science)
<ul style="list-style-type: none"> • High frequency across all major genres • Spoken • Fiction • Magazines • Newspapers • Academic 	<ul style="list-style-type: none"> • At least 50% more common (per million words) in COCA academic than in COCA non-academic) • Range: 20% expected frequency in 7/9 academic disciplines • Dispersion (Juilland “d”): 0.80 • No one discipline more than 3x expected value 	<ul style="list-style-type: none"> • 3X the expected value in a particular discipline of academic
<p>noun: way, part verb: take, know adj: good, small adv: never, very</p>	<p>noun: process, analysis verb: indicate, establish adj: significant, critical adv: highly, moreover</p>	<p>noun: assessment, regime verb: democratize, oscillate adj: rhetorical, lunar adv: semantically, hereinafter</p>

PERC 1.5

Range, dispersion, sub-genres

----- Academic Core -----

the
be
and
of
a
in
to
have
to
it
that
for
with
on
do
this
they
at
but
we
his
from
that
not
by

may
such
service
power
history
low
both
market
interest
support
site
project
cost
energy
available
seek
author
focus
upon
concern
central
recognize
particularly
trade
benefit

between
student
group
system
program
study
provide
political
among
however
include
community
information
social
level
such
within
result
change
research
teacher
education
although
policy
process

advocate
realm
bias
metaphor
entity
regulatory
minimize
necessity
value
prevention
isolate
assembly
productive
inventory
dynamic
equation
offering
content
enroll
abstract
shared
readily
revolutionary
circuit
processing

rethinking
unsupported
quantifiable
higher-level
blurring
unrealized
edited
requisite
quantitatively
deletion
traceable
re-emergence
proportionally
subjectively
dissociate
interchangeably
proximate
chronologically
class
delineation
self-defeating
ubiquity
requested
vagueness
catalyze

astronomy
biodiversity
ozone
self-efficacy
asteroid
modernity
archaeology
socialism
liberalization
stressor
tariff
sovereign
bacterial
infantry
multilateral
liturgy
semiconductor
pedagogical
nation-state
pixel
sacrament
mitigation
polity
self-concept
depressive

parotid
tonsillectomy
postoperatively
sinusitis
otolaryngology
thrombosis
histologic
maxillary
perfusion
neoplasm
randomised
tibial
turbinate
pathologic
squamous
branchial
otolaryngologist
intraoperative
mastoid
tonsil
sanitarian
cholesteatoma
haemoglobin
sensorineural
cutaneous

---High Frequency Core---

----- Academic Specialized -----

A New Academic Vocabulary List

Gardner & Davies (2014). *Applied Linguistics*, 35(3), 305-327.

www.academicwords.info

rank	word	PoS	frequency	ratio	dispersion	range
39	value	n	49,900	1.97	0.96	9
41	role	n	49,426	1.81	0.95	8
42	difference	n	49,081	1.93	0.93	8
43	analysis	n	48,500	2.85	0.93	8
44	practice	n	47,915	2.06	0.95	8
46	thus	r	46,287	2.69	0.95	8
47	control	n	45,690	1.64	0.93	9
48	form	n	45,275	1.90	0.95	8
49	report	v	44,666	1.64	0.92	8
51	significant	j	44,415	2.44	0.93	8
52	figure	n	44,084	1.92	0.92	8
53	factor	n	43,871	2.43	0.92	8
54	interest	n	43,498	1.51	0.95	9
56	need	n	42,193	1.82	0.95	9
57	base	v	42,082	1.80	0.95	9
58	population	n	40,902	2.08	0.92	8
59	international	j	40,746	1.61	0.91	9
61	individual	n	39,359	2.32	0.93	8
62	type	n	38,893	1.85	0.93	8
63	describe	v	38,500	1.75	0.95	8
64	indicate	v	38,022	2.34	0.92	8
66	subject	n	37,608	2.02	0.94	8

<u>Rank</u>	<u>AVL Lemma</u>	<u>POS</u>
1	study	n
2	group	n
3	system	n
4	social	j
5	provide	v
6	however	r
7	research	n
8	level	n
9	result	n
10	include	v
11	important	j
12	process	n
13	use	n
14	development	n
15	data	n
16	information	n
17	effect	n
18	change	n
19	table	n
20	policy	n

Saturated with “Academic Sense”

<u>Rank</u>	<u>AVL Lemma</u>	<u>POS</u>
1501	bridge	v
1502	individualism	n
1503	noteworthy	j
1504	impetus	n
1505	experimentation	n
1506	sequential	j
1507	continuation	n
1508	attributable	j
1509	disparate	j
1510	safeguard	v
1511	suppression	n
1512	subset	n
1513	markedly	r
1514	concurrent	j
1515	degrade	v
1516	incompatible	j
1517	tenet	n
1518	unify	v
1519	indispensable	j
1521	intended	j

<u>Rank</u>	<u>AVL Lemma</u>	<u>POS</u>
2995	non-professional	j
2996	unidirectional	j
2997	redirection	n
2998	reversion	n
2999	obtainable	j
3000	privation	n
3001	inborn	j
3002	bimonthly	r
3003	capitalistic	j
3004	circumscribed	j
3005	targeting	n
3006	unusable	j
3007	unpalatable	j
3008	causally	r
3009	prioritization	n
3010	overemphasis	n
3011	imprimatur	n
3012	coherently	r
3013	component	j
3014	tangential	j
3015	relevancy	n

Academic Vocabulary List as Word families

www.academicwords.info

Academic Word List (Coxhead, 2000)

control

control, controlled, controller, controlling, controls, uncontrollable, uncontrollably, uncontrolled

Academic Vocabulary List (Gardner & Davies, 2014)

1a	1 b	2	3	4	5	
21	inform	71870	information (n) <small>61931</small>	inform (v) <small>7547</small>	informed (j) <small>1712</small>	informant (n)
			Soc <small>1707</small>	informational (j) <small>591</small>	info (n) <small>Med 480</small>	misinformation (n) <small>Rel</small>
			<small>238</small> uninformed (j) <small>210</small>	informer (n) <small>His+Law 141</small>	informing (n)	
			<small>89</small> misinform (v) <small>69</small>	<small>misinformed</small> (j) <small>17</small>		
27	control	65736	control (n) <small>45690</small>	control (v) <small>19621</small>	controller (n) <small>Sci 1780</small>	controlled (j)
			<small>Med 1392</small>	uncontrolled (j) <small>425</small>	<small>controlling</small> (j) <small>353</small>	<small>uncontrollable</small> (j)
			<small>337</small>	<small>controllable</small> (j) <small>329</small>	<small>uncontrollably</small> (r) <small>64</small>	
64	identify	45515	identify (v) <small>36820</small>	identity (n) <small>23097</small>	identification (n)	
			<small>7420</small>	identifiable (j) <small>903</small>	identified (j) <small>Edu 617</small>	<small>unidentified</small> (j) <small>5</small>
			<small>427</small>	identifier (n) <small>212</small>	identifying (j) <small>160</small>	<small>unidentifiable</small> (j) <small>46</small>

1. Rank word families by frequency (1a) and show frequency (1b)
2. Group by lemmas ([inform] = *inform, informs, informed, informing*)
3. Show part of speech (he **informed** us // an **informed** position): meaning and use
4. Frequency of each lemma/PoS within the word family: focus on high frequency first
5. Identify: core academic (yellow), technical/sub-genre (red), high frequency non-academic (blue), and lower frequency non-academic (gray)

Determining Discipline-Specific Vocabulary

Words (lemmas) that appear at least **three times (3X)** more often in a particular academic discipline than they do in the academic corpus as a whole.

Discipline-Level Vocabulary in Rank Order

<u>Discipline</u>	<u># of Diff Lemmas</u>
-------------------	-------------------------

Medicine / Health

2,372



Some of these lemmas in each discipline have much higher token frequency than others

Science / Technology

1,995

Humanities

1,581

History

1,010

Religion / Philosophy / Psychology

993

Law / Political Science

879

Education

870

Social Science

821

Business / Finance

291

TOTAL OVERALL

10,812

TOTAL DISTINCT LEMMAS

8,625



Some lemmas are **3X** in more than one discipline

MEDICINE/HEALTH

174 HEALTH (n)
260 PATIENT (n)
323 TEST (n)
395 CARE (n)
399 RISK (n)
402 FOOD (n)
414 TREATMENT (n)
447 DRUG (n)
506 TRAINING (n)
524 WEEK (n)
549 DISEASE (n)
630 MEDICAL (j)
631 PRESSURE (n)
634 CELL (n)

6018 ARTHRITIS (n)
6044 PLACEBO (n)
6083 ENDURANCE (n)
6089 CONTAMINANT (n)
6103 HIGH-RISK (j)
6106 RECURRENCE (n)
6143 SPA (n)
6160 METABOLISM (n)
6170 AIRWAY (n)
6176 MERCURY (n)
6180 LEAN (j)
6186 ABS (n)
6192 THUMB (n)
6195 NITRATE (n)

SCIENCE/TECHNOLOGY

545 STAR (n)
552 SPECIES (n)
557 PLANT (n)
634 CELL (n)
682 SCIENTIST (n)
725 SURFACE (n)
747 EARTH (n)
908 SOFTWARE (n)
1035 FOREST (n)
1086 SUN (n)
1147 FISH (n)
1154 PLANET (n)
1219 TEMPERATURE (n)
1232 TELESCOPE (n)

5421 STELLAR (j)
5423 SIMULATE (v)
5426 MAGNET (n)
5427 SHUTTLE (n)
5442 VECTOR (n)
5455 ALTITUDE (n)
5511 PIXEL (n)
5517 BIOMASS (n)
5553 GENETICALLY (r)
5559 UPDATE (n)
5583 NEUTRON (n)
5609 CELESTIAL (j)
5620 BUFFER (n)
5623 OPTICS (n)

HUMANITIES

231 ART (n)
280 MUSIC (n)
537 TEXT (n)
624 OBJECT (n)
685 CHARACTER (n)
733 READER (n)
797 STYLE (n)
830 CURRICULUM (n)
855 FILM (n)
973 READING (n)
1004 WRITING (n)
1007 ARTIST (n)
1011 LOVE (n)
1037 EDUCATOR (n)

5820 AESTHETICS (n)
5827 CONDUCTOR (n)
5907 SENSIBILITY (n)
5914 CATHEDRAL (n)
5924 SYMPOSIUM (n)
5938 SPECTACLE (n)
5945 BOURGEOIS (j)
5964 ARTICULATION (n)
5972 HUMANITIES (n)
5974 GUITAR (n)
5977 IMPROVISATION (n)
5985 SUBJECTIVITY (n)
6005 CANVAS (n)
6037 IMITATE (v)

HISTORY

201 WAR (n)
349 MILITARY (j)
393 PARTY (n)
521 FOREIGN (j)
770 AGREEMENT (n)
885 DEMOCRATIC (j)
899 NATIVE (j)
909 INDIAN (j)
911 LEADERSHIP (n)
919 ARMY (n)
939 CHINESE (j)
943 REGIME (n)
962 DEMOCRACY (n)
1102 ELECTION (n)

5622 MOBILIZATION (n)
5694 PARLIAMENTARY (j)
5732 COLONIALISM (n)
5773 ALLIED (j)
5790 SURRENDER (v)
5821 COLONIZATION (n)
5829 GUERRILLA (n)
5855 SOVIET (n)
5861 DELEGATION (n)
5876 CAVALRY (n)
5890 CLASH (n)
5933 BATTLEFIELD (n)
5941 COMMUNIST (n)
6187 CONFEDERATE (n)

RELIGION/PHIL/PSYCH

304 CHURCH (n)
426 RELIGIOUS (j)
778 MORAL (j)
789 RELIGION (n)
874 CHRISTIAN (j)
934 JUSTICE (n)
986 SPIRIT (n)
1011 LOVE (n)
1027 CATHOLIC (j)
1052 FAITH (n)
1090 TRUTH (n)
1098 MARRIAGE (n)
1215 SPIRITUAL (j)
1297 SELF (n)

5368 SERMON (n)
5402 LITURGY (n)
5435 SUPERNATURAL (j)
5453 BLESSING (n)
5471 HEALING (j)
5473 RESURRECTION (n)
5558 CONFESS (v)
5584 SACRAMENT (n)
5621 MERCY (n)
5645 DEVOTION (n)
5751 CHAPEL (n)
5797 COVENANT (n)
5808 DISCIPLE (n)
5813 PSYCHIATRIST (n)

LAW/POLITICAL SCIENCE

207 LAW (n)
363 COURT (n)
393 PARTY (n)
521 FOREIGN (j)
589 FEDERAL (j)
790 LEGAL (j)
792 FIRM (n)
838 NOTE (n)
843 CONGRESS (n)
885 DEMOCRATIC (j)
934 JUSTICE (n)
943 REGIME (n)
1091 TRIAL (n)
1104 REGULATION (n)

5393 TARIFF (n)
5398 MERGER (n)
5416 ACCORD (n)
5449 DELEGATE (n)
5496 BANKRUPTCY (n)
5521 PROSECUTION (n)
5525 NATIONALIST (n)
5631 COPYRIGHT (n)
5637 AMEND (v)
5694 PARLIAMENTARY (j)
5702 MITIGATION (n)
5723 STATUTORY (j)
5754 PRICING (n)
5830 IMMUNITY (n)

EDUCATION

49 STUDENT (n)
76 SCHOOL (n)
79 CHILD (n)
89 PROGRAM (n)
118 TEACHER (n)
120 EDUCATION (n)
134 COMMUNITY (n)
243 LEARN (v)
268 CLASS (n)
278 COLLEGE (n)
314 PARENT (n)
365 SKILL (n)
382 TEACH (v)
405 COURSE (n)

5274 COGNITION (n)
5282 SCHOOLING (n)
5290 PROBLEM-SOLVING (n)
5321 GRADER (n)
5371 PRESCHOOL (j)
5497 TEMPERAMENT (n)
5551 KNOWLEDGEABLE (j)
5607 GIFTEDNESS (n)
5641 DISSERTATION (n)
5671 NOVICE (n)
5689 PROFICIENCY (n)
5728 DEAN (n)
5779 CHEAT (v)
5826 ACCREDITATION (n)

SOCIAL SCIENCE

341 PHYSICAL (j)
570 SEXUAL (j)
605 SPORT (n)
954 YOUTH (n)
1131 ATHLETE (n)
1198 ABUSE (n)
1250 SUBSTANCE (n)
1652 COACH (n)
1715 ALCOHOL (n)
1936 COPE (v)
2182 IMPAIRMENT (n)
2508 BLIND (j)
2532 FAN (n)
2592 ADOLESCENT (j)

4828 INFORMANT (n)
4877 AVOIDANCE (n)
4889 COCAINE (n)
4949 KINSHIP (n)
4957 MARIJUANA (n)
4961 ENJOYMENT (n)
4971 HETEROSEXUAL (j)
5017 EXCAVATION (n)
5058 AROUSAL (n)
5120 STRESSFUL (j)
5156 VICTIMIZATION (n)
5157 KIN (n)
5301 COACHING (n)
5445 ANTHROPOLOGICAL (j)

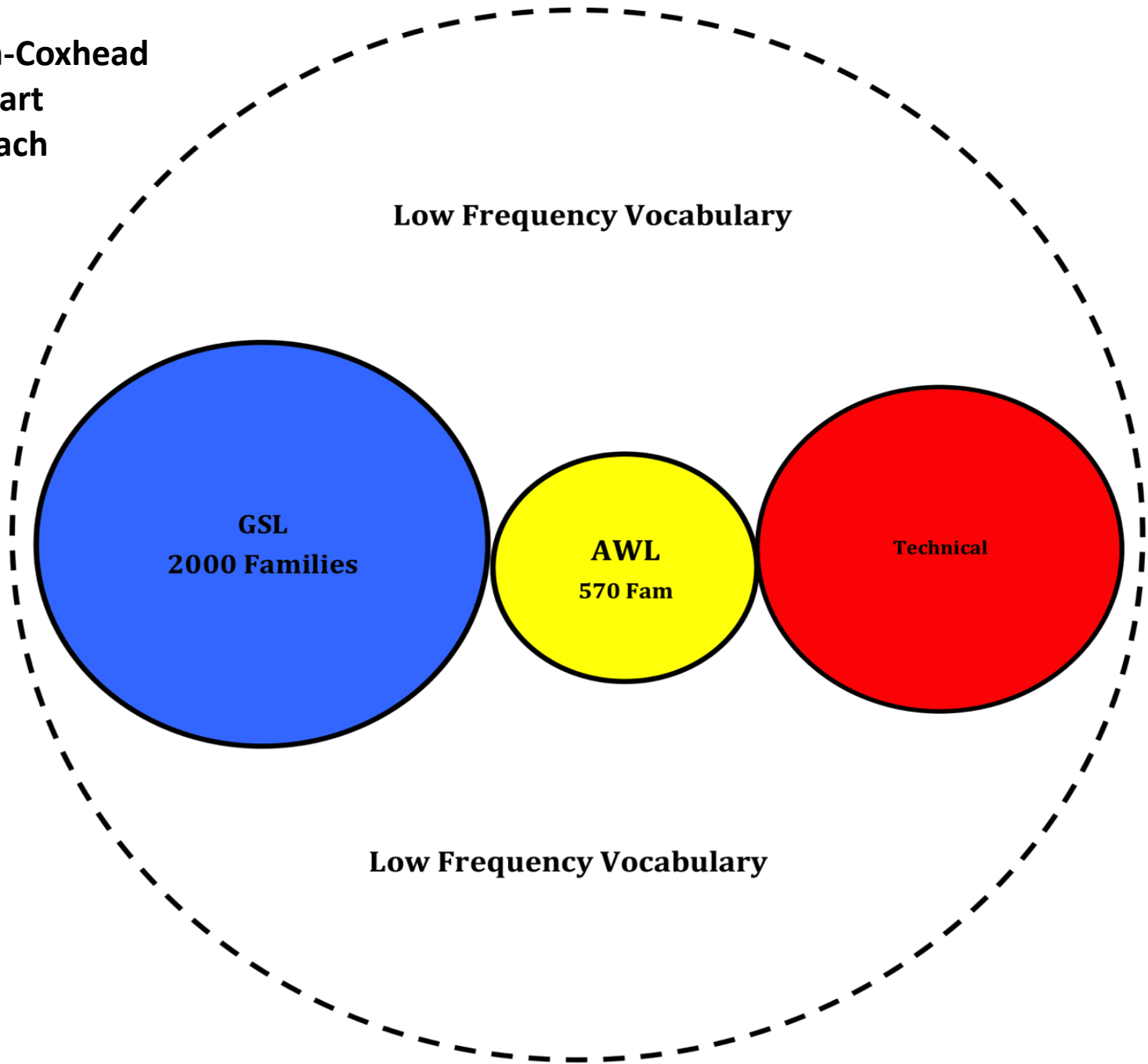
BUSINESS/FINANCE

187 COMPANY (n)
618 FUND (n)
694 SELL (v)
718 BILLION (m)
776 BUY (v)
781 STOCK (n)
1181 CUSTOMER (n)
1260 SHARE (n)
1431 SALES (n)
1632 REVENUE (n)
1753 PROFIT (n)
1816 INVESTOR (n)
1852 ASSET (n)
1922 BOND (n)

4451 HOLDING (n)
4552 BROKER (n)
4706 PREMIUM (n)
4841 DISCOUNT (n)
5001 PROFITABLE (j)
5065 DIVIDEND (n)
5199 BONUS (n)
5320 FIDELITY (n)
5369 SHAREHOLDER (n)
5418 BANKER (n)
5984 RETAILER (n)
6085 BARGAIN (n)
6158 AUCTION (n)
6194 INSURER (n)

Towards a New Approach
for
Academic Vocabulary

**Nation-Coxhead
Four-Part
Approach**



Concerns with the Nation-Coxhead Approach

From Schmitt & Schmitt, 2012, p. 2

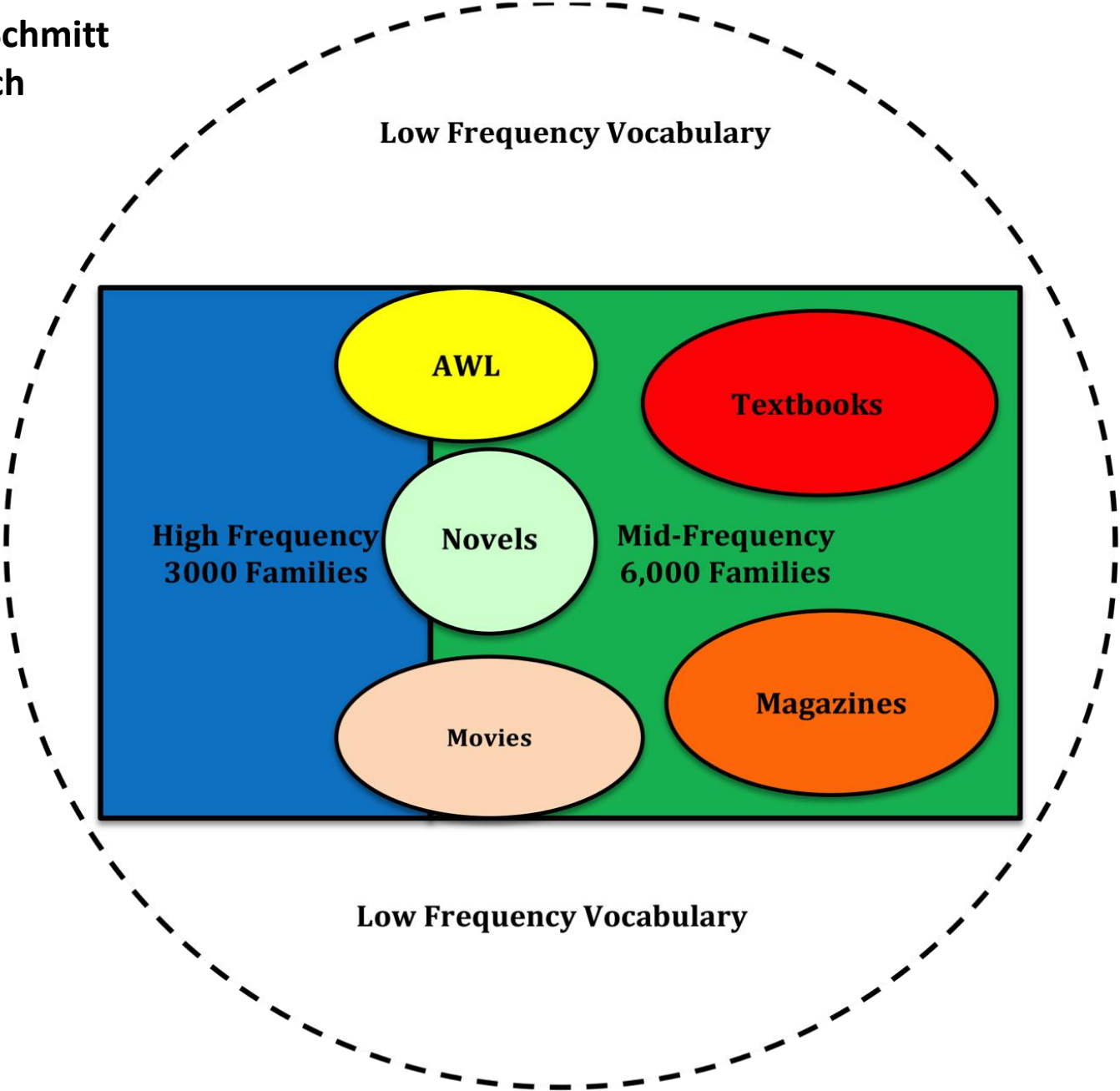
“we feel that recent research has made the four-part categorization untenable as a pedagogic description.”

“...academic and technical vocabulary are subsets of general English. . .”

“Thus when analyzing texts or planning what to teach, it is important to recognize that the notions of academic/technical vocabulary do not necessarily fill the gap between high- and low-frequency bands.”

“...academic and technical vocabulary are **subsets of general English**. . .”

**Schmitt & Schmitt
Approach**



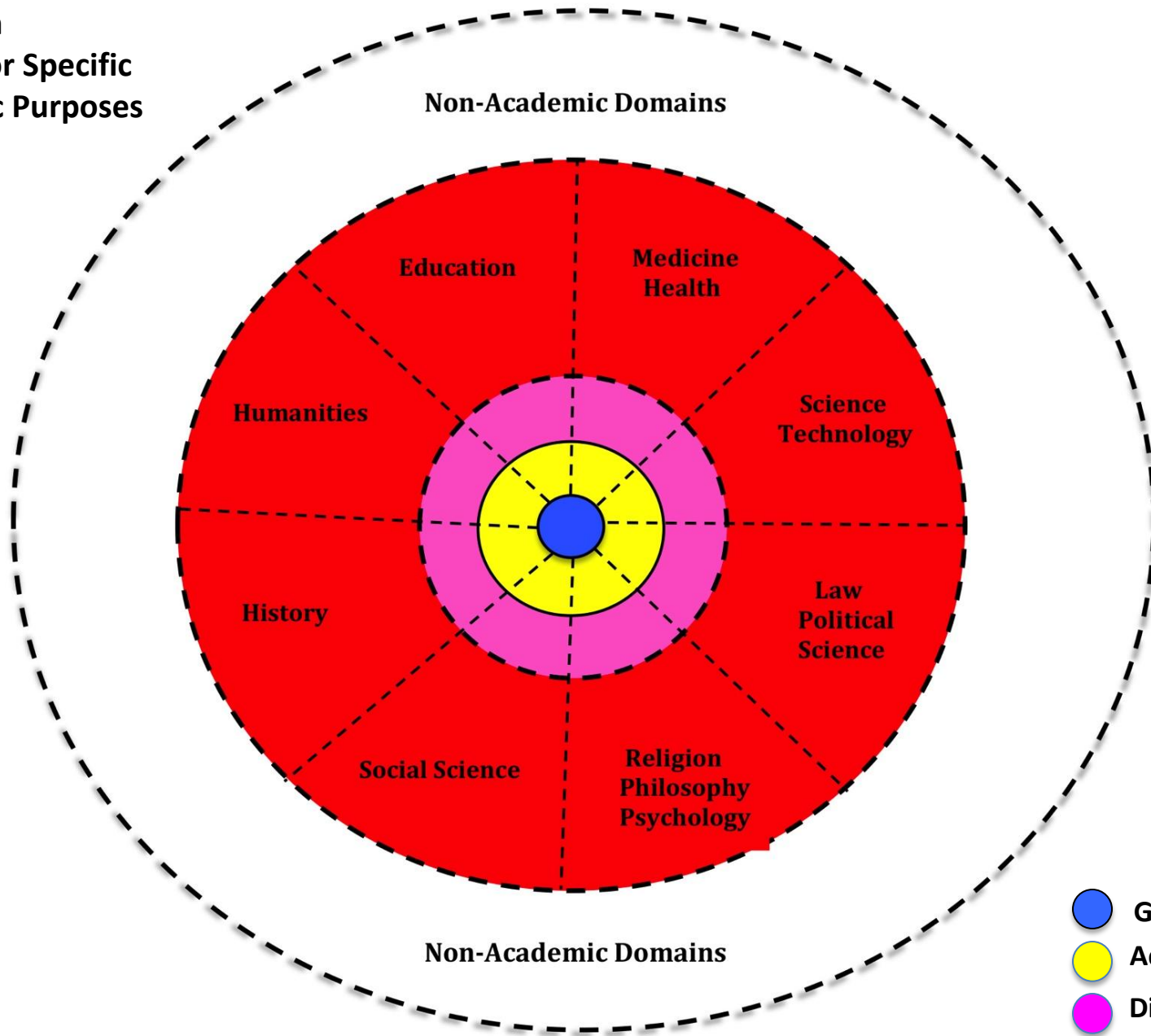
“Understanding and managing core vocabulary becomes very important in the context of English for specific purposes.”





Gardner, 2013, p. 64

Academic Vocabulary Levels (New Approach)

Academic Core (AVL)	Discipline Core	Discipline Technical
Cross-Discipline	Discipline-Specific from General Core	Discipline-Specific
<p><u>Multi-Disciplinary Words</u></p> <p>study (n) group (n) system (n) social (j) provide (v) however (r) research (n) level (n) result (n) include (v) important (j) process (n) use (n) development (n) data (n) information (n) effect (n) change (n) table (n) policy (n) university (n) model (n)</p>	<p><u>Science*</u></p> <p>star (n) species (n) plant (n) scientist (n) surface (n) earth (n) software (n) forest (n) sun (n) fish (n) planet (n) temperature (n) soil (n) camera (n) fuel (n) speed (n) universe (n) sky (n) file (n) drive (n) engine (n) moon (n)</p>	<p><u>Science</u></p> <p>genome (n) gravitational (j) reactor (n) extinction (n) watershed (n) supernova (n) aquatic (j) photon (n) terrestrial (j) latitude (n) polar (j) composting (j) larva (n) stellar (j) biomass (n) neutron (n) light-year (n) geometry (n) neutrino (n) chromosome (n) geological (j) semiconductor (n)</p>

**Gardner & Davies
Approach
English for Specific
Academic Purposes**



-  General Core
-  Academic Core AVL
-  Discipline Core
-  Discipline Technical

<http://www.wordandphrase.info/academic/>

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***Cracking the Academic Vocabulary Code:
Expanding Opportunities for English Language Learners***

Dee Gardner
Brigham Young University

RITELL Conference
November 2015

Dee_Gardner@byu.edu

WORD AND PHRASE . INFO

FREQUENCY LISTS - ANALYZE TEXTS | ALL GENRES - ACADEMIC

DAVIES | BYU | COCA

LOG IN **HELP**

FIND WORDS (OR SHOW: **ACAD VOCAB LIST** **WORD FAMILIES**)

WORD [?]

PART OF SPEECH NOUN VERB ADJ ADV MISC

DISPLAY TECHNICAL NON-ACADEMIC [?]

LIMIT DOMAIN -- LIMIT -- [?]

[1 / 12] HIDE HELP **NEXT HELP >**

If you want to see the top 3,000 "core academic" words or the top 2,000 word families in academic writing in COCA, just click on **[SHOW ACAD VOCAB LIST]** or **[SHOW WORD FAMILIES]** above. You can then see full information on that word (e.g. **rate (n)** or **develop (v)**).

CLICK ON A WORD FOR FULL DETAILS

DOWNLOAD LIST HELP

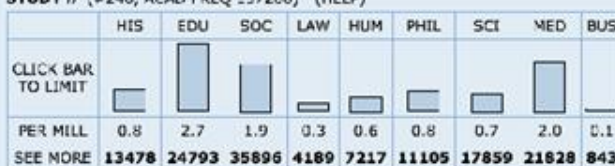
	RATIO	POS	WORD	TOT	HIS	EDU	SOC	LAW	HUM	PHIL	SCI	MED	BUS
1	2.52	N	STUDY	190388	13478	24793	35896	4189	7217	11105	17859	21828	843
2	1.72	N	GROUP	249002	14605	16370	30711	9072	6565	11017	18049	12296	3326
3	1.79	N	SYSTEM	215748	10741	6905	11520	10992	4460	5777	44694	10562	4525
4	2.39	J	SOCIAL	146215	16342	10085	36254	7786	7200	11101	5175	4925	876
5	2.01	V	PROVIDE	162772	9292	12852	17158	8770	7424	6567	20856	8235	2058
6	2.10	R	HOWEVER	151837	12671	7368	16081	10333	8617	8748	18058	7294	1736
7	2.30	N	RESEARCH	126662	5175	14448	19389	3185	4045	5275	22056	7684	2068
8	2.07	N	LEVEL	132310	5869	12278	17571	5513	5284	5740	14020	10611	1276
9	2.05	N	RESULT	123215	5475	9383	15485	5080	3438	6017	15312	10277	1616
10	1.69	V	INCLUDE	145280	6485	8831	12724	5219	6160	4973	15820	7775	2111
11	1.51	J	IMPORTANT	155797	8797	7515	12911	6408	6477	6584	11402	5747	1432

SYNONYMS (click to see) [?]

SEE ALSO:

- education
 - 376 education
 - 796 training
 - 1459 learning
 - 3063 scholarship
 - 4823 homework
 - 6073 revision
 - 17697 schoolwork
- investigation
 - 352 research
 - 812 analysis
 - 1176 investigation
 - 1245 survey
 - 1388 review

STUDY *n* (#240, ACAD FREQ 137208) (HELP)



CONCORDANCE LINES

	DOMAIN								
1	MED		pressure of 10 mm Hg or less . #	in	this	study	a	patient	was
2	BUS		also means a long trip to and from	work	,	and	study	after	study
3	SCI		if its mass continued to decrease as it	had	in	study	after	study	Pluto
4	EDU		United States ranked ninth among 35 nations	in	an	international	study	among	students
5	SCI		completes its own cost-benefit and	environmental	impact	studies	and	before	the

DEFINITIONS (WORDNET)

(5/10) **1.** a detailed critical inspection **2.** applying the mind to learning and understanding a subject (especially by reading) **3.** a room used for reading and writing and studying **4.** a state of deep mental absorption **5.** a written document describing the findings of some individual or group

COLLOCATES (click to see with STUDY)

adj present, recent, current, previous, longitudinal, empirical, comparative, numerous, qualitative, exploratory **noun** finding, purpose, limitation, pilot, bible, feasibility **verb** show, conduct, examine, participate, investigate

CLICK WORD TO: **SEARCH AS COLLOCATE** QUERY THAT WORD [?]

	DOMAIN								
1	MED		pressure of 10 mm Hg or less . #	in	this	study	a	patient	was
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CLICK ON A WORD FOR FULL DETAILS

[DOWNLOAD LIST](#)

[HELP](#)

	RATIO	Pos	WORD	TOT	HIS	EDU	SOC	LAW	HUM	PHIL	SCI	MED	BUS
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5	2.01	V	PROVIDE	162772	9292	12852	17158	8770	7424	6567	20856	8235	2058
6	2.10	R	HOWEVER	151837	12671	7368	16081	10333	8617	8748	18058	7294	1736
7	2.30	N	RESEARCH	126662	5175	14448	19389	3185	4045	5275	22056	7684	2068
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9	2.05	N	RESULT	123215	5475	9383	15485	5080	3438	6017	15312	10277	1616
10	1.69	V	INCLUDE	145280	6485	8831	12724	5219	6160	4973	15820	7775	2111
11	1.51	J	IMPORTANT	155792	8792	7515	12911	6408	6472	6584	11402	5742	1432

FIND WORDS (OR SHOW: [ACAD VOCAB LIST](#) [WORD FAMILIES](#))

WORD: [?]

PART OF SPEECH: NOUN VERB ADJ ADV MISC

DISPLAY: TECHNICAL NON-ACADEMIC [?]

LIMIT DOMAIN: -- LIMIT -- [?]

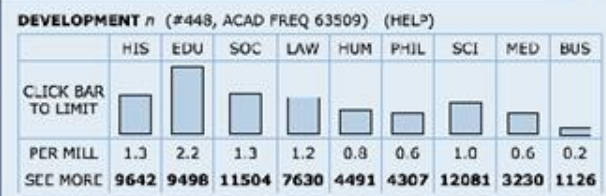
[1 / 12]

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CLICK ON WORD FOR WORD SKETCH [DOWNLOAD LIST](#) [HELP](#)

1	study	137208	study (n) 137208 study (v) 18872 studied (j) 215 studiously (r) 58 studious (j) 41 studying (n) Edu 20
2	develop	128974	development (n) 63509 develop (v) 52543 developing (j) 9039 developmental (j) Edu 5716 developed (j) 3513 developer (n) 2526 developmentally (r) Edu 573 underdeveloped (j) 370 undeveloped (j) 283 underdevelopment (n) His 214 redevelopment (n) 144 redevelop (v) 48 developing (n) Law 18
3	group	125012	group (n) 122011 grouping (n) Edu 1744 subgroup (n) 1603 group (v) 1398 intergroup (j) Soc 559 regroup (v) His 172 grouped (j) Edu 34 regrouping (n) Edu 20
4	system	116141	system (n) 110176 systematic (j) 4090 systematically (r) 1815 subsystem (n) Sci 796 unsystematic (j) 60
5	relate	114267	relationship (n) 54726 relate (v) 29002 relation (n) 12867 related (j) 4065

- SYNONYMS** (click to see) [?]
- SEE ALSO:
- [enhancement](#)
 - 448** [development](#)
 - 796 [training](#)
 - 2751 [expansion](#)
 - 3211 [extension](#)
 - 6724 [advancement](#)
 - 7988 [enhancement](#)
 - [event](#)
 - 448** [development](#)
 - 525 [event](#)
 - 830 [stage](#)
 - 1990 [incident](#)
 - 6304 [occurrence](#)
 - 6799 [happening](#)



CONCORDANCE LINES

	DOMAIN		SORT	SORT	SORT
1	LAW	lack of both a unitary state partner and of coordination between	development	agencies	rests
2	PHIL	tetanus , and tuberculosis . " An executive at a Christian	development	agency	told me
3	SCI	of potential uses has given rise to Cooperative Research and	Development	Agreements	with several
4	HIS	Second , the eastern European members are major recipients of EU	development	aid	Poland
5	SOC	that: this unspoiled paradise could be disrupted by large scale	development	already	in the

DEFINITIONS (WORDNET) (BAD ENTRY?)

(5/8) **1.** act of improving by expanding or enlarging or refining **2.** a process in which something passes by degrees to a different stage (especially a more advanced or mature stage) **3.** a recent event that has some relevance for the present situation **4.** the act of making some area of land or water more profitable or productive or useful **5.** a district that has been developed to serve some purpose

COLLOCATES (click to see with DEVELOPMENT)

adj economic, professional, sustainable, cognitive, technological, rapid, healthy, adolescent, residential, integral **noun** skill, stage, growth, curriculum, career, bank, implementation, cooperation, assistance, talent **verb** promote

CLICK WORD TO: SEARCH AS COLLOCATE QUERY THAT WORD [?]

	SEARCH AS COLLOCATE	QUERY THAT WORD
1	agencies	rests
2	agency	told me
3	Agreements	with several
4	aid	Poland
5	already	in the

Examples of AVL Word Families

14	level	79201	level (n) 78162 level (j) Edu 3119 level (v) 1145 high-level (j) 917 leveling (n) 76 leveling (j) 46 leveler (n) 21 leveled (j) 12 levelly (r) Soc 1
15	process	78679	process (n) 66382 process (v) 6739 processing (n) 5558 processor (n) Sci 3072 processed (j) Med 535 unprocessed (j) Med 85 reprocess (v) Law 41
16	culture	77470	culture (n) 42561 cultural (j) 34239 culturally (r) Edu 3586 cross-cultural (j) Edu 1176 subculture (n) 670 intercultural (j) Edu 398 cultured (j) 284 subcultural (j) 81 uncultured (j) 38
17	history	77164	history (n) 53474 historical (j) 19615 historian (n) His 7700 historically (r) 4075 historic (j) 3441 prehistory (n) 259 historicity (n) Hum+Rel 184 historicism (n) Hum 165
18	active	76010	activity (n) 55151 active (j) 14938 activist (n) 4067 actively (r) 4000 activism (n) 1419 inactive (j) 502 inactivity (n) Med 286 active (n) Med 39

Enter academic texts, highlight general academic and discipline-oriented (here, Education)
 Cf. Compleat LexTutor, but with W&P, have detailed information on keywords

WORD AND PHRASE . INFO

FREQUENCY LISTS - ANALYZE TEXTS | ALL GENRES - ACADEMIC

DAVIES | BYU | COCA

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ENTER TEXT BELOW MY TEXTS

cognitive disabilities; and (b) in those instances in which teachers reported no influence or a negative influence on daily instruction or IEP development, the reasons teachers gave for these phenomena. The results of this survey support other findings that teachers perceive the alternate assessment to have a greater influence upon daily instruction than upon IEP development (Towles-Reeves, in press). Implications for teacher

SEARCH CLEAR HELP

WORD PHRASE

Text #210465 (more Education)

[ACAD]: Rural Special Education Quarterly (2006) "The Impact of One State's Alternate Assessment Upon Instruction and IEP Development."

SEE LISTS	FREQ RANGE	1-500	501-3000	GREATER 32%	SAVE TEXT	HELP
	394 WORDS	21 %	3 %	ECU		

cognitive disabilities; and (b) in those instances in which teachers reported no influence or a negative influence on daily instruction or IEP development, the reasons teachers gave for these phenomena. The results of this survey support other findings that teachers perceive the alternate assessment to have a greater influence upon daily instruction than upon IEP development (Towles-Reeves, in press). Implications for teacher support and training in alternate assessments, especially in rural areas, are discussed. Introduction

A critical element of No Child Left Behind Act of 2001 is to hold teachers, schools, and states accountable for ensuring every

SEE ENTRIES BELOW ASSESSMENT (EXACT) **NOUN (1557)** PHRASE (HELP)

SYNONYMS (click to see) [?]

SEE ALSO:

- city
- 924 charge
- 1557 **assessment**
- 1761 city
- 1881 debt
- evaluation
- 1388 review
- 1557 **assessment**
- 1910 judgment
- 2369 evaluation
- 2503 consideration
- 3248 measurement
- 7894 appraisal
- 10592 estimation
- valuation

ASSESSMENT n (#1557, ACAD FREQ 22206) (HELP)

	HIS	EDU	SOC	LAW	HLM	PHIL	SCI	MED	BUS
CLICK BAR TO LIMIT									
PER MILL	0.4	4.8	1.3	0.5	1.2	0.3	0.7	1.5	0.1
SEE MORE	987	7276	4059	1057	2333	794	2801	2747	152

CONCORDANCE LINES

	DOMAIN		WORD	PHRASE	CONTEXT
1	PHIL	bishops explicitly endorsed a progressive tax scheme "	based on	assessment	according to ability to pay " as a " prime necessity "
2	MED	be exacerbated by food allergies . # Total Points : #	Assessment	Add your total	points for Part 1 : 0-1 Food allergy unlikely
3	EDU	First in Oregon and other states , comprehensive reading	assessments	administered at the	end of Grades 1 and 2 are also used
4	BUS	much) It pays doctors , you should make a personal	assessment	after you join	a plan . If the doctors seem unmotivated or
5	BUS	as heavy street traffic or drainage problems . For more tax	assessment	ammo , buy	the National Taxpayers Union brochure How to Fight:
6	LAW	4 presents the overall framework for conducting exposure	assessments	and discusses the	use of Toxicity Equivalency Factors (TEFs) .

DEFINITIONS (WORDNET)

(BAD ENTRY?)

1. the classification of someone or something with respect to its worth 2. the act of judging or assessing a person or situation or event 3. the market value set on assets 4. an amount determined as payable

COLLOCATES (click to see with ASSESSMENT)

adj functional, educational, comprehensive, clinical, authentic, initial, alternate, psychological, accurate, alternative noun risk, assessment, tool, performance, intervention, instrument, procedure, evaluation, instruction, progress verb conduct, peer, risk

CLICK WORD TO: SEARCH AS COLLOCATE QUERY THAT WORD [?]

Science Example

SEE LISTS	FREQ RANGE	1-500	501-3000		DISCIPLINE	HELP
	419 WORDS	21 %	5 %		ALL ACAD ▾	

Groundwater occurs almost everywhere beneath the land **surface**. Its **widespread occurrence** is a **major** reason it is **used** as a **source** of water supply worldwide. **Moreover, groundwater plays** a **crucial role** in **sustaining** streamflow **between precipitation** events and especially during protracted **dry periods**. In **addition** to **human uses**, many **plants** and **aquatic** animals are **dependent upon groundwater discharge** to **streams**, lakes, and wetlands.

A growing **awareness** of **groundwater** as a **critical natural resource** leads to some **basic** questions. How much **groundwater** do we have **left**? Are we running out? Where are **groundwater resources** most **stressed**? Where are they most **available** for **future** supply? To **address** these **basic** and seemingly simple questions **requires consideration** of several

Business Example

The string of **accounting** scandals that shattered Enron, WorldCom, Global Crossing and others **evaporated** billions of dollars in market **value**. While **plants** and equipment **maintain** their worth, it's the **intangible assets** like **brand** names, **customer** loyalty and **strategic alliances** that suffer in **such** debacles. Intangibles are a bigger deal **than** ever.

Intangibles are an **accounting** contrivance that resembles a **cosmic black hole** -- we know it **exists** but understand little of its inner **workings**. These **amorphous assets** are **listed** on balance sheets under the heading " Intangibles and Goodwill. " In **pluck-from-the-air** fashion, this **entry** is **figured** out by **subtracting** a **company's book value** from its **stock capitalization**. The **value**, that is, is **assumed** to be whatever it takes to make the **books** balance.

Parsing the **component parts** of a **company's** intangibles is not easy. What **role** does its **management quality play**? How about its **technology**? Its **innovative** prowess? Its **brand appeal**?

History Example

Thus, the concepts of core and periphery provide the basis for outlining the general geographic contours of the Middle East at any given time. The concepts of patterns of cooperation, patterns of conflict and intrusive forces provide the dimensions for examining regional dynamics in Middle East politics at different historical periods. In different historical stages, the dimensions of the region may have been changing, but the dynamics of change were a function of historical context -- that is, a function of the regional dynamics driving change in a stage. These are periodized into four stages: Islamic, Ottoman, nationalist and post-nationalist. Although these periods are sequentially related, they are not bounded in time with distinct beginnings and endings. Rather, they tend to blend one into another, with patterns emerging, more or less becoming dominant, then submerging as new patterns come to the fore. The designation of a phase is simply an heuristic label used to connote the central political dynamic through which a period is being viewed.

Medicine Example

It is also necessary to delve into the patient's background and culture to determine what the patient will find most acceptable. All surgical changes that are anticipated must be charted and shown to the patient. I do this at two different consultations before the surgical procedure. This is obviously important from a medical-legal standpoint; but it is more important from the standpoint of the doctor-patient relationship. Intelligent patients will accept limiting factors before the surgery. They may not if they are surprised after the surgery. Anatomy of the Nasal Lower and Upper Lateral Cartilages

Much can be learned about the nasal tip and mid-nose before surgical intervention takes place. The physician's use of his two index fingers placed superior and inferior to the lower lateral cartilage, while gentle pressure is exerted on this cartilage, will delineate the width of this cartilage and provide the doctor with some idea of the cartilage thickness and firmness. The firmer the cartilage, the thicker it is. Similarly, pressure over the upper lateral cartilages and physical

Find discipline-oriented words (here Medicine, frequent words)

WORD AND PHRASE . INFO

FREQUENCY LISTS - ANALYZE TEXTS | ALL GENRES - ACADEMIC

DAVIES | BYU | COCA

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FIND WORDS (OR SHOW: [ACAD VOCAB LIST](#) [WORD FAMILIES](#))

WORD [?]

PART OF SPEECH NOUN VERB ADJ ADV MISC

DISPLAY TECHNICAL NON-ACADEMIC [?]

LIMIT DOMAIN [?]

1 / 12

If you want to see the top 3,000 "core academic" words or the top 2,000 word families in academic writing in COCA, just click on [\[SHOW ACAD VOCAB LIST\]](#) or [\[SHOW WORD FAMILIES\]](#) above. You can then see full information on that word (e.g. [rate \(n\)](#) or [develop \(v\)](#)).

CLICK ON A WORD FOR FULL DETAILS

	RATIO	POS	WORD	TOT	HIS	EDU	SOC	LAW	HUM	PHIL	SCI	MED	BUS
1	1.50	N	HEALTH	59684	2838	2807	16372	3872	703	3848	4315	23165	1764
2	1.87	N	PATIENT	42328	444	241	5320	732	258	2700	2154	29608	801
3	1.10	N	CARE	32272	1447	1487	10773	1893	553	2849	1584	10276	1410
4	1.67	N	RISK	31808	1456	1556	6802	2932	610	1843	4940	9789	1870
5	0.94	N	FOOD	31624	2558	621	3794	1533	794	2763	7859	10373	1292
6	1.86	N	TREATMENT	31055	1172	2796	7443	1489	808	2101	3957	10805	484
7	0.40	N	WEEK	24925	2007	2059	3414	1669	1163	2480	4008	6207	1918
8	1.50	N	DISEASE	23891	1174	344	2789	675	649	1546	4872	11413	429
9	1.14	J	MEDICAL	21204	1052	795	4279	1408	514	2001	2510	7351	1294
10	1.35	N	PRESSURE	21189	2782	820	2548	2077	651	1144	5496	5178	493
11	1.51	N	CELL	21047	228	453	671	553	241	1387	10415	6427	672

SYNONYMS (click to see) [?]

SEE ALSO:

- [Cure](#)
- 745 [treatment](#)
- 1477 [medicine](#)
- 2158 [therapy](#)
- 3158 [medication](#)
- 4623 [cure](#)
- 5155 [remedy](#)
- 5211 [healing](#)
- [handling](#)
- 745 [treatment](#)
- 907 [management](#)
- 3718 [conduct](#)
- 5495 [handling](#)
- 6433 [usage](#)

TREATMENT *n* (#745, ACAD FREQ 31055) (HELP)



CONCORDANCE LINES

	DOMAIN			
1	MED	Night acne medication , \$8.19 : at drugstores) .	Spot	treatments
2	SOC	cross the green-line for their weekly shopping , dental	treatment:	and a few
3	BUS	track everyone in the population , both at the time of	treatment:	and afterward
4	PHIL	. Unfortunately at times we in the medical profession extend	treatments	and intervention that
5	MED	another might prefer to enjoy her remaining days free of	treatment:	and its dele

DEFINITIONS (WORDNET)

1. care by procedures or applications that are intended to relieve illness or injury 2. the management of someone or something 3. a manner of dealing with something artistically 4. an extended communication (often interactive) dealing with some particular topic

COLLOCATES (click to see with TREATMENT)

adj medical, effective, wastewater, preferential, mental, residential, surgical, equal, conventional, chronic noun drug, patient, treatment, plant, abuse, substance, facility, outcome, disease, diagnosis verb receive, undergo

CLICK WORD TO: SEARCH AS COLLOCATE QUERY THAT WORD [?]

	DOMAIN				
1	MED	Night acne medication , \$8.19 : at drugstores) .	Spot	treatments	also can help calm redness overnight : Photograph Try not to
2	SOC	cross the green-line for their weekly shopping , dental	treatment:	and a few	other medical consultancies , circumcision of newborn
3	BUS	track everyone in the population , both at the time of	treatment:	and afterward	to see which treatments are best for the patient
4	PHIL	. Unfortunately at times we in the medical profession extend	treatments	and intervention that	in effect prolong death rather than
5	MED	another might prefer to enjoy her remaining days free of	treatment:	and its dele	effects . In other words , the " right

Find discipline-oriented words (here Law/PolSci, less frequent words)

WORD AND PHRASE . INFO

FREQUENCY LISTS - ANALYZE TEXTS | ALL GENRES - ACADEMIC

DAVIES | BYU | COCA

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FIND WORDS (OR SHOW: [ACAD VOCAB LIST](#) [WORD FAMILIES](#))

WORD [?]

PART OF SPEECH NOUN VERB ADJ ADV MISC

DISPLAY TECHNICAL NON-ACADEMIC [?]

LIMIT DOMAIN Law/PolSci [?]

[1 / 12] [HIDE HELP](#) [NEXT HELP >](#)

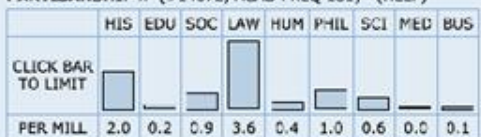
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451	1.43	N	PLEADING	183	12	2	6	137	7	9	5	1	4
452	2.21	N	REPUBLICANISM	183	62	0	18	65	16	9	13	0	0
453	2.53	N	RULE-MAKING	182	8	3	4	139	2	0	21	3	2
454	0.56	N	PARTISANSHIP	181	44	2	22	67	6	19	20	0	1
455	0.65	N	BRIBERY	181	46	4	19	63	5	17	5	5	17
456	1.15	J	CIVIL-RIGHTS	180	4	1	55	93	1	19	4	1	2
457	0.56	N	CANDOR	180	18	6	12	61	16	35	10	2	20
458	2.57	J	NON-ECONOMIC	180	40	7	29	79	3	3	12	5	2
459	2.04	J	NEOCONSERVATIVE	180	43	5	3	87	7	35	0	0	0
460	1.46	N	ISOLATIONIST	180	53	0	7	84	9	17	10	0	0
461	1.97	J	NONCOMMERCIAL	179	8	4	14	79	16	6	48	2	2
462	2.00	V	APPORTION	179	17	5	25	74	9	12	26	7	4
463	0.97	J	TAKING	179	9	11	29	64	10	11	17	12	16
464	2.19	N	AMORTIZATION	178	6	0	7	119	0	0	15	0	36

SYNONYMS (click to see) [?]

- SEE ALSO:
- [bias](#)
 - 5293 [prejudice](#)
 - 13412 [bigotry](#)
 - 14072** [partisanship](#)
 - 47351 [narrow-mindedness](#)
 - [support](#)
 - 3104 [membership](#)
 - 6558 [devotion](#)
 - 7350 [allegiance](#)
 - 9470 [sponsorship](#)
 - 10203 [adherence](#)
 - 14072** [partisanship](#)

PARTISANSHIP n (#14072, ACAD FREQ 181) (HELP)



CONCORDANCE LINES

LINE	DOMAIN	TEXT
1	HIS	must be done carefully , the contrast in the influence of partisanship across these two samples is striking . Loyalty to the FSLN
2	SOC	moved away from class lines . For example , voting and partisanship along class lines that predominated in the United States prior
3	HIS	ANWL to increase the number of black voters , to end partisanship among black leaders , and to make Horstfield responsible to
4	HIS	role in the failed democratization attempt of 1945-48 , that partisanship among civilian political forces would endanger the
5	HIS	a single additional terrorist attack on U.S. soil . Only naked partisanship and a justifiable fear of tempting fate have prioritized the Bush
6	SOC	contextual variable is seen in previous research that links partisanship and approval of presidential job performance . # Previous

DEFINITIONS (WORDNET)

1. an inclination to favor one group or view or opinion over alternatives (BAD ENTRY?)

COLLOCATES (click to see with PARTISANSHIP)

adj political, presidential, democratic, congressional, liberal, fierce, intense, institutional, increasing, naked noun politics, voter, republican, party, force, fear, era, charge, propensity, toqueville verb avoid, transcend, share, rise, reflect, mark, favor, engage, display, demonstrate

CLICK WORD TO: SEARCH AS COLLOCATE QUERY THAT WORD [?]

DOMAIN	TEXT	COLLOCATE
HIS	must be done carefully , the contrast in the influence of	partisanship across these two samples is striking . Loyalty to the FSLN
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Expanding Opportunities for English Language Learners***

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Brigham Young University

RITELL Conference
November 2015

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