Words, Words, Words: A Guide to Academic Word Lists and Vocabulary Resources
Today’s Goals

1. Learn about academic word lists that help teachers decide which words to teach
2. Learn about selected online resources that:
   a) help teachers plan for vocabulary instruction
   b) help students learn word meanings and
   c) help students practice using new words
Vocabulary Matters: A National Snapshot

• First graders from higher SES groups know about twice as many words as less-advantaged children.

• The gap grows throughout the school years: top high school seniors know about four times as many words as lower-performing schoolmates.

• High-knowledge third graders have vocabularies comparable to low-performing twelfth graders.

• Adequate reading comprehension depends upon the reader knowing 90–95% of the words in a text.

Sources: Graves, Slater, and Smith; Beck and Nagy
The Job Is HUGE!

<table>
<thead>
<tr>
<th>Word Families</th>
<th>Root Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A group of words related in meaning (e.g. <em>bold</em>, <em>boldly</em>, <em>boldness</em>)</td>
<td>• A single word that cannot be broken up into smaller words or word parts</td>
</tr>
<tr>
<td>• Nagy and Anderson estimate 88,500 total English word families in printed school English</td>
<td>• Biemiller counts root words and their related forms</td>
</tr>
<tr>
<td>• Average 12\textsuperscript{th} grader knows 40,000</td>
<td>• 17,500 root words in grades K-12, of which about 15,000 are known well by most grade 12 students</td>
</tr>
</tbody>
</table>
Common Words and Rare Words

• Some analyses have found that 90% of written text designed for students is made up of just 5000 relatively common words.

• Of the remaining 10% of written text, half of those words appear only once in the text; i.e. they are very rare.
Research Background

• There are more word meanings than there are words, e.g., *lean* = *lean* the rake against the wall, *lean* meat, *lean* on me (different words)

• By the end of grade two, there can already be a 4000 word meaning knowledge gap between the highest 25% and the lowest 25%.

• Average upper elementary children acquire approximately 1000 word meanings per year.

• Average primary grade children acquire approximately 860 word meanings per year.
Words are Learned Sequentially

• Children with high, average or low vocabularies acquire word meanings in a similar sequence.
  • *Children in grades 2, 3, or 6 with vocabularies of about 8,000 root word meanings are likely to know mainly the same meanings (85-90% same), but at different rates*

• Given that words are learned in roughly the same sequence we can anticipate when meanings will be learned in the near future by a specific child.
  • *Most children will be learning word meanings from the next two to three thousand meanings in a list of word meanings in the order they are typically acquired.*
Biemiller’s Word Lists

• Similar to Beck and McKeown’s tiered system which prioritizes Tier 2 words, Biemiller prioritizes those word meanings known by 40-80% of students at the end of 2nd grade. Same procedure for students at the end of 6th grade
  • Words known by more than 80% of students were considered known or likely to be known soon
  • Words known by fewer than 40% of students at the end of 2nd grade were considered unlikely to be learned in the primary years

Target words, then, are those that fall in the 40-80% range of students knowing.
Biemiller’s Word Lists (KEY)

• **E** = Easy words known by most children by end of grade 2

• **T₂** = High priority words known by 40-80% of students by end of grade 2

• **L₂** = Low priority words known by 40-80% of students by end of grade 2

• **T₆** = High priority words known by 40-80% of students by end of grade 6

• **L₆** = Low priority words known by 40-80% of students by end of grade 6

• **D** = Difficult words known by fewer than 40% of students by the end of grade 6
Implications of Biemiller’s List

• Identify all candidates for instruction within a given text
• Identify those words which are high priority for the grade level

The basis for *Word Intelligence*, a supplemental general academic word-learning curriculum for middle school.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>aorta</td>
<td>the main artery of the body</td>
<td>The <em>aorta</em> sends blood from the heart through the body’s smaller arteries.</td>
</tr>
<tr>
<td>299</td>
<td>apathy</td>
<td>a lack of feeling or interest; indifference</td>
<td>He views politics with <em>apathy</em>.</td>
</tr>
<tr>
<td>300</td>
<td>ape</td>
<td>animal with no tail able to stand and walk upright</td>
<td>A gorilla is one type of <em>ape</em>.</td>
</tr>
<tr>
<td>301</td>
<td>apology</td>
<td>a statement in which you say you are sorry</td>
<td>I accepted Seth’s <em>apology</em> because he really was sorry.</td>
</tr>
<tr>
<td>302</td>
<td>apostrophe</td>
<td>a punctuation mark indicating possession or contraction</td>
<td>In a contraction, the <em>apostrophe</em> stands for letters left out.</td>
</tr>
<tr>
<td>303</td>
<td>appellant</td>
<td>to horrify or shock</td>
<td>It would <em>appall</em> you if you knew the danger we were in.</td>
</tr>
<tr>
<td>304</td>
<td>apparatus</td>
<td>equipment</td>
<td>All of the gym’s <em>apparatus</em> is brand-new.</td>
</tr>
<tr>
<td>305</td>
<td></td>
<td></td>
<td>The wedding invitation says we should...</td>
</tr>
</tbody>
</table>
# Beck’s Three-Tier System

<table>
<thead>
<tr>
<th>Tier</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>Basic words students are likely to know</td>
<td><em>school, think, love</em></td>
</tr>
<tr>
<td>Tier 2</td>
<td>Frequently occurring, high-utility words that cross over many disciplines</td>
<td><em>emphasis, structure, range, dominate</em></td>
</tr>
<tr>
<td>Tier 3</td>
<td>Rarely occurring words with highly specialized, domain-specific meanings</td>
<td><em>alliteration, kamikaze, integer</em></td>
</tr>
</tbody>
</table>
Why are “academic words” important?

• They are critical to understanding academic texts.
• They appear in all sorts of texts.
• They require deliberate effort to learn, unlike Tier 1 words.
• They are far more likely to appear in written texts than in speech.
• They often represent subtle or precise ways to say otherwise relatively simple things.
• They are seldom heavily scaffolded by authors or teachers, unlike Tier 3 words.

Common Core State Standards, Appendix A, page 33
## Word Lists for each Tier

<table>
<thead>
<tr>
<th>Tier</th>
<th>CCSS Description</th>
<th>Sources for Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td></td>
<td>Dale-Chall List of 3000 simple words</td>
</tr>
<tr>
<td>Tier 2</td>
<td>General academic words and phrases</td>
<td>Coxhead Academic Word List (AWL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BYU The Academic Vocabulary List</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Domain-Specific words and phrases</td>
<td>Marzano: Building Academic Vocabulary</td>
</tr>
</tbody>
</table>
Dale-Chall List of 3000 Simple Words

- English-only students are assumed to know most words on the Dale-Chall list
- English learners often need explicit instruction in these words, which include both content and function words
- [http://www.sourcebookcompanion.com/sec5.html](http://www.sourcebookcompanion.com/sec5.html)
  This link to the CORE *Teaching Reading Sourcebook* companion page for Vocabulary contains a link to the full Dale-Chall list
The Dale-Chall Word List

A

a
able
aboard
about
above
absent
accept
accident
account
ache
aching
acorn
acre
across
act
acts
add
address
admire
adventure
afar

alarm
alike
alive
all
alley
alligator
allow
almost
alone
along
aloud
already
also
always
am
America
American
among
amount
an

angel
anger
angry
animal
another
answer
ant
any
anybody
anyhow
anyone
anything
anyway
anywhere
apart
apartment
ape
apiece
appear
apple
April
ask

apron
are
aren’t
arise
arithmetic
arm
armful
army
assistant
attention
August
aunt
author
around
auto
automobile
autumn
avenue
awake
awaken
away
awful
awfully
awhile
ax
axe
Coxhead Academic Word List

• 570 words that occur frequently across a wide variety of content areas
• Divided into 6 sublists
• Each word is a headword or base word that includes a large number of related words
• *Constitute* includes constitutes, constituted, reconstitute, constitution, constitutional, unconstitutional, etc.
Brigham Young University
Academic Vocabulary Lists

• Drawn from the COCA: Corpus of Contemporary American English
• You must register with the site in order to download the lists
• Available lists include the top 2000 word families in academic writing in COCA, and the top 3000 “core academic words”
• Used frequently by publishers of school-based texts
• More information at: http://www.academicvocabulary.info/ and http://www.wordandphrase.info/
The Academic Vocabulary List
Mark Davies and Dee Gardner, Brigham Young University


<table>
<thead>
<tr>
<th></th>
<th>study</th>
<th>137208</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>study (n) 137208</td>
<td>study (v) 18872</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>develop</th>
<th>128974</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>development (n) 63509</td>
<td>develop (v) 52543</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th></th>
<th>group</th>
<th>125012</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>group (n) 122011</td>
<td>grouping (n) Edu 1744</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>system</th>
<th>116141</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>system (n) 110176</td>
<td>systematic (j) 4090</td>
</tr>
</tbody>
</table>

My uncle was stationed at Misenum, in active command of the fleet. On 24 August, in the early afternoon, my mother drew his attention to a cloud of unusual size and appearance. He had been out in the sun, had taken a cold bath, and lunched while lying down, and was then working at his books. He called for his shoes and climbed up to a place which would give him the best view of the phenomenon. It was not clear at that distance from which mountain the cloud was rising (it was afterwards known to be Vesuvius); its general appearance can best be expressed as being like an umbrella pine, for it rose to a great height on a sort of trunk and then split off into branches, I imagine because it was thrust upwards by the first blast and

<table>
<thead>
<tr>
<th>SEE LISTS</th>
<th>FREQ RANGE</th>
<th>1-500</th>
<th>501-3000</th>
<th>&gt; 3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1044 WORDS</td>
<td></td>
<td>69 %</td>
<td>16 %</td>
<td>15 %</td>
</tr>
</tbody>
</table>

Select individual words in the text to see "word sketches"
Marzano’s List of Academic Terms

• 7,923 terms
• Organized into four grade-level intervals: K–2, 3–5, 6–8, and 9–12
• Domain-specific terms across 11 subject areas
<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>147</td>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>148</td>
<td>abolish</td>
<td>agriculture</td>
<td>ally</td>
<td>abolitionist movement</td>
</tr>
<tr>
<td>150</td>
<td>amendment</td>
<td>ancient</td>
<td>biodiversity</td>
<td>agrarian</td>
</tr>
<tr>
<td>151</td>
<td>Art. of Confederation</td>
<td>Buddhism</td>
<td>capital</td>
<td>Black Death</td>
</tr>
<tr>
<td>152</td>
<td>American Revolution</td>
<td></td>
<td></td>
<td>amend</td>
</tr>
<tr>
<td>153</td>
<td>Bill of Rights</td>
<td>cash crop</td>
<td>Congress</td>
<td>bicameral</td>
</tr>
<tr>
<td>154</td>
<td>Branches of government</td>
<td>Christianity</td>
<td>conquest</td>
<td>boycott</td>
</tr>
<tr>
<td>155</td>
<td>checks and balances</td>
<td></td>
<td>consumer</td>
<td>Founding Fathers</td>
</tr>
<tr>
<td>156</td>
<td>Civil War</td>
<td>circa</td>
<td>continental divide</td>
<td>citizenship</td>
</tr>
<tr>
<td>157</td>
<td>Confederacy</td>
<td>civilization</td>
<td>crusade</td>
<td>compromise</td>
</tr>
<tr>
<td>158</td>
<td>Congress</td>
<td>conflict</td>
<td>dictatorship</td>
<td>debate</td>
</tr>
<tr>
<td>159</td>
<td>Constituion</td>
<td>culture</td>
<td>embargo</td>
<td>secede</td>
</tr>
<tr>
<td>160</td>
<td>Declaration of Independence</td>
<td></td>
<td>emperor</td>
<td>democratic forms of gov't</td>
</tr>
<tr>
<td>161</td>
<td>democracy</td>
<td>diplomacy</td>
<td>empire</td>
<td>Declaration of Independence</td>
</tr>
<tr>
<td>162</td>
<td>economic systems</td>
<td>diversity</td>
<td>ethnicity</td>
<td>Emancipation Proclamation</td>
</tr>
<tr>
<td>163</td>
<td>emancipation</td>
<td>domesticate</td>
<td>feudalism</td>
<td>checks and balances</td>
</tr>
<tr>
<td>164</td>
<td>federal</td>
<td>ethnic group</td>
<td>generation</td>
<td>Federalism</td>
</tr>
<tr>
<td>165</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part 2

Sites for Word Learning
Recommended Dictionaries

- Collins COBUILD New Student’s Dictionary
  [www.collinsdictionary.com](http://www.collinsdictionary.com)
- Heinle’s Basic Newbury House Dictionary of American English
- Online: [nhd.heinle.com](http://nhd.heinle.com)
- Online: [Longman Dictionary of Contemporary English](http://www.ldoceonline.com)
- Merriam-Webster’s Learner’s Dictionary: [learnersdictionary.com](http://learnersdictionary.com)
More Online Dictionaries

  • useful for teachers
  • useful to find translations

• Translations at [www.wordreference.com](http://www.wordreference.com) (18 languages)

• **Visual Thesaurus** (free 2-week trial; then needs subscription) [http://www.visualthesaurus.com/trialover/](http://www.visualthesaurus.com/trialover/)
Vocabulary.com

- Excellent website for word learning
- Has student-friendly explanations of words rather than dry dictionary definitions
- Teachers and students can create custom lists for practice
- Shows multiple usage examples
- Shows the full word family of each word
- Extensive examples of words used in current newspaper sources
- Educator Edition available for increased options; but free version is also fantastic
Compare Dictionary Sites

• Form small groups of 3-4 members each
• Look up “constitute” or “procedure” in one or more of these sites, then compare:
  • www.ldoceonline.com
  • nhd.heinle.com/
  • learnersdictionary.com
  • www.dictionary.com
• Which are the most useful sites for students? teachers?
• Then, look up the same term at www.vocabulary.com. Use the “LOOK UP” feature at the top of the page.
• Bookmark the most useful sites!
Useful and Engaging Apps

• **Nglishe** – at Google Play Store only - English Spanish translator by Merriam Webster

• **Quizlet** – study flashcards, vocabulary, and foreign languages (free; Quizlet Plus is $19.99)

• **Quizzitive** – Merriam Webster- 1000 words worth knowing App for iphone and ipad (free with in-app purchases)

• **Vocabulary.com** available as an app ($2.99)

• **Vocabulary Builder from Magoosh** – 1200 vocabulary words at varying stages of difficulty (free)

• **Words Inc** – competitive and timed matching game (free with in-app purchases)
Other useful sites

- **Kahoot** (fun for review games) [https://getkahoot.com/how-it-works](https://getkahoot.com/how-it-works)
- **Socrative** (excellent for quizzes and review activities) [http://www.socrative.com/](http://www.socrative.com/)
- **Quizlet** (makes flash cards and other review activities using a single answer set- useful for many Tier 3 words but of limited usefulness for Tier 2 words because students do not learn multiple usages in multiple contexts) [https://quizlet.com/](https://quizlet.com/)
- **Flashcard Machine**: free, open source flashcard site to create, study, and share flashcards; images can be saved on the cards [www.flashcardmachine.com](http://www.flashcardmachine.com); also available as an app for both Android and iphone
Thank you!
If you have other sites to recommend, please share them!

Igreenberg@corelearn.com
Idiamond@corelearn.com

Please fill out the online evaluation form for this session at
http://sched.co/9lwZ