

# *Vocabulary Building the Montessori Way*

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## *What is Academic Vocabulary?*

Academic vocabulary is the vocabulary **critical to understanding the concepts of the content taught in schools**. Of course, this includes Montessori schools.

These are essential words and phrases that will increase the children's understanding of concepts, facilitate higher order thinking, and better their performance in general, as well as on tests.

### *Consider this:*

How important is vocabulary?

- **Vocabulary** assessed in first grade predicted over **30%** of reading comprehension variance in **11th grade** (Cunningham and Stanovich, 1977).
- The same student placing at **the 50<sup>th</sup> percentile** in reading comprehension, without direct vocabulary instruction, placed at **the 83<sup>rd</sup> percentile** when provided specific instruction in academic vocabulary (Stahl and Fairbanks, 1986).

- One of the **most critical services** a teacher can provide, particularly for students who do not come from academically advantaged backgrounds, **is systematic instruction** in important academic terms (Marzano and Pickering, 2005).

How often is enough?

- **Four encounters** with a word did not reliably improve reading comprehension, but **12 encounters did** (McKeown, Beck, Omanson, and Pople, 1985).

What about Academic Vocabulary for ELL (ESL) Students?

- Marzano and Pickering (2005), emphasize the importance of teaching ELL academic vocabulary in a systematic approach. They suggest that vocabulary programs that emphasize high-frequency terms fail to provide the background knowledge needed for student success in the content areas. Students learn high-frequency words through wide reading of fiction and informational text.

### *Are we good at it?*

We in Montessori are pretty good, but can improve. We do have specific materials for vocabulary development. However, we **must** devote time specifically to vocabulary. Always use the proper names for things DO not shy away from some words because there are simpler words available. Use real words like *homophones* rather than made-up constructions such as *sound-alikes*.

Be willing to *complexify* the work. (That actually is a made-up word!) Use more challenging words when possible. For example, the sides of a right-angled triangle (not the hypotenuse) may be called its legs. This is not a new word for the children. They may also be called the *catheti*. Seize the opportunity to offer a word like *catheti* (singular is cathetus) purely for enrichment purposes.

Guidelines:

1. For all areas: learn all of the parts of the classroom and all of its equipment (shelf, leg, carpet, mat, thermostat, etc.), the name of every material as it is presented. Learn words that describe the building as a whole and its location.

2. In the Children's House. The main efforts for vocabulary are in the Sensorial area with supportive efforts in science, math, language and geography.

- Sensorial: words like color names, textures, shapes, sizes, sensory inputs. Whenever possible, adjectives are presented in positive, comparative and superlative form.
- Science. Parts of plants and animals, names of many living things, leaves and leaf shapes, etc.
- Math. Numbers, names of the operations, verbs related to the operations, names of the places, words like category, hierarchy.
- Geography. Place names, landforms, parts of flags, words like continent, river, sea, globe, etc.

2. In the Elementary level. Vocabulary with language is possibly the best-developed area of the Montessori program. Vocabulary is **the** central work of lower elementary and a major activity of upper elementary. In Elementary I, all of the classified nomenclature, almost all of the Biology

(Botany and Zoology), essentially all of the Geometry, most of the Geography, much of the history, and much of the language is devoted to vocabulary development. It MUST be managed well with a realization that vocabulary is very often (usually) the direct aim.

- Arithmetic: words like number names, kinds of numbers (cardinal, ordinal, nominal), the names of the operations, the parts of the operations, mathematical laws (commutative, associative), exponents, types of notation, etc.
- Science. Parts of plants and animals, names of many living things, leaves and leaf shapes, taxonomies, parts and kinds of all life forms studied, names of elements, branches of science, specific words unique to science (insolation, viscous, etc.), scales of measurement, etc.
- Geography. Place names, landforms, parts of flags, words like continent, river, sea, globe, etc. All of the words connected with the Impressionistic charts, words connected with economic geography, all of the words in the classified nomenclature.
- Geometry. Shape names, parts and kinds of all figures and shapes, measurement words, unique geometric concepts (congruence, transitive property, area). Whenever possible, adjectives are presented in positive, comparative and superlative form.
- History. The names of the basic tools (calendar, clock), days and months, the eras and periods, the beings on each time line, the units of measurement (minute, month, decade, millennium, etc.), names of civilizations and peoples, etc.
- Language. All nine parts of speech, advanced parts of speech (transitive verb, demonstrative pronoun, gerund, etc.), kinds of sentences, names of punctuation marks, types of poetry, kinds of rhyme

and near rhyme, meter, literary forms, kinds of letters and combinations (vowel, digraph, diphthong, etc.), interesting words (palindromes, homographs, etc.).

- Support materials: Be sure to have at least one etymological dictionary (two – three are better), a thesaurus, use a *Word of the Day* (make it fun),

## ***How to Teach Academic Vocabulary***

Carefully follow a [six-step](#) process for teaching Academic Vocabulary

### ***First Day***

#### **1. Start by showing students one or more Objects, Models, Pictures, Examples, Descriptions, or (least satisfactory) Explanations,**

- Present the real thing if at all possible (Very important!). If that is not available, present a model, accurate picture or associate it directly with a Montessori Material.
- Point out its qualities, uniquenesses, special features, but avoid a formal definition. Formal definitions are typically not very learner friendly. They usually make sense only after we have a general understanding of a term or phrase, but not in the initial stages of learning.
- Write a label or labels if possible. Let the children see you write. (Very important)! Give etymology.
- Develop an exploratory work (learning activity) for the child or children.
- Activities with cards. (Matching labels and pictures, wall charts etc.)

## **Second Day**

2. **Review the real thing or model, picture, or example, if possible. Use memory if not possible. Review etymology.**
3. **Have Students Generate Their Own Descriptions, Explanations, or Examples (Very important!). Let this lead to an *Organization of Definitions*.**

**Explanation:** Once a description, explanation, or example has been provided to students they should be asked to restate that information in their own words, eventually in the form of a definition. It is important that students do not copy exactly what the teacher has offered. Student descriptions, explanations, examples and definitions should be their own constructions using their own background knowledge and experiences to create a scaffold between what they already know the and new term.

- Appeal to authority. Compare student written definitions to printed nomenclature, if available. Otherwise, use a dictionary, word list, etc.
- Revise definitions as needed and desired.

4. **Have the children depict each term or phrase using a drawing, picture, graphic representation, or pictograph. This activity is critical for ELL students.**

**Explanation:** This allows them to process the information in a different modality---an imagery form as opposed to a linguistic form. It also provides a second processing of the information, which should help deepen students' understanding of the new term or phrase.

- Activities with Cards. Matching definitions and pictures, reading

books etc.

- Develop a summative work (learning activity) for the child or children.

### **What Are Some Activities with Cards?**

1. Matching
2. Drawing
3. Reading.
4. Describing.
5. Comparing.
6. Contrasting.
7. Analyzing for grammar.
8. Summarizing.
9. Rewriting.
10. Imagining.
11. Discussing.
12. Playing concentration.
13. Memory Games.

### ***Other Activities***

#### **5. Have Students Keep an Academic Vocabulary Notebook**

**Explanation:** Students should keep their terms in a special section of each of their academic notebooks, such as the Geometry notebook, language notebook, etc. This notebook section should contain the terms and phrases that have been taught. They will need enough space to record initial descriptions, explanations, and examples of the terms and phrases as well as graphic representations, pictures, etc. Space should also be provided for students to write additional comments about the terms and phrases as time goes on. The children should be engaged in activities that allow them to review their academic vocabulary and add to

their knowledge base regarding specific terms and phrases. As these activities occur, students can be asked to add to the entries in their notebooks perhaps correcting misconceptions, adding new information, or making linkages with other terms and phrases.

## **6. Regularly review the academic vocabulary and provide the children with activities that add to their knowledge base**

Biweekly activities:

- Engage students activities that help them add to their knowledge of the terms.
- Ask students to discuss the terms with one another.
- Involve students in games that allow them to play with the terms.

**Explanation:** If students experience a new term or phrase once only, they will be left with their initial, partial understanding of the term or phrase. To develop deep understanding of the terms and phrases in their academic vocabulary notebooks, students must be engaged in review activities. Once a week or perhaps more frequently, students might be offered activities that add to their knowledge base about the terms and phrases in their notebooks. For example, they might make comparison between selected terms in a given subject area or between subject areas; they might create analogies or metaphors for selected terms; they might simply compare their entries with those of other students. Finally, they might be engaged in games that use the terms and phrases from their academic vocabulary notebooks. After each of these activities, the children should be asked to make corrections, additions, and changes to the entries in their notebooks. In this way, their knowledge of the academic terms and phrases will deepen and become a sound foundation on which to understand the content presented in class.

## ***What Not To Do.***

### **Don't:**

1. Start with cards.
2. Just accept printed (dictionary) definitions
3. Copy (Never!)
4. Ask many knowledge questions or assess too much for knowledge
5. Worry too much about sequence
6. Use workbooks or workbook style activities.

Here are the *Six Steps to Academic Vocabulary* summarized:

1. Start by showing the children one or more objects, models, pictures, examples, descriptions, or (least satisfactory) explanations,
2. Review the real thing or model, picture, or example, if possible. Use memory if not possible.
3. Have the children generate their own descriptions, explanations, or examples. Let this lead to an *Organization of Definitions*.
4. Have the children depict each term or phrase using a drawing, picture, graphic representation, or pictograph.
5. Have students keep an academic vocabulary section in each academic notebook
6. Regularly review the academic vocabulary and provide the children with activities that add to their knowledge base