Language Functions & Early Generative Language Production
by Gail M. Van Tatenhove, PA, MS, CCC-SLP

Normal language development information is the foundation for building generative language with a child using AAC strategies. Starting with the simplest Speech Generating Device (SGD) a child can be learning about reasons to communicate (pragmatics), the communication dance (discourse), word meanings (semantics), word building (morphology) and sentence building (syntax).

The family, teacher, or therapist working with the child needs to have a vision of where they are going in terms of AAC and language development. Without this vision, development of an AAC system is too often drive by "immediate needs" and the support team ends up continually scrambling to make yet another board or program yet more vocabulary for yet another activity or event in the child's life. What you often end up with is (1) an AAC system full of nouns, but deficit of language and/or (2) an AAC system that lacks a systematic organization of words.

However, when the focus is on providing a planned set of core vocabulary that is useful across a broad number of events or activities, then you can concentrate on teaching language which provides the child with real communicative power. The goal is to provide the child with normal language learning experiences, while gradually building up his/her vocabulary. The long-range plan is to end up with a useful vocabulary of approximately 300+ core words. From this solid basis of vocabulary, additional words can be added based on the child's continued language development, and the child's and family's interests, needs, activities, etc.

This handout is provided to:
1. review normal early language development;
2. apply principles of normal language development to the field of AAC.
3. guide selection of the "first words" to put on the AAC device/board; and
4. introduce strategies for scripting use of early language functions.

It starts out reviewing "why" and "what" kids says when they are talking with mostly 1 words. Then it goes on to the same thing when they start talking with 2 words, and then 3-4 words and word endings. All of this happens in typically developing kids before the age of three, so it is not asking too much for kids using AAC to be given the same opportunity for language learning. While all children using AAC are not going to reach the same levels of language proficiency, all children using AAC should be given the opportunity to reach for their highest personal level of language proficiency.

The information regarding the various language learning levels come from a wide variety of language development resources. The vocabulary lists given are starting points based on AAC vocabulary research and clinical practice. One reference is given (Banajee, 2003) as a starting point for selecting vocabulary.
## Single Word Utterance Level

<table>
<thead>
<tr>
<th><strong>Relational Functions</strong></th>
<th><strong>Context</strong></th>
<th><strong>Form (vocabulary examples)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Greet</td>
<td>people noticed</td>
<td>hi, hello, mama, dada</td>
</tr>
<tr>
<td>Part</td>
<td>people leave</td>
<td>bye bye, goodbye</td>
</tr>
<tr>
<td>Request Assistance</td>
<td>used to request assistance with an event</td>
<td>help, do</td>
</tr>
<tr>
<td>Recurrence</td>
<td>used to both request &amp; comment</td>
<td>more, another</td>
</tr>
<tr>
<td>Naming/Labeling</td>
<td>used to name or label objects and people, giving information</td>
<td>doggie, milk, shoe</td>
</tr>
<tr>
<td>Existence</td>
<td>objects or people pointed out, noticed, or found events – used to gain attention</td>
<td>uh oh, this, that, there, look, see</td>
</tr>
<tr>
<td>Nonexistence</td>
<td>used to comment on non-existence when existence is expected</td>
<td>no, away, gone</td>
</tr>
<tr>
<td>Disappearance</td>
<td>comment on the disappearance of person or object in the immediately preceding context</td>
<td>away, all gone, gone</td>
</tr>
<tr>
<td>Rejection</td>
<td>used to reject an ongoing object or action</td>
<td>no, stop</td>
</tr>
<tr>
<td>Cessation</td>
<td>comment on an ongoing event that has ceased in the immediately preceding context</td>
<td>stop</td>
</tr>
<tr>
<td>Comments</td>
<td>used to comment on an attribute in immediate context</td>
<td>like, dirty, big, naughty</td>
</tr>
<tr>
<td>Vocatives</td>
<td>to call for someone (less frequent than comments or greetings)</td>
<td>mama, dada, baby</td>
</tr>
<tr>
<td>Directive</td>
<td>used to direct action and/or make requests in the immediate context</td>
<td>go, help, stop</td>
</tr>
<tr>
<td>Associative</td>
<td>idea is associated with an event, object, or person</td>
<td>big, hot, pretty, up</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Semantic Functions</strong></th>
<th><strong>Context</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>agent of an intended or immediate action</td>
<td>mama, dada, baby, I, me, you</td>
</tr>
<tr>
<td>Object</td>
<td>object of an action (infrequent occurrence)</td>
<td>mama, dada, baby</td>
</tr>
<tr>
<td>Action</td>
<td>making of action or event</td>
<td>want, go, turn, catch, up, eat, drink, stop, get, give</td>
</tr>
<tr>
<td>Possession</td>
<td>associated with or belonging to a person</td>
<td>mine, dada, mama</td>
</tr>
</tbody>
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## Language Functions & Early Generative Language Production

### Two Word Utterance Level

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</thead>
<tbody>
<tr>
<td><strong>Greet</strong></td>
<td>people noticed</td>
<td>hi + person, hello + person</td>
</tr>
<tr>
<td><strong>Part</strong></td>
<td>people leave</td>
<td>bye bye + person</td>
</tr>
<tr>
<td><strong>Request Object or Action</strong></td>
<td>used to request object or action</td>
<td>(want, get, find) + substantive word, want that, get more</td>
</tr>
<tr>
<td><strong>Request Information</strong></td>
<td>used to request information</td>
<td>why, what’s that, where go, what doing</td>
</tr>
<tr>
<td><strong>Request Assistance</strong></td>
<td>used to request assistance with an event</td>
<td>(help) + another word</td>
</tr>
<tr>
<td><strong>Recurrence</strong></td>
<td>used to request or comment on an event</td>
<td>(more, another) + substantive word, do again</td>
</tr>
<tr>
<td><strong>Existence</strong></td>
<td>objects or people pointed out, noticed, or found events – used to gain attention</td>
<td>(this, a, the, that, it, there) + substantive word</td>
</tr>
<tr>
<td><strong>Nonexistence</strong></td>
<td>used to comment on non-existence when existence is expected</td>
<td>(no, away, all gone) + substantive word</td>
</tr>
<tr>
<td><strong>Disappearance</strong></td>
<td>comment on the disappearance of person or object in the immediately preceding context</td>
<td>(no, away, all gone) + substantive word</td>
</tr>
<tr>
<td><strong>Rejection</strong></td>
<td>ongoing event/object rejected</td>
<td>no + substantive word</td>
</tr>
<tr>
<td><strong>Cessation</strong></td>
<td>comment on an ongoing event that has ceased in the immediately preceding context</td>
<td>no + substantive word</td>
</tr>
<tr>
<td><strong>Comment</strong></td>
<td>used to comment on an attribute in the immediate or preceding context</td>
<td>like that, that mine, you funny</td>
</tr>
<tr>
<td><strong>Directive</strong></td>
<td>used to direct action and/or make requests in the immediate context</td>
<td>get that, help me, stop it</td>
</tr>
<tr>
<td><strong>Associative</strong></td>
<td>idea is associated with an event, object, or person</td>
<td>(big, hot, pretty) + substantive word</td>
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<tr>
<th>Semantic Relations</th>
<th>Linguistic Structure</th>
<th>Form (vocabulary examples)</th>
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<tbody>
<tr>
<td><strong>Agent-Action</strong></td>
<td>noun + verb</td>
<td>daddy hit, me read</td>
</tr>
<tr>
<td><strong>Action-Object</strong></td>
<td>verb + noun</td>
<td>get that, read it, get some, want one,</td>
</tr>
<tr>
<td><strong>Agent-Object</strong></td>
<td>noun + noun</td>
<td>mommy book, me that</td>
</tr>
<tr>
<td><strong>Possessive</strong></td>
<td>noun + noun, pronoun + noun</td>
<td>mommy book, my book, that mine</td>
</tr>
<tr>
<td><strong>Locative</strong></td>
<td>noun + noun, verb + noun, prep + noun, verb + prep</td>
<td>that thing, go store, on chair, get up</td>
</tr>
<tr>
<td><strong>Attributive</strong></td>
<td>adj + noun</td>
<td>big one, red thing</td>
</tr>
<tr>
<td><strong>Experiencer-State</strong></td>
<td>pronoun + verb</td>
<td>me read, me love, me want</td>
</tr>
</tbody>
</table>
Language Functions & Early Generative Language Production

Three and Four+ Morpheme and Word Utterances

Noun Phrase
1. Using demonstratives (this, that, these, those), articles (a, the), adjectives, and modifiers including other, more, one.
2. Prepositions used include in, on, with, of, for, to
3. Indeterminates appear: some, something
4. Noun plural reaches 90%, but plural rule over generalized (cow, cows, sheeps)
5. Noun possessive (mine, my+object) used with 90% consistency

Verb Phrase
1. Irregular past achieves 90% consistency (I went, he came)
2. Uncontracted copula used with 90% consistency (He is good.)
3. Auxiliary verb occurs before main verb in declarative sentences (He is going).
4. Modals start to appear: can, will

Auxiliaries
1. "Do" and "be" occur appropriately
2. "Can't" and "don't" occur as part of verb phrase only.
3. Auxiliary is NOT inverted in interrogative questions (why you are not going?).

Yes/No Questions
1. Mostly marked by intonation in speaking child.
2. Inconsistent subject/verb inversion

Wh Questions
1. "Why" and "why not" occur as a whole sentence
2. Produce "what" and "where" plus verb phrase.
3. May omit "do" in auxiliary (What you want?).

Negation
1. Negation in proper place in sentence but not included in the noun phrase or verb phrase (I no play).
2. Negative morphemes used as single morphemes (can't, don't, won't)

Personal Pronouns
1. I and me used appropriately.
2. Producing full range of pronouns, except for reflexives.

**Top Words Used by Toddlers**

1. *a*  
2. all done/finished  
3. *go*  
4. help  
5. here  
6. *I*  
7. *in*  
8. *is*  
9. *it*  
10. mine  
11. *more*  
12. *my*  
13. *no*  
14. *off*  
15. *on*  
16. out  
17. *some*  
18. *that*  
19. *the*  
20. want  
21. *what*  
22. *yes/yeah*  
23. *you*

**CLINICAL APPLICATION**

**First 8 Words:**

1. all done  
2. help  
3. want  
4. mine  
5. *more*  
6. *stop*  
7. *that*  
8. *what*

**First 15 Words:**

1. all done  
2. away  
3. go  
4. help  
5. here  
6. *I*  
7. *it*  
8. *like*  
9. mine  
10. *more*  
11. *stop*  
12. *that*  
13. *want*  
14. *what*  
15. *you*

**First 30 Words:**

1. again  
2. all done  
3. away  
4. big  
5. *do*  
6. down  
7. get  
8. go  
9. help  
10. here  
11. *I*  
12. *in*  
13. *it*  
14. *like*  
15. little  
16. mine  
17. *more*  
18. my  
19. *off*  
20. on  
21. out  
22. put  
23. *some*  
24. *stop*  
25. *that*  
26. *there*  
27. *up*  
28. *want*  
29. *what*  
30. *you*
Language Functions & Early Generative Language Production

First 50 Words
1. again 14. get 27. mine 40. stop
2. all 15. go 28. more 41. tell
3. all done 16. good 29. my 42. that
4. away 17. happy 30. not 43. there
5. bad 18. help 31. now 44. turn
6. big 19. here 32. off 45. up
7. come 20. I 33. on 46. want
8. do 21. in 34. out 47. what
9. don't 22. it 35. play 48. where
10. down 23. like 36. put 49. who
11. drink 24. little 37. read 50. why
12. eat 25. make 38. sad 51. you
13. feel 26. me 39. some

Adding to the Top 50
1. +ed 26. have 51. one 76. they
2. +ing 27. he 52. other 77. think
3. +s 28. hear 53. over 78. thirsty
4. after 29. hi 54. place 79. those
5. almost 30. hot 55. please 80. time
6. another 31. how 56. pretty 81. tired
7. any 32. hungry 57. problem 82. together
8. ask 33. idea 58. ready 83. try
9. be 34. is 59. ride 84. under
10. before 35. job 60. same 85. very
11. body 36. know 61. say 86. walk
12. can 37. later 62. she 87. way
13. cold 38. leave 63. sick 88. we
14. color 39. let 64. silly 89. when
15. did 40. listen 65. sing 90. win
16. different 41. live 66. sit 91. with
17. dress 42. lose 67. sleep 92. work
18. fall 43. love 68. slow 93. write
19. fast 44. maybe 69. sorry 94. wrong
20. favorite 45. much 70. start 95. your
21. for 46. myself 71. surprise 96.
22. fun 47. name 72. swim 97.
23. give 48. need 73. take 98.
24. goodbye 49. nice 74. thank you 99.
25. guess 50. of 75. these 100.

Adding Words to Get to 300+ Core Words
1. Add all the pronouns.
2. Add more adjectives and adverbs
3. Expand verbs, with tense variation

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SUGGESTIONS FOR APPLYING THIS INFORMATION WITH INDIVIDUALS USING AAC

1. If a child has a reliable way to say "yes" and "no," (or "hello" and "goodbye"), don't select these words as the first words on the AAC device. It's okay to put them on an AAC manual board, but don't use valuable space on a device with limited keys for these words.

2. While little kids use "the" and "a" with high frequency, these are not high content or function words and don't need to be on an AAC device or board that has limited keys.

3. When you are starting with a device with a limited number of keys (either because that's all the device has or all the kid can handle), put words for broad language functions on the device and extended vocabulary (names of people, places, & things) on a manual communication board.

4. Begin to build a manual communication board, keeping motor planning and automaticity in mind. Always try to have a board with keys for at least 50 core words. For nouns, use a section that can be flipped or changed so that no matter what the activity, the same core words are always available.

5. After the first 50 words, the AAC system should grow in keeping with normal language development principles.
   - Make sure you have words from a variety of word classes.
     - Do you have key pronouns (I, me, you, it, mine, he, she); verbs (do, put, is, make, let, get, want); negation (not, no, don't); prepositions (with, for, to, in, on); key question words (what, where); modifiers (gone, more, some, all); generic locations (here, there, away).

   - Verb Phrase development depends on having access to main verbs, "little" verbs, and verb endings. You need main verbs with the widest range of function (e.g., do, put, get, give, make, let, try, like, want) and more specific function (e.g., eat, read, drink, read, color).
     - Plus, some verbs can not stand alone (e.g., "put"). They are combined with another word (e.g., preposition = put on, adjective = put more, adverb = put away, pronoun = you put it, determiner = put that). You have to have a variety of words available to combine with these verbs.

   - Noun Phrase development needs more than names of things. Many times, the more generic nouns have more usefulness in the context of the situation. Consider how you can use these words: this, that, these, those, other, more, one, thing, any, etc.

   - Make a plan for expanding the language available to the child on the AAC board or device.
     - How are you going to add more pronouns?
     - How will you give the child access to verb forms to practice?
     - How important is it for the child to practice using "little verbs" like "am," "is," "are," "be" and modals like "can," "will," or "should?"
     - How are you going to let them practice using plurals?
     - How are you going to help the child use modifiers (both adverbs and adjectives) when building noun and verb phrases (e.g., I go now, that big one.)
     - How will you expand prepositions?
6. Develop intervention plans that encourage communication for a full range of functional and semantic relations. The useful way to do this is to write simple "scripts." A script helps communication partners focus on the important bits of language learning, not the names of things. Once the partners develop their own skills for encouraging normal language production, fewer and fewer scripts are needed.

- Write the script based on a language function plan, using the core vocabulary you have selected. See the sample below.

- When you write "scripts," don't make yourself crazy trying to figure out each functional or semantic relation in your scripts. Just be (1) well-rounded in the script, (2) practice a range of noun phrases and verb phrases and (3) take periodic language samples to confirm that you are encouraging more than "naming" and "object requesting."

7. Make a Natural Language Board for yourself and use it to model and encourage two, three, and four word utterances. Practice the language modeling before you try the activity with the child. When the child gives you a 1 or 2 word utterance, expand that utterance to include 1 or 2 more words or word endings. Model short simple sentences and don’t try to model everything you are saying.

**SCRIPTING WORKSHEET**

1. Review available core words from the communication device/board used by the child.
2. Brainstorm your general plan for the activity.
3. Create a simple script to be used as a blueprint in the activity.
   a. Briefly note what you are going to say and do.
   b. List the aided language you are going to model using the student's device, your language board, or other strategy.
   c. Note the general language function you are trying to elicit.
   d. List the target language you are hoping to elicit from the student, based on the context of the activity (what you did and said) and what you modeled for the child.

<table>
<thead>
<tr>
<th>Do and Say this:</th>
<th>Model this:</th>
<th>Language Function:</th>
<th>1 or 2 word</th>
<th>3 – 4+ words</th>
</tr>
</thead>
<tbody>
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### Language Functions & Early Generative Language Production

<table>
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<tr>
<th>PEOPLE</th>
<th>VERBS</th>
<th>PREPOSITIONS</th>
<th>ADVERBS</th>
<th>ADJECTIVES</th>
<th>DTHS &amp; NOUNS</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
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