

Language Functions & Early Generative Language Production

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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.

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Single Word Utterance Level

<u>Relational Functions</u>	<u>Context</u>	<u>Form (vocabulary examples)</u>
Greet	people noticed	hi, hello, mama, dada
Part	people leave	bye bye, goodbye
Request Assistance	used to request assistance with an event	help, do
Recurrence	used to both request & comment	more, another
Naming/Labeling	used to name or label objects and people, giving information	doggie, milk, shoe
Existence	objects or people pointed out, noticed, or found events – used to gain attention	uh oh, this, that, there, look, see
Nonexistence	used to comment on non-existence when existence is expected	no, away, gone
Disappearance	comment on the disappearance of person or object in the immediately preceding context	away, all gone, gone
Rejection	used to reject on ongoing object or action	no, stop
Cessation	comment on an ongoing event that has ceased in the immediately preceding context	stop
Comments	used to comment on an attribute in immediate context	like, dirty, big, naughty
Vocatives	to call for someone (less frequent than comments or greetings)	mama, dada, baby
Directive	used to direct action and/or make requests in the immediate context	go, help, stop
Associative	idea is associated with an event, object, or person	big, hot, pretty, up
<u>Semantic Functions</u>	<u>Context</u>	<u>Form (vocabulary examples)</u>
Agent	agent of an intended or immediate action	mama, dada, baby, I, me, you
Object	object of an action (infrequent occurrence)	mama, dada, baby
Action	making of action or event	want, go, turn, catch, up, eat, drink, stop, get, give
Possession	associated with or belonging to a person	mine, dada, mama

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Two Word Utterance Level

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

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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.

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Banajee, M., DiCarlo, C., & Buras-Stricklin, S. (2003). Core Vocabulary Determination for Toddlers, *Augmentative and Alternative Communication*, 2, 67 – 73.

Top Words Used by Toddlers

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

CLINICAL APPLICATION

First 8 Words:

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

First 15 Words:

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

First 30 Words:

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

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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?

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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.

Do and Say this:	Model this:	Language Function:	1 or 2 word	3 – 4+ words

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PEOPLE	VERBS	PREPOSITIONS	ADVERBS	ADJECTIVES	DETS & NOUNS					

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