



AAAction Points

AAC for Beginners

What is AAC?

AAC is augmentative and alternative communication. AAC is a field of endeavor addressing the expressive communication needs of people with significant speech disability. AAC interventions range from no technology (gestures, signs) to low technology (manual communication board, wallet) to high technology (voice output communication aids). Individuals may be recommended several AAC systems over a lifetime. Therefore, how systems handle this transition and maintain consistency when change occurs is important to achieving long-term effective communication. AAC field stakeholders include people who use AAC, their family and friends, professionals who provide services (therapists, teachers, etc.), providers of AAC tools, funding agents, and researchers. Additional information is at <http://www.aac institute.org/AAC.html>.

Who uses AAC?

People who use AAC can have conditions that they have experienced from birth (congenital) or conditions that came later in life (acquired). Cerebral palsy is an example of a congenital condition. Amyotrophic lateral sclerosis (ALS) or motor neuron disease (MND) is an example of an acquired condition. However, there are many others. For some, AAC may even be a temporary method for expressive communication. People who use AAC span the full range of age, physical and cognitive ability, and ethnic and socio-economic backgrounds.

What's Important in AAC?

The life experience of people who use AAC is determined by their ability to communicate. Therefore,

the goal of AAC is the highest performance communication possible.

People who use AAC routinely indicate that the two most important things for them are:

- 1) saying exactly what they want to say, and**
- 2) saying it as fast as they can.**

AAC professionals honor these values in their service delivery.

Methods to Generate Messages

Achieving the first of the above values requires **spontaneous novel utterance generation** (SNUG). This is the ability to build sentences that meet the specific need of the moment. The alternative to SNUG is the use of pre-programmed utterances (PPU). PPU are rarely used by the most effective AAC communicators. While PPU can make communication fast, they rarely permit saying exactly what is intended. Use of SNUG contributes to language development. PPU can have value for recurring needs, but SNUG is required for normal conversation. A brief exploration of six points that support the use of SNUG can be found at

<http://www.aac institute.org/Resources/Press/AssessmentModelpaper/aacsucc.html>.

Information and evidence on AAC methods of utterance generation can be found at

<http://www.aac institute.org/Resources/Press/AssessmentModelpaper/performance.html>.

Vocabulary

Words used in normal communication can be divided into two basic categories: core vocabulary and extended vocabulary. Core or high frequency vocabulary is the relatively small number of words that constitute the vast majority, around 85%, of what is said. Core vocabulary use is consistent across topics, activities, environments, and age. Core vocabulary words in English number around 500 and are rarely nouns. Extended vocabulary is the relatively large number of words that are used for the remaining small part of communication, around 15% of what is said. Extended vocabulary words number in the tens of thousands and are often not consistent across topics, activities, environments, and age. A normally developing three year old has a vocabulary size of just over 1000 words in English. Vocabulary selection and organization should take high frequency words into consideration.

Symbols

Symbols are used in AAC to represent ideas. There are two types of visual symbols: graphic and lexical. Graphic symbols can range from line drawings to photographs. They can be black on white or color and are usually static, but can be animated. Lexical symbols are alphabet-based and generally consist of letters and words. The relationship between a graphic symbol and its meaning(s) may be enhanced by metaphors. Metaphors can be taught. Graphic symbols are available from many sources, some of which make them available at no cost. In the ideal, the use of symbols is a temporary phenomenon that exists only until motor patterns have been established. The most effective AAC communicators do not rely on symbols to locate vocabulary, but have established automatic motor patterns in selecting vocabulary.



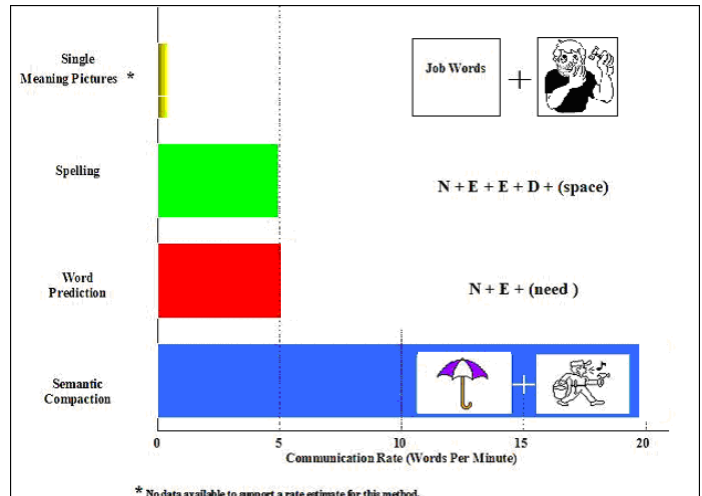
Language Representation Methods (LRMs)

The ways in which symbols are used to generate communication are referred to as language representation methods. LRMs commonly used in AAC can be divided into three categories:

- 1) **single meaning pictures,**
- 2) **alphabet-based methods, and**
- 3) **semantic compaction.**

Alphabet-based methods are often subdivided to include spelling, word prediction, and orthographic word selection (use of whole printed words). All AAC systems use one or a combination of these three methods. Many different single meaning picture systems are available. Alphabet-based methods are self-

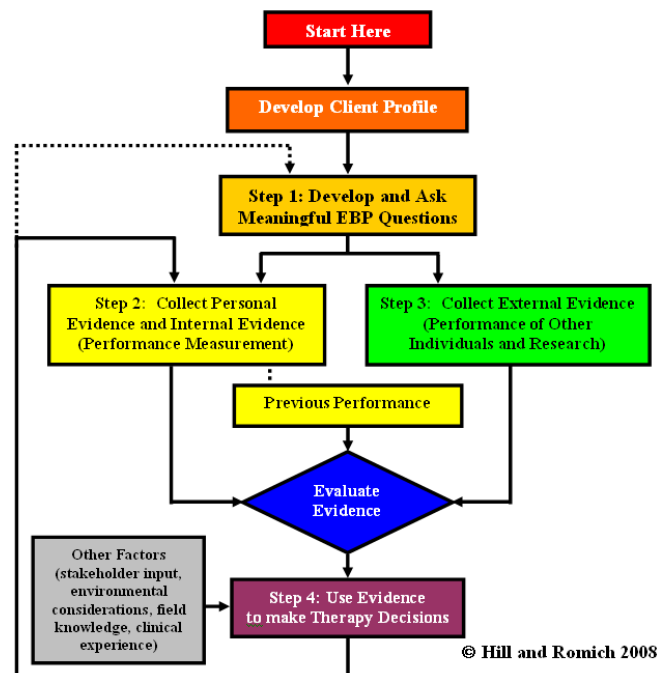
evident for readers. Semantic compaction is the use of multi-meaning icons in sequence to represent language. Many AAC systems provide for a combination of these three methods to access vocabulary and generate messages. However, the communication performance for the different methods varies significantly and it is important to understand the characteristics of these three LRMs. Additional information is available in a free Self-Study Program course available at www.aac institute.org.



Achieving Communication Performance

Since communication performance is so important to the life experience of people who use AAC, everything that can be done to optimize performance should be. Each aspect of the communication system needs to be clearly understood in terms of performance potential. The basics of the science of human factors suggest that long term high performance is not likely to be realized using approaches that are easy to use at first encounter or approaches that are easy to learn. Care must be taken to choose approaches that result in high performance. Evidence-based practice (EBP) is expected of all service delivery professionals. EBP includes understanding the values of the individual, asking meaningful questions, collecting and analyzing the personal and internal evidence, searching the external evidence, and making decisions that can be supported by the evidence. EBP is further explored at

<http://www.aac institute.org/Resources/Press/EBPpaper/EBPpaper.html>

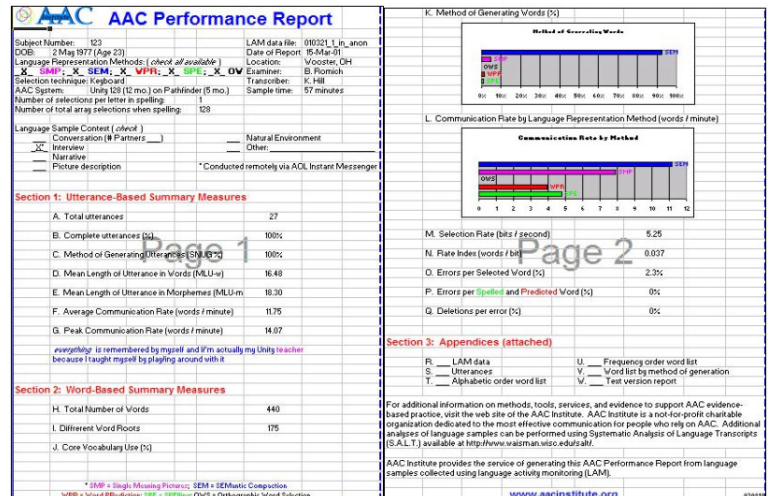


Measuring Communication Performance

One component of evidence-based practice is clinical evidence that is specific to the individual. Besides gathering information about personal values and expectations for personal evidence, internal evidence involves understanding abilities and skills. Language skills are best understood by the analysis of language samples.

Understanding how language skills develop and how language is used by different age groups helps to identify how AAC systems need to be evaluated to support language.

Different AAC language programs handle the elements of language differently and, therefore, result in different communication performance. Tools were developed in the past decade to make collecting and analyzing language samples a fast and easy process. Many AAC systems have built-in language activity monitoring (LAM). Using U-LAM (Universal Language Activity Monitor) software in a PC, language samples can be collected from any speech output AAC system, or even low-technology communication boards. LAM data includes a time stamp and the content of the language event that was generated. LAM data can be analyzed using the Performance Report Tool (PeRT) to generate a report with a number of valid quantitative summary measures of communication performance. LAM tools allow AAC teams to make decisions based on evidence rather than impressions of what might work. Any AAC system under consideration can be compared with other possible options for making the most informed choice. Information on language sample collection and analysis is available at www.aac institute.org.



AAAction Steps

- **Sign up to receive the AAC Institute Update!**
- **Now and periodically, review and measure AAC performance.**
 - Is performance optimized?
- **Download and try AAC Institute products.**
- **Download and use the PowerPoint presentation of this paper.**

AAC Institute is a not-for-profit 501c3 charitable organization dedicated to the most effective communication possible for people who rely on AAC. AAC Institute offers many free and low cost resources to support achieving high performance communication. Resources include methods, tools, evidence, directories, services, education, and more. For access to these resources, the current listing of the many sponsors that support AAC Institute, or to register to receive the **AAC Institute Update** email announcement, visit the web site at www.aac institute.org.

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