

To PECS or not to PECS?

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The idea that PECS (Picture Exchange Communication System) or other augmentative and alternative communication strategies (AAC) such as signing might impede speech development is a common concern amongst parents, families and other professionals working with many of the clients I am referred for intervention.

The research in this area indicates that those individuals who develop the capacity for functional use of speech will use speech. For those who do not develop functional use of speech, they will have limited or no means of functional communication if we choose not to teach them AAC as part of their communication intervention. Ronski and Sevcik (2005) describe it as critical that AAC be introduced before communication failure occurs and that we often observe contextually inappropriate behaviours in individuals who have difficulty with functional communication.

I recently began working with a client whose mother was unsure about PECS as an intervention for her son. Her number one concern was that PECS would in some way stop her son from speaking. Her son had previously been introduced to PECS within his ABA program and she had observed him struggling. He was attempting to say several words such as saying /b/ for “biscuit” and when she said “ready, set” he would say “go”. He was able to count to 5 by imitation. She explained to me that she was finding it difficult to understand why the recommended intervention wouldn’t specifically focus on developing speech. This scenario raises the question about the conditions under which we accept speech as functional communication. The following table illustrates this point in relation to the communicative function of requesting.

<i>Antecedent</i>	<i>Behaviour Observed</i>	<i>Type of Communication</i>
You make some popcorn and wander around eating it.	Individual walks up to you and says “I want popcorn” and you give some.	Spontaneous requesting
You make some popcorn and wander around eating it. The individual walks up or looks over to you. You notice this and say “What do you want?”	In response to your question the individual says “I want popcorn” and you give some.	Responsive requesting
You make some popcorn and wander around eating it. The individual walks up to you, looks at you, and looks at the popcorn. You say “What do you want?” the individual says nothing but tries to help himself. You say, “Say I want popcorn.”	In response to asking the individual to say “I want popcorn” they say “I want popcorn,” or some variation, and you give some popcorn.	Imitative request

You will notice that although the speech output may appear identical in all three scenarios, it is only the first scenario in which the individual has used speech spontaneously. It illustrates to us that speech does not always equal functional communication and, in turn, functional communication does not always involve speech.

There can be much confusion about where speech production fits into augmentative and alternative communication (AAC), however, it does not need to be an either/or choice. PECS can be both an augmentative and/or an alternative communication system. An augmentative communication system is a system that assists the individual to maximise their use of natural speech but also acts in place of speech in situations where the individual cannot produce the speech required. An alternative communication system is to replace speech that hasn’t developed or has been lost.

While every learner of PECS will have their own individual strengths and weaknesses in relation to the physical production of speech the following table summarises some of the common issues and where expectations for direct speech intervention commonly occur.

Description of learner’s speech skills	How speech fits within intervention
<ul style="list-style-type: none"> • Learner produces no speech • Learner produces some sounds but is not clearly producing words • Learner used to produce speech clearly but seems to have “lost” those skills 	<ul style="list-style-type: none"> • PECS provides an alternative communication system. • PECS allows for the individual to develop spontaneous requesting skills and allows the communicative partner to frequently model vocabulary that is functional for that individual (single words Phases I-III and sentences Phase IV and beyond). • In Phase IV of PECS the constant time delay strategy is introduced. This is a 3-5 second delay added before the communication partner “fills the gap”. It is time for the learner to attempt to talk in conjunction with the picture exchange. Many individuals start to produce speech or attempt more speech when they reach this phase of the PECS protocol. • Speech is not insisted on as part of the exchange (as the learning focus is communication), but differential reinforcement is used for any spontaneous attempts to speak in conjunction with exchanging (i.e. we let the student know speaking plus exchanging is better than exchanging alone by giving them more of what they have asked for). • PECS provides the individual meaningful contexts within which to attempt speech production. • A program to stimulate the production of speech sounds may be developed and implemented separately to the individual communication program.
<ul style="list-style-type: none"> • Learner tries to speak all the time and produces some words clearly but not everything they want to say is clear to all communication partners. 	<ul style="list-style-type: none"> • PECS provides an augmentative system; a system that maximises the effectiveness of the individual's natural speech abilities while accommodating difficulties such as not being able to say everything clearly or not being able to recall the name of all the items he wants to ask for. • As indicated above, speech in conjunction with the picture exchange will be differentially reinforced. • Individuals would usually be provided with intervention specifically targeting improving speech production but for those with significant speech difficulties, this progress can be slower than their developing language skills. PECS provides a way to help avoid communication breakdown, allowing the individual to provide as much information as possible to his communication partners without having to rely purely on speech that he finds difficult to produce.
<ul style="list-style-type: none"> • Learner’s speech is clear, he appears to construct a variety of sentences but it is predominantly echolalia (either immediate or delayed). • Learner produces clear words or sentences but only in response to being asked a question. 	<ul style="list-style-type: none"> • PECS would be considered an augmentative communication system in this scenario, used to assist the individual to maximise the use of his natural speech abilities. • In these contexts PECS may even be a short term measure to assist teaching the individual to initiate communication and learning what to say, to whom and when.

<ul style="list-style-type: none"> • The learner’s speech output alone does not match his speech and language output when supported by AAC (e.g. the learner will spontaneously say two words “want ball” but with picture support can produce “I want the red ball”). 	<ul style="list-style-type: none"> • PECS would be considered an augmentative communication system in this scenario, used to assist the individual to maximise the information he is able to include for his communicative partner and length of utterance produced. • Many learners in this situation will actually produce more speech in conjunction with PECS than when relying on speech alone.
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The long term goal for all of my clients with complex communication difficulties or disorders is that they will develop functional use of natural speech. However, the use of AAC is seen as a tool to use on the road to reaching this goal, not as a last resort. For those individuals where speech persists as a difficulty, they will have had the opportunity to learn to use PECS as a functional communication system. There is much evidence to support the use of AAC to allow an individual to continue to develop in their language and communication skills, without a focus on speech, as these can often develop faster than speech production skills in individuals who find speech very difficult.

I am pleased to be able to report that the young man I mentioned earlier in this article has been successfully using PECS for the last 6 months and has experienced even more success in the last month after an intensive week of intervention. He has reached Phase IV of the PECS protocol and now consistently requests using sentences. He is slowly beginning to learn to add attributes to his requests to provide even more information to his communication partners. And while he runs a mile every time someone tries to ‘make him’ attempt ‘traditional’ speech exercises, he attempts to say everything on his Sentence Strip approximately 90% of the time. This provides a functional context within which we can continue to target speech production.