Developed in Australia, Parents and Children Together (PACT) is a broad-based, family-centred (Bowen and Cupples, 2004) phonological therapy in the course of whose implementation SLPs enlist the active participation of parents and significant others. It requires family members to learn technical information and develop novel skills to use, with professional guidance, in relation to their own child and his or her specific speech clarity issues. PACT is a word-based phonemic approach in which the child is an active participant. PACT is said to be "broad-based" because it is a phonological therapy that takes phonetic factors into account (Kamhi, 1992).

Parents and Children Together (PACT)

PRINCIPLE

Phonemic change is motivated by homophony and enhanced through metalinguistic awareness of the sound system. Heightened perceptual saliency of contrasts makes new contrasts easier to learn (i.e., increases learnability) which also facilitating phonemic change.

FOUNDATION

PACT follows the threefold foundation of minimal pair approaches, namely:

- The modification of a group, or groups, of sounds produced in error, in a patterned way.
- 2. An emphasis on feature contrasts rather than accurate sound production.
- Making it explicit to the child that the function of phonology (contrasts) is communication (by using naturalistic contexts).

COMPONENTS

(1) Parent Education (2) Metalinguistic Training (3) Phonetic production training (4) Multiple exemplar training (5) Homework

TREATMENT SESSIONS

Treatment sessions are usually of 50 minutes duration. Within this time-span, the child spends 30 to 40 minutes alone with the therapist. The minimum amount of parent participation at the clinic involves the parent joining the therapist and child for 10 to 20 minutes at the end of a session, or 10 minutes at the beginning and 10 minutes at the end. The maximum parent participation entails the parent actively involved in a treatment "triad" with his/her child and the therapist, for approximately half of the treatment session. These segments of parent participation require the child's continued involvement, in order to demonstrate properly what should happen during homework.

PARENT EDUCATION

Parent Education starts with the administration of the Quick Screener (or the SLP's procedure of choice). Parent(s) watch the testing and the scoring, and these are discussed.

BLOCKS and BREAKS

Therapy is administered in planned blocks and breaks. The first block and the first break are usually of approximately 10 weeks duration each, after which the number of therapy sessions per block tends to diminish, with the period between blocks remaining about the same.

During the breaks, the parents are asked to do no formal practice for about eight weeks. Two weeks prior to the next treatment block, they are asked to read the speech book with the child a few times and to do any activities the child is interested in doing. Throughout the breaks, they continue to focus on providing modelling corrections, reinforcement of revisions and repairs, and metalinguistic activities, incidentally, as opportunities arise. They continued to employ the strategies of modelling and reinforcement learned in the therapy block(s).

CONTRASTS

Minimal pairs may be minimally, maximally or multiply opposed.

TARGET SELECTION

Target selection is flexible, and includes selecting sounds that are: not stimulable (Miccio, 1999); later developing (Gierut, Morrisette & Hughes, 1996), and consistently in error, as well as sounds for which the child has least phonological knowledge.

EFFICACY PACT is the first phonological therapy whose efficacy has been tested with treated and untreated groups of children (Bowen 1996; Bowen and Cupples, 1999a, 1999b). Fourteen children aged 2;11 to 4;9 when their therapy began therapy, participated in the study (Bowen, 1996). It comprised a longitudinal matched groups design with assessment, treatment and re-assessment (probe) phases. At the probe assessment, the 14 treated children showed accelerated improvement in their phonological patterns, compared with the untreated 8, who did not. Analysis of Variance of the initial and probe Severity Ratings of the groups showed highly significant selective progress in the treated children only (F(1,20) = 19.36, p =<.01). No such selective improvement was observed in either receptive vocabulary or MLUm, reflecting the specific effect of the therapy. The initial severity of the children's phonological disorders was the sole predictor of the frequency and duration of consultations required for their speech patterns to fall within the normal range.

Summary of PACT Components

1. Parent education

Parents learn specific techniques including: modelling, recasting, encouraging self-modelling and self-correction by the child, using labelled praise, and providing focused auditory input.

2. Metalinguistic training

Child, parents and therapist, talk and think about speech sounds and the way they are organised to convey meaning. Games and activities, at home and in therapy, involve sound picture associations (sh means 'be quiet'); phoneme segmentation for onset matching (John starts with J); awareness of rhymes and sound patterns between words (e.g., minimal contrasts); rudimentary knowledge of the concept of 'word'; understanding the idea of words 'making sense'; awareness of the use of revision and repair strategies; judgement of correctness tasks (a kitten is a little cat vs. a kitten is a little tat); and, playing with lexical and grammatical innovations using morpho-phonological structures (boy vs. boys, jump vs. jumped). A 50:50 split between talking tasks vs. "thinking and listening tasks" is recommended.

3. Phonetic production training

The therapist teaches the child how to make the sounds s/he has difficulty with, and parents work with the child at home with listening and talking games and activities, including production practice related to target sounds (observing the 50:50 split).

4. Multiple exemplar training

Parent and therapist read word-lists to the child, and the child learns to sort words (pictured on playing cards) according to their sound properties. Activities include:

- "Point to the one I say" Child points to pictures of the words, spoken in random order (e.g., key, car, cow, tea), or rhyming order (e.g., car, tar, key, tea) by the adult.
- "Put the rhyming words with these words" Three to nine cards are presented (e.g., bat, bill, bull, ball) and the child puts rhyming cards beside them (fat, fill, full, fall).
- "Say the word that rhymes with the one I say" Adult says words with the target phoneme, and the child says a rhyming non-target word (e.g., adult says 'ship' and child says "tip").
- "Give me the word that rhymes with the one I say" Adult says the non-target word, and the child selects the rhyming word containing the target sound (e.g., adult says "pill": child selects "fill").
- "Tell me the one to give you" Child says the word, and the adult responds to the word actually said. For example, if the child attempted to say, "pin", but produced it as "bin", the adult would give him or her "bin", causing them to experience a communication failure. The aim is for the child to realise the failure to communicate his/her message, and attempt to revise the production. This particular activity is not included in homework.
- "You be the teacher: tell me if I say these words the right way or the wrong way" Adult says the words in rhyming or random order, or in sentences, and the child judges whether they have been said correctly.
- "Silly Sentences" Child judges whether a sentence is a "silly one" or not (e.g., "He gumped / jumped into the pool").
- "Silly Dinners": is a variation of "Silly Sentences". The adult says what s/he wants for dinner, and the child judges whether it is a "silly dinner" ("I like fish and ships / chips").
- "Shake-ups and Match-ups" The child is presented first with four picture cards representing minimal meaningful contrasts (MMC's) such as: cow/couch; pow/pouch. The word-pairs are repeated to the child several times, then the cards are put in a container and "shaken up". The child is asked to take the cards and arrange them on the table "the same as they were before" (i.e., in pairs).
- "Find the two-step words" The child sorts the words with consonant clusters SIWI from minimally contrasting words with singleton consonants SIWI (e.g., four/floor).
- "Walk when you hear the two-steps" The child "walks" with his/her fingers when s/he hears a consonant cluster SIWI as opposed to a singleton consonant SIWI.

5. Homework

Parents perform some of the above activities, with the child, in 5 to 7 minute practice periods, 1 to 3 times daily, as directed by the SLP. Homework incorporates activities from the child's preceding therapy session.