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## Appendix 1: Speech error patterns in children with DVD

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The aims of analysing speech data are:

- 1 To identify the range of sounds and sequences of sounds the child is using at each level of syllabic structure.
- 2 To identify error patterns, which may indicate the nature of underlying processing difficulties, and indicate treatment strategies.

Children with DVD typically present with a limited sound system, limited syllable structure and inconsistent error patterns. Errors often affect vowels as well as consonants. Errors increase in longer structures, less familiar vocabulary and with increased rate of speech (see Chapter 1: Theory: Literature Review).

### Common consonant error patterns

Error patterns include normal developmental processes, although the cause of these is likely to be motor programming difficulties rather than immature perception.

#### Developmental processes – paradigmatic (substitution)

- 1 Stopping – may indicate that the child lacks the fine motor coordination to maintain a narrow stricture, as opposed to complete closure.
- 2 Prevocalic voicing – difficulties in coordinating articulation and voice onset.
- 3 Fronting – lack of motor patterns for velars, labiodentals, palato-alveolars, or grooving for /s/.
- 4 Gliding – lack of motor programs for /r/ or /l/.

#### Developmental processes – syntagmatic (sequencing)

Processes which affect syllable structure and possible sequences of sounds are a common feature of the speech of dyspraxic children.

- 1 Assimilation – is seen in CVC, CVCV, multisyllabics, sentences and in connected speech. Velar/alveolar contrasts and voicing contrasts within the same word are most susceptible. Vowels may also be assimilated. For example: dog→/gɒg/; garden→/dɑdən/; tissue→/tʃʊtʃu/; caterpillar→/kæækæpijæ/; Katy's party→/kɛɪkɪ pɑ:pi/. Typically, more assimilation is seen in more complex structures, and it is gradually overcome as skills are mastered at successive levels.
- 2 Final consonant deletion – children may be unaware of the final consonant in the target, but equally, the addition of a final consonant to the basic CV syllable makes additional motor demands.
- 3 Cluster reduction.
- 4 Weak syllable deletion – bisyllabic words may be reduced to one syllable or multisyllabics may lose one or more unstressed syllables. In connected speech, unstressed syllables frequently correspond with grammatical morphemes: these may also be lost (e.g. baby→/beɪ/; banana→/nɒnə/, washing machine→/'wɒʃ də'ʃɪn/).