# Appendix C.1
# Auditory Discrimination Task 1: Same/Different, S-Cluster Sequences, Words and Non-words – Reduced Version (from Bridgeman & Snowling, 1988)

**Name:_____ Date:_____ Age:_____ Investigator:_____**

**Instructions:** The task is demonstrated using the child's name, e.g. if the child's name is BEN, the child is asked if 'BEN/BEN' are the same or different; then if 'BEN/OLIVER' are the same or different, i.e. deliberately choosing a name that sounds quite different, then if 'BEN/PEN' are the same or different, i.e. choosing a name or an object that sounds similar. Intersperse 'BEN/BEN' with these practice items, feedback is given to ensure the child understands the task. The 4 practice items can then be presented, followed by the test items. No feedback is given for the test items. For the non-words tell the child that they will hear some 'silly, made-up words'. Before presenting the real words, tell the child that 'now the words will be words that you know'. All items can be presented in one session. One repetition is permitted for the test items if the child requests it or is not attending. The investigator should cover his/her mouth to avoid use of visual cues.

**Scoring:** Record the child's response, by circling S or D. **BOLD** CAPITALS indicate correct responses. Add up correct responses to obtain child's scores, calculating totals for each stimulus type and total for all items.

**Normative data** for this task can be found in Table 3.4.

**Appendix C.1 Score Sheet**

Name:_____ Date:_____ Age:_____ Investigator:_____

REDUCED VERSION: NON-WORDS

| | STIMULI | RESPONSES | | | |
|---|---|---|---|---|---|
| | | Feature change | | Sequence change | |
| P1 | /vɒs/ - /vɒt/ | s | d | | |
| P2 | /fɛst/ - /fɛts/ | | | s | d |
| P3 | /vɒst/ - /vɒts/ | | | s | d |
| P4 | /tɛt/ - /tɛt/ | s | d | | |
| 1 | /kɛst/ - /kɛts/ | | | s | **D** |
| 2 | /bleɪs/ - /bleɪt/ | s | **D** | | |
| 3 | /zɛt/ - /zɛt/ | **S** | d | | |
| 4 | /fɒt/ - /fɒs/ | s | **D** | | |
| 5 | /kɛs/ - /kɛt/ | s | **D** | | |
| 6 | /dɪts/ - /dɪst/ | | | s | **D** |
| 7 | /vɪt/ - /vɪs/ | s | **D** | | |
| 8 | /pəʊts/ - /pəʊts/ | | | **S** | d |
| 9 | /zɛts/ - /zɛts/ | | | **S** | d |
| 10 | /fɒts/ - /fɒst/ | | | s | **D** |
| 11 | /vɪts/ - /vɪst/ | | | s | **D** |
| 12 | /bɪs/ - /bɪs/ | **S** | d | | |
| 13 | /jeɪts/ - /jeɪst/ | | | s | **D** |
| 14 | /dɪt/ - /dɪs/ | s | **D** | | |
| 15 | /pəʊt/ - /pəʊt/ | **S** | d | | |
| 16 | /jeɪs/ - /jeɪt/ | s | **D** | | |
| 17 | /bɪst/ - /bɪst/ | | | **S** | d |
| 18 | /bleɪst/ - /bleɪts/ | | | s | **D** |
| | | / 3 | / 6 | / 3 | / 6 |
| | **TOTAL SCORE** | / 18 | | | |

**Appendix C.1 Score Sheet**

Name:_____ Date:_____ Age:_____ Investigator:_____

REDUCED VERSION: REAL-WORDS

| | STIMULI | RESPONSES | | | |
|---|---|---|---|---|---|
| | | Feature change | | Sequence change | |
| | | Same | Different | Same | Different |
| 19 | kit / kit | **S** | d | | |
| 20 | hits / hissed | | | s | **D** |
| 21 | messed / messed | | | **S** | d |
| 22 | guess / get | s | **D** | | |
| 23 | race / rate | s | **D** | | |
| 24 | mitts / missed | | | s | **D** |
| 25 | plate / place | s | **D** | | |
| 26 | guessed / gets | | | s | **D** |
| 27 | kissed / kissed | | | **S** | d |
| 28 | rates / raced | | | s | **D** |
| 29 | tots / tossed | | | s | **D** |
| 30 | tot / toss | s | **D** | | |
| 31 | miss / mitt | s | **D** | | |
| 32 | hit / hiss | s | **D** | | |
| 33 | goats / goats | | | **S** | d |
| 34 | met / met | **S** | d | | |
| 35 | placed / plates | | | s | **D** |
| 36 | goat / goat | **S** | d | | |
| | | **/ 3** | **/ 6** | **/ 3** | **/ 6** |
| | **TOTAL SCORE** | **/ 18** | | | |

SUMMARY TABLE

| | | | TOTAL FEATURE OR CLUSTER |
|---|---|---|---|
| | WORDS | NON-WORDS | |
| FEATURE CHANGE | /9 | /9 | /18 |
| CLUSTER SEQUENCE | /9 | /9 | /18 |
| TOTAL WORD TYPE | /18 | /18 | |
| TOTAL ALL | | | /36 |

# Appendix C.2
# Auditory Discrimination Task 1: Same/Different, S-Cluster Sequences, Words and Non-words – Shortest Form (from Bridgeman & Snowling, 1988)

**Name:_____ Date:_____ Age:_____ Investigator:_____**

**Instructions:** The task is demonstrated using the child's name, e.g. if the child's name is BEN, the child is asked if 'BEN/BEN' are the same or different; then if 'BEN/OLIVER' are the same or different, i.e. deliberately choosing a name that sounds quite different, then if 'BEN/PEN' are the same or different, i.e. choosing a name or an object that sounds similar. Intersperse 'BEN/BEN' with these practice items, feedback is given to ensure the child understands the task. The 4 practice items can then be presented, followed by the test items. No feedback is given for the test items. For the non-words tell the child that they will hear some 'silly, made-up words'. Before presenting the real words, tell the child that 'now the words will be words that you know'. All items can be presented in one session. One repetition is permitted for the test items if the child requests it or is not attending. The investigator should cover his/her mouth to avoid use of visual cues.
**Scoring:** Record the child's response, by circling S or D. **BOLD** CAPITALS indicate correct responses. Add up correct responses to obtain child's total score for all items.
**Normative data** for this task can be found in Table 3.5.

**Appendix C.2 Score Sheet**

Name:_____ Date:_____ Age:_____ Investigator:_____

### SHORTEST FORM: NON-WORDS

| | STIMULI | RESPONSES | | | |
|---|---|---|---|---|---|
| | | Feature change | | Sequence change | |
| P1 | /vɒs/ - /vɒt/ | s | d | | |
| P2 | /fɛst/ - /fɛts/ | | | s | d |
| P3 | /vɒst/ - /vɒts/ | | | s | d |
| P4 | /tɛt/ - /tɛt/ | s | d | | |
| 1 | /bleɪs/ - /bleɪt/ | s | **D** | | |
| 2 | /zɛts/ - /zɛts/ | | | **S** | d |
| 3 | /jeɪts/ - /jeɪst/ | | | s | **D** |
| 4 | /pəʊt/ - /pəʊt/ | **S** | d | | |
| 5 | /jeɪs/ - / jeɪt/ | s | **D** | | |
| 6 | /bleɪst/ - /bleɪts/ | | | s | **D** |
| 7 | /dɪts/ - /dɪst/ | | | s | **D** |
| 8 | /zɛt/ - /zɛt/ | **S** | d | | |
| 9 | /pəʊts/ - /pəʊts/ | | | **S** | d |
| 10 | /dɪt/ - /dɪs/ | s | **D** | | |
| | | **/2** | **/3** | **/2** | **/3** |
| **NON-WORD SCORE** | | **/10** | | | |

### SHORTEST FORM: REAL WORDS

| | STIMULI | RESPONSES | | | |
|---|---|---|---|---|---|
| | | Feature | | Sequence | |
| | | Same | Different | Same | Different |
| 1 | race / rate | s | **D** | | |
| 2 | met / met | **S** | d | | |
| 3 | placed / plates | | | s | **D** |
| 4 | goat / goat | **S** | d | | |
| 5 | miss / mitt | s | **D** | | |
| 6 | rates / raced | | | s | **D** |
| 7 | messed / messed | | | **S** | d |
| 8 | goats / goats | | | **S** | d |
| 9 | plate / place | s | **D** | | |
| 10 | mitts / missed | | | s | **D** |
| | | **/2** | **/3** | **/2** | **/3** |
| **TOTAL WORD SCORE** | | **/10** | | | |
| **TOTAL SCORE** | | **/20** | | | |

# Appendix C.3
# Auditory Discrimination Task 2: Complex Non-words (from Stackhouse, 1989)

**Name:_____ Date:_____ Age:_____ Investigator:_____**

**Instructions:** 'I'm going to say some words and I want you to tell me if the two words sound the same or different. The words are silly, made-up words. If they are the same, then you must say "same" (or yes). If they sound different, then you must say 'different' (or no, or not the same). First we'll practise some (practise using child's own name, e.g. PETE/BEAT). Let's do some more practice words.' Administer P1–P4 below and then the test items. Feedback can be given on the practice items, but not for the test items. One repetition of each test item is permitted if the child requests it or is not attending. The investigator should casually cover his or her mouth to avoid use of visual cues.

**Scoring:** Record the child's response, by circling S or D; **BOLD** CAPITALS indicate correct responses. Add up correct responses to obtain child's score. Circle incorrect responses in final column to indicate contrasts of difficulty. Add number of same and number of different responses correct and total responses correct. Calculate the percentage correct for all items, and for same responses and for different responses.

**Normative data** for this task can be found in Table 3.8.

# Appendix C.3 Score Sheet

**Name:**_____ **Date:**_____ **Age:**_____ **Investigator:**_____

| | PRACTICE SET | RESPONSES | | CIRCLE IF INCORRECT |
|---|---|---|---|---|
| P1 | /nʌst/ /nʌst/ | s | d | |
| P2 | /gil/ /dil/ | s | d | |
| P3 | /skɑθ/ /stɑθ/ | s | d | |
| P4 | /kɔɪt/ /kɔɪt/ | s | d | |
| | TEST ITEMS SET A | RESPONSES | | CIRCLE IF INCORRECT |
| 1 | /wɛsp/ /wɛps/ | s | **D** | Cluster sequence |
| 2 | /ˈsnɪmɒn/ / ˈsnɪmɒn/ | **S** | d | (Same) |
| 3 | /wɪb/ /jɪb/ | s | **D** | Place of articulation |
| 4 | / ˈləʊthaɪs/ / ˈləʊthaɪf/ | s | **D** | Place of articulation |
| 5 | /dæks/ /dæks/ | **S** | d | (Same) |
| 6 | / ˈskɜkreɪ/ / ˈstɜtreɪ/ | s | **D** | Place of articulation |
| 7 | /gəˈtɔ/ /təˈgɔ/ | s | **D** | Metathesis |
| 8 | / ˈpɪnsəl/ / ˈpɪnsəl/ | **S** | d | (Same) |
| 9 | / ˈɪbɪkəs/ / ˈɪkɪbəs/ | s | **D** | Metathesis |
| 10 | / ˈbɛskət/ / ˈbɛksət/ | s | **D** | Cluster Sequence |
| | | | | |
| | TEST ITEMS SET B | | | |
| 11 | /stɛmp/ /stɛmp/ | **S** | d | (Same) |
| 12 | /beɪt/ /peɪt/ | s | **D** | Voicing |
| 13 | / ˈrɛkət/ / ˈrɛtək/ | s | **D** | Metathesis |
| 14 | /smaɪk/ /smaɪk/ | **S** | d | (Same) |
| 15 | / ˈræliskəʊts/ / ˈlæriskəʊts/ | s | **D** | Metathesis |
| 16 | / ˈdrɪgən/ / ˈdrɪgən/ | **S** | d | (Same) |
| 17 | / ˈbɪkʌt/ / ˈbɪtʌk/ | s | **D** | Metathesis |
| 18 | / ˈkɪrɪvɪn/ / ˈkɪrɪvɪm/ | s | **D** | Place of articulation |
| 19 | / ˈærɪndʒ/ / ˈærɪʒ/ | s | **D** | Place of articulation |
| 20 | / ˈspəʊdə/ / ˈspəʊdə/ | **S** | d | (Same) |
| | TEST ITEMS SET C | | | |
| 21 | /bʌg/ /bʌg/ | **S** | d | (Same) |
| 22 | / ˈslɛpə/ ˈslɛtə/ | s | **D** | Place of articulation |
| 23 | / ˈpɛpi/ / ˈtɛpi/ | s | **D** | Place of articulation |
| 24 | / ˈkʌsˌl/ / ˈkʌsn̩ / | s | **D** | Manner of articulation |
| 25 | /tænt/ /tɪnt/ | s | **D** | Vowel |
| 26 | /tʃʌps/ /tʃʌps/ | **S** | d | (Same) |
| 27 | / ˈbæskɔɪts/ / ˈpæskɔɪts/ | s | **D** | Voicing |
| 28 | /dæl/ /dæl/ | **S** | d | (Same) |
| 29 | /dæsk/ /dæks/ | s | **D** | Cluster sequence |
| 30 | / ˈtʃɪkɪləʊt/ / ˈtʃɪkɪləʊt/ | **S** | d | (Same) |

**Appendix C.3 Score Sheet**

**Name:**_____ **Date:**_____ **Age:**_____ **Investigator:**_____

| | TEST ITEMS SET D | RESPONSES | | CIRCLE IF INCORRECT |
|---|---|---|---|---|
| 31 | /sti/ /ski/ | s | **D** | Place of articulation |
| 32 | /beɪ/ /beɪ/ | **S** | d | (Same) |
| 33 | /spəʊb/ /spəʊd/ | s | **D** | Place of articulation |
| 34 | / ˈtrɪʒɑ/ / ˈtrɪðɑ/ | s | **D** | Place of articulation |
| 35 | /krɛb/ /krɪb/ | s | **D** | Vowel |
| 36 | / ˈbɑgli/ / ˈbɑdli/ | s | **D** | Place of articulation |
| 37 | /tʃʌsp/ / tʃʌps/ | s | **D** | Cluster sequence |
| 38 | /tɒlɒlˈvʌʒn̩ / /tɒlɒˈvʌʒn̩ / | **S** | d | (Same) |
| 39 | /spəʊd/ /spəʊd/ | **S** | d | (Same) |
| 40 | / ˈmɪtɪbəʊk/ / ˈmɪkɪbəʊt/ | s | **D** | Metathesis |
| **TOTAL SAME / DIFFERENT** | | /14 | /26 | |
| **% SAME / DIFFERENT** | | % | % | |
| **TOTAL SCORE** | | /40 | % **Total correct:** | |

**Appendix C.3 Score Sheet**

**Name:**_____ **Date:**_____ **Age:**_____ **Investigator:**_____

# Appendix C.4
# **Auditory Discrimination Task 3: ABX Task – Full Version (Vance, 1996)**

**Name:_____ Date:_____ Age:\_\_\_\_ Investigator:_____**

**Instructions:** Two soft toys are placed in front of the child (e.g. two different monkeys) and practice items are presented by pointing to one toy and saying 'He says /səʊf/' and pointing to the second toy and saying 'He says / təʊf /' and then asking 'Who said /səʊf /?'. The child is encouraged to point to one of the toys. Corrective feedback is given as required for the practice items. During the practice items the cue phrases are phased out, so that just the non-word stimuli are spoken as each toy is pointed to, e.g. /grɪb/ ~ /sɪb/, and then the child is asked 'Who said X?'. Finally all the cue phrases can be omitted, so that the X stimulus is also presented as a single non-word /spəʊd/ ~ /pəʊd/; /spəʊd/. The task items are presented with general encouragement as required but no feedback. One repetition is allowed on each item if requested by the child or if he or she is not attending. The investigator should cover his or her mouth to avoid use of visual cues.

**Scoring:** Record the child's response, by circling A or B. **BOLD** CAPITALS indicate correct responses. Add up correct responses to obtain child's score. Circle incorrect responses in final column to indicate type of difficulty and look for any patterns.

**Normative data** for this task can be found in Table 3.11.

**Appendix C.4 Score Sheet**

Name:_____ Date:_____ Age:_____ Investigator:_____

FULL VERSION: LIST A

| | A | B | X | RESPONSE | CIRCLE IF INCORRECT |
|---|---|---|---|---|---|
| P1 | /səʊf/ | /təʊf/ | /səʊf/ | a | b |
| P2 | /spin/ | /stin/ | /stin/ | a | b |
| P3 | /glɪzəs/ | /klɪzəs/ | /klɪzəs/ | a | b |
| P4 | /grɪb/ | /sɪb/ | /grɪb/ | a | b |
| P5 | /baʊg/ | /baʊf/ | /baʊf/ | a | b |
| P6 | /spəʊd/ | /pəʊd/ | /spəʊd/ | a | b |
| 1 | /pəʊt/ | /pləʊt/ | /pləʊt/ | a | **B** Cluster reduction |
| 2 | /sɔk/ | /zɔk/ | /zɔk/ | a | **B** Voicing |
| 3 | /vɪn/ | /zɪn/ | /vɪn/ | **A** b Place of articulation |
| 4 | /ɹɔf/ | /ɹɔs/ | /ɹɔs/ | a | **B** Place of articulation |
| 5 | /naɪk/ | /snaɪk/ | /naɪk/ | **A** b Cluster reduction |
| 6 | /tɔɪn/ | /tɹɔɪn/ | /tɔɪn/ | **A** b Cluster reduction |
| 7 | /ðɒm/ | /θɒm/ | /θɒm/ | a | **B** Voicing |
| 8 | /vɛʃ/ | /fɛʃ/ | /fɛʃ/ | a | **B** Voicing |
| 9 | /wʊtʃ/ | /ɹʊtʃ/ | /wʊtʃ/ | **A** b Place of articulation |
| 10 | /dutʃ/ | /tutʃ/ | /tutʃ/ | a | **B** Voicing |
| 11 | /bɹɪs/ | /bɹɪʃ/ | /bɹɪʃ/ | a | **B** Place of articulation |
| 12 | /mɔɪt/ | /mɔɪs/ | /mɔɪt/ | **A** b Manner of articulation |
| 13 | /tɛt/ | /kɛt/ | /kɛt/ | a | **B** Place of articulation |
| 14 | /spændʒ/ | /spændz/ | /spændz/ | a | **B** Place of articulation |
| 15 | /məʊf/ | /nəʊf/ | /məʊf/ | **A** b Place of articulation |
| 16 | /lɔf/ | /jɔf/ | /lɔf/ | **A** b Manner of articulation |
| 17 | /mɔk/ | /bɔk/ | /bɔk/ | a | **B** Manner of articulation |
| 18 | /dæk/ | /gæk/ | /dæk/ | **A** b Place of articulation |
| 19 | /tʃi/ | /tsi/ | /tʃi/ | **A** b Place of articulation |
| 20 | /glɛb/ | /glɛv/ | /glɛb/ | **A** b Place and manner |
| 21 | / ˈpʌɹɪt/ | / ˈbʌɹɪt/ | / ˈbʌɹɪt/ | a | **B** Voicing |
| 22 | / ˈspeɪdɪ/ | / ˈsteɪbɪ/ | / ˈsteɪbɪ/ | a | **B** Cluster |
| 23 | / ˈbɒkset/ | / ˈbɒsket/ | / ˈbɒsket/ | a | **B** Cluster |
| 24 | / ˈdeɪlət/ | / ˈteɪlət/ | / ˈdeɪlət/ | **A** b Voicing |
| 25 | / ˈdæsbn̩ / | / ˈbæsdn̩ / | / ˈbæsdn̩ / | a | **B** Place of articulation |
| 26 | / ˈdzʌlə/ | / ˈdʒʌlə/ | / ˈdzʌlə/ | **A** b Place of articulation |
| 27 | / ˈsɑsi/ | / ˈsɑti/ | / ˈsɑti/ | a | **B** Manner of articulation |
| 28 | / ˈdɹɛktɪ/ | / ˈtɹɛktɪ/ | / ˈtɹɛktɪ/ | a | **B** Voicing |
| 29 | / ˈfluwɪ/ | / ˈsluwɪ/ | / ˈsluwɪ/ | a | **B** Place of articulation |
| 30 | / ˈʃɒfɪŋ/ | / ˈfɒʃɪŋ/ | / ˈʃɒfɪŋ/ | **A** b Metathesis |
| **LIST A SCORE** | | | | **/30** | |

**Appendix C.4 Score Sheet**

Name:_____ Date:_____ Age:_____ Investigator:_____

FULL VERSION: LIST B

| | A | B | X | RESPONSES | | CIRCLE IF INCORRECT |
|---|---|---|---|---|---|---|
| 1 | / ˈsɪmwədʒ/ | / ˈfɪmwədʒ/ | / ˈsɪmwədʒ/ | **A** | b | Place of articulation |
| 2 | / ˈkɒtʃn̩ / | / ˈgɒtʃn̩ / | / ˈkɒtʃn̩ / | **A** | b | Voicing |
| 3 | / ˈfæðɪ/ | / ˈðæfɪ/ | / ˈfæðɪ/ | **A** | b | Metathesis |
| 4 | / ˈnɛmə/ | / ˈmɛnə/ | / ˈmɛnə/ | a | **B** | Metathesis |
| 5 | / ˈjɛdɪ/ | / ˈlɛdɪ/ | / ˈjɛdɪ/ | **A** | b | Place of articulation |
| 6 | /tɛˈgɔ/ | /gɛˈtɔ/ | /gɛˈtɔ/ | a | **B** | Metathesis |
| 7 | / ˈstikə/ | / ˈskitə/ | / ˈskitə/ | a | **B** | Metathesis |
| 8 | / ˈlæjɔɪ/ | / ˈjælɔɪ/ | / ˈlæjɔɪ/ | **A** | b | Metathesis |
| 9 | / ˈsɛdʒəs/ | / ˈsɛsədʒ/ | / ˈsɛdʒəs/ | **A** | b | Metathesis |
| 10 | / ˈslɔpə/ | / ˈlɔpə/ | / ˈslɔpə/ | **A** | b | Cluster reduction |
| 11 | / ˈbætəfləʊ/ | / ˈbætəfəʊ/ | / ˈbætəfləʊ/ | **A** | b | Cluster reduction |
| 12 | / ˈdeɪnɪzɑ/ | / ˈdeɪnɪsɑ/ | / ˈdeɪnɪsɑ/ | a | **B** | Voicing |
| 13 | / ˈhɔɪdɹæsɪ/ | / ˈhɔɪdɹætɪ/ | / ˈhɔɪdɹætɪ/ | a | **B** | Manner of articulation |
| 14 | /spʌˈgɪtə/ | /gʌˈspɪtə/ | /spʌˈgɪtə/ | **A** | b | Metathesis |
| 15 | / ˈpɛɹəsit/ | / ˈpɛɹəʃit/ | / ˈpɛɹəʃit/ | a | **B** | Place of articulation |
| 16 | / ˈkɹɪdəkaʊl/ | / ˈkɹɪkədaʊl/ | / ˈkɹɪdəkaʊl/ | **A** | b | Metathesis |
| 17 | / ˈæfɪlɒnt/ | / ˈælɪfɒnt/ | / ˈælɪfɒnt/ | a | **B** | Metathesis |
| 18 | / ˈɒɹəpɹəʊn/ | / ˈɒɹəpləʊn/ | / ˈɒɹəpɹəʊn/ | **A** | b | Place of articulation |
| 19 | / pɪˈdʒɔmɪz/ | / pɪˈdʒɔbɪz/ | / pɪˈdʒɔmɪz/ | **A** | b | Manner of articula-tion |
| 20 | / ˈdɒləfaɪn/ | / ˈtɒləfaɪn/ | / ˈdɒləfaɪn/ | **A** | b | Voicing |
| 21 | / ˈhɪmbɑgɪ/ | / ˈhɪmbɑdɪ/ | / ˈhɪmbɑdɪ/ | a | **B** | Place of articulation |
| 22 | /ˈɹəʊndəbaɪt/ | / ˈwəʊndəbaɪt/ | / ˈɹəʊndəbaɪt/ | **A** | b | Place of articulation |
| 23 | / ˈkʌvɒɹɪn / | / ˈkʌɹɒvɪn / | / ˈkʌɹɒvɪn / | a | **B** | Metathesis |
| 24 | / ˈkɪtəpælə / | / ˈkɪpətælə / | / ˈkɪpətælə / | a | **B** | Metathesis |
| 25 | / gɛmˈpjaʊtɪ/ | / kɛmˈpjaʊtɪ/ | / kɛmˈpjaʊtɪ/ | a | **B** | Voicing |
| 26 | / ˈhɪlətæpkə/ | / ˈhɪləkæptə/ | / ˈhɪlətæpkə/ | **A** | b | Metathesis |
| 27 | / ˈhæstʌpɪl/ | / ˈhæspʌtɪl/ | / ˈhæspʌtɪl/ | a | **B** | Metathesis |
| 28 | / æmˈbɹælɪ/ | / æmˈblæɹɪ/ | / æmˈblæɹɪ/ | a | **B** | Metathesis |
| 29 | / ˈkɒŋgɹɪɑ/ | / ˈgɒŋkɹɪɑ/ | / ˈkɒŋgɹɪɑ/ | **A** | b | Metathesis |
| 30 | / ˈtʊvɒlæʒn̩ / | / ˈtʊlɒvæʒn̩ / | / ˈtʊlɒvæʒn̩ / | a | **B** | Metathesis |
| **LIST B SCORE** | | | | **/30** | | |
| **TOTAL SCORE** | | | | **/60** | | |

*Compendium of Auditory and Speech Tasks: Children's Speech and Literacy Difficulties 4* by J. Stackhouse, M. Vance, M. Pascoe, B. Wells. © 2007, John Wiley & Sons, Ltd.

# Appendix C.5
# Auditory Discrimination Task 3: ABX Task – Short Form (Nathan *et al.*, 2004a)

**Name:_____ Date:_____ Age:_____ Investigator:_____**

**Instructions:** Two soft toys are placed in front of the child (e.g. two different monkeys) and practice items are presented by pointing to one toy and saying 'He says /səʊf/' and pointing to the second toy and saying 'He says / təʊf /' and then asking 'Who said /səʊf /?'. The child is encouraged to point to one of the toys. Corrective feedback is given as required for the practice items. During the practice items the cue phrases are phased out, so that just the non-word stimuli are spoken as each toy is pointed to, e.g. /grɪb/ ~ /səʊb/, and then the child is asked 'Who said X?'. Finally all the cue phrases can be omitted, so that the X stimulus is also presented as a single non-word, /spəʊd/ ~ /pəʊd/; /spəʊd/. The task items are presented with general encouragement as required but no feedback. One repetition is allowed on each item if requested by the child or if he or she is not attending. The investigator should cover his or her mouth to avoid use of visual cues.
Items marked * are used for the reduced version.
**Scoring:** Note the child's response, by circling A or B. **BOLD** CAPITALS indicate correct responses. Add up correct responses to obtain child's score. Circle incorrect responses in final column to indicate type of difficulty and look for any patterns.
**Normative data** for this task can be found in Table 3.12.

**Appendix C.5 Score Sheet**

Name:_____ Date:_____ Age:_____ Investigator:_____

LIST A

|    | A | B | X | RESPONSE | | CIRCLE IF INCORRECT |
|----|---|---|---|----------|---|---------------------|
| P1 | /səʊf/ | /təʊf/ | /səʊf/ | a | b | |
| P2 | /spin/ | /stin/ | /stin/ | a | b | |
| P3 | /glɪzəs/ | /klɪzəs/ | /klɪzəs/ | a | b | |
| P4 | /grɪb/ | /sɪb/ | /grɪb/ | a | b | |
| 1* | / ˈdɹɛktɪ/ | / ˈtɹɛktɪ/ | / ˈtɹɛktɪ/ | a | **B** | Voicing |
| 2 | /bɹɪs/ | /bɹɪʃ/ | /bɹɪʃ/ | a | **B** | Place of articulation |
| 3* | / ˈspeɪdɪ/ | / ˈsteɪbɪ/ | / ˈsteɪbɪ/ | a | **B** | Metathesis |
| 4* | /glɛb/ | /glɛv/ | /glɛb/ | **A** | b | Manner of articulation |
| 5 | /spændʒ/ | /spændz/ | /spændz/ | a | **B** | Place of articulation |
| 6 | / ˈdzʌlə/ | / ˈdʒʌlə/ | / ˈdzʌlə/ | **A** | b | Place of articulation |
| 7* | / ˈfluwɪ/ | / ˈsluwɪ/ | / ˈsluwɪ/ | a | **B** | Place of articulation |
| 8* | /tɔɪn/ | /tɹɔɪn/ | /tɔɪn/ | **A** | b | Cluster reduction |
| 9* | / ˈkɪtəpælə / | / ˈkɪpətælə / | / ˈkɪpətælə / | a | **B** | Metathesis |
| 10 | /naɪk/ | /snaɪk/ | /naɪk/ | **A** | b | Cluster reduction |
| 11 | / ˈbætəfləʊ/ | / ˈbætəfəʊ/ | / ˈbætəfləʊ/ | **A** | b | Cluster reduction |
| 12 | / ˈslɔpə/ | / ˈlɔpə/ | / ˈslɔpə/ | **A** | b | Cluster reduction |

LIST B

|    | A | B | X | RESPONSE | | CIRCLE IF INCORRECT |
|----|---|---|---|----------|---|---------------------|
| 1* | /spʌˈgɪtə/ | /gʌˈspɪtə/ | /spʌˈgɪtə/ | **A** | b | Metathesis |
| 2 | / pɪˈdʒɔmɪz/ | / pɪˈdʒɔbɪz/ | / pɪˈdʒɔmɪz/ | **A** | b | Manner of articulation |
| 3* | / ˈɔɹəpɹəʊn/ | / ˈɔɹəpləʊn/ | / ˈɔɹəpɹəʊn/ | **A** | b | Place of articulation |
| 4* | / ˈlæjɔɪ/ | / ˈjælɔɪ/ | / ˈlæjɔɪ/ | **A** | b | Metathesis |
| 5* | / ˈpɛɹəsit/ | / ˈpɛɹəʃit/ | / ˈpɛɹəʃit/ | a | **B** | Place of articulation |
| 6 | / ˈæfɪlɒnt/ | / ˈælɪfɒnt/ | / ˈæfɪlɒnt/ | **A** | b | Metathesis |
| 7 | /tɛˈgɔ/ | /gɛˈtɔ/ | /gɛˈtɔ/ | a | **B** | Metathesis |
| 8 | / æmˈbɹælɪ/ | / æmˈblæɹɪ/ | / æmˈblæɹɪ/ | a | **B** | Metathesis |
| 9* | /vɛʃ/ | /fɛʃ/ | /fɛʃ/ | a | **B** | Voicing |
| 10 | /pəʊt/ | /pləʊt/ | /pləʊt/ | a | **B** | Cluster reduction |
| 11* | /vɪn/ | /zɪn/ | /vɪn/ | **A** | b | Place of articulation |
| 12 | / ˈsɛdʒəs/ | / ˈsɛsədʒ/ | / ˈsɛdʒəs/ | **A** | b | Metathesis |
| **TOTAL SCORE** | | | /24 | | | |

# Appendix C.6
# Auditory Discrimination Task 4: Legal versus Illegal Non-words

**Name:_____ Date:_____ Age:_____ Investigator:_____**

**Instructions:** An example of a procedure is as follows.

Two puppets are introduced to the child, one called 'Tommy' (a boy) and one called 'Kivos' /xɪvɒs/ (a robot). 'These are my two puppets that can talk but they talk differently. Listen to them talk. Tommy is talking like all the boys and girls, he's saying: Hello little boy/girl. My name is Tommy and I am very happy that you are going to play this game with us. Listen to Kivos now (produce a non-word string that uses non-English sounds and clusters). They talk differently, don't they? I'm going to say some words, some of which you will know and some of which you don't know, and you point to who you think said the word. Was it Tommy or was it Kivos?' On score sheet write in stimuli selected and indicate if non-words are legal or illegal, and if they are illegal due to non-English segments or non-English clusters.

**Scoring:** Record whether the child correctly identified each non-word as being legal or illegal. Scores can be recorded for legal non-words and for illegal non-words with non-English segments and with non-English clusters.

No **normative** data is available but children recognise illegal productions by around 4 gears of age.

**Name:**_____ **Date:**_____ **Age:**_____ **Investigator:**_____

| STIMULI | LEGAL NON-WORD | ILLEGAL NON-WORDS | |
|---|---|---|---|
| | | Non-English segment | Non-English cluster |
| | | | |
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| | | | |
| | | | |
| **NO CORRECT RESPONSES** | / | / | / |
| **TOTAL CORRECT ILLEGAL NON-WORDS** | | / | |