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APPENDIX: Summary of psychometric properties of measures (studies=76; measures= 58)

| Study | Discourse genre & elicitation context | Measure | | | Acceptability | | Reliability | | | Validity | | |
|--------------------------|---|--|---|------------|-----------------------|--------------|------------------------|------------------------|----------------------|----------|--------------|-------|
| | | Type | Description | Value type | Distribution +1 to -1 | Missing data | Interrater reliability | Intrarater reliability | Internal consistency | Theory | Known groups | |
| | | | | | | | | | | | Group | Genre |
| Albright & Purves (2008) | Two different varieties of narrative discourse: 'the three little pigs', (familiar), and the 'cowboy story', (unfamiliar 8-picture unfamiliar story sequence (Joanette & Goulet, 1990)) | <i>Single word/ phrase level information</i> | % Correct Information Units, (CIUs) (Nicholas & Brookshire, (1993) | % | - | | 100% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | # Correct Information Units, (CIUs) (Nicholas & Brookshire, (1993) | # | | | | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ minute | # | | | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | # 'core propositions', as identified in previous work | # | - | | - | - | - | ✓ | - | - |
| Altman et al. (2012) | Personal narrative discourses: personal (recent vacation, company founded by speaker, sign language | <i>Story grammar</i> | # of clauses representing Storyline, Setting/Background, Irrealis (Longacre, 1996), and Evaluation (Labov & Waletzky, 1967) | # | - | - | 80 -96% | - | - | ✓ | - | - |

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| | project) | | | | | | | | | | | |
| Altman et al. (2014) | Descriptive discourse (2 x Norman Rockwell picture description); expository discourse (answering 2 x open-ended questions) | <i>Single word/ phrase level information</i> | # CIUs (Nicholas & Brookshire, 1993) | # | - | - | Cronbach's α = .91 | - | - | ✓ | - | ✓ |
| | | <i>utterance/ propositional level information</i> | # utterances that were coherent and relevant (del Toro et al., 2008; Doyle et al., 1995), while adding novel information a listener could identify as new. Grammaticality not required. | # | - | - | Cronbach's α = .98 | - | | ✓ | - | x |
| | | <i>utterance/ propositional level information</i> | Utterances with interpretable meaning isolated and extracted as 'proposition set' (Turnery & Greene, 1977). | # | | | Cronbach's α = .98 | - | - | ✓ | - | x |
| Andreetta et al. (2012) | Descriptive discourse (Picture description: Picnic (Kertesz, 2006) and | <i>utterance/ propositional level information</i> | % global coherence errors (# utterances with errors/ total number of utterances). Utterances segmented based | % | - | - | K \geq 0.80 (implied for all measures) | - | - | ✓ | ✓ | - |

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| | narrative discourses (2 x cartoon picture sequences (Nicholas & Brookshire, 1993)) | | on a combination of criteria: acoustic, phonological, semantic, and grammatical criteria. | | | | | | | | | |
| | | <i>utterance/ propositional level information</i> | % local coherence errors (% utterances with errors / total number of utterances). Utterances defined as above. | % | - | - | | - | - | ✓ | x | - |
| | | <i>Main concepts</i> | # main ideas or detail in the story | # | - | - | | - | - | ✓ | x | - |
| | | <i>Single word/ phrase level information</i> | % Lexical information units (LIUs), defined as words that are phonologically well formed, and appropriate from a grammatical and pragmatic perspective | % | - | - | | - | - | ✓ | ✓ | - |
| Antonucci (2009) | Descriptive discourse (complex picture description), narrative discourse (picture sequence); procedural discourse (e.g., making a sandwich); and expository discourse (answering | <i>Single word/ phrase level information</i> | # CIUs | # | - | - | Average 88.6% (min-max = 82.99% - 93.93%) | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/min | # | - | - | | - | - | ✓ | - | - |

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| | open-ended personal questions) | | | | | | | | | | | |
| Armstrong (2011) | Narrative discourse (stroke experience) | <i>Topic use</i> | # thematic units& subtopics | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Topic use</i> | # C- units per subtopic, (C-unit = a main clause any subordinate clauses (Miller & Iglesias, 2008). | # | - | - | - | - | - | ✓ | - | - |
| Armstrong et al. (2007) | Procedural discourse (light bulb and cheese sandwich); descriptive discourse (cookie theft picture description, Goodglass et al. (2000)) | <i>Topic use</i> | # topics, subtopics, sub-subtopics | # | - | - | - ¹ | - | - | ✓ | - | - |
| | | <i>Topic use</i> | # Topics, subtopics, sub-subtopics | % | - | - | - | - | - | ✓ | - | - |
| | | <i>Main Concepts</i> | # Main concepts (Nicholas & Brookshire, 1995) that are accurate/ complete | # | - | - | - | - | - | ✓ | - | - |
| | | | # accurate/ incomplete | # | - | - | - | - | - | ✓ | - | - |

¹ For both intra-rater and inter-rater reliability of the transcription-based analysis there were no statistically significant differences found between the original and second analysis for the subset of samples re-analysed, nor between the original analysis and that carried out by the second rater for the subset of samples analysed (data not shown here, but available on request from the second author).

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| | | | # inaccurate | # | - | - | - | - | - | ✓ | - | - |
| | | | # absent | # | - | - | - | - | - | ✓ | - | - |
| Ballard et al., 1999 | Narrative discourse (Cinderella & Red Riding Hood) | Single word/ phrase level information | CIUs/ min | # | | | Means of 99.9 and 96.5, but lower limit of 78.6%- 100% | 87.1 to 99.5% (M = 96.0%, SD = 3.5) | | ✓ | - | - |
| | | Single word/ phrase level information | % CIUS | % | | | | | | ✓ | - | - |
| Behrns et al. (2009) | Personal narrative discourse ('I have never been so afraid') | Overall listener judgement | Rating aspects such as general impression; language and vocab; form; impressions of the narrator | Scale | - | - | - | - | - | ✓ | ✓ | - |
| Boo & Rose (2011) | Descriptive discourse (picture description); and narrative discourse (Cinderella) | Single word/ phrase level information | # CIUs | # | - | - | >95% | - | - | - | - | - |
| | | Single word/ phrase level information | % CIUs | % | - | - | | - | - | ✓ | - | - |
| | | Single word/ phrase level information | CIUs/ min | # | - | - | | - | - | ✓ | - | - |
| Boyle (2014) | Descriptive discourse (2x complex pictures), narrative discourse (1x picture sequence, 1x | Single word/ phrase level information | # CIUs, (Nicholas and Brookshire, 1993) | # | - | - | >88% | - | - | ✓ | - | - |
| | | Single word/ phrase level information | % CIUS | % | - | - | | - | - | ✓ | - | - |

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| | request for biographical narrative), procedural discourse | <i>Single word/ phrase level information</i> | CIUS/ minute | # | - | - | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | # accurate-complete, accurate-incomplete, and absent main concepts | # | - | - | >80% | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | accurate-incomplete, | # | - | - | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | Inaccurate | # | - | - | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | absent main concepts | # | - | - | | - | - | ✓ | - | - |
| Breennaise-Sarshand et al. (1991) | Narrative discourse (Picture sequences 'bear' and 'hippo', Mayer, 1974, 1976). | <i>Single word/ phrase level information</i> | # CIUs (Nicholas & Brookshire, 1988). | # | - | - | range from 79% (for lexical repetition) to 98% (for number of words), with an mean agreement of 88% ² | - | - | ✓ | ✓ | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | - | - | ✓ | ✓ | - |
| | | <i>Single word/ phrase level</i> | Mean CIUs per t-unit | # | - | - | | - | - | ✓ | ✓ | - |

² Percent agreement ranged from 79 (for lexical repetition) to 98 (for number of words), with an average percent agreement of 88.

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|------------------------------|--|--|--|---|---|---|------|------|---|---|---|---|
| | | <i>information</i> | | | | | | | | | | |
| | | <i>Single word/ phrase level information</i> | % CIUs in lexical repetition, conjunction, pronominal, and definite article cohesive ties (Halliday & Hasan, 1986) | % | - | - | | - | - | ✓ | x | - |
| Brodsky et al (2003). | Narrative discourse (story retell using pictures) | <i>Single word/ phrase level information</i> | Information unit, A word or word string that is intelligible, informative, and provides accurate content relevant to the stimulus story. They are coded as specific words reproduced from a story (direct IUs) or legitimate synonyms (alternate IUs). | # | - | - | - | - | - | ✓ | x | - |
| Brookshire & Nicholas (1994) | Descriptive discourse (picture descriptions "cookie theft" & picnic); narrative discourse (2x picture) | <i>Single word/ phrase level information</i> | %CIUs (Nicholas & Brookshire, 1993) | % | - | - | >90% | >95% | - | ✓ | - | - |

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| | sequences; 2x personal narratives e.g., "Tell me what you usually do on Sundays); 2x procedural discourses "Tell me how you would go about writing and sending a letter." | <i>Single word/ phrase level information</i> | # CIUs | # | - | - | | | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ minute | # | - | - | | | - | ✓ | - | - |
| Cameron et al. (2006) | Narrative discourse (story retell, Doyle et al., 2000); narrative discourse (5-minute personal narrative (Wambaugh & Martinez, 2000); 10 discourse tasks from Nicholas and Brookshire (1993). | <i>Single word/ phrase level information</i> | CIUs / min (Nicholas & Brookshire, 1993) | # | - | - | 95.54% - 100% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs (Nicholas & Brookshire, 1993) | % | - | - | | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % IUs | % | - | - | | - | - | ✓ | - | - |
| Cameron et al. | Ten discourses elicited using | <i>Single word/ phrase level</i> | CIUs (Nicholas & | # | - | - | 90.27% (range | 94.39% (range | - | - | - | - |

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| (2010) | stimuli described by Nicholas and Brookshire (1993). | <i>information</i> | Brookshire, 1993) | | | | 72.41–97.40%) | 81.37–100%) | | | | |
| | | <i>Single word/ phrase level information</i> | CIUs (Nicholas and Brookshire, 1993) | % | - | - | | | - | - | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ minute (Nicholas and Brookshire, 1993) | # | - | - | | | - | - | - | - |
| Capilouto and Wright (2009) | Descriptive discourse (10x pictures) | <i>Story grammar</i> | # information components: who, is doing, what, when, where, why | # | - | - | >80% | - | - | ✓ | - | - |
| Capilouto et al. (2006) | Descriptive discourses (2x picture descriptions: 'birthday cake' and 'cat in the tree'), narrative discourses (2x picture sequences: 'fight' and 'direction' taken from Nicholas and Brookshire (1993)) | <i>Main concepts</i> | % main events | % | - | - | 85% | - | - | ✓ | ✓ | ✓ |
| Cherney (2010a) | Descriptive discourse (2x composite pictures), narrative discourses (2x picture | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | - | - | - | - | - | - |

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| | sequences) | | | | | | | | | | | |
| Cherney (2010b) | Descriptive discourse (2x composite pictures), narrative discourses (2x picture sequences) | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | - | - | - | - | - | - |
| Cherney et al (2012) | Descriptive discourse (2x composite pictures), | <i>Single word/ phrase level information</i> | CIUs (Nicholas & Brookshire, (1993) | Unclear | - | - | - | - | - | - | - | - |
| Christiansen (1995) | Narrative discourse (4x cartoon stories of 4-5 pictures each, Wechsler, 1949) | <i>utterance/ propositional level information</i> | # propositions. Discourse rewritten into a text base, and propositions identified and tallied. | # | - | - | 89.6% - 99% | - | - | ✓ | ✓ | - |
| | | <i>utterance/ propositional level information</i> | % Propositions that were events, states, and elaborations | % | - | - | | - | - | ✓ | ✓ | - |
| | | <i>utterance/ propositional level information</i> | % propositions that were story relates and interation related | % | - | - | | - | - | ✓ | ✓ | - |

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| | | <i>utterance/ propositional level information</i> | % propositions that were information gaps, repetitions, and irrelevant | % | - | - | | - | - | ✓ | ✓ | - |
| Christiansen (1999) | Narrative discourse (4x cartoon stories of 4-5 pictures each, Wechsler, 1949) | <i>utterance/ propositional level information</i> | Relevance. Errors removed, and discourse rewritten as a 'proposition base'. Propositions rated (relevance to characters and plot of story). Mean score calculated for each participant. | Scale | - | - | - | - | - | ✓ | - | - |
| Coelho et al. (1994) | Narrative discourse (retell, generation) | <i>Story grammar</i> | # complete episodes in a story (initiating event + action+ direct consequence) | # | - | - | 96% | - | - | ✓ | - | - |

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| Coelho and Flewellyn (2003) | Narrative discourse (story retell: the bear and the fly, Winter, 1976) | <i>utterance/ propositional level information</i> | Global coherence. Discourse divided into t-units, defined as a sentence plus all its dependent and relative clauses. T-units then rated for global coherence, on a 1-5 scale, and a mean global coherence score calculated. | Scale | - | - | 94% | 100% | - | ✓ | - | - |
| | | <i>utterance/ propositional level information</i> | Local coherence. Discourse divided into t-units (sentence + all its dependent and relative clauses). T-units rated on 1 1-5 scale for local coherence, mean local coherence score calculated. | Scale | - | - | 90% | 96% | - | ✓ | - | - |
| Correia et al (1990) | Descriptive discourse (pictures from BDAE, MTDDA, WAB, and six pictures representing male-biased or female-biased daily-life situations). | <i>Single word/ phrase level information</i> | # CIUs (Nicholas & Brookshire, 1993). | # | - | - | 93% | - | - | - | × | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | - | - | - | ✓ | - |
| | | <i>Single word/ phrase level information</i> | % CIUs that were nouns or adjectives | % | - | - | | - | - | - | × | - |
| Craig (1993) | Descriptive discourse (Cookie theft), narrative | <i>Single word/ phrase level information</i> | Total content Units (Yorkston & Beukelman (1980), number of | # | - | - | 92% (+ or – 1 CU) | - | - | - | - | - |

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| | discourse (Cinderella retell) | | predefined content units | | | | | | | | | |
| | | <i>Single word/ phrase level information</i> | Content Units/ minute | # | - | - | | - | - | - | - | - |
| Cupit et al. (2010) | Narrative discourse (Cinderella, Saffran et al., 1989) | <i>Overall listener judgement</i> | Whole discourses rated (information content, message transmission, ease, word finding). Ratings collapsed to form a composite score | Scale | - | - | NR | - | - | × | - | - |
| | | <i>Main concepts</i> | # Key propositions/ minute included in the story of Cinderella, from a total of 48 | # | - | - | NR | - | - | ✓ | - | - |
| Doyle et al. (1995) | 10 Structured discourses from Nicholas & Brookshire, 1993) | <i>Main concepts</i> | % accurate/ complete main concepts included | % | - | - | 79% -98% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | # CIUs | # | - | - | 81-97% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | - | - | ✓ | - | - |
| Doyle et al. (1998) | 12 stories from the <i>Discourse Comprehension Test</i> (Brookshire and Nicholas 1993), narrative discourse (oral and picture | <i>Single word/ phrase level information</i> | # CIUs (Nicholas & Brookshire, 1993) | # | - | - | 91 % | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | | - | - | ✓ | - | - |

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| | retell: free retell) | <i>Single word/ phrase level information</i> | % CIUS | % | - | - | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | % 'story propositions' accurate, complete, absent | % | - | - | 85% | - | - | ✓ | - | - |
| Doyle et al. (2000) | Narrative discourse (story retell task) | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | 95% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUS | % | - | - | | - | - | ✓ | - | - |
| | | <i>Main Concepts</i> | % accurate and complete story propositions | % | - | - | 91% | - | - | ✓ | - | - |
| Edmonds & Babb (2011) | 10 discourse elicitation materials from Nicholas and Brookshire (1993) | <i>Single word/ phrase level information</i> | CIUs (Nicholas & Brookshire, 1993) | % | - | - | - | - | - | ✓ | - | - |
| Edmonds et al (2014) | 10 discourse elicitation materials from Nicholas and Brookshire (1993) | <i>Single word/ phrase level information</i> | CIUs, defined as which words which were relevant to the topic and novel | % | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ minute | # | - | - | - | - | - | ✓ | - | - |
| Falconer et al (2012) | 10 discourse elicitation materials from | <i>Single word/ phrase level</i> | % CIUs (Nicholas & Brookshire, 1993) | % | - | - | Mean = 88.6% (range 82.99% | - | - | ✓ | - | - |

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| | Nicholas and Brookshire (1993) | information | | | | | to 93.37%) | | | | | |
| | | Single word/ phrase level information | # CIUs | # | - | - | | - | - | ✓ | - | - |
| | | Single word/ phrase level information | CIUs /min | # | - | - | | - | - | ✓ | - | - |
| Fergadiotis et al. (2015) | Expository discourse (Free speech following questions about stroke speech, or important life events), descriptive discourse (descriptions of complex pictures); narrative discourse (descriptions of sequential pictures and Cinderella retelling, Grimes, 2005) | Single word/ phrase level information | CIUs/ total words (Nicholas & Brookshire (1993) | % | - | - | 92-94% | - | - | ✓ | - | - |
| Fink et al. (2008) | Descriptive discourse (Responses to 2x ANELT situations: 'the lost glove', and 'broken | Single word/ phrase level information | % CIUs (Nicholas & Brookshire, 1993). | % | - | - | 81.8% – 100% | - | - | ✓ | - | - |
| | | Single word/ phrase level information | # CIUS | # | - | - | | - | - | ✓ | - | - |

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| | glasses') | information | | | | | | | | | | |
| Furnas (2003) | Descriptive discourse (half the pictures from Nicholas and Brookshire, 1993)) | <i>Single word/ phrase level information</i> | % CIUs (Nicholas & Brookshire, 1993). | % | - | - | 96% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | | - | - | ✓ | - | - |
| Georgiadis (2004) | Narrative discourse (2x randomly selected story sets from Brookshire & Nicholas, 1993). | <i>Single word/ phrase level information</i> | % IUs. (Information Units = a word, phrase, or acceptable alternative from the story stimulus that is intelligible and informative and conveys accurate and relevant information about the story' (McNeil et al., 2000). | % | - | - | 92.8% (range = 81.1±100%). | - | - | ✓ | - | - |
| Gleason et al. (1980) | Narrative discourse (picture sequence retell) | <i>Main concepts</i> | # main 'themes' in each discourse. | # | - | - | - | - | - | ✓ | - | - |
| Glosser and Deser (1990) | Narrative discourse (their family, a work experience from their past) | <i>utterance/ propositional level information</i> | Global coherence. First 20 'verbalisations' in a participant's discourse scored for global coherence on a 5-point scale. Verbalisations defined using syntactic criteria, but incomplete | Scale | - | - | 79% | - | - | ✓ | x | - |

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| | | | verbalisations were still scored. | | | | | | | | | |
| | | <i>utterance/ propositional level information</i> | Local coherence. Utterances scored for local coherence. Verbalisations were defined using syntactic criteria, but incomplete verbalisations were still scored. | Scale | - | - | 79% | - | - | ✓ | * | - |
| Gordon (2008) | Descriptive discourse (10x Norman Rockwell pictures) | <i>Single word/ phrase level information</i> | % CIUs (Nicholas & Brookshire, 1993). | % | - | - | 89.3% | - | - | ✓ | - | - |
| Hickin & Dipper (2015) | Narrative discourse (Cinderella) | <i>Story grammar</i> | # story grammar elements, (Ulatowska et al, 1983) | # | - | - | - | - | - | ✓ | - | - |
| | | <i>utterance/ propositional level information</i> | Global coherence. Utterances scored using a 1-4 scale (Wright, 2010), and mean calculated | # | - | - | - | - | - | ✓ | - | - |
| | | <i>utterance/ propositional level information</i> | Local coherence. Utterances scored using a 1-5 scale (Glosser & Deser, 1991) and mean score calculated | # | - | - | - | - | - | ✓ | - | - |
| Hoover (2015) | Descriptive discourse ('birthday' and 'rescue' from Nicholas & | <i>Single word/ phrase level information</i> | % CIUs, (Nicholas & Brookshire, 1993) | % | - | - | - | - | - | ✓ | - | - |

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|----------------------|-------------------------------------|--|---|---|---|---|------------------------|------------------------|---|---|---|---|
| | Brookshire, 1993) | | | | | | | | | | | |
| Hula (2003) | Narrative discourse (story retells) | <i>Single word/ phrase level information</i> | % direct Information Units, defined as an identified word, phrase, or acceptable alternative from the stimulus story that is intelligible and informative and conveys accurate and relevant information about the story | % | - | - | ICC 0.86- 0.99 | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | Total information units | # | - | - | | - | - | ✓ | | - |
| | | <i>Single word/ phrase level information</i> | % alternate Information Units | % | - | - | | - | - | ✓ | | - |
| | | <i>Single word/ phrase level information</i> | rate IU/min | # | - | - | | - | - | ✓ | - | - |
| Jacobs (2001) | Narrative discourse (Cinderella) | <i>Single word/ phrase level information</i> | % CIUs (Nicholas & Brookshire, 1993). | % | - | - | Mean 92%, range 77-99% | Mean 92%, range 80-97% | - | ✓ | - | - |

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|---------------------------|--|--|---|---------|---|---|----------|---|---|---|---|---|
| | retells) | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | | | - | ✓ | - | - |
| | | <i>Overall listener judgement</i> | Rating effectiveness, informativeness, and listener comfort of whole discourses using Direct Magnitude Estimation. | Scale | - | - | - | - | - | x | - | - |
| Kendall (2008) | Procedure from Nicholas & Brookshire, (1993). | <i>Single word/ phrase level information</i> | CIUs | Unclear | - | - | ICC- 0.7 | - | - | ✓ | - | - |
| Knoph et al (2015) | Narrative discourse (Personal narrative- a movie description/ book description/ a trip/ a happy moment) | <i>Single word/ phrase level information</i> | # CIUs | # | - | - | 82-97% | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | - | - | ✓ | - | - |
| Li (1995) | Procedural discourse (10x procedural tasks), narrative discourse (10x story retells) | <i>Story grammar</i> | % essential and optional steps for procedural discourse tasks, where a step reflects an event, and needs to be in correct sequence. | % | - | - | 95% | - | - | ✓ | ✓ | - |
| | | <i>Story grammar</i> | % correct setting, action, and resolution elements. | % | - | - | | - | - | ✓ | ✓ | - |
| Linebarger | Narrative discourse | <i>Single word/ phrase level</i> | % CIUs (Nicholas & | % | - | - | 89-99% | - | - | ✓ | - | - |

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|-------------------------|--|---|---|---|---|---|---|---|---|---|---|---|
| (2007) | (retelling silent videos) | <i>information</i> | Brookshire, 1993) | | | | | | | | | |
| | | <i>Single word/ phrase level information</i> | CIUs/ minute | # | - | - | | - | - | ✓ | - | - |
| Marini et al. (2011) | Descriptive discourse (Cookie theft (Goodglass et al., 2000) and picnic scene (Kertesz, 2006)); narrative discourse (2x picture sequences-flowerpot and quarrel (Nicholas & Brookshire, 1993)) | <i>utterance/ propositional level information</i> | <i>Global coherence.</i> % global coherence errors, (% utterances with errors/ total utterances). Utterances identified using phonological, acoustic, semantic, and syntactic criteria. | % | - | - | - | - | - | ✓ | - | - |
| | | <i>utterance/ propositional level information</i> | Local coherence. % local coherence errors (% utterances with errors/ total utterances). Utterances identified using phonological, acoustic, semantic, and syntactic criteria. | % | - | - | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | Thematic Units | % | - | - | | - | - | ✓ | - | - |
| Marshall, et al (2015). | Descriptive discourses (2x picture descriptions (the kite picture from Minnesota Test for Differential Diagnosis of Aphasia; fireman picture from Nicholas & | <i>Single word/ phrase level information.</i> | CIUs/ minute | # | - | - | - | - | - | ✓ | - | - |

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|----------------------|---|--|---|---|---|---|------------------|---|---|---|---|---|
| | Brookshire, 1993)), narrative discourse (an imaginary vacation trip to New York City) | | | | | | | | | | | |
| McNeil (2001) | Samples collected in the Doyle et al. (2000) study | <i>Single word/ phrase level information</i> | % IUs (IUs= a word, phrase, or acceptable alternative from the stimulus that is intelligible and informative and that conveys accurate and relevant information about the story, based on a pre-defined list) | % | - | - | 91% mean 81-100% | - | - | ✓ | ✓ | - |
| | | <i>Single word/ phrase level information</i> | % CIUs (Nicholas & Brookshire, 1995) | % | - | - | | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % IUs/ minute | % | - | - | | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs/ minute | % | - | - | | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | % accurate and complete story propositions | % | - | - | | - | - | ✓ | - | - |

| | | | | | | | | | | | | |
|----------------------|--|--|--|---|---|---|---|---|---|---|---|---|
| McNeil (2002) | Narrative discourse (retelling 12 stories from the Discourse Comprehension Test (Brookshire & Nicholas, 1997)) | <i>Single word/ phrase level information</i> | % IUs (IUs= a word, phrase, or acceptable alternative from the stimulus that is intelligible and informative and that conveys accurate and relevant information about the story, based on a pre-defined list | % | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % IUs/ minute | % | - | - | - | - | - | ✓ | ✓ | - |
| McNeil (1997) | Narrative discourse (retelling 12 stories from the Discourse Comprehension Test (Brookshire & Nicholas, 1997)) | <i>Single word/ phrase level information</i> | CIUs /min (Nicholas & Brookshire, 1993) | # | - | - | - | - | - | ✓ | - | - |
| McNeil (2007) | Narrative discourse (story Retell Procedure (SRP), , Cinderella discourse) | <i>Main concepts</i> | % main concepts | % | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | # CIUs, (Nicholas & Brookshire, 1993) | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level</i> | CIUs/min | # | - | - | - | - | - | ✓ | - | - |

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|---------------|---|--|---|---|---|---|-------------------|-------------------------|---|---|---|---|
| | | <i>information</i> | | | | | | | | | | |
| | | <i>Single word/ phrase level information</i> | % IUs/ min | % | - | - | | - | - | ✓ | - | - |
| Murray (2004) | Descriptive discourse (picture descriptions from the Western Aphasia Battery, Kertesz, 1982), ADP (Helm-Estabrooks, 1992), Brief Test of Head Injury (Helm-Estabrooks & Hotz, 1991), and ABA (Dabul, 1979), and Nicholas and Brookshire (1993)) | <i>Single word/ phrase level information</i> | CIUs/ min (Nicholas & Brookshire, 1993) | % | - | - | 90% | 95-96% | - | ✓ | - | - |
| Murray (2007) | Descriptive discourse (3x 5minute picture description on Norman Rockwell & 'Fishing') | <i>Single word/ phrase level information</i> | # CIUs (Nicholas & Brookshire (1993) | # | - | - | Mean 97% (92-100) | Mean 97%, range 92-100% | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUs/ min | # | - | - | | | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | | - | ✓ | - | - |

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|------------------------------|--|---------------------------------------|--|---|---|---|-------------------------------|---------|---|---|---|---|
| Murray (1998) | Descriptive discourse (picture descriptions (including Helm-Estabrooks, 1992), Brief Test of Head Injury (Helm-Estabrooks & Hotz, 1991), and ABA (Dabul, 1979), Nicholas and Brookshire (1993)). | Single word/ phrase level information | # CIUs (Nicholas & Brookshire, 1993) | # | - | - | 92% (range = 83–99%) for CIUs | 88-100% | - | ✓ | - | - |
| | | Single word/ phrase level information | % CIUs (Nicholas & Brookshire, 1993) | % | - | - | | | - | ✓ | - | - |
| Murray (2000) | Narrative discourse (Cinderella) and procedural discourse (scrambled eggs). | Single word/ phrase level information | % CIUs (Nicholas & Brookshire, 1993) | % | - | - | 89% | - | - | ✓ | - | - |
| Nicholas & Brookshire (1993) | Descriptive discourse (4x complex pictures), narrative discourse (2x picture sequences, 2x requests for personal information), procedural discourse (2x requests for | Single word/ phrase level information | % CIUs, defined as accurate, relevant, and informative relative to the eliciting stimulus. Words did not have to be used in a grammatically accurate manner to be counted as CIUs. | # | - | - | 90% | 95% | - | ✓ | ✓ | - |
| | | Single word/ phrase level information | CIUs/ minute | % | - | - | | | - | ✓ | ✓ | - |

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|--|---|---|--|---|---|---|--------------------------|--------|---|---|---|---|
| | procedural information). | | | | | | | | | | | |
| Nicholas& Brookshire (1995) | Descriptive discourse (4x complex pictures), narrative discourse (2x picture sequences, 2x requests for personal information), procedural discourse (2x requests for procedural information). | <i>Main Concepts</i> | # accurate complete main concepts | # | - | - | Mean= 86%, range= 74-94% | 80-84% | - | ✓ | ✓ | - |
| | | <i>Main Concepts</i> | # accurate incomplete main concepts | # | - | - | | | - | ✓ | ✓ | - |
| | | <i>Main Concepts</i> | # Inaccurate main concepts | # | - | - | | | - | ✓ | ✓ | - |
| | | <i>Main Concepts</i> | # Absent main concepts | # | - | - | | | - | ✓ | ✓ | - |
| Olness & Englebreton (2011) | Narrative discourse (a frightening experience) | <i>utterance/ propositional level information</i> | Discourse segmented into propositions. Propositions then coded regarding whether they occurred on or off the main event line, and whether their evaluative content was on or off main event line (Labov & Waletzky, 1967). | % | - | - | - | - | - | ✓ | * | - |
| Olness et al. (2010) | Narrative discourse (A frightening experience) | <i>Story grammar</i> | Basic story structure present or absent. | # | - | - | - | - | - | ✓ | - | - |

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|---------------------|--|--|---|---|---|---|-----|---|---|---|---|---|
| Purdy (2002) | Procedural discourse: (pouring a glass of soda, opening and closing a padlock, lighting a candle, changing a lightbulb, making a sandwich, preparing a letter for mailing, preparing instant coffee, preparing scrambled eggs) | <i>Story grammar</i> | Each step identified, and analysis of the sequence was made. One point given for each activity in which the proper sequence was maintained, and enough detail was provided so the task could be accurately completed if the steps were carried out. Scores summed | # | - | - | 93% | - | - | ✓ | ✓ | - |
| Ross (1999) | Descriptive discourse (picture descriptions from the WAB, PICA, CADL) | <i>Main concepts</i> | % accurate and complete main concepts | % | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | CIUS/ minute | # | - | - | | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | % CIUs | % | - | - | | - | - | ✓ | - | - |
| Stark (2010) | Narrative discourse (Cinderella, Saffran et al., (1989)) | <i>Story grammar</i> | # story grammar elements: Superstructure (orientation, development (episode 1, 2a, 2b, 3), complication (= 4), solution (episode 5), coda, and evaluation of the | # | - | - | 90% | - | - | ✓ | - | - |

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|---|--|----------------------|---|---|---|---|---|---|---|---|---|---|
| | | | narrative). Specific information components coded as present or absent | | | | | | | | | |
| | | <i>Main concepts</i> | # key 41 propositions were present in the discourses that speakers produced | # | - | - | | - | - | ✓ | - | - |
| Ulatowska et al. (1981) | Narrative discourse (memorable experience, cat story picture sequence, retelling a 'rooster' story, and a summary and moral for the 'cat' and 'rooster' story) and procedural discourse (brushing teeth, combing hair, cutting bread, making sandwiches, bowling, changing a tyre) | <i>Story grammar</i> | # clauses to establish setting, action, resolution, and evaluation | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Story grammar</i> | Occurrence of elements of super structure in narratives | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Story grammar</i> | Occurrence of elements of super structure in procedures | # | - | - | - | - | - | ✓ | - | - |
| Ulatowska, Freedman Stern, et al. (1983) | Narrative discourse (memorable experience, cat story picture sequence, retelling a | <i>Story grammar</i> | # clauses used for setting, action, resolution, and evaluation | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Main concepts</i> | # key propositions for cat and rooster stories speakers | # | - | - | - | - | - | ✓ | ✓ | - |

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|--|---|---|--|-------|---|---|----------------|---|---|---|---|---|
| | 'rooster' story, and a summary and moral for the 'cat' and 'rooster' story. | <i>Overall listener judgement</i> | included Ratings on factors such as completeness, awareness of what was going on, on a 3 or 4-point scale | Scale | - | - | ICC: 0.71-0.95 | - | - | × | ✓ | - |
| Ulatowska, Weiss Doyel, et al. (1983) | Procedural discourse (Changing a lightbulb, making a sandwich, making scrambled eggs, instructing a person how to shop in an American supermarket) | <i>Story grammar</i> | # Steps (total number, essential steps, target steps, optional steps, auxiliary steps) | # | - | - | - | - | - | ✓ | ✓ | - |
| | | <i>Overall listener judgement</i> | Judgements regarding the clarity, actions, amount of information of the discourse on a 1-4 scale | Scale | - | - | ICC: 0.64-0.86 | - | - | × | ✓ | - |
| Ulatowska et al. (2003) | Narrative discourse (Fable retell, picture sequence description, frightening experience), descriptive discourse (complex pictures) | <i>Overall listener judgement</i> | Discourse rated for coherence and clarity | Scale | - | - | 75% | - | - | × | - | - |
| | | <i>utterance/ propositional level informational information</i> | # of propositions in a discourse | # | - | - | - | - | - | ✓ | - | - |
| Ulatowska et al. (2001) | Narrative discourse (Frightening experience) | <i>Overall Listener judgement</i> | Discourse rated (e.g., global structure, temporal sequence, reference, suspense, coherence, and | Scale | - | - | - | - | - | × | ✓ | - |

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|-----------------------------|---|---|---|-------|---|---|--------|---|---|---|---|---|
| | | | clarity) | | | | | | | | | |
| | | <i>utterance/ propositional level informational information</i> | # of propositions in a discourse | # | - | - | - | - | - | ✓ | - | - |
| Ulatowska et al. (2004) | Narrative discourse (Frightening experience) | <i>Story grammar</i> | Basic narrative structure (setting, complication, and resolution) | Scale | - | - | - | - | - | ✓ | - | - |
| | | <i>utterance/ propositional level information</i> | # locations of direct expressions of fear | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Single word/ phrase level information</i> | Verbs which form the narrative backbone | # | - | - | - | - | - | ✓ | - | - |
| Ulatowska et al. (2013) | Narrative discourse (Frightening experience) | <i>Story grammar</i> | # temporal-causal sequences, reference, and evaluation used. | # | - | - | - | - | - | ✓ | - | - |
| | | <i>Overall listener judgement</i> | Coherence and clarity on a 3-point scale | Scale | - | - | 99-95% | - | - | × | - | - |
| Yorkston & Beukelman (1980) | Descriptive discourse (Picture description, Cookie Theft) | <i>Single word/ phrase level information</i> | # Content Units (grouping of information always expressed as a unit by normal speakers) | # | | | - | - | - | ✓ | ✓ | - |
| | | <i>Single word/ phrase level information</i> | Content units/ minute | # | - | - | | - | - | ✓ | ✓ | - |

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|-------------------------|--|----------------------|--|---|---|---|---|---|---|---|---|---|
| Whitworth (2010) | Narrative discourse (Cinderella story, Saffran et al., 1989) | <i>Story grammar</i> | # Story grammar elements | # | - | - | - | - | - | ✓ | - | - |
| Whitworth (2015) | Narrative discourse (recount of past injury/ previous weekend/ previous Christmas or other event, and Cinderella), procedural discourse (scrambling eggs, changing a light bulb, planning an event/meal), and expository discourse (providing opinions on bullying, obesity and global warming). | <i>Story grammar</i> | # orientation elements, body elements, conclusion elements | # | - | - | - | - | - | ✓ | - | - |