Syntactic performance of 6- and 7-year-old children in expository and narrative discourse

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This study investigated the syntactic performance of 56 typically developing children, aged between 6;2 and 7;11 in expository and narrative discourse tasks. All children were asked to explain the rules of a favourite game or sport and to retell the story *Frog Goes to Dinner*. The study specifically aimed to determine which elicitation task would yield more complex language as measured by mean length of utterance and dependent clause use. Moreover, mazing behavior and grammatical accuracy were measured to investigate possible trade-offs in linguistic performance depending on the hypothesized cognitive demands of the elicitation task.

Participants

All children attended Year 2 or Year 3 of their local primary school and were making satisfactory progress in reading. Children had no known history of physical, neurological or sensory impairments and had not been referred to speech-language therapy for assessment.

Table 1: Participant characteristics

N = 56		
Age (yy;mm)	M: 7;1 (0;6)	Range: 6;2 – 7;11
PPVT-III (SS)	M: 104 (10.8)	Range: 80 - 120
Gender	F: 32 (58%)	M: 24 (42%)
Ethnicity	NZ European: 71%	NZ Maori: 16 %
	Pasifika: 7%	Other: 6%

Measures

Transcripts were transcribed, using standard Systematic Analysis of Language Transcripts (SALT) – NZ Version 2008 (Miller, Gillon, & Westerveld, 2008) conventions. Utterances were segmented into T-Units (a main clause with its subordinate clauses). The following measures were calculated:

- **Total number of T-Units**

- **MLTU: Mean length of T-Unit**

- **Clausal Density (Total number of clauses divided by the number of T-units)**

- **Adverbial clauses, Nominal clauses, Relative clauses**

- **GA: Grammatical accuracy. Percentage of grammatically correct utterances.**

- **Mazing behaviour: % Maze words**

Elicitation Conditions

All children were seen individually by a trained research assistant and were asked to explain the rules of a favourite sport or game (Nippold, Hesketh, Duthie, & Mansfield, 2005) and retell the story *Frog Goes to Dinner* (Mayer, 1974) from memory, after one exposure.

Story-Retelling

Children were asked to retell the story Frog Goes to Dinner. They listened to the audio-recording of the story twice before being asked to retell the story, without the use of pictures, into the tape-recorder "so that other children can listen to <u>your</u> story next time! "
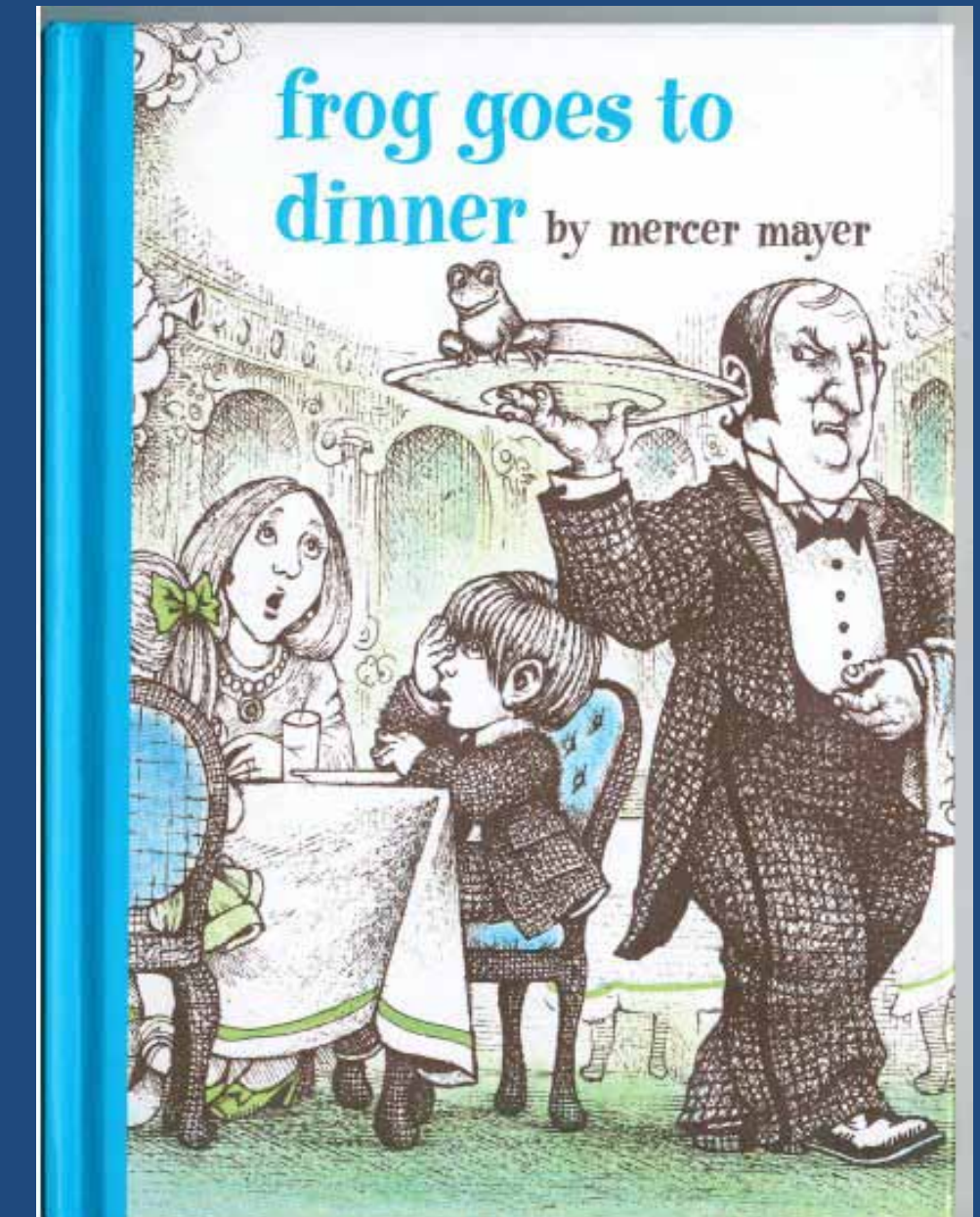
Expository

Children were asked what their favourite game or sport was.

"*My favourite sport is netball*"

Prompts include:

" *I am not too familiar with the game of xxx*"

"*What should a player do to win a game of xxx*"

(Nippold, et al. ,2005)

Table 2 : Top 3 choice of topics

Favourite game or sport	n
Soccer	13 (23%)
Netball	6 (11%)
Rugby	4 (7%)

Utterances produced by G1: only T-Units containing more than 9 words are listed:

Expository generation (toss and spin)

C and the rule/s are you/'re not allowed to put three at once or two at once but only one.
C (and) and (if you get) if you get (a th* a) three (count) number/s on the dice, you put it on three.
C and if there/'re no more three/s, you miss a turn.
C well how they win is they have to finish all their bead/s.
C and how you be a good player is you have to (like) try get the number you want.
C and if there are no more number/s, you have to try not *to get that :02 number.

Narrative retell:

C there was a boy and a frog who went to a restaurant with their family.
C once they got there :04 they sat down and ate their dinner.
C and then the frog jump/ed out of the (bo*) little boy/z pocket :03 and :02 into someone/z salad.
C and then when the woman nearly ate some salad the frog climb/ed out.
C and then when a man drink/ed[eo:drank] it the frog kiss/ed it[ep:him] on his nose.
C and then the boy said that/'s my frog just when the waiter nearly put the frog into[ew] the fire exit.
C and then the boy took it home with his family.
C (and then he) and then his dad told him go in your room and stay in your room.

G1 Male 6;4 years	Expository generation	Narrative retell
No. T Units	17	12
MLTU	8.8	11.8
% Mzwds	9%	3%
Clausal density	1.65	1.31
% GA	76.5%	66.7%

Findings

Table 3: Performance in expository generation and narrative retell conditions

N = 56	No. T Units*	MLTU*	%Maze words*	Clausal Density	%GA
Expository	17.8 (9.9)	8.5 (1.7)	13.7 (6.9)	1.31 (0.23)	82.3 (13.0)
Narrative retell	22.6 (11)	9.5 (1.9)	11.6 (6.6)	1.29 (0.19)	76.9 (14.3)

* p <.05

Main effects

ⱽ Children produced longer samples in the narrative retell condition, containing longer utterances and a lower percentage of maze words.

ⱽ There was a significant effect for age on MLTU derived in the story retelling condition, with MLTU increasing with age. No other effects for age were found.

ⱽ Significant correlations were found between elicitation conditions on MLTU and mazing behaviour
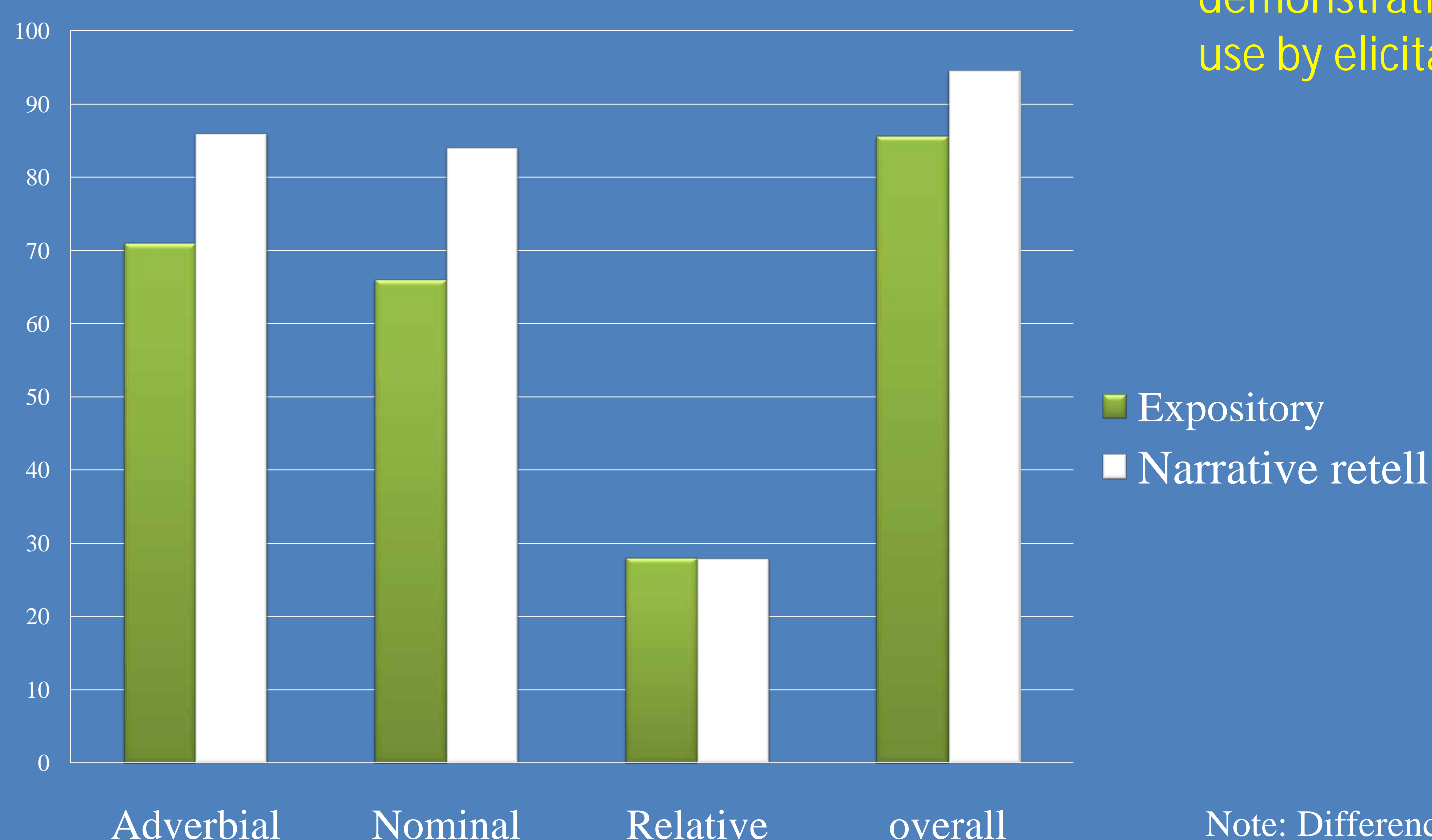

Dependent Clause Use

Figure 1: Percentage of children demonstrating dependent clause use by elicitation condition.

Legend: Expository, Narrative retell

Categories: Adverbial, Nominal, Relative, overall

Note: Differences are not statistically significant

Conclusion

• Both conditions are effective in eliciting text-level discourse in young school-aged children and can potentially be used in clinical practice.

• Children produced longer sentences, containing less maze words in the narrative retell condition.

• There were no significant differences in dependent clause use between the elicitation conditions.

• Future research should consider comparing children's performance in expository generation to their performance in narrative generation to further investigate the effects of discourse genre on children's syntactic language performance.

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