

# The Effects of Structured vs. Non-structured Language Sampling Methods on the Expressive Language Output of Children

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## Past Research

▪Bain, B.A., Olswang, L.B., & Johnson, G.A. (1992). Language sampling for repeated measures with language-impaired preschoolers: Comparison of two procedures. *Topics in Language Disorders, 12*(2), 13-27.

▪Evans, J.L., & Craig, H.K. (1992). Language sampling collection and analysis: Interview compared to freeplay assessment contexts. *Journal of Speech and Hearing Research, 35*, 343-353.

▪Longhurst, T.M. & File, J. J. (1977). A comparison of Developmental Sentence Scores from Head Start children in four conditions. *Language, Speech, and Hearing Services in Schools, 8*, 54-64.

## Purpose

To determine if there was a significant difference in expressive language output of preschool children as measured by the SALT-5.0 when elicited using a structured vs. non-structured sampling technique

## Subjects

- 22 normal preschool children
- from parochial school in IL
- Age Range: 4:1-5:6
- Scored within 1 SD of the mean
- of PPVT
- No primary mental or physical handicaps
- English native language
- Groups
  - Structured=12 subjects
    - (4 males, 8 females)
  - Non-structured=10 subjects
    - (3 males, 7 females)

## Language Sampling Procedures

- 2 Elicitation Methods
  - Structured & Non-Structured
- Researcher elicited the samples
- Environment-large visually stimulating, but quiet preschool classroom
- Sessions lasted 20 min. for each subject

## Structured Language Sampling

- Large picture posters & books were stimuli
- Asked open-ended questions (e.g., What's happening in this picture?)
- Clinician redirected subject back to book/picture when off topic

## Non-Structured Language Sampling

- Stimuli=Play doh, Fisher-Price toy farm, & plastic bugs
- Children talked about anything they wanted
- Followed child's topic lead and engaged in play with them

## Measures

- SALT-5.0
  - MLU
  - TTR
  - Number of Different Words
  - Balance of talk time between clinician & client
- Amount of time required to obtain 100 complete & intelligible utterances

## Results

Means & Standard Deviations for MLU, TTR, Number of Different Words, & Mean Turn Length

Elicitation Methods		MLU	TTR	NDW	Mean Turn Length
Structured	Mean	5.80	.43	103	6.26
	SD	1.29	.04	19	3.08
Non-Structured	Mean	5.36	.44	100	6.17
	SD	1.01	.03	21	1.54

Means & Standard Deviations for Elicitation Time

Elicitation Method		Elicitation Time
Structured	Mean	12 min. 46 sec.
	SD	2 min. 8 sec.
Non-Structured	Mean	14 min. 23 sec.
	SD	3 min. 44 sec.

Results of ANOVA for MLU, TTR, Number of Different Words, & Mean Turn Length

Measures		Sum of Squares	df	Mean Square	f	Significance
NDW	Between Groups	60.606	1	60.606	.152	.701
	Within Groups	7974.167	20	398.708		
	Total	8034.773	21			
MLU	Between Groups	1.079	1	1.079	.782	.387
	Within Groups	27.616	20	1.381		
	Total	28.696	21			
TTR	Between Groups	.000	1	.000	.241	.629
	Within Groups	.023	20	.001		
	Total	.024	21			
Mean Turn Length	Between Groups	.047	1	.047	.007	.932
	Within Groups	125.944	20	6.297		
	Total	125.991	21			

Results of ANOVA for Elicitation Time

Measures		Sum of Squares	df	Mean Square	f	Significance
Elicitation Time	Between Groups	515533.673	1	51533.673	1.627	.217
	Within Groups	633479.60	20	31673.980		
	Total	685013.27	21			

## Results Summary

- No statistically significant difference was found between the structured & non-structured groups for MLU, number of different words, TTR, or mean turn length.
- No statistically significant difference was found between the structured & non-structured groups for the elicitation time required to obtain 100 complete & intelligible utterances

## Discussion

- Relationship to Past Research
  - Results disagreed with Bain et al. (1992), who found that a free-play situation was better than joint action routines.
  - Results also disagreed with Longhurst & File (1971), who found that a least structured conversational context resulted in better Developmental Sentence Scores than multi-object pictured, single-object picture, or toy conditions.
  - Results agreed with Evans & Craig (1992), which indicates that both a structured & non-structured condition can elicit a diverse vocabulary.
- Clinical Implications
  - It is beneficial to incorporate a structured or non-structured task when eliciting a language sample from a preschool age child.
  - However, a non-structured language sampling condition may be more beneficial
    - Subjects seemed to enjoy this condition more than the structured condition.
    - The non-structured interaction style was more comfortable for the clinician & the client.
    - Subjects seemed to attend better for the entire 20 min. when a non-structured sampling context was used & less redirections were required by the clinician.