Dr. Christelle Maillart – Universite de Liege
Dr. Christophe Parisse – Universite de Paris X
Dr. Jodi Tommerdahl – University of Texas in Arlington

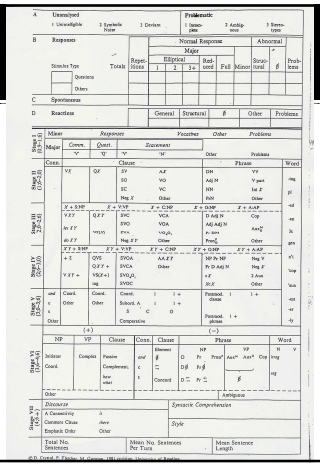
F-LARSP

French - Language Assessment Remediation and Screening Procedure

- Crystal, Garman and Fletcher, 1976
- A linguistic profile: used by researchers and clinicians to carry out "comprehensive and consistent linguistic analysis" (Ball, 1999); more specifically a detailed analysis of the grammar and morphology of children's spontaneous language samples

- The profile was developed in a manner that allows the user to clearly see the child's grammatical strengths and weaknesses in relation to their chronological age.

- This is made possible by the notion that the order in which syntactic structures are acquired is relatively stable, at least until the approximate age of 5.

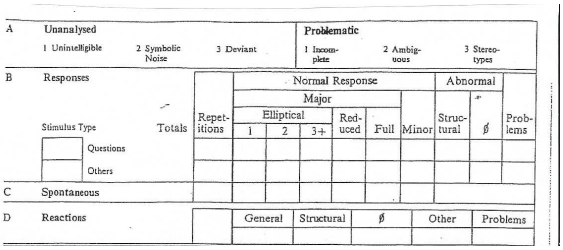


- Carrying out a full LARSP consists of seven consecutive steps including (i) sampling, (ii) transcription, (iii) grammatical analysis, (iv) structure count, (v) pattern evaluation, (vi) statement of remedial goals, and (vii) statement of remedial procedures (Crystal, et al. 1976).

- The authors suggest collecting a sample for approximately 30 minutes split between natural play and discussion of experiences outside of the immediate surroundings in order to record at least 50 utterances.

- Areas at the top of the chart exist for recording information such as stimulus and response types, major and minor sentences, and problematic productions.

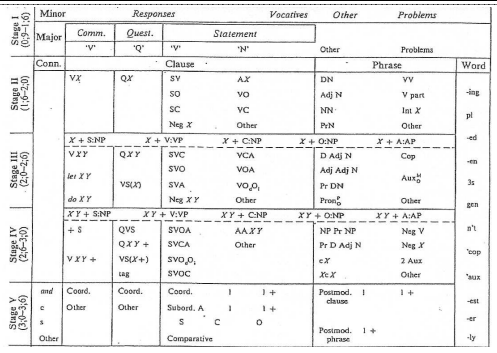
TOP SECTIONS



EXAMPLES

- Symbolic noise (siren noise)
- Deviant (there my is washing man)
- Incomplete (man is)
- Ambiguous (man – car)
- Stereotypes (how do you do)

MIDDLE SECTIONS



AGE DIVISIONS

- Stage 1 0;9 – 1;6
- Stage 2 1;6 – 2;0
- Stage 3 2;0 – 2;6
- Stage 4 2;6 – 3;0
- Stage 5 3;0 – 3;6

STAGE 1 0;9 – 1;6

- Stage I allows single word utterances to be placed into the categories of *verb*, *noun*, *verb* (command form), *question word*, *other*, or *problem*. It is accepted that the child might not yet have a clear notion of what nouns and verbs represent, but that they are nonetheless to be placed in the nearest adult-like categories.

STAGE 2 1;6 – 2;0

- chart splits into the clause level and phrase level
- Clause level based on any combination of two of the five possible clause elements: *subject*, *verb*, *object*, *complement* and *adverbial*.
- Phrase level shows two-part combinations of phrase elements. Some examples include the combinations of determiner and noun (*DN*), adjective and noun (*Adj N*) and a verb followed by a particle (*V part*).

STAGE 3 2;0 – 2;6

- Stage III is reserved for three-element utterances. At the clause level, this might consist of combinations such as SVA or SVO.
- At the phrase level, along with three-part combinations such as determiner, adjective and noun (*D Adj N*) or preposition, determiner and noun (*Pr DN*), are the copular, the auxiliary, and the use of pronouns.

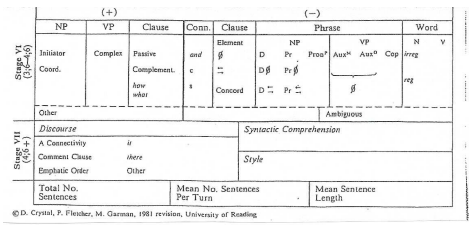
STAGE 4 2;6 – 3;0

- Four clause level elements such as SVOA or SVOO
- QVS - question word introducing an inverted subject and verb such as *where my daddy going*
- Phrase level includes four element items such as preposition, determiner, adjective and noun (*Pr D Adj N*) such as *in the red car* along with shorter constructions such as double auxiliaries (*2 aux*) and two elements of phrase structure connected by a conjunction (XcX) such as *me and Billy*.

STAGE 5 3;0 – 3;6

- Stage V marks the beginning of recursion which allows for the development of longer, more complex sentences. Both coordinations and subordinations are shown at clause level V while phrase level shows both postmodifying phrases and clauses. Tag questions and the use of exclamatory patterns have their place here as well.

BOTTOM SECTIONS



STAGE 6 3;6 – 4;6

- "system completion" stage - refers to the notion that most language learning has taken place by this stage
- This stage splits the overall direction of the analysis between what the child *can* do, and errors.
- Errors specifically looked for include those related to pronoun usage (*Pron*), determiners (*Det*), irregular noun inflections (*N irreg*), modal verb (*Modal*), subject-verb agreement (*Concord*), and adverb positioning (*A position*).
- The positive side of the chart looks for the use of initiators (*I*), coordination within noun phrases (*Coord.*), and the use of the passive.

STAGE 7 4;6 +

- Stage VII considers that the language of a typically developing child is fluent and grammatically accurate. It therefore focuses on discourse structure, syntactic comprehension and style. The first of these includes elements such as mastery of intonation and the use of sentence-connecting words such as *however*. The second considers comprehension of sentences where the meaning is not obvious from its surface pattern, along with the use of structures such as puns. The category of style is for the notation of "stylistic idiosyncrasies" which develop as the child begins to have increased contact with speech outside of the family.

WORD COLUMN

- A column labelled 'word' is also present on the chart which lists morphological inflections in their acquired order. The list is base on Brown's seminal work (1973) and the structures are said to be developed throughout stages II to IV.

WORD COLUMN

-ing	eating	-er	bigger
pl	ducks	-ly	quickly
-ed	gave		
-en	given		
3s	it dances		
gen	Jon's bag		
n't	isn't		
'cop	he's nice		
'aux	he's eating		
-est	biggest		

EXAMPLE OF LARSP-ING

- 1. **The car drove behind the sun.**
- Clause level 3= SVA (subject, verb, adverbial)
- Phrase level 2= DN, 3 = PrepDN
- Word = -ed

CLINICAL USES

- Survey of morphosyntactic production useful as part of diagnostic battery
- Considering age norms
- 'Holes' in chart helpful for planning therapy
- Following longitudinal change

LARSP TRANSLATIONS

- DUTCH (Bol & Kuiken 1987)
- WELSH (Ball 1988)
- IRISH (Hickey 1990)
- PERSIAN (Samadi & Perkins 1998)

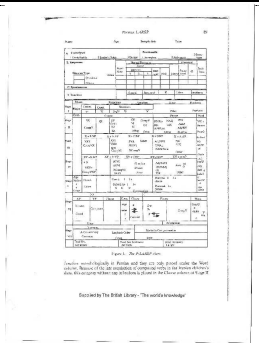
ABOUT THE WELSH LARSP

- similar arrangement on the page to the English LARSP
- The Welsh version also expands upon the original LARSP by developing a separate chart for morphology and a third for word-initial consonant mutations which although phonological, are triggered by conditions of syntax and morphology.

ABOUT THE IRISH LARSP

- similar arrangement on the page to the English LARSP
- Very little work had been done on Irish acquisition
- Based on acquisition of 4 children (1;4 – 3;6)
- SVO became VSO
- Expanded Word column
- No age ranges available

PERSIAN LARSP



ABOUT THE PERSIAN LARSP

- similar arrangement on the page to the English LARSP
- Mostly verb final language
- Pro-drop language (pronominal subjects may be omitted)
- Little known about early development of Persian
- Based on samples from 3 children
- No age columns available

ABOUT THE DUTCH LARSP

- Out of these four, only the Dutch version includes the guidelines of chronological age. This is due to the lack of information about normal syntactic development and/or the small sample size used in the adaptations of the three other versions.

DUTCH LARSP

- In contrast to this, the Dutch version does away with most of these boxes and also greatly slims the number of structures. This slimming down is an attempt to limit the structures used to those that "play a relevant role in the language development of pre-schoolers" and which are also used regularly.

DUTCH LARSP

- A positive point of the Dutch version is the authors' inclusion (based on Wells 1985) of the criteria used to arrive at the decision of whether a given structure should be included at a particular stage in the chart:
- the structure should be used by at least 50% of the population at one particular Stage;
- the median of the frequency with which a structure is used should have a value of at least 1.0

ORIGINS OF THE F-LARSP

- It all began at ICPLA (2006)
- Christelle Maillart and Christophe Parisse in the Dubrovnik hotel lobby
- University of Birmingham Grant
- Message on Linguist List – David Crystal and Martin Ball

Aims of the present study

- French Adaptation of the LARSP
- using an automatization of the LARSP procedure to speed up the assessement process by speech therapists

Participants

- 316 French-speaking children aged from 24 to 48 months
- All the productions were coded and analyzed with clan (Childes)
- Expert student LARSP-ers
  - Melanie Dumez
  - Cecile Vial

Procedure

*CHI: la maman
%mor: det|la n|maman

+ mor command (clan)

*CHI: mais ça c'est le petit garçon
%mor: conj|mais pro:dem|ça v:exist|c'est det|le adj|petit n|garçon

Procedure

+ New « Larsp » command constructed to detect sequences of grammatical categories

*CHI: la maman
%mor: det|la n|maman
%ctr: [1 CpxGrpN [2 iCpxGrpN [3 @DN [4 det|la N [5 n|maman 5] 4] 3] 2] 1]

*CHI: mais ça c'est le petit garçon
%mor: conj|mais pro:dem|ça v:exist|c'est det|le adj|petit n|garçon
%ctr: [1 SmpGrpN [2 @cXsmp [3 @Conj [4 conj|mais 4] PROI [4 @PronA [5 pro:dem|ça 5] 4] 3] 2] @ExpC_VC [2 VBs [3 v:exist|c'est 3] CpxGrpN [3 iCpxGrpN [4 @DAdjN [5 det|le AdjNum [6 adj|petit 6] N [6 n|garçon 6] 5] 4] 3] 2] 1

Procedure

+ New disambiguated « Larsp » command

*CHI: la maman
%mor: det|la n|maman
%ctr: [1 CpxGrpN [2 iCpxGrpN [3 @DN [4 det|la N [5 n|maman 5] 4] 3] 2] 1]
%ctx: @DN

*CHI: mais ça c'est le petit garçon
%mor: conj|mais pro:dem|ça v:exist|c'est det|le adj|petit n|garçon
%ctr: [1 SmpGrpN [2 @cXsmp [3 @Conj [4 conj|mais 4] PROI [4 @PronA [5 pro:dem|ça 5] 4] 3] 2] @ExpC_VC [2 VBs [3 v:exist|c'est 3] CpxGrpN [3 iCpxGrpN [4 @DAdjN [5 det|le AdjNum [6 adj|petit 6] N [6 n|garçon 6] 5] 4] 3] 2] 1
%ctx: @cXsmp @Conj @PronA @ExpC_VC @DAdjN

Results

Automatic processing of 81 features

Stage	Phrase	Clause
Stage 1	12	
Stage 2	8	6
Stage 3	12	6
Stage 4	17	4
Stage 5	2	

Expansions : 4 types (may be linked to each clause structure of stage 2, 3 or 4)
Words: 7 types
Other elements: 4

Processing the raw results

- There is more than one approach to determine which grammatical features are the most useful ones to describe and evaluate child language
  - Using the number of occurrences: the most frequent features are the most interesting ones
  - Looking for features produced at least one time by 75% of the children
  - Looking for features produced 3 times by 25% of the children

Number of occurrences

Stage	Features	Mean nb of occ in all children
3 phr	PronP (personal pronoun)	35
2 phr	DN (determiner noun)	27
Ext	ExpV (expansion of verb)	18
2 cl	SV (subject + verb)	17
Words	V (verb present form)	16
Others	Locatif	15
3 phr	Modal (modal auxiliary)	15
Words	v&INF (verb infinite form)	15
3 phr	PronA (non verbal pronouns)	14
Others	CO (communicators, exclamations)	12
2 phr	Quest (question)	11
Words	ModalINF (modal + infinitive)	10

Produced once by 75% of the children in 5 age ranges out of 9

Age	2;00	2;03	2;06	2;09	3;00	3;03	3;06	3;09	4;00
PrDN	18%	48%	81%	94%	93%	100%	97%	100%	100%
PrN	28%	48%	64%	94%	90%	91%	94%	97%	100%
SVA	50%	74%	89%	94%	95%	97%	94%	97%	94%
SVO	18%	45%	58%	81%	88%	94%	88%	100%	94%

- For PrN and SVO, in 6 age ranges out of 9, the criteria of 75% is met so the SVO information is used
- For PrDN and SVA, in 7 age ranges out of 9, the criteria of 75% is met so the SVO information is used

Children producing a feature at least once

Stage	Features	%of children
Others	Locative	96%
Words	V (verb present form)	96%
2 phr	DN (determiner noun)	95%
3 phr	PronA (non verbal pronouns)	94%
3 phr	PronP (personal pronoun)	93%
Words	v&INF (verb infinite form)	93%
Others	CO (communicators, exclamations)	93%
2 cl	AX (adverbial + anay other)	92%
2 cl	SV (subject + verb)	92%
Exp	ExpV (expansion of verb)	91%
Others	VC (verb + complement)	89%
Words	v&PP (past participle)	89%

Features produced at least 3 times by 25% of the children

- More strict criteria for each child: a feature produced 3 times is more clearly mastered by a child than a feature produced only once
- The criteria is very strict, so if 25% of the children match this criteria, this is probably a good criteria

features

Children producing a feature 3 times

Stage	Features	% of children
2 phr	DN (determiner noun)	92%
Others	Locative	89%
3 phr	PronP (personal pronoun)	88%
Words	V (verb present form)	87%
Words	v&INF (verb infinite form)	85%
3 phr	PronA (non verbal pronouns)	83%
2 cl	SV (subject + verb)	83%
Exp	ExpV (expansion of verb)	81%
2 cl	AX (adverbial + any other)	81%
Others	CO (communicators, exclamations)	80%
3 phr	Modal	76%
Words	v&PP (past participle)	74%

Caracteristic features

- All scales produced very similar results
  - Using the « produced once by 75% of the children », 30 features are interesting
  - Using the « produced three times once by 75% of the children », 40 features are interesting
- Grouping several Stage 4 features could be interesting

Stage	1	2P	2C	3P	3C	4P	4C	5P	Words	Exp	Other
1 + 75%	3	3	3	5	2	0	0	1	7	5	2
3 + 25%	4	3	3	7	2	3	0	2	7	5	4
All feat.	10	8	6	12	6	17	3	2	7	6	4

References

- Le Normand, M.T. (1986). A developmental exploration of language used to accompany symbolic play in young, normal children (2 - 4 years old). *Child : Care, Health and Development, 12, 121-34.*
- Parisse, C & Lenormand, M.T. (2006) Une méthode pour évaluation la production du langage spontané chez l'enfant de 2 à 4 ans. *Glossa*, 97, 21-41.

THANKYOU

LIEGE

ARLINGTON

BIRMINGHAM

PARIS

Produced once by 75% of the children in 5 age ranges out of 9

Age	2;00	2;03	2;06	2;09	3;00	3;03	3;06	3;09	4;00
Conj	5%	13%	36%	58%	75%	76%	71%	82%	78%
Cop	35%	45%	36%	67%	68%	68%	62%	70%	50%
DAdj N	3%	13%	22%	50%	45%	32%	38%	33%	50%
DN	48%	90%	89%	97%	100%	100%	100%	100%	100%

- For Cop and DN, in all age ranges, the criteria of 25% is met so these feature are used
- For Conj and DAdjN, in 7 and in 6 age ranges out of 9, the criteria of 25% is met so these feature are used

Relationship between stage and age

- Not a large difference between stage 2 and 3
- Not a large difference between stage 4 and stage 5 (but stage was insufficiently coded)

Stage Ph + Cl	2;00	2;03	2;06	2;09	3;00	3;03	3;06	3;09	4;00
1	30	28	21	14	15	22	14	11	12
2	19	39	54	93	96	104	107	115	104
3	14	38	52	97	114	133	141	142	140
4	3	7	6	14	15	19	17	19	19
5	1	2	3	8	12	15	18	19	21
Exp	5	14	23	46	51	60	58	63	59