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## Swedish profile - L2 research and teaching potential

Lindström Tiedemann, Therese

2021-05-31

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P17-0716:1

# Swedish Profile – L2 research and teaching potential

Research notes, NLP4CALL (31 May 2021)

Therese Lindström Tiedemann\*, Yousuf Ali Mohammed<sup>1</sup>, Elena Volodina<sup>1</sup>

\*=University of Helsinki, <sup>1</sup>= University of Gothenburg



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# “L2profiles”

## Development of Lexical and Grammatical Competences in Immigrant Swedish



UNIVERSITY OF GOTHENBURG

SPRÅKBANKENTEXT



### Project financed by

Riksbankens jubileumsfond (2018–2020 (2021)) P17-0716:1

<https://rj.se/anslag/2017/development-of-lexical-and-grammatical-competences-in-immigrant-swedish/>

### Collaboration:

Swedish language, University of Gothenburg “Nordica”,  
Dept of Finnish, Finno-Ugric and Scandinavian Studies,  
University of Helsinki

PI: Elena Volodina, Gothenburg

Homepage: <https://spraakbanken.gu.se/en/projects/l2profiles>



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# Inspired by other profiles...

## English Vocabulary Profile Online - British English


Topic

Hide cultur

# English Grammar P

Level


PEARSON ENGLISH > Global Scale of English > GSE Teacher Toolkit



**ELTons**  
Awards for innovation in  
English language teaching  
**2020**  
18<sup>th</sup> YEAR  
**Finalist**  
Innovation in  
Teacher Resources

### GSE Teacher Toolkit

Let the Global Scale of English (GSE) save you time and improve the quality and relevance of your English classes. The GSE Teacher Toolkit makes it quick and easy to find learning objectives, grammar, vocabulary and coursebook recommendations all mapped to the GSE and CEFR.



Play Overview

### Choose category

- Learning Objectives
- Grammar
- Vocabulary**
- Text Analyzer

Who are you teaching?

Choose Learner

Choose a range on the GSE / CEFR

< A1   A1   A2   A2+   B1   B1+   B2   B2+   C1   C2

10   22   30   36   43   51   59   67   76   85   90

Choose Topic

Grammatical Category

Filter search results with an exact word



# Swedish (L2) Profile

– research, learning, teaching, assessment...

Exercise Generator

Tools

Experimental prototypes

Swedish Profile



<https://spraakbanken.gu.se/larkalabb/svlp>

Language Acquisition Reusing **Korp**

Lexical profile

Grammatical profile

Morphological profile

# Browse, download, link to corpus data

Exercise Generator

Tools

Experimental prototypes

Swedish Profile



Language Acquisition Reusing

Exercise Generator

Tools

Experimental prototypes

Swedish Profile



Language Acquisition Reusing **Korpus**

**Grammatical profile**  
still missing – ideas?

Lexical profile

Gram

Adjectival Declension

Adjectival Adverbial Structure

Multi Word Expression

Sen\*Lex

Lexical profile

Grammatical profile

Morphological profile

Word Family

Morpheme Family



LÄR språket via **Korpus** Analys

Lexical profile

Grammatical profile

Morphological profile

## Sen\*Lex

Search word

alltid

WordClass

Saldo WordClass

Nominal declension

Nominal gender

Verbal conjugation

A1

A2

B1

B2

C1

Table View

Graphical View

Statistical View

Download

Clear All

Only first occurrence

Total rows: 6

CEFR ↕	Word ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	Receptive ↕	Productive ↕
A1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	21	3
A2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	56	37
B1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	33
B2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	27
C1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	130	34
C2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	0	3



LÄR språket via **Korpus** Analys

Lexical profile

Grammatical profile

Morphological profile

## Sen\*Lex

Search word

alltid

WordClass

Saldo WordClass

Nominal declension

Nominal gender

Verbal conjugation

A1

A2

B1

B2

C1

Table View

Graphical View

Statistical View

Download

Clear All

Only first occurrence

Which levels?

Total rows: 6

CEFR ↕	Word ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	Receptive ↕	Productive ↕
A1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	21	3
A2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	56	37
B1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	33
B2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	27
C1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	130	34
C2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	0	3

Lexical profile
Grammatical profile
Morphological profile

## Sen\*Lex

Search word: 
 WordClass: 
 Saldo WordClass: 
 Nominal declension: 
 Nominal gender: 
 Verbal conjugation:

A1
A2
B1
B2
C1

Table View
Graphical View
Statistical View
Download
Clear All

Only first occurrence

Which levels?

How often?  
Receptively vs productively

Total rows: 6

CEFR ↕	Word ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	Receptive ↕	Productive ↕
A1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	21	3
A2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	56	37
B1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	33
B2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	27
C1	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	130	34
C2	alltid	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	0	3

Lexical profile
Grammatical profile
Morphological profile

### Sen\*Lex

Search word: 
 WordClass: 
 Saldo WordClass: 
 Nominal declension: 
 Nominal gender: 
 Verbal conjugation:

A1
A2
B1
B2
C1

Table View
Graphical View
Statistical View
Download
Clear All

Only first occurrence

Total rows: 6



Which levels?

How often?  
 Receptively vs productively

CEFR ↕	Word ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	Receptive ↕	Productive ↕
A1	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	21	3
A2	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	56	37
B1	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	33
B2	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	96	27
C1	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	130	34
C2	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)		3

Link to corpus hits

# Only first level of occurrence

**LARKA**    
LÄR språket via [Korpus Analys](#)

Lexical profile   Grammatical profile   Morphological profile

### Sen\*Lex

Search word:    WordClass:    Saldo WordClass:    Nominal declension:    Nominal gender:    Verbal conjugation:

A1   A2   B1   B2   C1   Table View   Graphical View   Statistical View   Download   Clear All

Only first occurrence

Total rows: 1

CEFR ↕	Word ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	Receptive ↕	Productive ↕
A1	<a href="#">alltid</a>	alltid..ab.1	alltid..1	Adverb (AB)	adverb (ab)	21	3

If you only want to see the first level of occurrence – check this box.

# Teach / research L2 writing → subordinations?

[Lexical profile](#)
[Grammatical profile](#)
[Morphological profile](#)

## Sen\*Lex

A1 A2 B1 B2 C1
Table View Graphical View Statistical View Download Clear All

Only first occurrence

Total rows: 13

CEFR ↕	Word ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	Receptive ↕	Productive ↕
A1	att	att..sn.1	att..1	Infinitive marker (IE)	subjunction (sn)	31	5
A1	att	att..sn.1	att..1	Subjunction (SN)	subjunction (sn)	28	8
A1	eftersom	eftersom..sn.1	eftersom..1	Subjunction (SN)	subjunction (sn)	1	0
A1	innan	innan..sn.1	innan..1	Subjunction (SN)	subjunction (sn)	4	1
A2	tills	tills..sn.1	tills..1	Subjunction (SN)	subjunction (sn)	5	0
B1	än	än..sn.1	än..2	Subjunction (SN)	subjunction (sn)	4	0



# Teach / research L2 writing → subjunctions?

Lexical profile Grammatical profile Morphological profile

Sen\*Lex

Search word WordClass Saldo WordClass subjunction (sn) Nominal declension Nominal gender Verbal conjugation

A1 A2 B1 B2 C1 Table View Graphical View Statistical View Download Clear All

Only first occurrence

Total rows: 13

CEFR ↓↑	Word ↓↑	Lemgram ↓↑	Sense ↓↑	WordClass ↓↑	Saldo WordClass ↓↑	Receptive ↓↑	Productive ↓↑
A1	att	att..sn.1	att..1	Infinitive marker (IE)	subjunction (sn)	31	5
A1	att	att..sn.1	att..1	Subjunction (SN)	subjunction (sn)	28	8
A1	eftersom	eftersom..sn.1	eftersom..1	Subjunction (SN)	subjunction (sn)	1	0
A1	innan	innan..sn.1	innan..1	Subjunction (SN)	subjunction (sn)	4	1
A2	tills	tills..sn.1	tills..1	Subjunction (SN)	subjunction (sn)	5	0
B1	än	än..sn.1	än..2	Subjunction (SN)	subjunction (sn)	4	0

A1 already 3 (4) subjunctions but mainly 2 in production

## Check corpus hits... (subjunction *att*) – course books (A1)

COCTAILL

Hur tror du **att** statistiken ser ut idag?

Den andra antecknar och kontrollerar sedan **att** det är rätt.

Nobel ville **att** man skulle starta en fond av hans pengar och dela ut ett stort pris i hans namn till olika forsk

- Jaså, jag trodde **att** du var på konferens i Bryssel.

Nja, jag tror **att** A är Sukanya.

Jag tror **att** A är Arne.

Nej, jag tror **att** hon / han har en / ett... i väskan.

Men jag drömde ofta om **att** hon fick det, när jag var barn.

Jag tror **att** hon / han har en / ett... i väskan.

Det betyder **att**

Hanna tycker **att** Emil är snygg och hon tänker ofta på honom.

STINA: Halva priset betyder **att** man får 50

Hanna: Ursäkta **att** jag kommer för sent.

**Receptive** –  
this is the kind of  
*att* they read in  
course books and  
should  
understand.

# Check corpus hits... (subjunction *att*) – L2 essays

## Normlike usage subjunction

(5/5 = 100 %) with *säga* 'say', *betyda* 'mean', *se* 'see'...

SPIN (stödjer ej utökad kontext)

Hon sa **att** Hon måste röntga han den.

Det betyder **att** man tar ett foto där man kan se skelettet.

till slut sa hon **att** hon måste dra ut en tand.

vi ska träffa mina kompisar i centralstationen vi tycker om **att** fotboll och spela vi hem och där drickervi te.

Det var \$\$\$\$ som är min kompis De kära NN men NN vet inte NN Han ser **att** NN bratta en andra kller.

Han säga till henne **att** NN k\$r med honnom.

*för att* missing finite verb

Jag älskar sverige för **att** folken Jättesnäll.

Jag vill **att** bor i svergie till alltid.

## Production – learner usage:

Most *att*-subjunctions are normlike, some not and might not even be subjunctions even...

*Jag vill **att bor** i svergie till alltid.* (infinitival marker + Present tense)

I want to live.PRES in Sweden (sic.) to (sic.) always.

'I want to live in Sweden forever.'

## Inf. marker usage:

- Missing verb
- With present tense

## Check corpus hits... (subjunction *att*) – L2 essays

### Normlike usage subjunction

(5/5 = 100 %) with *säga* 'say', *betyda* 'mean', see 'see'...

SPIN (stödjer ej utökad kontext)

Hon sa **att** Hon måste röntga han den.

Det betyder **att** man tar ett foto där man kan se skelettet.

till slut sa hon **att** hon måste dra ut en tand.

rvi te.

### Production – learner usage:

Most *att*-subjunctions are normlike, some not and might not even be subjunctions...

*Jag vill **att bor** i Sverige till alltid.* (infinitival marker + Present tense)

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## Check corpus hits... (subjunction *att*) – L2 essays

### Normlike usage subjunction

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till slut sa hon **att** hon måste dra ut en tand.

vi ska träffa mina kompisar centralstationen vi tycker om **att** fotboll och spela vi hem och där drickervi te.

**Help teachers plan their teaching** – start with the easy, how to increase input regarding more difficult usage.

**Help researchers find out more** – development, input, production

**Help assessors design tests**

**Help course book writers design materials**

**ICALL exercises** – level progression according to difficulties

verb  
ense



Language Acquisition Reusing **Korp**

# Morphological profile – morpheme family

Lexical profile

Grammatical profile

Morphological profile

Based on **manual annotation** –  
for more information:  
**CoDeRoMoor presentation**,  
Wednesday

## Swedish Morpheme Family

Enter Morpheme  
ande

Search word

Identifier

WordClass

Saldo WordClass

WordFormation

A1 A2 B1 B2 C1

Table View

Graphical View

Statistical View

Download

Clear All

Add real root column  Only first occurrence

Total rows: 182

Morpheme ↕	CEFR ↕	Identifier ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	WordFormation ↕	Receptive ↕	Productive ↕
ande	A2	Suffix	<a href="#">äganderätt..nn.1</a>	äganderätt..1	Noun (NN)	noun (nn)	Compound	1	0
ande	A2	Suffix	<a href="#">högstjudande..av.1</a>	högstjudande..1	Participle (PC)	adjective (av)	Derivation	2	0
ande	A2	Suffix	<a href="#">sökande..nn.1</a>	sökande..1	Noun (NN)	noun (nn)	Derivation	1	0



Language Acquisition Reusing **Korp**

# Morphological profile – word family

Lexical profile

Grammatical profile

Morphological profile

## Swedish Word Family

Select root

lär

Search word

WordClass

Saldo WordClass

WordFormation

A1

A2

B1

B2

C1

Table View

Graphical View

Statistical View

Download

Clear All

Only first occurrence

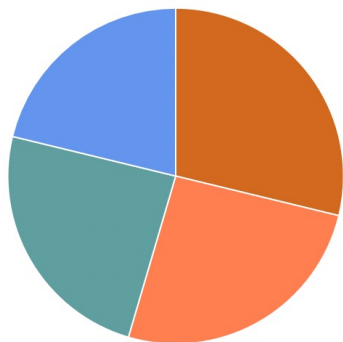
Total rows: 29

Root ↕	CEFR ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	WordFormation ↕	Receptive ↕	Productive ↕
lär	A1	<a href="#">lärare..nn.1</a>	lärare..1	Noun (NN)	noun (nn)	Derivation	34	21
lär	A2	<a href="#">svensklärare..nn.1</a>	svensklärare..1	Noun (NN)	noun (nn)	Compound	2	0
lär	A2	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	verb (vb)	Root lexeme	26	23
lär	A2	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	verb (vb)	Root lexeme	26	23

# Word family *lär-* learn

## WordFormation

Mainly compounds, but rare in production



Compound Derivation Lexicalized form Root lexeme

WordFormation	Receptive	Productive
Compound	18	1
Derivation	16	7
Lexicalized form	14	9

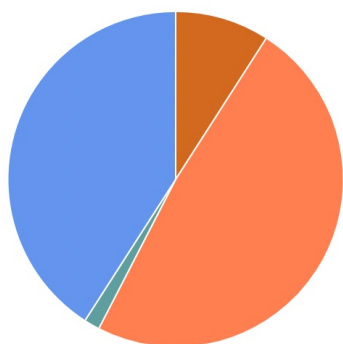
Number of triplets:  
Lemgram + sense + POS

All occurrences

## WordClass

**Receptive:**  
mainly nouns

**Productive:**  
mainly verbs  
(21) – MWEs



Adjective (JJ) Noun (NN) Participle (PC) Verb (VB)

WordClass	Receptive	Productive
Adjective (JJ)	5	1
Noun (NN)	31	7
Participle (PC)	1	0



# Most common receptive uses per level... (1st occurrence)

Root ↕	CEFR ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	WordFormation ↕	Receptive ↕	Productive ↕
lär	A1	<a href="#">lärare..nn.1</a>	lärare..1	Noun (NN)	noun (nn)	Derivation	34	21
lär	A2	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	verb (vb)	Root lexeme	26	23
lär	A2	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	verb (vb)	Root lexeme	26	23
lär	A2	<a href="#">lära_sig..vbm.1</a>	lära_sig..1	Verb (VB)	multiword verb (vbm)	Lexicalized form	23	15
lär	C1	<a href="#">språkinläring..nn.1</a>	språkinläring..1	Noun (NN)	noun (nn)	Compound	6	0
lär	C1	<a href="#">formlära..nn.1</a>	formlära..1	Noun (NN)	noun (nn)	Compound	3	0
lär	C1	<a href="#">lära_ut..vbm.1</a>	lära_ut..1	Verb (VB)	multiword verb (vbm)	Lexicalized form	3	0
lär	B2	<a href="#">lärdom..nn.1</a>	lärdom..1	Noun (NN)	noun (nn)	Derivation	3	0

Most common words on A1 and A2 level, in **both receptive and productive**.

Derivation, root lexeme (A1–A2)  
Nouns and verbs

# Most common receptive uses per level... (all occurrences)

Only first occurrence

Total rows: 66

Root ↕	CEFR ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	WordFormation ↕	Receptive ↕	Productive ↕
lär	C1	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	Verb (vb)	Root lexeme	159	29
lär	C1	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	Verb (vb)	Root lexeme	159	29
lär	C1	<a href="#">lära_sig..vbm.1</a>	lära_sig..1	Verb (VB)	Multiword verb (vbm)	Lexicalized form	128	25
lär	B1	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	Verb (vb)	Root lexeme	94	25
lär	B1	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	Verb (vb)	Root lexeme	94	25
lär	B2	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	Verb (vb)	Root lexeme	90	38
lär	B2	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	Verb (vb)	Root lexeme	90	38
				Verb (VB)	Multiword verb (vbm)	Lexicalized form	73	28
				Verb (VB)	Multiword verb (vbm)	Lexicalized form		
				Noun (NN)	Noun (nn)	Derivation		

Most frequent triplet (per level) receptively *lära* 'learn' on C1-level.

Most common triplets (per level) **root lexemes**

# Most common productive uses per level (all occurrences)

Only first occurrence

Total rows: 66

Root ↕	CEFR ↕	Lemgram ↕	Sense ↕	WordClass ↕	Saldo WordClass ↕	WordFormation ↕	Receptive ↕	Productive ↕
lär	A2	<a href="#">lärare..nn.1</a>	lärare..1	Noun (NN)	Noun (nn)	Derivation	65	49
lär	B2	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	Verb (vb)	Root lexeme	90	38
lär	B2	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	Verb (vb)	Root lexeme	90	38
lär	C1	<a href="#">lära..vb.1</a>	lära..3	Verb (VB)	Verb (vb)	Root lexeme	159	29
lär	C1	<a href="#">lära..vb.1</a>	lära..1	Verb (VB)	Verb (vb)	Root lexeme	159	29
lär	B2	<a href="#">lära_sig..vbm.1</a>	lära_sig..1	Verb (VB)	Multiword verb (vbm)	Lexicalized form	73	28
lär	C1	<a href="#">lära_sig..vbm.1</a>	lära_sig..1	Verb (VB)	Multiword verb (vbm)	Lexicalized form	128	25

## Swedish profile – providing possibilities...

Teaching

Learning

Assessment

Research

- User-friendly enough?
- Something missing?
- ICALL exercises based on the material need to be explored.

Underway:  
L2 Swedish  
development

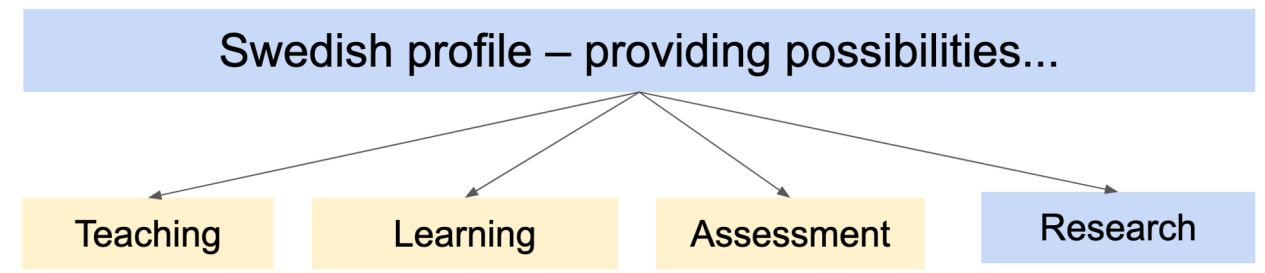
Word / morpheme  
families

Morphological  
complexity

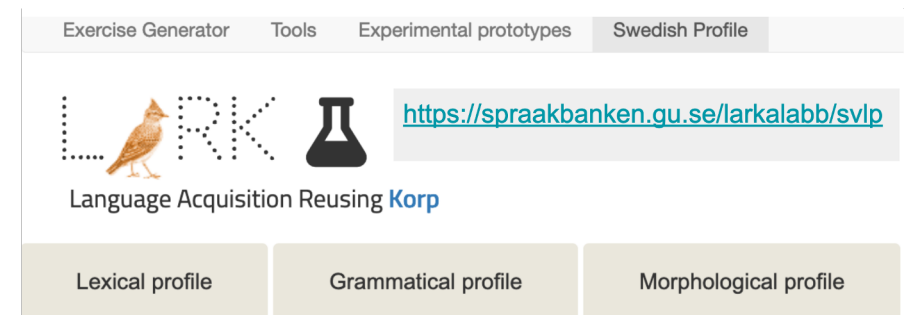
# Discussion:

## What to add under the Grammatical profile?

- We have ideas, plans, ongoing work on various issues.
- Most important?
- Most useful?





- Other ideas for *Swedish Profile*?



# Swedish Profile

Exercise Generator Tools Experimental prototypes Swedish Profile

  <https://spraakbanken.gu.se/larkalabb/svlp>

Language Acquisition Reusing **Korp**

Lexical profile Grammatical profile Morphological profile

<https://spraakbanken.gu.se/larkalabb/svlp>

Test during NODALIDA: “**nlp4call**”

Research notes, NLP4CALL (31 May 2021)

Therese Lindström Tiedemann\*, Yousuf Ali Mohammed<sup>1</sup>, Elena Volodina<sup>1</sup>



# CoDeRoMoor – NODALIDA presentation (Wednesday)

Morphology also available as downloadable dataset

More information about annotation and the dataset → Nodalida, Wednesday presentation

09:25-09:50 CoDeRooMor: A new dataset for non-inflectional morphology studies of Swedish.  
Elena Volodina, Yousuf Ali Mohammed and Therese Lindström Tiedemann.

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