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Experiment on word intelligibility

Experiment

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- > Internet-based experiment including 7 test-languages
- > testing the intelligibility of isolated words


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Research questions

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- > Do intelligibility scores differ for **written** vs. **spoken** words?
- > Do intelligibility scores differ between **cognates** and **non-cognates**?
- > Do intelligibility scores differ between **inherited** words and **loan** words (of different origin)?
- > How does **linguistic distance** affect word intelligibility?
- > Do **specific sounds** make it easier or more difficult to understand words?
- > Do subjects make specific mistakes frequently?
- > Do intelligibility scores differ with respect to subject groups, e.g. age-groups, geographic origin...
- > etc.


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Languages

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- > Dutch
- > Frisian
- > Standard High German
- > Low German
- > Danish
- > Swedish
- > Norwegian




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Materials

Database

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2575 words which are highly frequent in spoken language

- > Formal speech:
 - Monologues in the European parliament
- > Informal speech:
 - Dialogues from the Corpus Gesproken Nederlands (CGN, Corpus of Spoken Dutch)

Translated to all languages


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Database

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Annotation

- > **word class**
- > **pronunciation** (phonetic transcription)
- > **origin** (inherited word or loan word)
- > for loan words: **direct origin, initial origin, and point of time** when the word entered the language
- > **cognate or non-cognate**

Test words

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- 384 nouns
- > randomly selected from the database
- > recorded from male speakers of the 7 languages

Experiment

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Subjects

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- > high school pupils
- > 15-19 years
- > (in principle) no prior knowledge of the test language (except for German)
- > native speakers
- > in total more than 1000 subjects

- > <http://www.let.rug.nl/lrs>
- > login: germanic
- > password: guest

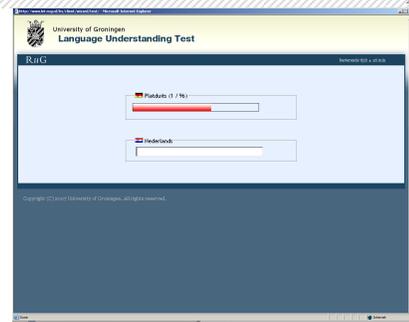
Design

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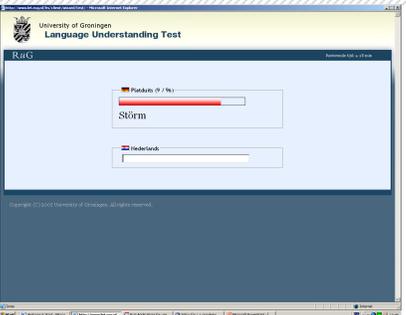
Proefpersoon	Test language						
	Danish	Norwegian	Swedish	Dutch	Frisian	High German	Low German
Danish		X	X	X	X	X	X
Norwegian	X		X				
Swedish	X	X					
Dutch	X					X	X
Frisian	X						
High German	X	X	X	X	X		X
Low German	X			X			

Listening task

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Reading task



University of Groningen
Language Understanding Test

RUG

Plaatjes 0 / 10
80%

Hidetool

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Results by now

- › LRS-website

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Extracting data from the LRS (Language Research System)

- › Sebastian Kürschner, s.kurschner@rug.nl

LRS: Two interfaces

- › Participant interface
 - URL: <http://www.let.rug.nl/lrs/client/index/>
- › Administrative interface
 - <http://www.let.rug.nl/lrs/admincp/login/>
 - Login on your user's manual

Exercise 1 and 2

- › Exercise 1: Login and read the first page of the user's manual. Try which information you can access when you click on the links in the left menu.
- › Exercise 2: The page "Deviating translations" has been added later on and is therefore yet undocumented in the user's manual. Open the site and select a combination of languages which you find interesting. Only encounter the first five columns. What information do you get? Which tasks would you likely need this information for?

Export: Exercise 3

- › Exercise 3: Read the manual for the Export-site. Then try the "example query" (under 3. in the manual).
- › **ATTENTION: Do not use the filters "score_listen" and "score_read" at the moment, because an unresolved programming mistake has manipulated these numbers. For the moment, use the average values in the export-file instead.**

Groups

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When doing the following exercises, keep in mind that for some language combinations only a few subjects have participated yet. Since a lot of Danish subjects have participated, it is always a good choice to look for their results.

Build groups of two persons each for the following tasks.



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