

Multilingual speech tests in several European countries

Validation and cross-language comparison

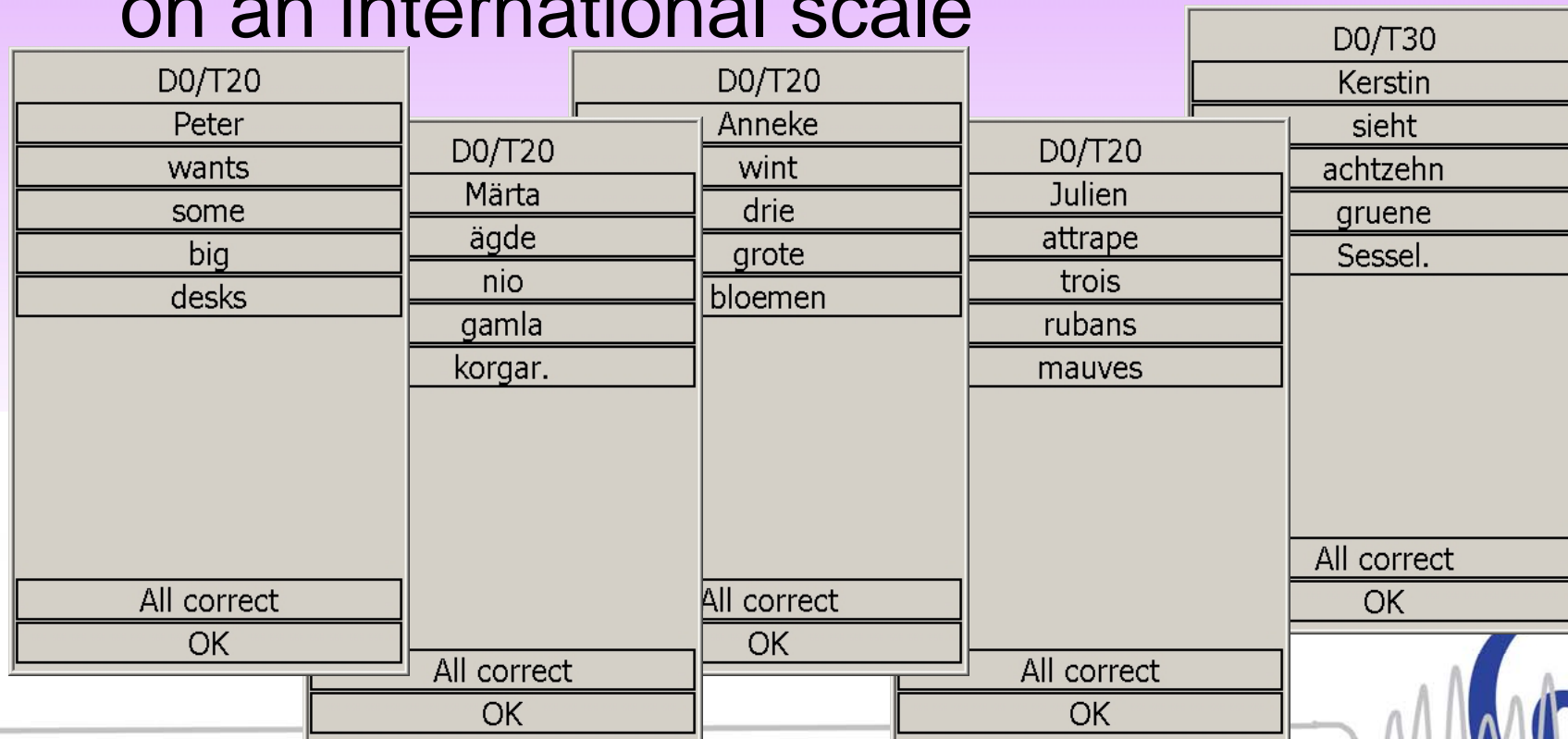
K. Wagener, Hörzentrum Oldenburg

Workshop Hearing Screening and Technology, Brussels 28 January 2009



Aim of HearCom/Speech tests

- Obtain similar results across test sites also on an international scale



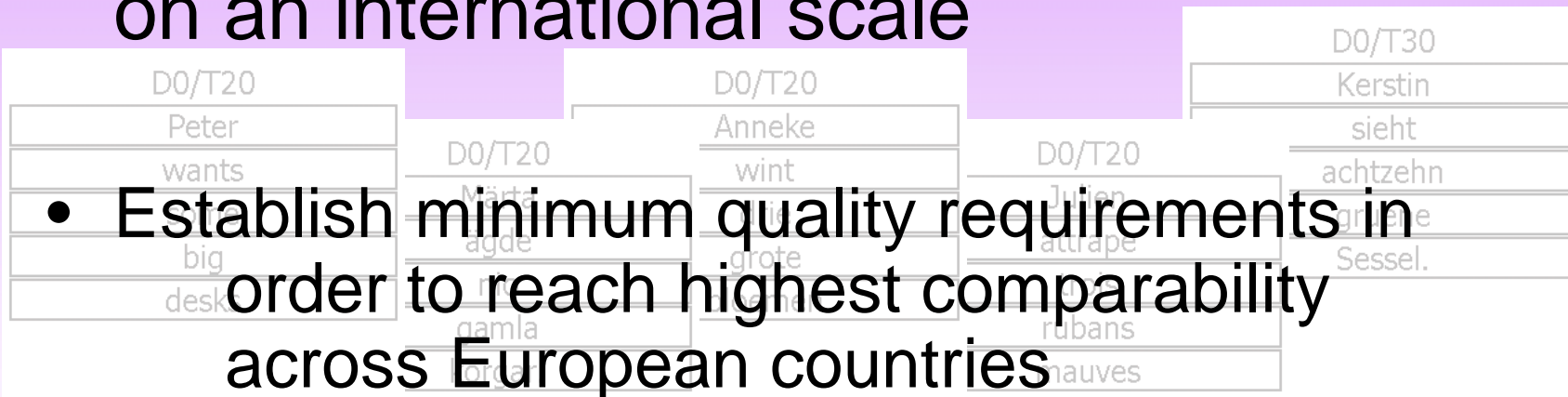
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Aim of HearCom/Speech tests

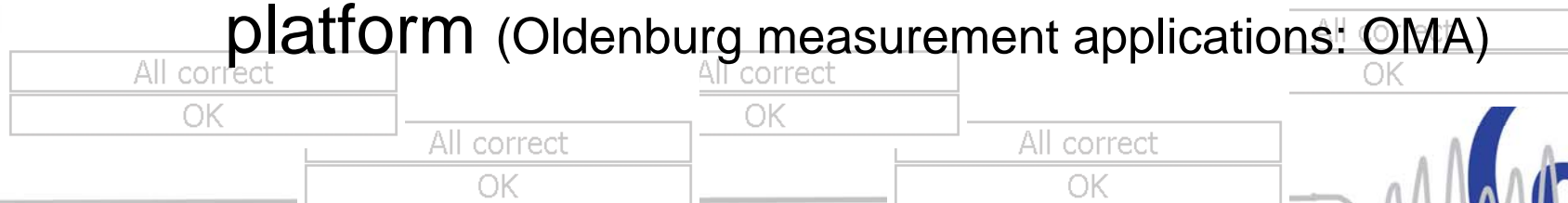
- Obtain similar results across test sites also on an international scale

• Establish minimum quality requirements in order to reach highest comparability across European countries



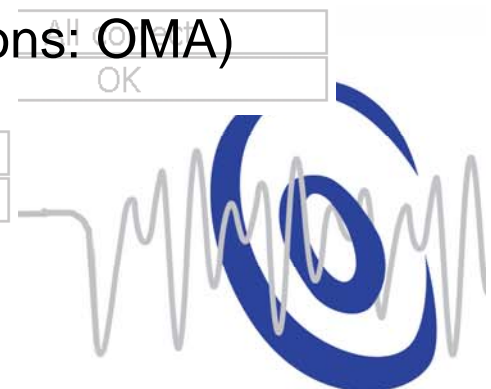
The diagram illustrates overlapping speech test boxes from different countries. Each box contains a name and a sentence in a different language. The boxes are labeled with 'D0/T20' or 'D0/T30'. The text visible includes: Peter wants big desk; Kerstin sieht achtzehn große Sessel.; Anneke wint grote; and others in various languages like 'Närta', 'Julien', 'gamla', 'rubans', 'mauves', 'grosse', 'attrape', 'Sessel.', 'grote', 'wint', 'rubans', 'mauves'.

- Implement tests on common measurement platform (Oldenburg measurement applications: OMA)



The diagram shows overlapping boxes, each containing the text 'All correct OK'. This represents successful test results across different sites. A large blue '@' symbol is overlaid on the right side of the diagram.

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Plomp type sentences

Matrix sentences

'Father forgot
the bread.'

'Peter bought six
new pencils.'



,1-3-8'

Digit triplets

Digit triplet tests

- Screening test speech in noise



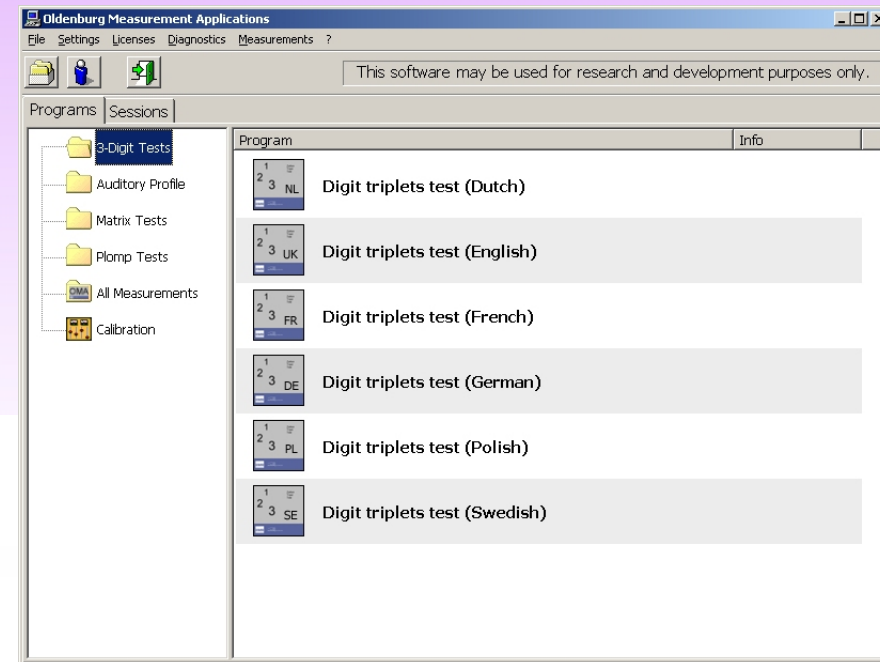
Headphones



Telephone

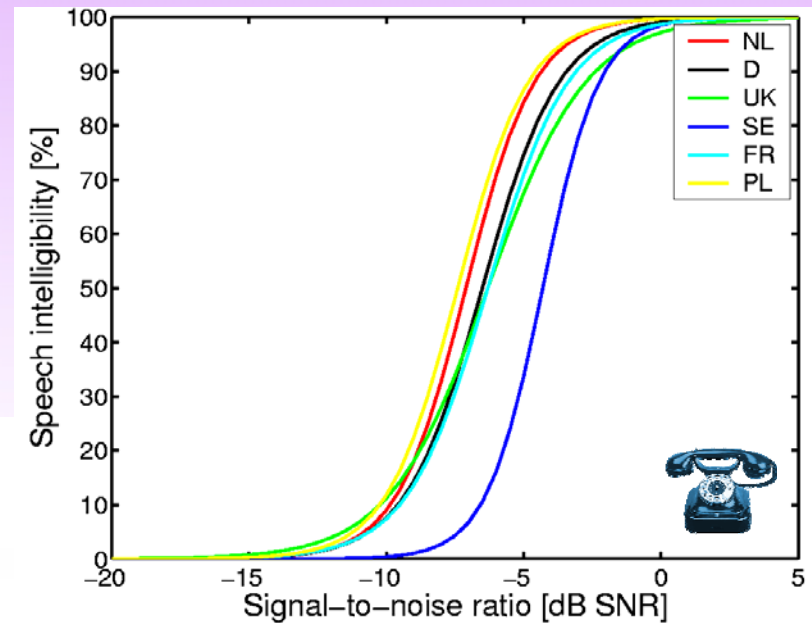
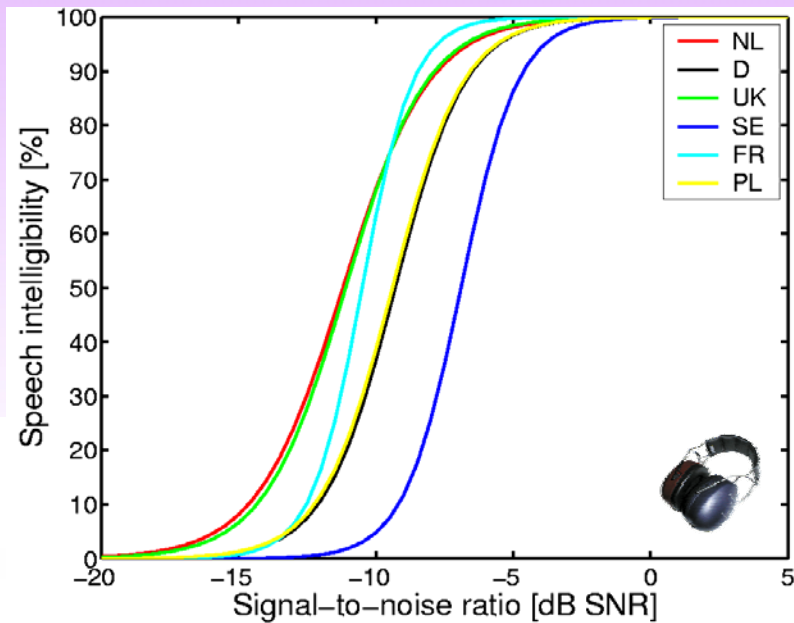


Internet www.hearcom.eu



Digit triplet tests

- Cross-language comparison



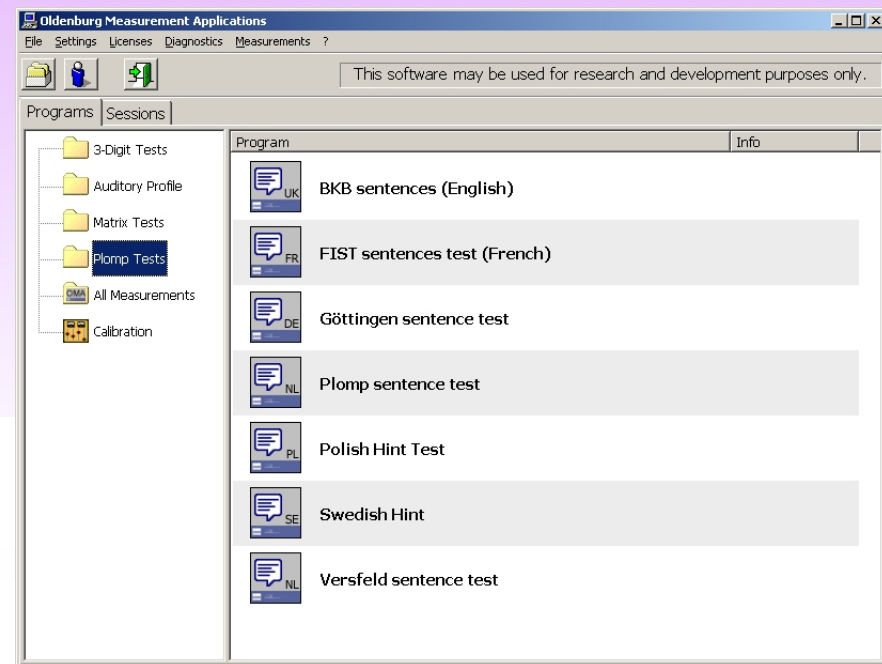
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Plomp type sentences

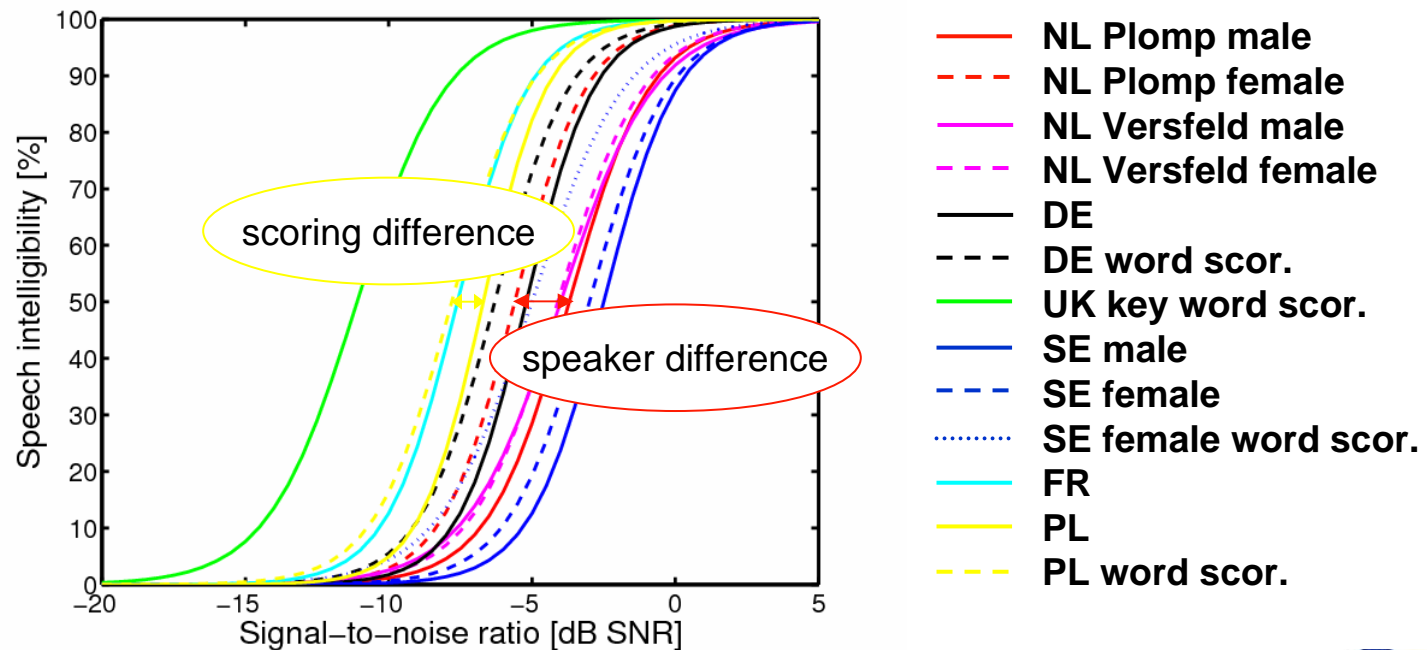
- Short meaningful sentences

- No training needed
- Limited test material
(cannot be repeated)



Plomp type sentences

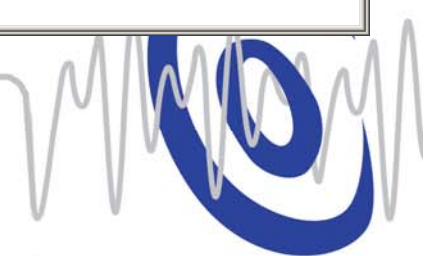
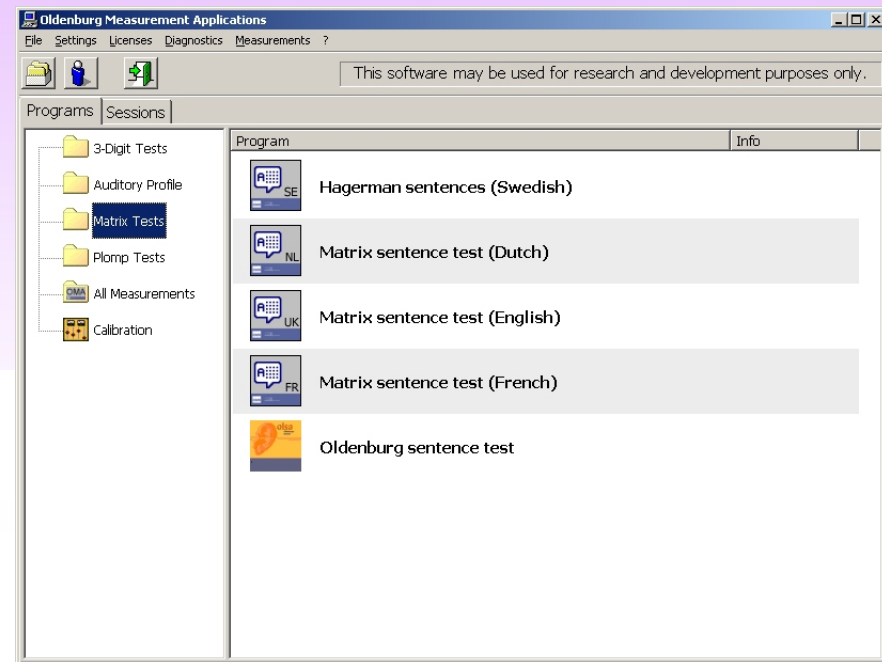
- Cross-language comparison



Matrix sentences

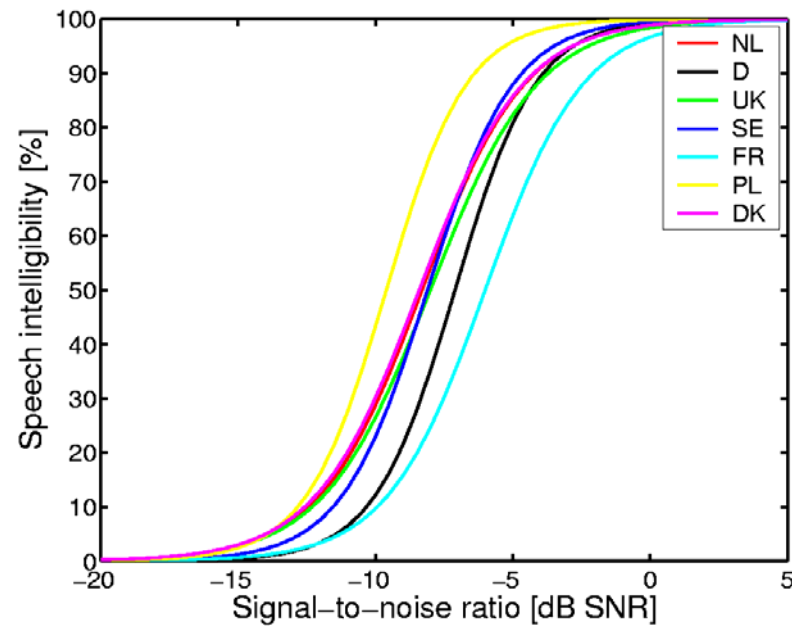
- Syntactically fixed, semantically nonpredictable sentences

- Training needed
- Unlimited test material (can be repeated)



Matrix sentences

- Cross-language comparison



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Summary



Oldenburg Measurement
Applications

- Outcome of HearCom:
18 speech tests are implemented in OMA:
 - 6 languages
 - 9 already available tests
 - 9 tests were also developed/evaluated within HearCom
- These speech tests fulfill the HearCom standard and are therefore highly comparable across languages

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Thank you for your attention!

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Matrix sentences

Peter	got	three	large	desks
Kathy	sees	nine	small	chairs
Lucy	bought	five	old	shoes
Alan	gives	eight	dark	toys
Rachel	sold	four	thin	spoons
Barry	likes	six	green	mugs
Steven	has	two	cheap	ships
Thomas	kept	ten	pink	rings
Hannah	wins	twelve	red	tins
Nina	wants	some	big	beds

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