

User experimentation with terminological ontologies

by Louise Pram Nielsen (lpn.abc@cbs.dk)

Objectives

- To transfer (Danish) domain-specific knowledge across different levels of expertise in the taxation domain.
- To analyze users' processing of concept systems in concept clarification tasks.

Conclusion, work-in-progress

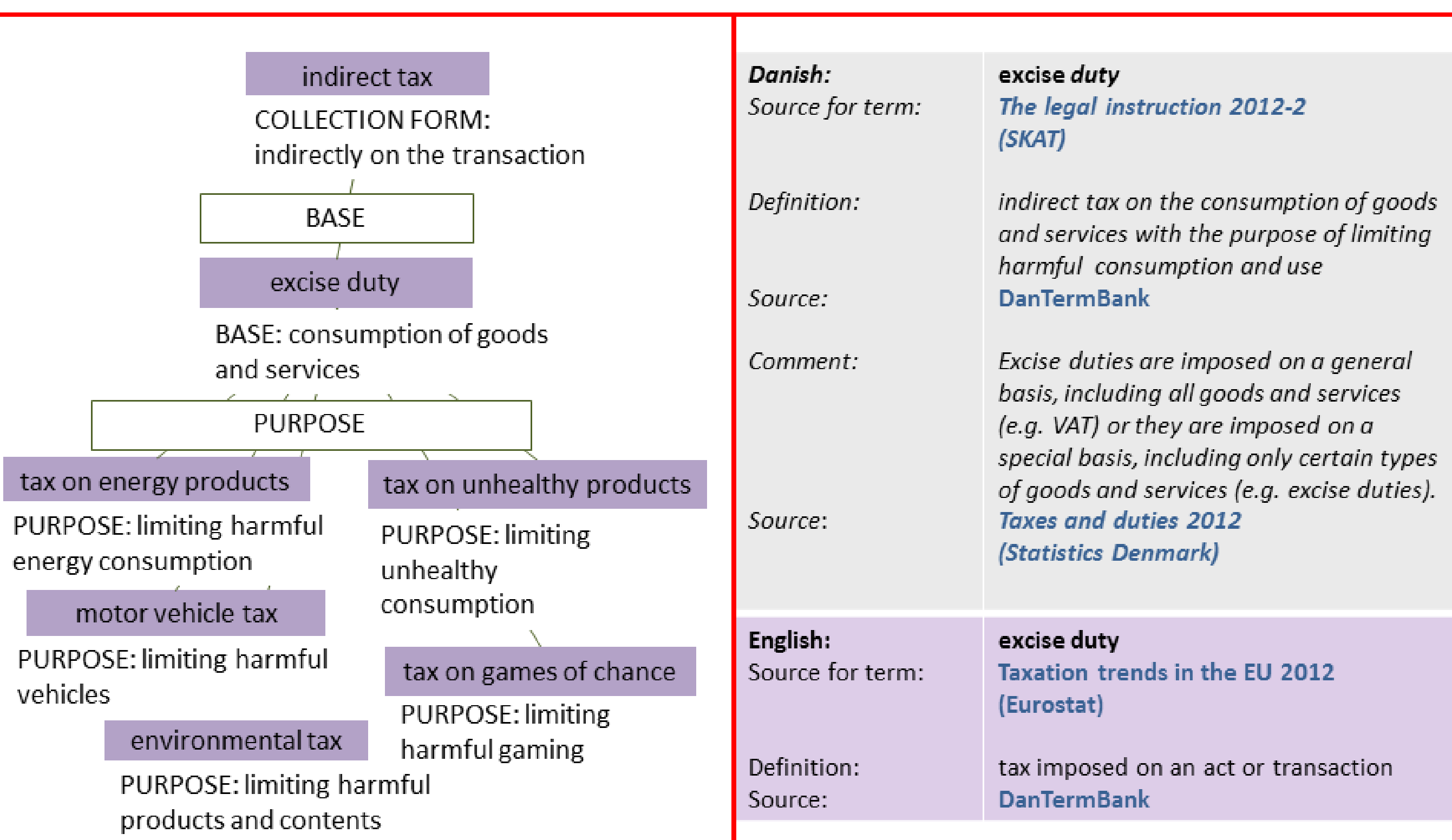
- Learning effect i.e. reduced response time across trials
- Diagrams are used increasingly i.e. relative fixation on diagrams across trials.
- Appreciation of the double-mode stimuli.

Method

- Two information modes in written (A) and graph (D).
- Six question types with answers in either graph (D1+D2), written (A1+A2), or in both (DA1+DA2) modes.
- Eight terms from direct and indirect taxation.
- Randomization across terms, question types and display side.

What type of tax or duty is excise duty?

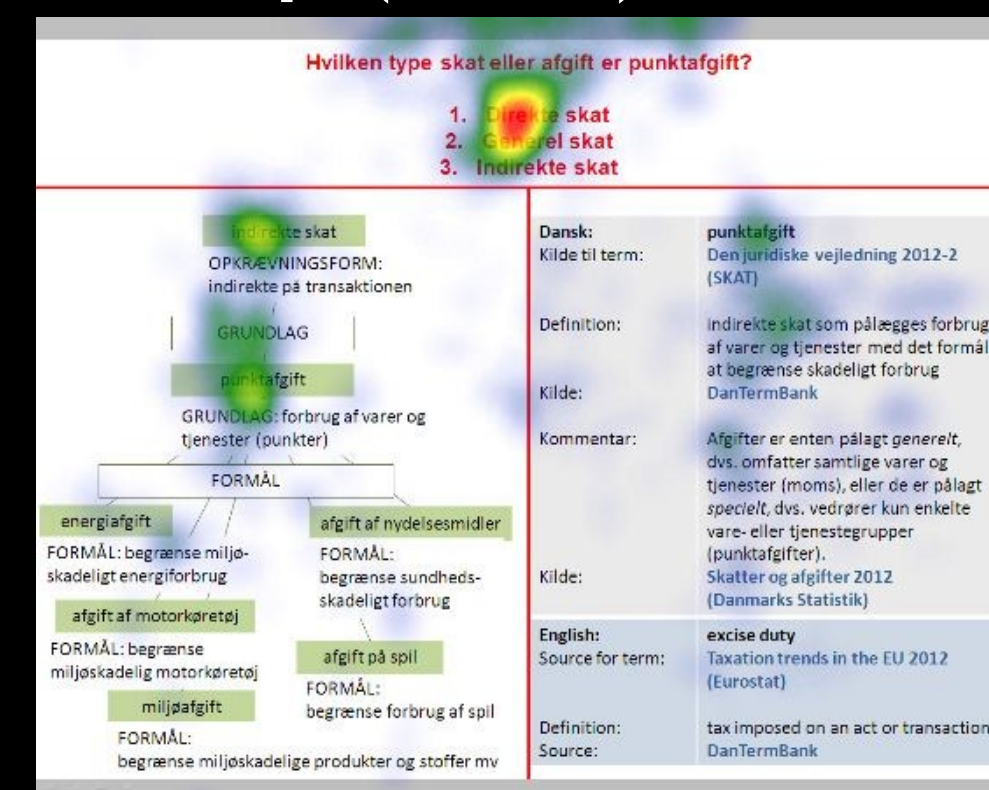
1. Direct tax
2. General tax
3. Indirect tax



Results

Type	Question	Correct (%)	Response time (s)	Fixation on D (%)
D1	How many types of excise duty exist?	97.3	16.5	37.4
D2	What differentiates tax on unhealthy products from tax on games of chance?	83.8	30.4	32.7
A1	What can 'excise duty' be translated into in Danish?	97.3	10.9	9.3
A2	How are excise duties imposed according to Statistics Denmark?	67.6	36.1	11.1
DA1	What type of tax or duty is excise duty?	100.0	13.1	22.6
DA2	On what tax base are excise duties imposed?	94.6	15.4	20.4

Heat map (n=18)



Longest scan path (34.1 s)

