Is Learning Content and a Second Language Simultaneously a Good Idea?

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1) Context of the Study: CLIL in Question

2) Cognitive Load Theory and Language Learning

3) Experiments: design, participants, results

4) Conclusion
"Content and Language Integrated Learning is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language (...)". 
(Coyle, Hood & Marsh, 2010)
One term for many practices

- Dual Focussed Instruction
- Teaching Content through a Foreign Language
- Content Based Language Teaching
- Bilingual Content Teaching
- Teaching English Through Content
- Teaching Content Through English

More emphasis on the content or more emphasis on the language, early, late, total partial, soft, weak.
Some political reasons (Dalton-Puffer, 2011)

• Globalization: English as the medium of instruction + other languages
• European commission language policy
• Worldwide competition between universities
• Internationally-mobile students
• Advantage in the employment market-place
• International programs are attractive
Some instructional reasons

• Beneficial for language learning
  Dalton-Puffer, 2011; Lo & Murphy, 2010; Ruiz de Zarobe, 2010; Zydaï¿½, 2007

• No disadvantage in content learning
  Admiraal et al.’s (2006); (Huibregtse 2001) (Stohler 2006: 44)
  “neither positive or negative consequences on the acquisition of knowledge”

• « Two-for the price of one » (Bruton, 2013)
Why CLIL works is not clear... (Bruton, 2013)

On a methodological level
- Comparison of CLIL and non-CLIL students performances?
  - Students’ selection and motivation
  - Teachers’ engagement
  - Intensive exposure to the language

On a political level
- Is changing the medium of instruction beneficial for all the actors?
- CLIL-approach is promoted by the European Union (Bruton, 2013)...
Our Context

• Language for specific purposes: language learning and content learning
  – Law students, learning German as a second language
  – Law students, learning English as a second language
  – Computer science students, learning English as a second language
CLIL: a CLT point of view

• Distinction between: biologically secondary and primary knowledge (Geary, 2008; Sweller, 2015)

• Foreign language and content are both biologically secondary knowledge

• Learning two biologically secondary knowledge at the same time can overwhelm the working memory capacity
3 Experiments
Research questions

- CLIL hypothesis: it is possible to learn content and second language simultaneously

- CLT hypothesis: it is NOT possible
## Overview and Design

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<tr>
<th></th>
<th><strong>Experiment 1 (n=102)</strong></th>
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<tbody>
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<td><strong>Pre-tests</strong></td>
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Material: CLT condition

Der Sitz des Gerichtshofs der Europäischen Union ist in Luxemburg.
Le siège de la Cour de Justice de l'Union européenne est au Luxembourg.

Der Gerichtshof der Europäischen Union **darf nicht mit dem Europäischen Gerichtshof für Menschenrechte**, der sich in Straßburg befindet, und auch nicht **mit dem Internationalen Gerichtshof** mit Sitz in Den Haag, **verwechselt werden**.

La Cour de Justice de l'Union européenne **ne doit pas être confondue** avec la Cour européenne des Droits de l'Homme, qui se trouve à Strasbourg, ni avec la Cour internationale de Justice, siégeant à La Haye.

Der Gerichtshof der Europäischen Union **besteht aus 28 Richtern**, ein Richter pro **Mitgliedstaat**.

La Cour de Justice de l’Union européenne se compose de 28 juges, un juge par **État membre**.
Overview and Design

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Results: Experiment 1

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<th>Foreign Language</th>
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<tbody>
<tr>
<td>Posttest Language</td>
<td></td>
<td></td>
<td>Blue</td>
</tr>
<tr>
<td>Posttest Content</td>
<td></td>
<td></td>
<td>Red</td>
</tr>
</tbody>
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Results : Experiment 2

- Mother Language: 18
- Foreign Language: 14
- Both: 16

Post-test Content
Results: Experiment 3

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Discussion

• Significant effect of presentation for the 3 experiments
• Each time we obtained a significant effect, ”foreign language” condition was the worst
• We explored the interaction between condition and prior knowledge
  – No clear expertise reversal effect, but the differences between the conditions are more important for low-level students
Exp 1

Moyennes marginales estimées de PosttestContent

High-level students in second language:
Foreign < Both = Mother language

Low level students:
Foreign < Both < Mother language
Thank you for your attention

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