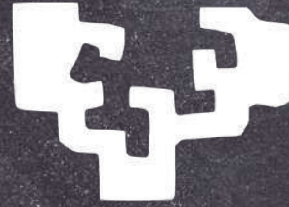


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UPV EHU

# Reading Strategy Instruction in a CLIL Context

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Content and Language Integrated Learning (CLIL) refers to an educational approach where curricular content is **taught through the medium of a foreign, a second or additional language.**

Coined in the **1990's in Europe** for programs that use a foreign language in the teaching of non-linguistic subjects.

# CLIL Research



## **Product-oriented research**

(Ruiz de Zarobe and Jiménez Catalán 2009; Dalton Puffer, Nikula, and Smit 2010; Ruiz de Zarobe, Sierra, and Gallardo del Puerto 2011; Juan-Garau and Salazar-Noguera 2015).

## **Process-oriented research**

What is taking place in the CLIL classroom and how can the approach be introduced in the classroom in a more effective way to enhance learning?



CLIL: focus not only on language or only on content.

“CLIL not only promotes linguistic competence but meaning-making and knowledge construction in subject domains which when supported linguistically and cognitively can enable students to mediate their own learning and have a greater sense of authenticity and independence.” (Coyle et al. 2010, 11).



# The Study: Strategic Intervention for Reading in an English as L3 CLIL Context

# Research questions



## Question 1

Can reading strategy instruction improve the reading competence of students learning English as L3 in a CLIL context?

## Question 2

Do the effects of reading strategy instruction on the reading competence of students in a CLIL context last over time?

# The Study

## Participants

100 students

Control: 50

Experimental: 50

## Age

Year 5: 5th Primary Education  
(10 -11 years old)

Year 6: 6th Primary Education  
(11 -12 years old)

## Sex

Control: M 40%  
F 60%

Experimental: M 39%  
F 61%

Spanish: L1

Basque and English: 4 years old

**Subjects:**

- English, physical education, arts and crafts, and science were taught through **English.**
- Basque, music, religion, and tutorials, in **Basque.**
- Spanish and mathematics, in **Spanish.**



CONTROL	EXPERIMENTAL
<p><b>SURVEYS:</b> Background and motivation survey.</p>	<p><b>SURVEYS:</b> Background and motivation survey..</p>
<p><b>PRE-TESTS:</b></p> <ul style="list-style-type: none"> <li>- Reading and listening tests.</li> <li>- Oral and written production tests.</li> <li>- Survey for reading strategies.</li> <li>- <b>Metacognitive reading test.</b></li> <li>- Metacognitive task.</li> <li>- Critical reading test.</li> </ul>	<p><b>PRE-TESTS:</b></p> <ul style="list-style-type: none"> <li>- Reading and listening tests.</li> <li>- Oral and written production tests.</li> <li>- Survey for reading strategies.</li> <li>- <b>Metacognitive reading test.</b></li> <li>- Metacognitive task.</li> <li>- Critical reading test.</li> </ul>
	<p><b>TRAINING PROCEDURE AND DIARIES</b></p>
<p><b>POST-TESTS</b></p>	<p><b>POST-TESTS</b></p>
<p><b>SURVEYS:</b> Background and motivation survey.</p>	<p><b>SURVEYS:</b> Background and motivation survey.</p>

# Training Design, Year 5

## Pre-tests

- Session 1: Training 1
- Session 2: Training 2 + Diary 1
- Session 3: Training 3 + Diary 2
- Session 4: Training 4 + Diary 3
- Session 5: Training 5 + Diary 4
- Session 6: Training 6 + Diary 5
- Session 7: Training 7 + Diary 6

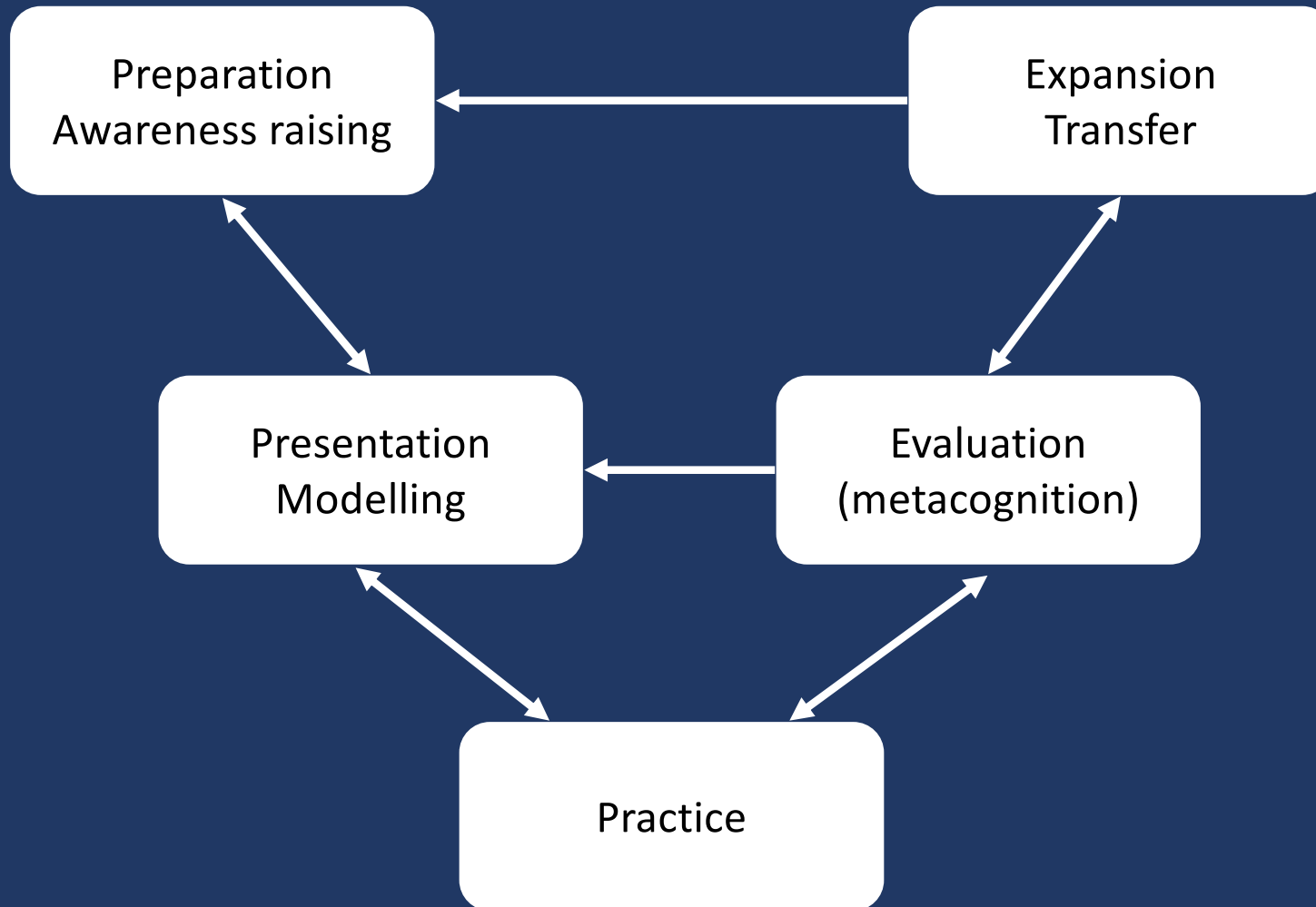
## Post-tests

# Training Design, Year 6

## Pre-tests

- Session 1: Training 1
- Session 2: Training 2 + Diary 1
- Session 3: Training 3 + Diary 2
- Session 4: Training 4 + Diary 3
- Session 5: Training 5 + Diary 4
- Session 6: Training 6 + Diary 5
- Session 7: Training 7 + Diary 6

## Post-tests



CALLA phases  
(O'Malley and Chamot, 1990; Chamot and Harris, 2019)

# Metacognitive Reading test



It consisted of 25 open-ended questions which tested reading skills: skimming, scanning, and detailed reading. And strategies: predicting, guessing from the context, observing the layout of the text.

The first 12 items were pre-reading/fast reading activities. The last 13 were postreading questions.

## **Procedure:**

The learners were given the text and allowed 1 min 30 s to go through it. After that time, they were asked to hand it in before answering the first 12 questions without referring to the text.

They were then given the text again and answered the next 13 questions by consulting the text.



# Results

# RESEARCH QUESTION 1

1. Can reading strategy instruction improve the reading competence of students learning English as L3 in a CLIL context?

**Table 1.** Initial and final results, control and experimental groups, in the metacognitive reading test (year 1).

	Pre-test		Post-test	
	CG Mean (SD)	EG Mean (SD)	CG Mean (SD)	EG Mean (SD)
Year 5				
Scores	4.27 (1.99)	3.75 (1.57)	5.98 (2.04)	7.16 (1.63)
Differences between groups $Z$ ( $p$ )	-1.50 (.13)			-2.92 (.00)

Note: Maximum possible score = 10.



# Research question 1

- Statistically significant differences in favour of EG (Ruiz de Zarobe and Zenotz 2014).
- The strategic treatment had a positive effect on reading comprehension.

## RESEARCH QUESTION 2

2. Do the effects of reading strategy instruction on the reading competence of students in a CLIL context last over time?

**Table 2.** Longitudinal results, control and experimental groups, in the metacognitive reading test.

	CG	EG	Differences
	Mean (SD)	Mean (SD)	Z (p)
Year 5 and 6			
Time 1 (pre-test)	4.27 (1.99)	3.75 (1.57)	-1.50 (.13)
Time 2 (post-test)	5.98 (2.04)	7.16 (1.63)	-2.92 (.00)
Time 3 (pre-test)	6.11 (1.59)	6.72 (1.47)	-1.72 (.08)
Time 4 (post-test)	7.01 (1.71)	7.53 (1.64)	-1.43 (.15)

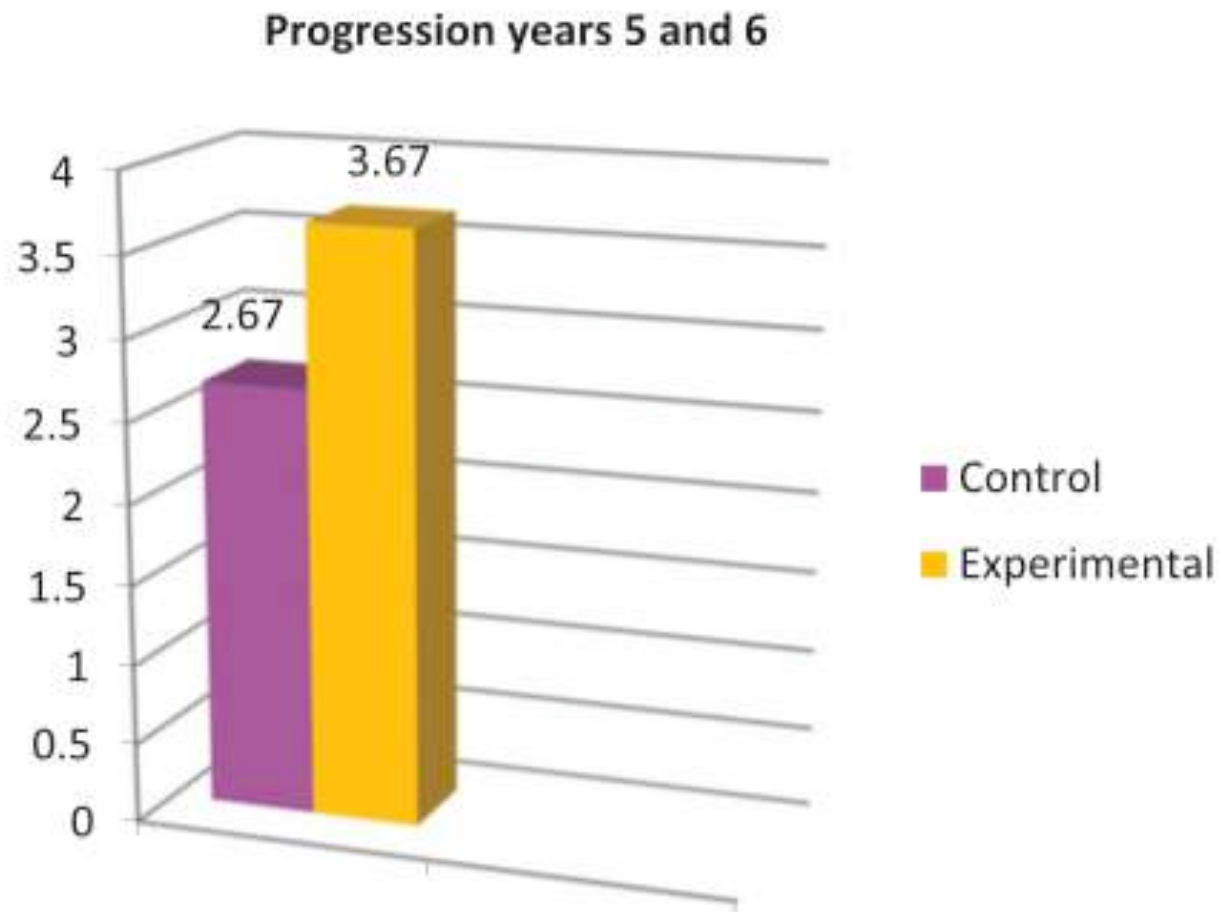
Note: Maximum possible score = 10.

## Research question 2

- **In Year 5:** no initial differences between groups, but statistical differences in the post-test in favour of the EG.
- **In Year 6:** the pre-test of year 6 (Time 3): the EG has higher scores than the CG, but differences are non-significant.
- **In the post-test of year 6 (Time 4):** the EG produces better results, but without significant differences according to the Mann-Whitney test.

**Table 3.** Progression of control and experimental groups in longitudinal results of the metacognitive reading test.

	CG	EG	Differences
	Mean (SD)	Mean (SD)	Z (p)
Year 5 (Time 1-Time 2)	1.73 (1.66)	3.50 (1.57)	-4.50 (.00)
Year 6 (Time 3-Time 4)	.91 (1.29)	.91 (1.17)	-.15 (.87)
Year 5-6 (Time 1-Time 4)	2.67 (1.69)	3.67 (1.79)	-2.51 (.01)



Progression pre-test year 5 and post-test year 6, control and experimental groups in the metacognitive reading test.



# Conclusions

Positive effect of reading  
strategy instruction  
comprehension  
(research question 1)

This effect appears to  
last over time  
(research question 2)



The strategy intervention had a statistically significant impact on the children's development of reading competence over two years.

Skill-specific instruction can be an effective form of instruction for young-beginner readers.

In multilingual contexts, where several languages are introduced in the curriculum through CLIL, important consequences:

Instruction in one skill (in our case reading) and mainly one language (English L3) can potentially be applied to other languages (L1 or L2), or to different skills (e.g. other receptive skills such as listening).