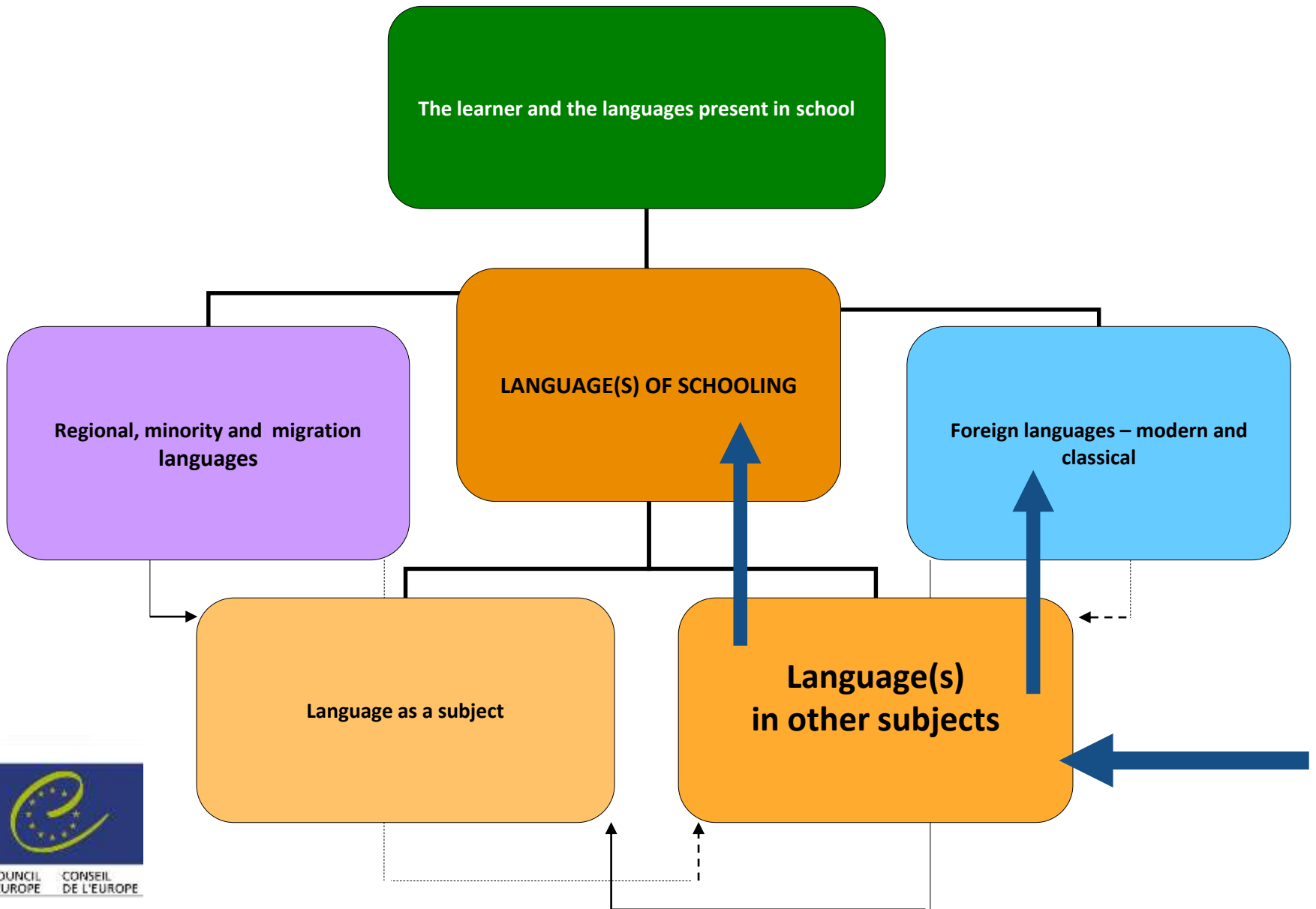# Research on *CLIL and EOL*

Silvia Minardi, Italy

Le dimensioni linguistiche nell'insegnamento della fisica in italiano e in CLIL/AIDEL

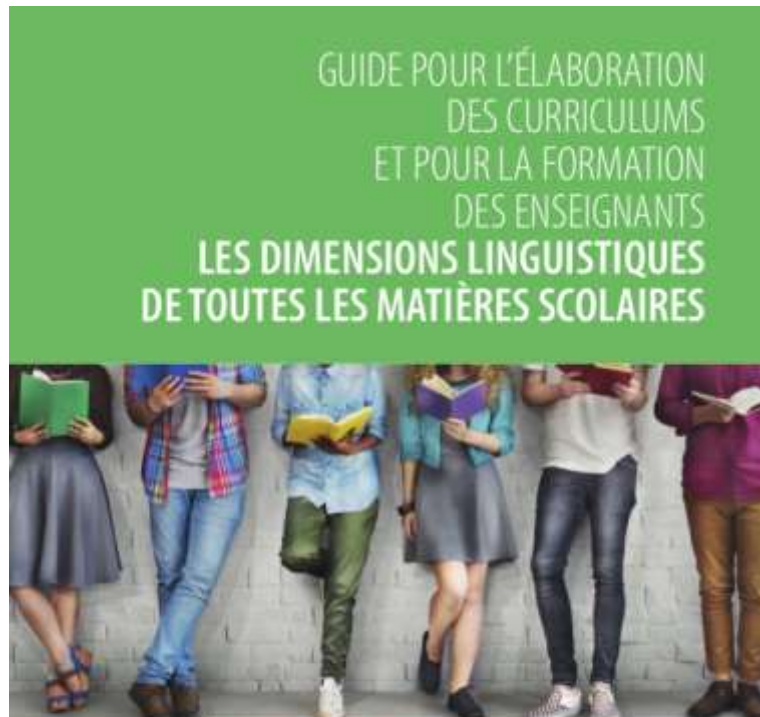Tutor: Monica Barni, Jean-Claude Beacco

A PhD research project at the University for Foreigners (Siena, IT)

Università Stranieri Siena

Council of Europe Project: „Language(s) in Education - Language(s) for Education"

The learner and the languages present in school

LANGUAGE(S) OF SCHOOLING

Regional, minority and migration languages

Foreign languages – modern and classical

Language as a subject

Language(s) in other subjects

My starting point (MEMO1, EOL)

GUIDE POUR L'ÉLABORATION
DES CURRICULUMS
ET POUR LA FORMATION
DES ENSEIGNANTS
**LES DIMENSIONS LINGUISTIQUES
DE TOUTES LES MATIÈRES SCOLAIRES**
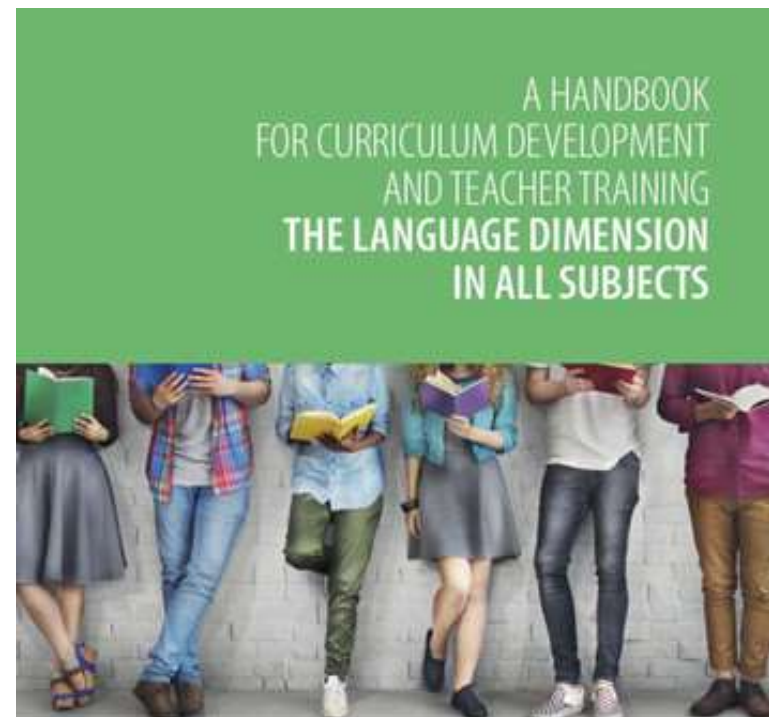
Jean-Claude Beacco
Mike Fleming
Francis Goullier
Eike Thürmann
Helmut Vollmer
avec des contributions de Joseph Sheils

A HANDBOOK
FOR CURRICULUM DEVELOPMENT
AND TEACHER TRAINING
**THE LANGUAGE DIMENSION
IN ALL SUBJECTS**

Jean-Claude Beacco
Mike Fleming
Francis Goullier
Eike Thürmann
Helmut Vollmer
with contributions by Joseph Sheils

The role of language as a constitutive part of **subject competence**

"Being good at science, for example, also means being good at talking and writing about science, in a specific, conventionalized way. Acquiring knowledge at school therefore means becoming familiar with forms of communication specific to the communities which produce that knowledge, and appropriating these forms, at least to some extent".

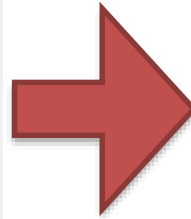Awareness of the different **functions** that language can perform that are both cognitive and linguistic in nature.

from **literacy** as knowledge use and transfer (UNESCO) to the six aspects of "**subject literacy**":

1. Comprehending/understanding in-depth (the meaning of an utterance, a text, a problem)
2. Communicating and negotiating knowledge
3. Reflecting on the acquisitional process, the learning outcomes and their personal as well as social uses
4. Applying knowledge to and within other contexts
5. Participating in the socio-scientific world
6. Transferring generalisable knowledge, skills, attitudes

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the **language competences** involved in subject literacy:

1) processing and acquiring subject knowledge (through listening and reading activities) and **in-depth understanding of texts** that deal with subject-matter issues;
2) **negotiating the meaning** of new knowledge items in relation to already existing ones;
3) **reflecting on** how a new insight developed and was acquired;
4) considering the validity and use of knowledge, **applying** it to other/new contexts;
5) preparing for and participating in socio-scientific **debates** and the relevant discourse **outside school**;
6) **questioning critically** the meaning and scope of rules or conventions, generalizing the acquired procedural knowledge and skills (as part of one's general education)

What type of language do students need in their attempts to acquire new subject-specific knowledge, to link it with other pieces of knowledge within the same subject or beyond, to question the limits of its validity or transfer it to other contexts?

How does language enable and shape their mental activities and their cognitive development as well as their forms of communication?

Pluriliteracies - making deep learning happen

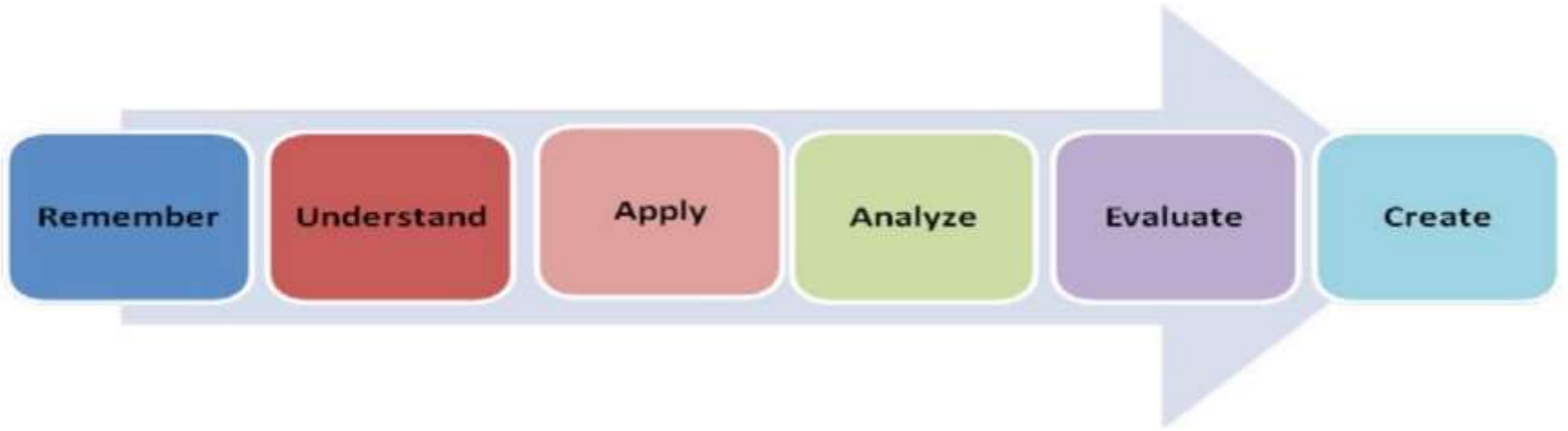A pluriliteracies approach to teaching for learning

How literacies inform deep learning in CLIL: "a pluriliteracies approach focuses on developing literacies for purposeful and appropriate meaning-making in subject disciplines/thematic studies across languages and cultures" (the Graz Group, 2014).

https://pluriliteracies.ecml.at/Model/tabid/4269/language/en-GB/Default.aspx

EOL and my research

	NANO: learner	MICRO: class	MESO: school	MACRO: system

Remember | Understand | Apply | Analyze | Evaluate | Create

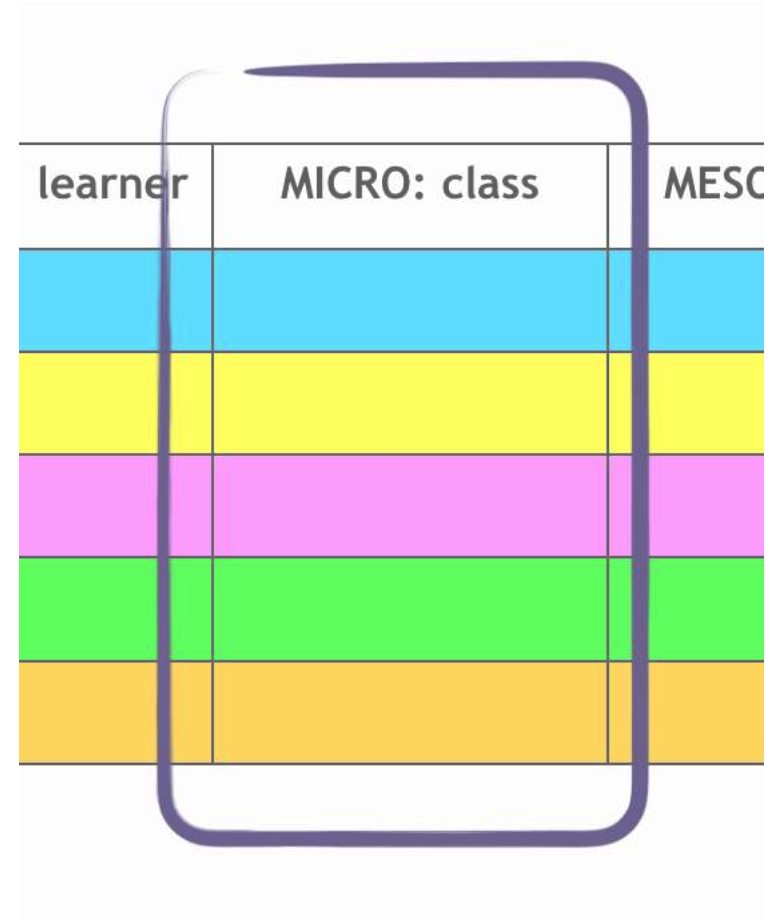Lower Order Thinking Skills - LOTS → Higher Order Thinking Skills - HOTS

"how learners express the academic meanings required in the disciplines they are studying, how they move from oracy to literacy and how they are able to not only express factual information and ideational meanings but able to evaluate and take a stance on the academic content that they are learning" (Nikula *et al.*, 2016: 19).

A very limited area of research!

EOL and my research

"the focus is on the close-up analysis of what happens in the classroom and on the processes through which CLIL is carried out, rather than on the resulting products" (Evnitskaya & Morton, 2011: 110).

Main problem: why do we do CLIL?

So far the research

"has been mainly characterized by language learning perspectives on learners' general language skills. That is, there has been less research on [...] the importance of language in and for content learning"

(Nikula *et al.*,

Do language skills improve? Yes, they do.

Especially RECEPTIVE SKILLS and VOCABULARY

Do language skills improve? Yes, they do.

BUT

"research to date has not to a sufficient degree explored to what extent positive language learning outcomes depend on greater exposure to L2 and motivational variables and to what extent they derive from CLIL pedagogies" (Nikula, 2016: 5).

"selection really can be a major factor in determining outcomes in CLIL studies and needs to be controlled for in future work" (Long, 2018: 13).

CLIL and content learning

"there are no differences between CLIL and non-CLIL students as for content learning; [...] there were fewer overachievers in CLIL sections when compared to non-CLIL groups" (San Isidro & Lasagabaster, 2018: 4-5).

"if CLIL students' L2 proficiency is low, as is often the case, the amount of information lost over a school year could be significant, and student command of the subject matter weaker than that of students taking the same subject through their native language" (Long, 2018: 10).

On the other side:

Lamsfuß-Schenk (2008) - History Learning

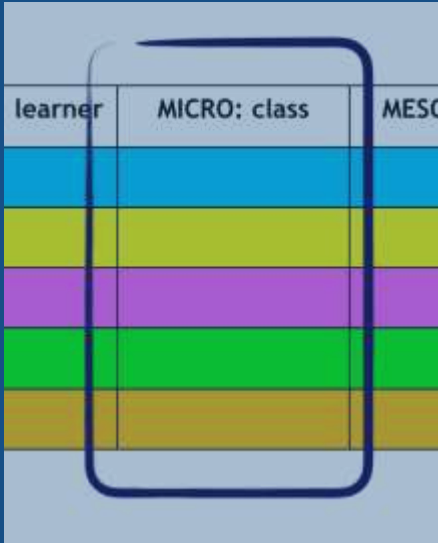Bonnet (2015) - Chemistry learning

LESSONS learnt

"the language [...] is used to construct knowledge, for meta-cognitive and communicative purposes as well as reflective intervention (Bruner, 1982) on learning" (Coyle, 2015: 90).

What language(s)?

learner | MICRO: class | MESO

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Lingua di scolarizzazione

Lingua straniera

Discorso accademico

Discorso didattico

Discorso quotidiano

Lingua

soggetti plurilingui ("repertori")

Rappresentazione visiva

Rappresentazione simbolica: grafici

Rappresentazione fisica: oggetti, esperimenti

Rappresentazione matematica

Leisen, 2005

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D  "Réactions nucléaires provoquées"
St [una studentessa legge ad alta voce]
D  éclate, éclater
St è come la guerre [in francese], la guerre éclate.
D  Quindi, "scoppia"? La guerra scoppia [raccoglie il commento della St]. E qui invece?
St La stessa cosa
St Commence
Sts    [varie voci non chiare che si accavallano]
D  Esplode?
Sts    éclate? Ma in italiano, diremmo che cosa?
St La guerra scoppia.
St Sì. Lo scoppio della guerra.
D  Sì, ho capito. Ma un nucleo scoppia? No, un nucleo si separa, si divide. [gesto della
mano]
St Scinde
D  Si scinde … sotto l'impatto, sotto l'impatto. Sous l'impacte d'un neutron.
```

«La domination quasi monopolistique d'une langue, quelle qu'elle soit, inhibe le jeu des mots et des idées, souvent stimulé par les traductions, passages et échanges d'une langue à l'autre »

(Lévy-Leblond, 1996: 244)

àTRANSLANGUAGING (García & Wei, 2014): le plurilinguisme (mise en contact des langues) enrichit la construction des savoirs (Gajo, 2018)

Q&A