Policy and practice of CLIL in Europe and beyond

Christiane Dalton-Puffer
Overview

Part I
1. the conceptual debate
2. EU-level policy
3. CLIL in specific EU-countries
4. learning outcomes
5. participant perspectives

Part II
1. the CLIL classroom: discourse and pedagogy
2. cognitive discourse functions
3. Scaffolding understanding
4. doing learning through the 4 language skills
1. the conceptual debate

- CLIL – the term
- conceptual debate
- a catalyst?
- typical features of CLIL (in Europe)
CLIL – the term

Content and Language Integrated Learning

-> purposefully coined in Europe in the mid 1990s for an innovation in language and subject education

-> CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language. (Marsh 1994)

-> CLIL can be described as an educational approach where curricular content is taught through the medium of a foreign language, typically to students participating in some form of mainstream education at the primary, secondary, or tertiary level. (Dalton-Puffer 2011:183)
conceptual debate

- Bilingual education
- CLIL
- CBI
- Multilingual education
- LAC
- immersion

Cenoz, Genesee, Gorter 2014; Dalton-Puffer, Llinares, Lorenzo, Nikula 2014
typical features of CLIL (in Europe)

• a foreign language or a lingua franca
• dominant CLIL language is English
• CLIL teachers are nonnative speakers
• CLIL teachers are content experts
• timetabled and assessed as content lessons
• foreign language lessons continue alongside
• typically less than 50% of the curriculum is taught in the target language
• can build on learners’ L1 literacy skills.
4. EU-level policy transnational initiatives in Europe

- context
- policy
- cooperation milestones
- projects
- development & research
- outlook
context

• 27 national foreign language education curricula

• broad grassroots movement from ca. 1990

• European continent: subject teachers; in English
  UK: language teachers; French, German, Spanish

• transnational players:
  * European Commission (EU) > Eurydice, Comenius
  * Council of Europe (CoE) > ECML: European Centre for Modern Languages
policy documents

1995 *Teaching and learning: towards the learning society*
   European Commission White Paper

1995 *Barcelona Agreement*

2005 *Luxemburg Declaration of Council of Ministers*

“The Commission’s multilingualism policy has three aims:

- to encourage language learning and promote linguistic diversity in society;
- to promote a healthy multilingual economy;
- to give citizens access to European Union legislation, procedures and information in their own languages”

policy steps

Multilingual Eurpeism formula "1 + 2"

“every European citizen should know two more languages besides their first. One of major currency and one other, preferably neighbouring, language”
multilingual Europe

Formula “1 + 2” = “L1 + 2 other languages”

Europeans say:
- E is the most important language (77%)
- Europeans should know one common language (70%)
- Europeans should know L1 + 2 more Ls (50%)

Europeans do:
- speak two additional languages (28%)
- learn English at school (98%)

(European Commission Survey 2006)
policy steps

• national governments implement Euro-recommendations: CEFR, ELP, EPOSTL, CLIL

• 2005 Luxemburg Declaration of Council of Ministers (explicit support for CLIL) V1

• national/regional money for implementation:
  - Spain
  - Netherlands
teacher education schemes, language support for teachers, CLIL professorship (NL)
cooperation milestones

- 1993 CoE Workshops 12AB
  „Bilingual Education in Secondary Schools“
- intl. team meetings under umbrella of European Platform for Dutch Education
  Maljers, Coyle, Marsh, Wolff, Fruhauf, van de Craen Langé, Perez Vidal, Mehisto, Coonan, Frigols
  i. influence policy makers
  ii. seek European funding
  iii. disseminate case studies and examples
  iv. create networks for CLIL stakeholders
  v. establish a research agenda

conferences – symposia to reach national stakeholders
(ministries, teacher educators, teachers, head-teachers etc.)
cooperation milestones: publications


cooperation milestones: conferences

Professional CLIL conference series

Haarlem 1996, Luxemburg 2005
Helsinki 2006
Tallinn 2008
Eichstätt 2010
Utrecht 2012
Ustron 2013
Venice 2014

CLIL Cascade Network CCN
http://www.ccn-clil.eu/

International CLIL Research Journal
www.icrj.eu/
projects

**EU funding** (Comenius Socrates, Lingua A..)

- Networks for CLIL stakeholders
  
  **CLIL Compendium, CLIL Cascade Network** (CCN)

- Teacher training development projects, e.g.
  
  


- Virtual CLIL resource platforms
  
projects

ECML European Centre for Modern Languages (CoE)

Maljers, Marsh, Wolff, Kitanova, Zielonka
links to earlier ECML projects & 4Cs model
http://archive.ecml.at/mtp2/CLILmatrix/EN/qMain.html

CLIL Teacher Education Framework (2008-2010)
Frigols, Wolff, Marsh, Mehisto
http://clil-cd.ecml.at/
Literacies through CLIL (2013-2015)
Meyer, Coyle, Halbach, Ting, Schuck

CLIL for languages other than English
Haataja, Árkossy, Kruczinna, Costa Afonso
http://clil-lote-start.ecml.at/
cooperation milestones

Development of a research agenda
- language learning outcomes
- classroom discourse and learning
- participant perspectives
- content outcomes
- pedagogy, subject literacy
- curriculum & policy perspectives
- conceptualisation & modelling (e.g. integration)
- EMI at tertiary level - Smit, Dafouz, Lasagabaster

(Inter)National research projects

International research publications
cooperation milestones: conferences

CLIL research symposia
Vienna 2005, 2007
Madrid 2009
Jyväskylä 2010

CLIL Colloquia at large research conferences
ESSE 2006
SS20 2010, 2014;
AESLA, DGFF, ÖLT
a catalyst?

• CLIL -> umbrella term for uniting a diverse community and a pan-European venture from the start

• small-scale innovation on national level > look abroad for more input, ideas, expertise...

• CLIL highlights
  -> the role of language in learning > a perennial concern across contexts
  -> focus on content and language integration: understanding of language and academic content/meanings as inseparable concepts

• use of English as language of instruction
  > more researchers can understand each others’ data
cooperation: looking ahead

• more research collaboration worldwide
  – across CLIL contexts (with different L1s, extramural exposure)
  – between CLIL, immersion, CBI, and forms of bilingual education
  – with multilingualism research
  – with content specialists

• combining different theoretical and methodological approaches
  – to further conceptual & theoretical development
  – to provide support practice
3. CLIL in specific European countries

- overview
- example/s
CLIL provision as part of mainstream school Education = solid pink

CLIL provision within pilot projects = solid red

Combination of CLIL provision as part of mainstream school education and within pilot projects = checked

No CLIL provision = grey

The CLIL cline:

- **1:** Topic-based TEFL – cross-curricular elements help to spice up general lessons
- **2:** TEFL option class – e.g. drama in English helps to give timetable variety
- **3:** Content teaching – one subject taught in L2, e.g. geography in French in English-speaking Canada
- **4:** Bilingual schooling – all subjects taught in L2, e.g. an English-medium school for Spanish-speaking pupils in Argentina

The CLIL cline (Bowler 2007: 7)
CLIL provision in individual EU countries

bottom up

UK
Austria
Finland

Germany
Netherlands

top down policies

Spain
Italy

Eurydice 2006 CLIL in Europe. Brussels. p.68
CLIL in Austria

- some English-medium education since early 1990s
- 'bilingual schools‘ in Vienna & regional capitals (immersion or dual-language type provision)
- alongside full-scale 'bilingual schools': grass-roots development since mid-1990s
- many teachers have dual qualification (EFL + content subject)
- Global regulation by one article in the national school law: no further curricular guidelines
- no formal teacher recruitment criteria, few in-service training opportunities
- numerous local implementation variants, Vienna: DLP
CLIL in Austria

How much CLIL in Austria?

- no national statistics (last survey 1997!)
- 1997: > 40% of secondary academic schools (ISCED2/3)
- 2008: estimate based on vocational sector survey up to 75% of schools do some CLIL
- low threshold / questionable sustainability
- 2011 Colleges of technology (HTL) ISCED3: new curriculum: 76 hrs of CLIL in core subjects during years 11-13
CLIL in Spain

• traditionally low foreign language achievement

• several multilingual autonomous regions (Spanish + Catalan/Basque/Galician etc.)

• example: Andalucía
government initiative; ‘bilingual sections’
ISCED1 (grade 1-6), ISCED2 (grade 7-10)
E, F, G

• preparation year for school; coordinator;
  TEd funding; native-speaker assistants;
CLIL in the Netherlands

- academic & vocational (recently)
- builds on good English skills in Ts & Ss
- national network of schools with CLIL streams
- clear quality criteria (teacher qualifications, organization, classroom pedagogy etc.)
- regular quality audits

European Platform for Dutch Education
4. Learning outcomes

- expectations
- content outcomes
- language outcomes
- critique
YOUR expectations?

- oral fluency, broader vocabulary
- motivation, less fear of speaking
- native-like competence
- content: reduced complexity, less ground covered
content outcomes

learners:

• CLIL students outperform controls (van de Craen, Ceuleers, & Mondt, 2007- cf. Canadian immersion; Day & Shapson 1996)

• more persistence & tolerance of frustration

• language problems lead to deeper processing (Vollmer 2006)

teaching:

• more careful planning

• better scaffolding

• more negotiation of meaning
methodological problem

• standardised tests missing (science, history...) even within single national education systems
• Small individual studies
• CLIL provision highly variable across contexts

largest study to date: Badertscher & Bieri 2009

• Swiss; target lgs.: German, French
• Qualitative, longitudinal; 6 classes/groups over 2 years

CLIL students at same level of content achievement as peers
Surveys show CLIL students ahead of peers
e.g. Admiraal, Westhoff, & de Bot, 2006; Lasagabaster, 2008; Lorenzo et al., 2005; Ruiz de Zarobe, 2008, 2010; Zydatiś 2007 among many others

Big Question: All aspects of the language competence construct?

Why?
Methodological problems:

• Most outcomes studies are conceptual and/or qualitative-exploratory and/or case-study in nature

• Comparison groups not truly comparable

(Genesee 1998, Bruton 2011)

Needed: longitudinal research with multiple measurements
DENOCS-study
(Rumlich 2013, 2014, forthc.)

Germany, North Rhine Westphalia
N=1152 students, 49 classes
CLIL, non-CLIL,
3 school types

Longitudinal;
DENOCS study (Rumlich forthc.)

CLIL Provision in NRW - Germany
DENOCS study (Rumlich 2014)

(N=1150)
In most implementations CLIL has a creaming effect:

CLIL-students’

- prior skills and competences in English are higher
- cognitive abilities are higher
- affective-attitudinal dispositions are more conducive to language learning
5. participant perspectives

• CLIL motivation
• students – teachers & other stakeholders
CLIL motivation

motivation for CLIL

motivation in CLIL

policy makers

education authorities

teachers

learners

parents

teachers

learners
### CLIL motivation matrix

<table>
<thead>
<tr>
<th>EU policy multi-lingualism</th>
<th>English</th>
<th>imagined futures &amp; communities</th>
<th>Innovation &amp; challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>T &amp; S roles</td>
<td>ELF user</td>
<td>mask effect</td>
<td>trans-languaging</td>
</tr>
<tr>
<td>feedback &amp; correction</td>
<td></td>
<td>innovation &amp; status</td>
<td>reduced anxiety</td>
</tr>
</tbody>
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(Dörnyei 2000)
English!

- **ELT**: from ‘foreign language’ to ‘international second language’
- associations with ‘elite-bilingualism’
- strong pro-English public discourse
- but: increasingly moving from an ‘extra’ to ‘core literacy area’
- **ELF**: English as a lingua franca “use of English amongst multilingual interlocutors whose common language is English and who communicate in a country or area in which English is not used in daily life” (Smit 2010b)
“even the stupidest person understands that he needs languages or that languages are important and so nobody asks 'why do we need this [CLIL]?'”
(content-teacher)

“[CLIL is] English as used for the job in technology, with EFL that’s a bit difficult” (EFL-teacher)
imagined futures & communities

• professional goals: engineering

• jobs in internationally active companies
  (also small/medium ones; highly specialized)

• English as part of an engineer’s professional repertoire

“a vocational school trains for the job and with all this
globalisation it is actually unthinkable to manage without
English” (content-teacher)
innovation & challenge

• mid-career, new professional challenge,

• incentives: win-win situation, innovation, nice colleagues, cognitive challenge

• counter the stagnation of the Austrian education system

„I thought I’d try something new“ (content-teacher)

„I thought after all this talk about the Fremdsprachenoffensive, we ought to actually do something, and nurse a group specifically with English...“ (EFL-teacher)
teacher and student roles

- a less hierarchical student-teacher relationship

„In the English lessons it is a student-teacher relationship. In CLIL she is more the colleague than the teacher. So we are the technical experts and she is the language expert. That’s great. I kind of like that.” (student)

„It is a more equal basis. The student corrects the teacher’s English. The teacher accepts this gratefully. What the teacher is still better at are the content and theoretical issues and in this way it is complementary. And this is beautiful to observe [...] it is a mutual completion“. (student)
Role shift: learner >> user

they won’t speak German everywhere where I’ll work in the future. (student)

I profit a lot in terms of dealing with the English language. This firm [in a nearby town] operates in English so I’ll find it much easier to find my way into working life. (student)

by teaching (in) English I try to satisfy my students’ needs with respect to their future jobs (teacher)
mask effect

• Maillat 2010: classroom role-plays

• distinction between role & self: epistemic commitment of speaker to validity of his/her statements is reduced by the mask

• richer contributions during role-play in CLIL than in L1 classrooms

• Role of L1 dialect vs. L1 standard
### Mask Effect

#### 201 Swiss CLIL & Non-CLIL Students (Maillat 2010)

<table>
<thead>
<tr>
<th></th>
<th>% Non-immersion</th>
<th>% Immersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating more with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English-speaking persons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using English as a lingua franca</td>
<td></td>
<td></td>
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</table>

*Figure 1. % of positive answers to the question ‘Which of the following goals did you reach through your high-school education?’ (N=201)*

translanguaging

“multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds” (García 2009)

Well if you don’t know it in English you write it down in German. You don’t need to get into a disadvantage because of English. (student)

In Austria, the local variety of German vis-à-vis Standard German enters into the equation!
feedback and correction

Error correction is seen as the domain of EFL classes – whereas in CLIL:

*You should understand but it isn’t necessary to speak extremely well. You need to know the vocab but the grammar isn’t so important.* (student)

Yeah we correct each other if someone says some real nonsense. I mean you don’t put each other down, you just say “hey that was wrong, say it like this” (student)

*And the teachers make plenty of mistakes too. As long as you get their meaning that’s okay* (student)
innovation & status

• CLIL-strands have high status in schools
• CLIL gives weight to language subjects in a technology environment
• CLIL gives weight to minor subjects in academic schools
• an experience of self-efficacy on part of teachers

Yes, I did ask myself if this project will turn all the electrical engineers into our enemies, but we’ve done well really and we keep going strong
(language teacher in technology college)
reduction of anxiety

- CLIL-alumni self-evaluation (N=1660)
  sig. higher on all 4 skills

- CLIL-students self-reports - frequent vocab: security, feel (more) secure, more relaxed, more familiar, no inhibitions, more agreeable, no more fear (cf. Horwitz et al. 1986)

*It’s about trust in the language. That you get that. That it’s not about errors but speaking fluently. And that you aren’t afraid of making mistakes. (student)*

Yeah, that you just dare do it, just say it in English as if it was German
Policy and practice of CLIL in Europe and beyond part 2

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2. cognitive discourse functions
3. scaffolding understanding
4. doing learning through the 4 language skills
1. the CLIL classroom: discourse and pedagogy

- the 4 Cs framework
- CLIL integration matrix
- study skills
4Cs framework

The 4Cs Framework for CLIL (Coyle 2007: 551)
## CLIL integration matrix

<table>
<thead>
<tr>
<th>LANGUAGE</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>text(book)</td>
</tr>
<tr>
<td>Output</td>
<td>whole-class</td>
</tr>
<tr>
<td></td>
<td>S monologue</td>
</tr>
</tbody>
</table>

(receive)  
(Act)  
(produce)

(current SLA theory)

CCN observation checklist

(science education; Mortimer & Scott 2003)
2. Cognitive discourse functions

- example: History curricula
- verbalisation
- CDF construct
- empirical findings
- TASKS
example: History curricula (grade 9-12)

Fragekompetenz, Methodenkompetenz, Sachkompetenz, Orientierungskompetenz. Entwickeln eines individuellen Handlungsrepertoires für die politische Auseinandersetzung und Meinungsbildung

[Developing a personal activity repertoire enabling political engagement and formation of opinion]

Emplear con propiedad la terminología y el vocabulario históricos y aplicar las técnicas elementales de comentario de textos y de interpretación de mapas, gráficos y otras fuentes históricas.

[Appropriate use of terminology and historical vocabulary. Application of basic techniques of textual commentary and interpretation of maps, graphs and other historical sources]

Buscar, seleccionar, interpretar y relacionar información procedente de fuentes diversas

[Search for, select, interpret and relate information from diverse sources]
How does one learn this?

*Verbalisation* is central

S accesses cognitive processes via T’s modelling
T can access S’s cognitions

> modelling a repertoire of cognitive discourse functions
Language functions dedicated to the verbalisation of cognitive processes

(Dalton-Puffer 2013, Mohan 1986)

• competence-based curricula in FL-Education and Subject-Education: 'can-do’ statements

• a bridging-concept across subject pedagogies
discourse functions


(Lackner 2012, Dalton-Puffer 2013)
discourse functions

(Lackner 2012, Dalton-Puffer 2013)
### CDF as Speech Act: Illocution

<table>
<thead>
<tr>
<th>F1 CLASSIFY</th>
<th>I tell you how we can cut up the world according to certain ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2 DEFINE</td>
<td>I tell you about the extension of this object of specialist knowledge</td>
</tr>
<tr>
<td>F3 DESCRIBE</td>
<td>I tell you details of what I can see (also metaphorically)</td>
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<td>F4 EVALUATE</td>
<td>I tell you what my position is vis a vis X</td>
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<td>F5 EXPLAIN</td>
<td>I tell you about the causes or motives of x</td>
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<td>F6 EXPLORE</td>
<td>I tell you something that is potential (i.e. non-factual)</td>
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<td>F7 REPORT</td>
<td>I tell you about sth. external to our immediate context on which I have a legitimate knowledge claim</td>
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CDF as Speech Act: Illocution

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<td>CLASSIFY</td>
<td><em>Classify, compare, contrast, match, structure, categorize, subsume</em></td>
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<th>F2</th>
<th>I tell you about the extension of this object of specialist knowledge</th>
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<td>DEFINE</td>
<td><em>Define, identify, characterize</em></td>
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<th>F3</th>
<th>I tell you details of what I can see (also metaphorically)</th>
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<td>DESCRIBE</td>
<td><em>Describe, label, identify, name, specify</em></td>
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<th>F4</th>
<th>I tell you what my position is vis a vis X</th>
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<td>EVALUATE</td>
<td><em>Evaluate, judge, argue, justify, take a stance, critique, comment, reflect</em></td>
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<th>F5</th>
<th>I tell you about the causes or motives of x</th>
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<tr>
<td>EXPLAIN</td>
<td><em>Explain, reason, express cause/effect, draw conclusions, deduce</em></td>
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<th>F6</th>
<th>I tell you something that is potential (i.e. non-factual)</th>
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<td>EXPLORE</td>
<td><em>Explore, hypothesize, speculate, predict, guess, estimate, simulate</em></td>
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<th>I tell you about sth. external to our immediate context on which I have a legitimate knowledge claim</th>
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<td>REPORT</td>
<td><em>Report, inform, recount, narrate, present, summarize, relate</em></td>
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CDFs – Empirical findings

• How much evidence of CDFs?
• How realized discursively and linguistically?
• Is there a meta-level?

Data

18 CLIL history lessons, upper sec. (Lackner 2012)
6 CLIL physics lessons, upper sec.(Kröss 2014)
**DESCRIBE** = most frequent CDF in both subjects
Describe \textit{Example-1}


1 T: can you find the temple of Zeus?
2 S3: Yes
3 S1: und wo is das? [and where is it?]
4 S2: No
5 S3: in the middle on the centre
6 S1: Zeus
7 T: it's \textbf{next to} this round building and just \textbf{in front of} it there is the sacred olive tree
Huygens Principle

T: so THIS would be Hu- Hu- ah Huygens´s principle **look at the picture in the book?**
ahm (1) {Tstarts showing pictures from the book} you have (. ) ah circular waves? And you have planer waves. and it´s the same (. ) ah same idea. **WHAT** are the blue arrows here. **if you look at** the blue arrows that are drawn into in in the book.
{T stops showing pictures from the book} {T walks between the students´ desks} <L1de> Mal wer anderer (. ) mal wer anderer ja? </L1de> {somebody else somebody else}

SX-m: <un> xxx </un>

T: okay. Ja? [SX-m].=

SX-m: =direction of propagation=

T: =yes. exactly the blue would be the direction of propagation. <loud> So: </loud> if you compare the direction of propagation to the wave fronts. what is the: what is like your relationship between them. <soft> the geometric relationship so to speak.</soft>

SX-m: perpendicular?=

T: =yah. they’re always perpendicular. <loud> SO. </loud> the wave fronts are ALWAYS perpendicular (. ) to the direction of propagation. okay? {S1 goes back to the blackboard} and that summarizes Huygens´s principle.
Describe Example-3

WW1. Belgian trenches. Painting (reproduced in the textbook)

01 T: ah on the next page you see a scene of this war in a picture which is not more comforting than the description

02 Michael: ((laughs)) sein knie verschimmelt [his knee is rotting]

03 T: could you ah **could you have a look at this picture** and give me a first impression that you have.

04 Monika: I think the soldiers are very desperate and so they it doesn't matter if they live or die...

05 Corinna: some of them are already dead

06 T: did you understand it or do you mean- ah do you need me as an amplifier

07 Sf: no, I understood it

08 T: you understood it? great

09 Corinna: some of them were already (XX )

10 Thomas: it shows them best (xxx). did they? Yes

11 Monika: the whole picture is very dark and looks very pessimistic

12 Isabella: a million died without .. any reason

13 Monika: everything you can see is destroyed. ... so nothing's really okay. all the trees are damaged and so ...
CDFs – **DESCRIBE**: empirical findings

- described object mostly present - verbalised account of other semiotic systems
- signalled by verbs of sensing: *look, see, faced with*...
- location *in the middle, outside, next to*, Sequence *first, later, finally, and then*..
  Constituency *consist of, component*...
- meta-level almost zero **V4**
## CDF: Task 1

### Language Functions:
Decide which sentence represents which of the following CDFs.

<table>
<thead>
<tr>
<th>CDF</th>
<th>Function</th>
</tr>
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<td><strong>F1</strong>&lt;br&gt;CLASSIFY</td>
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There are three different ways of controlling the flow of ink – by crystals, by heating the ink, or by continuous flow.

There are three main types of printer.

There are two ways that monitors differ from each other – size and resolution.

The two main types of monitor are LCDs and CRTs.

A bubble-jet printer is an ink-jet printer that works by heating the ink and spraying it on to paper.

A Visual Display Unite (VDU) is the most commonly used output device.

An output device is any hardware used to communicate the result of data processing carried out by CPU.

The printhead is the component which sprays jets of ink onto the paper.
<table>
<thead>
<tr>
<th>F3</th>
<th>DESCRIBE</th>
</tr>
</thead>
<tbody>
<tr>
<td>° Ink-jet printers cost less than laser printers.</td>
<td></td>
</tr>
<tr>
<td>° Ink-jet printers produce better quality printouts than dot-matrix printers.</td>
<td></td>
</tr>
<tr>
<td>° There are many more nozzles on an ink-jet than dots on a dot-matrix.</td>
<td></td>
</tr>
<tr>
<td>° An ink-jet printer is slower than a laser printer.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F5</th>
<th>EXPLAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>° Laser printers contain complex equipment, so they are expensive to repair.</td>
<td></td>
</tr>
<tr>
<td>° Laser printers have at least 200 dots per inch (dpi), which means they can print high-quality documents.</td>
<td></td>
</tr>
<tr>
<td>° Hydraulic actuators are slow but very powerful, so they are useful for lifting heavy equipment.</td>
<td></td>
</tr>
<tr>
<td>° There are many nozzles on an ink-jet so the print resolution is good.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F6</th>
<th>EXPLORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>° As colour page (laser) printers get cheaper and better there will be less damage for small graph plotters.</td>
<td></td>
</tr>
<tr>
<td>° Voice synthesizers will sound more human in the future.</td>
<td></td>
</tr>
<tr>
<td>° The price for laser printers will come down.</td>
<td></td>
</tr>
</tbody>
</table>
CDF: Task 2

Desert Ecosystems

Key words:

- Location
- Climate
- Soils
- Human activity
- Wildlife
- Vegetation

Source: Deller & Price 2007, p.50
CDF: Task 2

Desert Ecosystems

Example words:

Source: Deller & Price 2007, p.51
CDF: Task 2

Desert Ecosystems

Source: Deller & Price 2007, p.51
3. scaffolding learning

scaffolding

1) visual
2) discursive
visual scaffolds

reception scaffold

<table>
<thead>
<tr>
<th>Example</th>
<th>Title of painting</th>
<th>Painted when</th>
<th>Where is it now (museum, city)?</th>
<th>Main colours used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>The dream</em></td>
<td>1910</td>
<td><em>Museum of Modern Art (MOMA),</em></td>
<td><em>light green, dark green, New York purple, flesh colour...</em></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Dale et al. 2011, p.94
visual scaffolds

transformation/production scaffold

Source: Dale et al. 2011, p.95
scaffolding: TASK 3

backbone  skull  shoulder blade
ribs  lower arm bones  upper arm bone
collar bones  hand bones

Source: Deller & Price 2007, p.50
A CLIL biology lesson in the Netherlands

TASK 4

What scaffolding strategies can you discern?
(watch again)
A CLIL biology lesson in the Netherlands

What scaffolding strategies can you discern?

- blackboard visuals, colours
- reference to pictures in textbook
- task involving a real person (neighbour)
- rephrasing of question
- switch to L1
### discursive scaffolds

- teacher feedback

<table>
<thead>
<tr>
<th>Initiation</th>
<th>What time is it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>Midnight.</td>
</tr>
<tr>
<td>Follow-up</td>
<td>Correct.</td>
</tr>
</tbody>
</table>
• teacher feedback

T-Initiation What time is it?
S-Response Midnight.
T-Follow-up Correct.

• teacher questions
  => main strategy for structuring student output

Can you say this in another way?
How can you tell?
What does that mean for Romeo?
types of teacher questions

Referential  why didn’t you do your homework?
Didactic  yes, what does inherit mean?

Open  what did you write?
Closed  did anybody of you try to dive already?

10 CLIL lessons (520 mins) – 496 T-Qs (Dalton-Puffer 2007)

Referential 53% : Didactic 47%
(Pascual 2010: 77%:23%)

Open 63% : Closed 37%
(Pascual 2010: 80%:20%)
types of teacher questions

Facts  who fought against whom in the First WW?
Description  how was it under water?
Reason  why did the Spartans prefer sons?
Opinion  do you think that parents know what their kids are doing?
Prediction/ Hypothesis  what would happen?

Facts 89% : Rest 11%
(Pascual 2010: Facts 68% : Rest 32%)
T: did you know which kind of aircraft that was?
S: a fighter

T: how do producers make parents buy the cellular phones?
S: they give them the feeling if your kid has a mobile then you can call them and you can be parent even if you are at work and don’t have don’t really have time for your children but you can call them

T-Question-Type: Referential
Fact

T-Question-Type: Didactic?Referential?
Reason

Dalton-Puffer Sophia University  Feb 2015
scaffolding: TASK 5

Watch/Read the lesson extract
(Physics, grade 6, 11-12 ys., 3mins)

• Identify questions

• Which type of teacher questions?

• Fat or Skinny?

• What language output is encouraged?
  What content output is encouraged?
4. learning via 4 skills

- learning the subject
- 4 skills in CLIL lessons – the evidence
- TASK
learning the subject

Receive
- Language
- Reception
  - Listen
  - Read

Act

Produce
- subject
- Production
  - Speak
  - Write
4 skills in CLIL lessons – the evidence

Observational study
28 subcategories

17 CLIL lessons, Austria

Windhager 2014

- Consequence of pedagogical design
- Dominance of whole-class discussion
- (see Badertscher-Bieri 2009, Dalton-Puffer 2007)
SPEAKING

DIALOGICAL SPEECH

Students’ opportunities to participate in dialogical speech

Windhager 2014, 80-81
WRITING

- copying of board
- note taking
- answer questions
- fill in worksheet
- write a text

Windhager 2014, 82
learning via 4 skills: **TASKS**

**Speaking:**
- T6  “Tell me what you know”
- T7  History: Egyptian scripts

**Writing:**
- T8  “How do you spell it?”
- T9  Summarizing
- T10 Student-Student questions

**Listening/Reading:**
- T11 Listening with key words
- T12 “Guess the answer”
- T13 History: the Aztecs (dictogloss)
Glaciers cause erosion, carving out valleys.
Keywords & phrases
Write them down in the order you hear them:
crude oil, take place of, macromolecules,
natural substances, man-made materials refined, synthetic plastics, monomers, derived from, compounds called polymers, fewer than 300 atoms
Conduction and convection
T13 dictogloss
T13 dictogloss

1. There are two general categories of language that involve the use of signs: alternate sign languages and primary sign languages.
2. By definition, an alternate sign language is a system of hand signals developed by speakers for limited communication in a specific context where speech cannot be used.
3. In some religious orders where there are rules of silence, restricted alternate sign languages are used.
4. Airport groundstaff are another example.
5. In contrast, a primary sign language is the first language of a group of people who do not use spoken language with each other.
6. Contrary to popular belief different sign languages do not share identical signs and are not mutually intelligible.


Llinares, Morton & Whittaker 2012 *The roles of language in CLIL*. CUP


CLIL teacher video tutorials (NL)

https://www.leraar24.nl/dossier/3035