Systemic-functional approaches to second language acquisition in EFL and CLIL contexts

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FOREIGN LANGUAGE LEARNING/CLIL: DIFFERENT NEEDS ACROSS LEVELS

Linguistic, cognitive and social needs:

- **Pre-school and Primary**: Learners are cognitively ready to engage in contextualised learning. Approaches such as CLIL and TBL favour communicative learning.

- **Secondary**: Learners need to combine communicative approaches to the FL with a more specific metalinguistic approach:
  - More attention to form as well as to function.
  - In CLIL, awareness of the language needed for specific genres.

- Language is acquired in a social context, by interacting with other people (linked to Vygotsky’s view that language can only work as a characteristic of individual cognition when it happens in communication with the others).

- As in sociocultural theory, verbal meaning is viewed as the product of speakers’ activities in a cultural and situational context (not as the content of a linguistic form excised from this context).

- An SFL description interprets simultaneously what language is and what people do with it.
SFL and SLA/SLD: early age and CLIL

- In SFL, language form and content/meaning are integrated: learning content involves learning the language to express that content. Language is both process and product (as in early language learning or CLIL).

- Both in FLL at an early age and CLIL, the content being spoken about becomes the context for language learning:
  - In pre-school/early primary: school content knowledge matches “home content” knowledge. Need for “language for everyday communication”
  - In CLIL at secondary level: academic content. Need for “academic language”
According to Leung (2005), we should pay attention to:

- The ways languages are actually used in classroom interaction and activities
- The demands and affordances of language learning in the context of curriculum subject learning

Classroom discourse:

- Young learners (Christie, 2002; Llinares, 2006, 2007a, 2007b; Llinares and Romero, 2007)
- CLIL/CBI (Dalton-Puffer, 2007; Eggins and Slade, 2004; Gibbons, 2006; Llinares and Whittaker, 2007; 2009)

The language of schooling: school genres (Christie, 2002; Christie and Martin, 1997; Coffin, 2006; Martin and Rose, 2003; Schleppegrell, 2004; Llinares and Whittaker, 2007, 2009; Whittaker and Llinares, 2009)
SFL and SLD AT PRE-PRIMARY AND PRIMARY SCHOOL CONTEXTS

Rationale

Contextualised learning: learning naturally in artificial contexts (I)

- It has been claimed that the acquisition of a second language in childhood seems to work better in natural contexts. According to Foster-Cohen (1999), the classroom is an artificial context where children learn the L2 worse than adults.

- On the other hand, Geekie and Raban (1994) examine patterns in the interactions of children with their teachers in the classroom which are found in the interaction between mothers and children.
Rationale

Contextualised learning: learning naturally in artificial contexts (II)

Three main requirements for SLA (Wong-Fillmore, 1991):
- They must be helped by speakers that know the L2 well
- There must be a social context that puts learners and L2 speakers together
- Learners must feel the need to learn the L2

Key factors to encourage young learners’ production in the L2 (Tabbors and Snow, 1994):
- To respond to children’s intentions to communicate in L2
- To promote interesting activities to achieve this purpose
THE UAMLESC project
(ref. BFF2003-8381), 1998-2005

Description of the corpus

- **The language:**
  - Means: Spoken English
  - Genre: Classroom Discourse

- **The learner:**
  - Age: from 5 to 11 (longitudinal)
  - Sex: boys and girls
  - Mother tongue: Spanish
  - Region: Comunidad de Madrid
  - Learning context: EFL and CLIL with different degrees of immersion

- **The teacher:**
  - Mother tongue: English and Spanish
1. Analysis of the functional language used in class by young learners in **high-immersion and low-immersion “bilingual contexts”** (Llinares, 2006, 2007a)

2. Analysis of the **effect of task type** on the learners’ “natural” oral production in the L2 (use of the L2 to convey different functions; “discourse initiations”) (Llinares, 2007b)

3. Analysis of the **personal function of language** (Llinares and Romero, 2007)
THEORETICAL FRAMEWORK (I)

SFL: MACROFUNCTIONS AND CHILDREN’S LANGUAGE DEVELOPMENT

(Halliday, 1975; Painter, 2000)

MATHETIC FUNCTION

PRAGMATIC FUNCTION

IDEATIONAL FUNCTION

INTERPERSONAL FUNCTION
SFL and SLD AT PRE-PRIMARY AND PRIMARY SCHOOL CONTEXTS

TAXONOMY (I)

Mathetic Functions

- Heuristic Function Ex. 1: ((playing a game on types of animals))
  - TCH: Beatriz. Ask Laura
  - P1: *Is it the insect?*
  - P2: yes

- Informative Function Ex. 2: ((describing pictures))
  - TCH: Victor! Describe your picture
  - P1: *The giraffe eating the trees*
  - TCH: Eating the...?
  - P2: leaves

- Personal Function Ex. 3: ((two children talk about what happens after death))
  - P1: *I think we would not ... grow again*
  - P2: *In the sky yes. Maybe no, maybe no but...a lot*
Pragmatic Functions

- **Regulatory Function Ex. 4: ((Giving instructions))**
  - *P1: Open it*
  - *P2: No*
  - *TCH: Open it*

- **Instrumental Function Ex. 5: ((Asking for things))**
  - *P1: Give me a red pencil. Eh! Give me a red pencil.*
  - *P2: No*

- **Interactional Functiona Ex. 6 ((Greetings))**
  - *P1: Good morning, teacher*
STUDY 1: ANALYSIS OF LEARNERS’ FUNCTIONAL PRODUCTION

Comparison of native and high-immersion EFL young learners’ classroom performance (NC & EFL, cir. 33,000 words)
STUDY 1: ANALYSIS OF LEARNERS’ FUNCTIONAL PRODUCTION
Young learners’ performance in high-immersion contexts: data from a show-and-tell session

(A girl is showing a barbie bicycle)

- TCH: And can you ride a bicycle?
- P. **My daddy’s showing me**. He holds me
- TCH: Good. **Your daddy’s showing you and he holds you [so that]**
- P. **[And sometimes] he doesn’t hold me.**
- TCH: Ok, a bicycle is a means of transport. Can you think of any other means of transport? How do you come to school, Clara? By car...?
Examples of activities suggested in the low-immersion context to encourage learners´ initiations in the L2 (I)

**Instrumental function**
- **ACTIVITY:** There are different objects with different colours, sizes and textures. The children have to ask for specific objects (SCIENCE).

**Regulatory function**
- **ACTIVITY:** One child follows the instructions given by another one to paint a picture (ARTS).

**Personal function**
- **ACTIVITY:** The children talk about the characters of a story that they have just read in class (LITERACY).

**Heuristic function**
- **ACTIVITY:** The children have to ask questions to guess the picture that other children have (SCIENCE).
STUDY 1: ANALYSIS OF LEARNERS’ FUNCTIONAL PRODUCTION
Activity used to encourage the use of the personal function by the learners in low-immersion contexts

Talking about the characters of the tale “Little Red Riding Hood”, which they have just read

*TCH: Which character do you like most, Raquel?...The wolf?*

*P1: Nooo! *I like the grandmother*

*P2: I don´t like the wolf....because ugly*

*TCH: The wolf is ugly?*

*P2: Yes*

*P3: I like wolf*
STUDY 1: ANALYSIS OF LEARNERS’ FUNCTIONAL PRODUCTION.
Experimental study in a low-immersion context

Learners’ initiations in the L2 in the experimental group before and after working with specific activities
(Low-immersion context)
STUDY 1: ANALYSIS OF LEARNERS’ FUNCTIONAL PRODUCTION. EXPERIMENTAL STUDY IN A LOW-IMMERSION CONTEXT

Functions used by the children in the experimental and control groups after the treatment

<table>
<thead>
<tr>
<th>Function</th>
<th>Group A (Exp)</th>
<th>Group B (Con)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L2 L1</td>
<td>L2 L1</td>
</tr>
<tr>
<td>Personal function</td>
<td>31 25</td>
<td>13 66</td>
</tr>
<tr>
<td>Informative function</td>
<td>100 4</td>
<td>35 12</td>
</tr>
<tr>
<td>Heuristic function</td>
<td>15 7</td>
<td>16 17</td>
</tr>
<tr>
<td>Instrumental function</td>
<td>1 9</td>
<td>4 12</td>
</tr>
<tr>
<td>Interactional function</td>
<td>3 0</td>
<td>9 0</td>
</tr>
<tr>
<td>Regulatory function</td>
<td>77 9</td>
<td>115 35</td>
</tr>
</tbody>
</table>
STUDY 2: ANALYSIS OF THE EFFECT OF TASK TYPE ON THE LEARNERS’ “NATURAL” ORAL PRODUCTION IN THE L2

RESEARCH QUESTIONS:

- What kind of activities lead to a more ‘natural’ FL functional production in a high-immersion context?
- What kind of function for initiation is triggered in the different types of activities?

DATA:

- High-immersion context
  - Two groups of 5-year-olds
  - Two different sessions per group and task: two task-work sessions and two show and tell sessions
STUDY 2: ANALYSIS OF THE EFFECT OF TASK TYPE ON THE LEARNERS’ “NATURAL” ORAL PRODUCTION IN THE L2
## Study 2: Analysis of the Effect of Task Type on the Learners’ “Natural” Oral Production in the L2

Distribution of children’s functions for initiation in the ST and TW sessions (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Regulatory</th>
<th>Instrumental</th>
<th>Heuristic</th>
<th>Informative</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ST Group A S1</strong></td>
<td>11</td>
<td>05</td>
<td>04</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td><strong>ST Group A S2</strong></td>
<td>05</td>
<td>06</td>
<td>12</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td><strong>ST Group B S1</strong></td>
<td>35</td>
<td>09</td>
<td>05</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td><strong>ST Group B S2</strong></td>
<td>16</td>
<td>16</td>
<td>09</td>
<td>22</td>
<td>34</td>
</tr>
<tr>
<td><strong>TW Group A S1</strong></td>
<td>17</td>
<td>17</td>
<td>34</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td><strong>TW Group A S2</strong></td>
<td>17</td>
<td>11</td>
<td>38</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td><strong>TW Group B S1</strong></td>
<td>0</td>
<td>12</td>
<td>75</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td><strong>TW Group B S2</strong></td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>
STUDY 3: ANALYSIS OF THE PERSONAL FUNCTION OF LANGUAGE

RESEARCH QUESTIONS:

a) How is the personal function realised by young learners in both L1 and FL classrooms?

b) How does the use of the personal function by the teacher affect the use of the personal functions by the EFL learners in the L2?

DATA:

a) L2 data from a high-immersion school

b) L1 data from the CHILDES corpus (Gathburn)
STUDY 3: ANALYSIS OF THE PERSONAL FUNCTION OF LANGUAGE

<table>
<thead>
<tr>
<th></th>
<th>Teachers</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NS (significant, p=0.00)</td>
<td>EFL-A (significant, p=0.00)</td>
</tr>
<tr>
<td>Heuristic</td>
<td>56.4</td>
<td>51.9</td>
</tr>
<tr>
<td>Informative</td>
<td>27.4</td>
<td>31.7</td>
</tr>
<tr>
<td>Personal</td>
<td>16.1</td>
<td>16.3</td>
</tr>
</tbody>
</table>
STUDY 3: ANALYSIS OF THE PERSONAL FUNCTION OF LANGUAGE

![Bar chart showing personal function by context and group]
T: Yeah? Which beach do you go to for your summer holiday?

P: In Barcelona

T: To Barcelona? Woow, I love Barcelona. (P) I’ve got a very good friend there. (P) I love it. (P) Have you got a house in Barcelona?

P: Yeah

T: Lovely. I’m gonna come and visit you up there (P)

P: And I have two dog there (P)
In the so-called “artificial contexts”, L2 production can be enhanced with the use of appropriate activities to encourage a more “natural” use of language.

However, these activities need to be adapted to the type of learning contexts:

- In high-immersion L2 classroom contexts: Communicative situations led by the teacher during task work, or “Show and Tell sessions”.

- In low-immersion L2 classroom contexts: Communicative situations through simple specific activities (leading to pupils’ initiations in the L2 and use of various functions, like the personal one, commonly used by children in the L1).
Rationale

Contextualised learning: learning naturally=learning the language of the discipline and the language of schooling

- Research at the micro level, focusing on language as process and product (Dalton-Puffer and Smit 2007).

- Focus on “the language of discipline genres” and “school macrogenre” (Llinares, Morton and Whittaker, forthcoming), or “language of learning” and “language for learning” (Coyle 2002),
SFL and SLD AT SECONDARY SCHOOL CLIL CONTEXTS

The UAM-CLIL project (AIMS)

- Identify the linguistic needs of ESO learners: the language of the discipline (social science).

Analysis of

- Learners’ spoken and written production in a topic a year from the social science syllabus in 2 state secondary schools:
  - 2005/2006  1º ESO students (12/13-year-olds)
  - 2006/2007  2º ESO students (13/14-year-olds)
  - 2007/2008  3º ESO students (14/15-year-olds)
  - 2008/2009  4º ESO students (15/16-year-olds)

Comparison with

- production of parallel Spanish native groups on the same topics.
- production of native speakers of English (same age, similar topics).
Design of prompts and data collection

Prompts based on:

- syllabus requirements
- need for input for different registers and genres: spoken and written production (class discussion + written essay) and recount, explanation, argumentation, etc…

**EXAMPLE OF A PROMPT FOR SPOKEN AND WRITTEN TASKS (4º ESO)**

Write a composition about The First World War. Try to include the following ideas. Explain why WWI broke out and in what ways it was different from previous wars. Explain what happened during the war and why it came to an end. Refer to the consequences of the Treaty of Versailles and justify whether you agree with its terms or not.

Systemic-functional work on the language of history (Coffin 2000, 2006a, b; Groom 2004, Veel and Coffin 1996)
SFL and SLD AT SECONDARY SCHOOL CLIL CONTEXTS

Register features analysed

Systemic-functional linguistics (Halliday 2004)

Macrofunctions and features analysed

- Ideational function: transitivity, processes, participants, circumstances
- Interpersonal function: modality
- Textual function: clause complexes, reference
SOME RESULTS ON LEARNERS OUTPUT (I) Different disciplines require expression of different types of meanings (ideational). PROCESSES + CIRCUMSTANCES

GEOGRAPHY: MORE ACTIONS

ST: … floods are when it rains a lot and snow melts, and that cause the river overflow. (CB-D1)

HISTORY: MORE STATES

The civilizations were so important because the most powerful people stood there and because they were the main sources of work and culture. (CA-T2-21)
SOME RESULTS ON LEARNERS OUTPUT (II) Modality required for the disciplines. (interpersonal).

Probability, usuality, ability, obligation/permission. Limited repertoire: multifunctional “can”

*The consequences can* <PROB> be that: the houses could <PROB> float and the people could <PROB> die. *We can* <ABILITY> cut less trees but that means produce less wood. *I can’t* <ABILITY> do anything ... *but, well I could* <ABILITY> think it and teach my sons and maybe <PROB> they can <ABILITY> say something, but is no probably <PROB>. (CB-T1-1)
Presentative “there” quite frequent in 2nd and 3rd year, hardly found in 1st year data

ST: there was a price revolution (CA-D4)

Problems with reference in 1st year data

- They start in that places because the population grow. (CB T2-19)
- Many people lived in rural places. These people worked the lands. They lived in small houses in villages near to forests. These people were called peasants. …(CA-T3-27)

(Martin and Rose 2003)
SOME RESULTS ON LEARNERS’ OUTPUT (IV)
Clause complexes (textual)

- Development of written register: from clauses to NPs
  - The black death transpasit because of the rats, because they may be go to the food and they infected and later the humane eat and they die and may be because of the dogs too because the rats go with the dogs and they .... (CB-T3-23) (8 paratactic, 2 hypotactic clauses)
  - and rich people became richer with the rise of taxes and prices during the Inflation after mercantilism (CA-T4-21) (Halliday 1989)

- Successful abstraction in L1; attempts in CLIL classes

  TCH: ¿Por qué creéis que se propagó tan rápidamente la Peste Negra? A ver, ST: Por el hacinamiento (CB-D3-L1)

  ST: The Black Death was caused by the dirty of the people. They don’t wash very much and they threw the rubbish and the things to the street (CB-D3)
SOME RESULTS ON TEACHER INPUT
Teacher constructs students as thinkers; role of language (mental and verbal processes)

- TCH: The importance of the river. Why along rivers? **Think** about that. OK? So, **develop that idea**.
  
  ST: Eh, that they placed of the banks of the river, because they were the only fertile lands. (CB-D2)

- TCH: OK. Something else about the place or the cities? OK. So, can you **name** any, any, a few cities that you can **remember**? (CA-D2)

- ST: Acid rain destroys the forests.
  
  TCH: Ah! Very important! OK. **Say** that again.
  
  ST: That acid rain destroys forests.
  
  TCH: Acid rain destroys forests. And as a consequence? ... (CA-D1)
TCH: OK. Good. And what about the obligations of the peasants? What did they have to do, A.?

ST1: They have to work the lands of the lords, but they can’t leave. They could go to another, eh, to the land of another, of another lord if they want.

TCH: OK. And P., the same. What about their rights? What were the rights of the peasants?

ST2: Eh, the, the, the free peasants, eh, they were free. They could do-. They work, attending the lords and things like that. And the serfs were similar to slaves. They, they have few rights.

(Gibbons 200)
Need for teachers to analyse the genres required for specific disciplines, as they trigger different linguistic features (e.g. different process types, circumstances, modality).

To create coherent text, students need to control the systems that signal new and given information in English.

Spoken texts develop using clauses while written texts develop using noun phrases + modification.

Some features seem to develop “by mere exposure/implicit focus” in CLIL classes, others need an explicit focus.
SFL approaches to SLA at an early age and in CLIL: final thoughts

- SFL provides a framework for the study of SLA/SLL as a situated practice, in which language cannot be detached from the specific context (CLIL, pre-school class, etc...) in which it happens, with specific participants.

- Importance of "quality of teacher input":
  - Enhancing natural/authentic communication by using a wide range of communicative functions (pre-school/pre-primary contexts).
  - Enhancing natural/authentic communication by scaffolding students with the language necessary for different school genres, by scaffolding registers and by making students participate as thinkers, not only as animators (Goffmann, 1981).

- Learners’ "output" is richer:
  - If students initiate exchanges themselves and use the L2 for their own personal purposes, this becoming part of the content through which language is learnt (EVERYDAY LANGUAGE)
  - If students are able to use the L2 appropriately for different registers and genres (ACADEMIC LANGUAGE+THE LANGUAGE OF SCHOOLING)