Teachers' questions in CLIL contexts

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The UAM-CLIL Project

- General aims:

1. To identify the linguistic needs of CLIL learners of social sciences (History and Geography) in secondary education.
2. To provide teachers with suppport and useful tools in order to face their students' linguistic needs.

The UAM-CLIL Project

- Specific aims:

1. Analysis of learners' output: written and spoken production per year about a topic belonging to the social sciences syllabus. (From 1st E.S.O. -2005/2006-to 4th E.S.O.-2008/2009).
2. Class input: texbook and teacher (same topic)
3. Comparison with Spanish native students on the same topics and native speakers of

The UAM-CLIL Project: Data

	FEB 2006		APRIL/ MAY2006		APRIL/ MAY2007		APRIL/ MAY2008		MARCH 2009	
	GEOGRAPHY: NATURAL DISASTERS (1st ESO)		HISTORY: ANCIENT CIVILIZATIONS (1st ESO)		HISTORY: FEUDAL EUROPE (2nd ESO)		HISTORY: PHILIP II (3rd ESO)		HISTORY: THE FIRST WORLD WAR (4th ESO)	
CLASS DISCUSSION 30 mins	A 4,967words	B 3,549 words	A 3,946 words	B 1,952 words	A 3,588 words	B 2,808 words	A 2,041 words	B 1,645 words	A (to be transcribed)	B (to be transcribed)
WRITTEN TEXT 20 mins	A (26 texts)	B (17 texts)	A (26 texts)	B (25 texts)	A (24 texts)	B (23 texts)	A (22 texts)	B (17 texts)	A (to be transcribed)	B (to be transcribed)
INTERVIEW 6 students/3 levels	A 1,665 words	B 2,012 words	A 2,214 words	B 2,316 words	A 3.802 words	B 5,139 words	A 4,166 words	B 3,794 words	A (to be transcribed)	B (to be transcribed)

The present study

Motivations:

- To identify linguistic needs of CLIL learners of English, specifically in the social sciences curriculum.
- To study teachers' language in CLIL classrooms and the influence it can have on students' output.

The present study II

Objectives:

- To identify and analyse the types of questions teachers ask.
- Through the analysis of teachers' questions and students' responses, to establish what types of questions promote longer and more extended answers.
- To find out whether there are significant differences between teachers in the types of questions they ask due to their different backgrounds.

Data

- Come from two state secondary schools in Madrid with an integrated curriculum(Spanish and British)
- The data analysed belong to an end-of-topic whole-class discussion on the topic selected.
- A prompt was used in each session.
- Subject: Geography and History.
- Three consecutive years have been analysed (1º, 2º and 3º E.S.O.-students are 12,13 and 14 years old).

Data II

- There are two sessions the first year (one of Geography, another one of History), and one the next years (of History)
- Two different teachers in the data: one is a specialist in both content and language; the other one is a specialist just in content.

An example of prompt

- Topic: Feudal Europe
- Year: 2nd E.S.O.
- Prompt:

1. What was life like in rural areas?
2. What were the obligations and rights of the peasants in the feudal system?
3. Why was there a rebirth of cities?
4. Compare urban life in the Middle Ages with your present urban life
5. What were the causes and consequences of the plague?

Theoretical framework

- CLIL research (Dalton-Puffer 2007, Nikula 2007, Coyle 2006, Dalton-Puffer and Smit 2007, Llinares and Whittaker 2009)
- Systemic Functional Linguistics (Halliday 1978, 2004, Christie 2002, Schleppegrell 2004, Coffin 2006, Martin 1992, Matthiessen 1995, Thompson 2004)
- Typologies of questions (Barnes 1969, Mehan 1979, Long and Sato 1983, Dalton-Puffer 2007)

Typologies of questions

- Open (*what types of important buildings are there*?) vs closed questions (*was that called Alexandria at that moment*?) (Barnes1969)
- Display (*why were the pyramids built*?)vs referential questions (*what do you have to add*?) (Mehan 1979)
- Questions for facts (*what happened with the floods*?)/questions for opinions (*do you think there were economical reasons*?)/questions for explanations (*how did that affect*?)/questions for reasons (*why along rivers*?)/meta-cognitive questions (*what do you mean*?)(Dalton-Puffer 2007)

Data analysis I: open and closed questions

Teacher A	S1	S2	S3	S4	Mean
Open	104	67	79	40	72.5
Closed	16	15	18	10	14.75
Teacher B	S1	S2	S3	S4	Mean
Open	67	56	57	37	54.25
Closed	21	6	7	5	9.75

Data analysis II: display and referential questions

Teacher A	S1	S2	S3	S4	Mean
Disp.	88	70	79	40	69.25
Ref.	32	12	18	10	18
Teacher B	S1	S2	S3	S4	Mean
Disp.	54	55	60	30	49.75
Ref.	34	7	4	12	14.25

Data analysis III: third typology

Teacher A	S1	S2	S3	S4	Total	Mean
F	83	63	83	28	257	64.25
E	10	2	6	2	20	5
R	8	10	8	6	32	8
O	16	7	0	14	37	9.25
MC	3	0	0	0	3	0.75

Data analysis IV: third typology

Teacher B	S1	S2	S3	S4	Total	Mean
F	46	49	49	18	162	40.5
E	7	2	4	2	15	3.75
R	13	8	11	13	45	11.25
O	22	3	0	7	32	8
MC	0	0	0	2	2	0.5

Data analysis V: three typologies together

- The most remarkable differences between the two teachers are found in these three types of questions.
- T-tests are not statistically significant (0,88; 0,13 and 0,71, respectively).

	Teacher A	**Teacher B**
ODR	32	41
ORO	25	31
ORR	0	5

Examples

- ORO: *What would you do to help after the earthquake?*
- ODR: *Why can droughts transform some areas into deserts?*
- ORR: *Why do you think the volcano is the worst natural disaster?*

Discussion of findings I

- Both teachers ask more open questions than closed ones.
- Teacher A's numbers are considerably higher for both types of questions. This could be due to the fact that she speaks more than teacher B; thus, if she talks more, there are more chances that she makes questions.

Discussion of findings II

- Both teachers ask more display questions, as it is expected in an educational context.
- As it happened with the first typology, teacher A's numbers are higher here as well.
- Regarding the third typology, similar numbers are found in questions for opinions, metacognitive questions and questions for explanations.

Discussion of findings III

- As to questions for facts, teacher A's numbers are higher; the opposite happens with questions for reasons (teacher B asks more questions of this type).
- Looking at the three typologies together, three types have remarkably different numbers: open referential questions for opinions, open display questions for reasons and open referential questions for reasons.

Discussion of findings IV

Development of questions through years:

- In general, less number of all types of questions for both teachers.
- Teacher A:

1. MC questions are present in the 1st session when students are less mature.
2. Questions for opinions and questions for reasons fall, but not in an abrupt way

Discussion of findings V

- Teacher B:

1. MC questions go up,as it could be expected, since students are more mature in 3rd E.S.O. than in 1st year.
2. ORO questions suffer an abrupt fall.
3. Even though, all types of questions fall down in number, questions for reasons remain the same (13)

Conclusions I

- Both teachers ask more open questions than closed ones, which is thought to create a freer use of the language in the response.
- On the other hand, more display questions than referential ones are present. In this case, referential questions are thought to promote more complex answers.
- Even though none of the results turns out to be statistically significant, some of them are close to be so, and clear tendencies are appreciated. That could lead us to think that with more data, maybe these tendencies would be translated into statistically significant results.

Conclusions II

- However, with the present data,we can't say that the different backgrounds affect the type of questions teachers ask.
- After analysing students' responses as well(not in this presentation), it seems that open referential questions for opinions and open display/referential questions for reasons are the ones that require more complex answers.
- Teacher B's students' responses are, in general, more complex. This might be related with the fact that she asks more questions of the types mentioned above.