VIEW[z]

CURRENT RESEARCH ON CLIL

EDITED BY
CHRISTIANE DALTON-PUFFER & TARJA NIKULA

Letter from the editors

Dear Readers,

you are looking at the first special issue of VIEWZ, dedicated to a 'hot topic' in foreign and second language education, namely the integration of language and content. This educational model is receiving a good deal of attention from the primary to the tertiary sector in education and the cover-term which has now established itself for this in Europe is CLIL (for *Content and Language Integrated Learning*).

The motivation for introducing this new format into the VIEWZ-universe was to increase the immediate visibility of a currently very lively research scene in applied linguistics by exploiting the speed of our publication channel. All contributions are reports on work in progress presented at conferences and workshops in the summer of 2006. This special issue has been edited by a member of our editorial team in collaboration with an external scholar, Tarja Nikula from the University of Jyväskylä.

If this special issue meets with positive reactions from our readers, this may well be the first in a series: as always, we invite you to 'give us your *views*'

THE EDITORS

CONTENTS

Introduction

Christiane Dalton-Puffer & Tarja Nikula

This Special Issue of VIEWZ showcases current European research in the field of Content-and-Language Integrated Learning (CLIL)[1], the contributions reflecting the diversity of CLIL both as regards its ways of implementation and target groups, as well as types of research conducted in this area.

Eurydice 2006 report shows that CLIL has become an educational approach that is widely employed across Europe. At the same time, there is great deal of diversity as regards forms of implementation, target audiences, teaching professionals involved and the position of CLIL in the education system. While adaptability to local conditions is an important reason for the increasing popularity of CLIL, there are also calls for consolidating and unifying the European CLIL scene. Over the years a number of initiatives by the European Commission and the Council of Europe like (CLIL Consortium, ECML Workshops) have worked on creating a counterbalance to diversity by producing overviews and working out some grand lines, tentative rationales, criteria, and sets of recommendations. There are a number of publications that give general guidelines on CLIL, regarding curricula, materials, and organisational structures (e.g. *CLIL Compendium*, Marsh and Langé 1997; Marsh, Marsland and Nikula (eds.) 1997, Mohan *et al.* (eds.) 2001, Johnson and Swain (eds.) 1997, Marsh 2002).

Despite these initiatives, published work on CLIL education on the whole shows an overwhelming affinity to local contexts. There is for instance a sizeable literature reporting on the implementation of CLIL programmes in different institutions, in different content areas, at different educational levels in different countries around the globe. (e.g. Fruhauf *et al.* (eds.) 1996, Kruger and Ryan (eds.) 1993, Breidbach, Bach and Wolff (eds.) 2002, Stryker and Leaver (eds.) 1997, Abuja (ed.) 1998, Abuja and Heindler (eds.) 1993, Snow and Brinton (eds.) 1997, Mohan *et al.* (eds.) 2001, Johnson and Swain (eds.) 1997, Wildhage and Otten (eds.) 2003). The reason for this is clearly that having started as a grass-roots phenomenon in most countries, CLIL is strongly tied to educational practice and thus to the decidedly national educational cultures of different states. As a consequence, CLIL-related

---

[1]   Also referred to as Bilingual Teaching, Englisch als Arbeitssprache, Immersion Education, Content-Based-Instruction and by numerous other labels.

public discourse tends to stay within national boundaries of individual countries. We do believe that this connectedness to the actual conditions of different locations should be maintained, but at the same time we think that the CLIL enterprise could profit from a higher degree of abstraction, and accumulation of research-based knowledge.

It is only over the last three years or so that a truly international research scene focussing on CLIL has started to evolve. We believe that for many of the researchers involved working with methods, constructs and concepts from applied linguistics is a catalyst in this process, because it provides a common conceptual frame of reference which can mediate between the sometimes very different local conditions. Structures of information-sharing and co-operation need to be established and supported so that research-based knowledge will accumulate and benefit practitioners rather than remain scattered. A series of research workshops in Vienna 2005, at the CLILCOM Conference in Helsinki 2006, and the ESSE Conference in London 2006 have been important stepping stones in this, as has been the foundation of the CLIL Research Network within AILA.[2] A first collection of empirical studies on CLIL arising from the 2005 workshop is in print (Dalton-Puffer and Smit 2007). This VIEWZ issue brings together work presented in workshops and conferences during 2006, its explicit intention being to serve as a channel for divulging current work among researchers and others interested in the focal area through exploiting the speed of electronic publication.[3] The papers assembled here are predominantly reports on work in progress, showing that for a comprehensive view of CLIL, research is needed on different aspects:

- Learning of different language skills (words, morphosyntax, discourse, pragmatics, listening, speaking, writing, reading,)

- Development of learners' conceptual skills

- Ways in which classroom interaction is conducted in social and linguistic terms

- Effects of CLIL on students mastering both oral and written genres, both subject-specific and general academic

- The extent to which success of CLIL is dependent on factors located outside school such as exposure, motivation, the sociolinguistic context etc.

---

[2] The next CLIL Research Workshop of the ReN will take place in Vienna 20-22 September 2007. Those interested in joining the research network should contact ute.smit@univie.ac.at.

[3] A hardcopy edition of the Special Issue can be ordered from the Vienna English Department through a-mailing gertraud.rotte@univie.ac.at. At a price of € 7 plus postage.

As this list suggests, CLIL can be approached from a variety of perspectives and it is clear that continued work is needed in order to increase our research-based understanding of the complexity of issues involved, and to provide help for both practising CLIL teachers and for those involved in development work. We believe that this collection of papers serves as a good indication that valuable research is being conducted in different corners of Europe and that CLIL research is establishing itself as an important area of applied linguistics.

References

Abuja, Gunther (ed.) 1998. *Englisch als Arbeitssprache: Modelle, Erfahrungen und Lehrerbildung*. Graz: Zentrum für Schulentwicklung, Bereich III (Berichte/ Bundesministerium für Unterricht und kulturelle Angelegenheiten, Zentrum für Schulentwicklung, Bereich 3: Reihe 3).

Abuja, Gunther and Dagmar Heindler (eds.) 1993. *Englisch als Arbeitssprache: fachbezogenes Lernen von Fremdsprachen*. Graz: Zentrum für Schulversuche u. Schulentwicklung.

Breidbach, Stephan, Gerhard Bach and Dieter Wolff (eds.) 2002. *Bilingualer Sachfachunterricht: Didaktik, Lehrer-/Lernerforschung und Bildungspolitik zwischen Theorie und Empirie*. Frankfurt etc.: Peter Lang.

CLIL Compendium, www.clilcompendium.com. [4 Agusut 2006].

Dalton-Puffer, Christiane and Ute Smit (eds.) 2007. *Empirical perspectives on CLIL classroom discourse – CLIL: empirische Untersuchungen zum Unterrichtsdiskurs*. Frankfurt, Wien etc.: Peter Lang.

Fruhauf, Gianna et al. (eds.) 1996. *Praxis und Perspektiven bilingualen Lehrens und Lernens in Europa*. Alkmaar: Tstichting Europees Platform voor het Nederlands Onderwijs.

Johnson, Robert Keith and Merrill Swain (eds.). 1997. *Immersion education. International perspectives*. Cambridge: Cambridge University Press.

Krueger, Merle and Frank Ryan (eds.) 1993. *Language and content. Discipline- and content-based approaches to language study*. Lexington, MA: Heath and Company.

Marsh, David (ed.) 2002. *CLIL/EMILE – The European dimension. Actions, trends and foresight potential*. Public Services Contract DG EAC: European Commission.

Marsh, David and Gisella Langé (eds.) 1999. *Implementing content and language integrated learning. A research-driven TIE-CLIL foundation course reader*. Jyväskylä: Continuing Education Centre: University of Jyväskylä.

Marsh, David, B. Marsland and Tarja Nikula. (eds.) 1997. *Aspects of implementing plurilingual education*. Jyväskylä: Continuing Education Centre: University of Jyväskylä.

Mohan, Bernard, Constant Leung and Chris Davison (eds.) 2001. *English as a second language in the mainstream. Teaching, learning and identity*. (Applied Linguistics and language Study) Harlow etc.: Longman.

Snow, Marguerite Ann and Donna M. Brinton (eds.) 1997. *The content based classroom. Perspectives on integrating language and content.* White Plains: Longman.

Stryker, Stephen B. and Betty Lou Leaver (eds.) 1997. *Content-based instruction in foreign language education. Models and methods.* Washington D.C.: Georgetown University Press.

Wildhage Manfred and Edgar Otten (eds.) 2003. *Praxis des bilingualen Unterrichts.* Berlin: Cornelsen.

Solidarity strategies in CLIL university lectures: teacher's use of pronouns and modal verbs

Emma Dafouz Milne

Introduction: CLIL and the notion of stance

The teaching of subject content through a foreign language is already a reality in many European countries. In the Spanish context, where this study is based, the implementation of a CLIL approach at university level responds mainly to individual initiatives, with hardly any institutional provision. Moreover, empirical research in these newborn CLIL classrooms is virtually non-existent.

The purpose of this paper, part of a larger project describing CLIL discursive features and methodological needs at the tertiary level[4], is to explore the linguistic and pragmatic characteristics of university lectures in an international audience setting where English is used as a *lingua franca*. Given that lectures still constitute the predominating teaching style in higher education, and that over 75% of the class time is usually consumed by the instructor (see Dafouz *et al*, forthcoming; Morell, 2004; Saroyan and Snell, 1997), it is of importance to identify what goes on in this particular context. Admittedly, the description of such a complex academic genre would cover numerous features, thus, at this stage, this work will concentrate specifically on the construction of stance.

Stance (Biber *et al*, 1999: 966) is commonly defined as [speakers' and writers'] "expression of personal feelings, attitudes, value judgments, or assessments towards the propositional content and the participating audience". This broad scope will help us delve into the ways in which university lecturers and students conceptualise their roles in the emerging CLIL contexts, while also enabling us to explore the ample variety of linguistic and discursive elements (e.g. modal verbs, qualification devices, adverbial constructions, hedges, pronouns, etc.) that operate under the stance umbrella. Within stance, this study focused on two of the most visible indicators, namely pronoun use

(specifically pronouns *I, you* and *we*) and some modal and semi-modal verbs that accompany them (i.e. *can, may, might, must, have (got) to, need to,* and *will*) Interest in these features was corpus-driven, since quantitative analysis revealed that they were the most numerous items found in the data.

2. Methodology

2.1. The corpus

The corpus of this study is based on the transcriptions of three university lectures of around 60 minutes each and consists of about 20,000 thousand words. In addition to audio and video-recordings, the students and instructors enrolled in the course completed a short questionnaire concerning demographic information (i.e. age, nationality, gender, etc), foreign language competence and previous experience with learning/teaching content through a foreign language. Video recorded interviews with two of the lecturing participants and six student-volunteers were also used as qualitative data.

2.2 Participants: the students and the lecturers

A total of twenty-six students from fourteen different nationalities (Belgians, Croatians, Danes, Swedes, Spaniards, etc.) attended this summer course and used English as a *lingua franca*. On average, they self-reported a high-intermediate to advanced level of English, and eighteen stated that lectures were the most widely used teaching format in their home country.

The lecturers represented in our data are three male speakers, native speakers of Spanish and permanent teachers in the Faculty of Aeronautical Engineering at the *Universidad Politécnica de Madrid (UPM)*. While two of the speakers had experience in lecturing through English, for one of them it was the first time. From the questionnaire distributed we learned that the lecturers' self-reported level of English ranged between intermediate to high intermediate. The course was officially entitled *Feel the speed. Feel the engineering. What's behind Formula 1 cars,* and its main objective, according to the organisers, was to offer an attractive approach simultaneously imparting academic technical information.

3. Results and discussion

After transcribing and analysing the three lectures, the most noticeable feature was the remarkable presence of the pronoun *we* (419 instances) compared to the. lower number of the other two personal pronouns: *I* (146 instances) and *you* (244 instances).

Generally speaking, the high number of *we,* suggests the lecturers' two-fold intention, that is, to shorten the distance with students and to establish common ground:

L1   (1)Then we have to ask, remember that the question we tried to solve yesterday was: where is the limit of the rpm? And we thought about the compressibility problems.

L2   (2) What we'll do today is look at the composite materials … and we'll discuss some of its general features.

L3   (3) We are speaking about very very strong forces.

Ok. What we are going to use? Very few principles of the law. The first one is the conservation of mass, Ok?

As to the use of the pronoun *you*, the analysis points at two main objectives: 1) the pronoun functions *as direct reference to the learners,* either to interact with the students, or to pick up on a point mentioned by one student in his/her contribution; 2) the *indefinite reference*, where "you" means "one" or "any person" (any engineer). This use mostly appears in conditional sentences where the meanings of condition and purpose overlap, or in those conditionals expressing logical cause-effect relationships operating under certain conditions:

L1   (4) What do **you** think about the regulation in this situation?

(5) Yes, **you**´re understanding the main idea of the regulations.

(6)Then we have here a reduction that as **you** said it is not as important as the increment we have here.

L2   (7)**You** may ask questions whenever **you** just decide.

(8)If **you** want to obtain the power in kilowatts, **you** have to divide by 60 (i.e. to obtain the power in kilowatts, divide by 60)

Concerning the use of the personal pronoun *I,* the data show that it occurs less numerously in the lectures surveyed, and, on the whole, lecturers use *I* to refer to their personal experience, knowledge, circumstances or even limitations, versus their professional or academic figure (which is encoded in *we*):

L1   (9) **I**´ve always used the kilowatts, **I** haven´t used the horsepower

L2   (10) **I** have to apologise for my poor English. In fact, **I** tried to improve it. **I** stayed one year abroad and attended classes so what **I** have is the best **I** can do.

L3   (11) **I** don´t know, how do you say "inflar"? When you put air into a tyre—a car tyre—inflate!

     (12) For instance, here you can see the flow pattern around a typical aircraft. **I** think it´s a kind of Mirage—**I´m** not sure.

Given that we predominates over the other two pronouns, the second step in the quantitative analysis was to observe the presence of clusters associated with it, to identify the discursive contexts in which the pronoun is mostly used. The analysis showed that the highest number of occurrences of we was accompanied by a verb in present tense (91 occurrences) and the second most frequent cluster was we have + a/the/zero article. The use of we have as a presentational device is common to all three lecturers (83 occurrences), often accompanied by deictics of the type here, now, there:

L1   (13) **we have this**: the density of the air and normally. . .normally. . .we use for the density of the air the pressure.

     (14) **Here we have** the less area, then **we have** the maximum velocity.

     (15) The situation that **we have now** is that we have developed, err, sorry, we have developed an expression for the power.

     (16) **In another situation we have** a loss of air in the chamber.

The presence of the cluster *we can* is also prominent in our data (62 instances). Results make evident that besides the purely semantic value of possibility and ability, this cluster is used to illustrate the different steps students might take to solve a problem. With it, the teacher suggests a number of possible options, and softens his demand that students follow a particular procedure or line of reasoning:

L1.   (17) And **we can do** the first calculation. **We can** now, for example **we can put** here the maximum volumetric efficiency that **we can use.**

L3   (18) Once we have this problem solved, **we can calculate** pressure distribution, the lift forces and so on.

As regards the presence of *we have to,* the results show that although numerous (46 occurrences), this cluster is not evenly distributed among the lectures, and L1 produces nearly all the occurrences (42 occurrences). The dense concentration in L1 hints at a personal strategy rather than at a general tend-

ency followed by lecturers. Interpretations here can be twofold: it may be the lecturer's lack of expertise in the teaching in English or in the use of modality that leads him to this constant repetition, or the speaker consciously uses this form to convey information with certainty and authority, since it is frequently used to present evidence and draw conclusions based on it.

L1   (19) If we have more fuel than air, **we have to** introduce the function (. . .) then **we have to put** here the thermal efficiency. ..**We have to multiply** by the mechanical efficiency and the diagram efficiency.

5. Conclusion

This study in-progress has so far explored the construction of stance in university lectures by analysing the use of the personal pronouns *I*, *you* and *we* and the most frequent modal and semi-modal verbs that accompany them[5]. Regarding pronouns, the results showed that *we* holds a very high presence in the three lectures analysed, while *you* and, last, *I* are less frequent numerically speaking. These findings, however, do not coincide with other studies on academic lectures (see Fortanet, 2004) where the occurrences for *I* exceeded considerably those of *we* and *you*. Reasons for such differences might be in principle connected with the discipline under analysis, the nature of the course, and the lecturers involved (native vs. non-native and veteran vs. novice). The pervasive use of *we* with an inclusive value, even in the foreign language speech of novice lecturers, seems to suggest that they adopt a role of cooperation and identification with the audience. However, the data also reveal that, in addition to a solidarity strategy, *we* works as a macro-organisational principle guiding both lecturers and students throughout the speech event (e.g. *we have + a*). As for modal verbs, it was found that the non-native lecturers use a fairly limited amount of modality, with a high concentration of *we can* and very little representation of other forms such as *may*, *need*, or *might* and, again, not evenly distributed among lecturers.

By and large, it may be stated that in the present analysis pronoun use creates a communal learning atmosphere by establishing common ground and shortening interpersonal distance (through inclusive *we*), by appealing directly to students and making illustrative generalisations (through the pronoun *you*), and by confining first-person singular references to the specification of personal experience, individual responsibilities, and apologies for the lack of linguistic skills. Findings may suggest a gradual change in the construction of stance, with university instructors, (at least in these data), becoming more ac-

---

[5]   Due to space restrictions, only the most numerous modal verbs found in the data have been included in this paper.

cessible to students, developing solidarity strategies and, on the whole, making lectures more interactive and 'democratic'[6]:

Due to the limited quantity of data, it is not possible to arrive at further generalisations, and factors like differences in teaching goals and styles, professors' competence in the FL, influence of the mother tongue, or the speech event under analysis, must be taken into consideration. In any case, it is in the interest of lecturers working in CLIL contexts to pay attention to the discursive roles of these items, owing to their quantitative importance, their multifunctionality and their pervasive presence in academic language.

References

Biber, D., Johansson, S., Leech, G., Conrad, S., & Finnegan, E. 1999. *Longman grammar of spoken and written English*. London: Longman.

Dafouz, E., Núñez, B., Foran, D. & Sancho, C. (forthcoming). Integrating CLIL at the tertiary level: teachers' and students' reactions, in Wolff, D. & D. Marsh (eds.) *Diverse contexts converging goals. Content and language integrated learning in Europe. Mehrsprachigkeit in Schule und Unterricht Volume 4*. Peter Lang: Frankfurt.

Fortanet, I. 2004. The use of 'we' in university lectures: reference and function. *English for Specific Purposes* 23, 45–66 65.

Morell, T. 2004. Interactive lecture discourse for university EFL students. *English for Specific Purposes* 23, 325-338.

Nikula, T. 2002. Teacher talk reflecting pragmatic awareness: a look at EFL and content-based classrooms. *Pragmatics* 12 (4), 447–467.

Saroyan, A. & Snell, L. 1997. Variations in lecturing styles, *Higher Education* 33: 85-104.

---

[6]   Nikula (2002: 54) underlined the `liberating' effect of CLIL for students, in the sense that language proficiency is not the primary focus of a CLIL classroom.

Spoken competence in CLIL: a pragmatic take on recent Swiss data

Denise Gassner and Didier Maillat

Introduction

The purpose of this paper is twofold, on the one hand we would like to present the specificity of the Swiss landscape with respect to content and language integrated learning, on the other hand we would like to investigate three types of discursive paradigms. These paradigms, we shall claim, demonstrate that contrary to the recurrent view that the positive impact of CLIL-based teaching is mainly observed in the competence acquired in the writtenskills of the participants, CLIL can also lead to some considerable advances for the learners with respect to their pragmatic and discursive competence.

We want to argue further that this type of heightened form of linguistic competence provides evidence for a form of pragmatic effect – called the *mask effect* – which is triggered by the use of L2 in CLIL. This effect, we wish to argue, marks a greater cognitive competence that extends beyond the mere linguistic domain.

Finally, we would like to discuss the types of teaching environment which we think are likely to stimulate the skills that are being investigated below and to generate the effect in question.

The corpus from which we have taken our data consists of naturally occurring classroom interactions which include both language-heavy subjects such as history or biology (see the examples quoted below), and more technical subjects, like maths or physics, where the linguistic input is lighter.

In the examples we would like to discuss here, the pupils are part of a late English-immersion program offered in Geneva, where French is the main language of education and English is used in a CLIL context over a period of 3 years (at the upper-secondary level). The data was audio and video-recorded and then transcribed. In addition, a control group has been selected for each population sample.

Some basic facts about CLIL in Switzerland

Content and language integrated learning is becoming increasingly popular in Switzerland. Being a country with four national languages the question of which language should be taught in CLIL has been debated widely. Unfortunately, until recently the answer has often been "none"! This surprising reticence to offer CLIL has even affected 'bilingual' cantons – or states – in which two national languages are spoken. When it is offered, the schools in the different Swiss cantons that are using CLIL at the upper-secondary level (maturité bilingue/ Zweisprachige Matura) have found several ways to implement it. Whereas some schools in the French speaking part of Switzerland offer CLIL in English or German, in the German speaking part CLIL mainly exists with English as an L2. Also, CLIL has been championed by private schools in a country where public education still represents the overwhelmingly preferred solution. The gradual introduction of CLIL in public schools seems to have been partly motivated as a reaction against the advantage that private institutions were getting in this domain.

A recurrent observation made in CLIL states that whereas CLIL might constitute an advantage in the acquisition of the target language on a receptive level, this is not so clear on a productive level. According to e.g. Cummins and Swain (1986:46-7; see also Bialystok 2005) the receptive skills of immersion students are comparable to native speakers whereas the productive skills clearly remain non-native. Cummins and Swain among others show that the phonological competence, as well as the mopho-syntactic achievements of CLIL pupils do not always show an advantage over non-immersion pupils in (spoken) L2. However, we would like to challenge this view by focusing on higher order linguistic competence, in particular at the level of discourse structure and information flow. For this purpose, we propose to concentrate on three excerpts taken from a biology course on genetically modified organisms taught to 3 rd -year high-school pupils.

In our first excerpt, we notice that in spite of the hierarchical relation which holds between them, the student, E2, successfully completes in line 14 the turn initiated by the teacher, Ens, in line 13. This form of discursive collaboration requires a pair of highly competent discourse participants, in particular on the part of the 'completor' who has to anticipate the initiator's turn and successfully insert his/her completion turn within a split second gap. In this case, the completion is all the more striking as it follows a self-initiated, self repair by the teacher who selects a different preposition, which is then doubly recycled by the student in her completion turn.

Excerpt 01 – other-initiated turn completion:

> 11-Ens: any questions to the: to those three: . ladies/
>
> 12-E1:   (student in background) it's good
>
> 13-Ens   no/ . so you mentioned a lot about PLANTS but we can also look directly on
> HUMAN cells for example . genetic (engineering?) might be also used for
> to:
>
> 14-E2   to CLONE . [and to make ah ah: organs . like that
>
> 15-Ens   [yes cloning . XX animals

Our second excerpt illustrates a skilful management of overlap (indicated by [in the transcription) – which is a known locus of tension in the turn-taking system that governs conversation management – and collaborative construction of turns, where the student, E1, uses several discursive strategies to get his message across. His turn 1 triggers a request for explanation on the part of the teacher, Ens, but more importantly, he appropriately resorts to a repetition of the prepositional phrase in order to manage the overlap with Ens:

Excerpt 02 – overlap:

> 1-E1   ORGANIC food . it's really expensive . because ah: that's not because of the
> PRIces XX it's because ah: . it's small farmers that do that . so: ah: . they
> don't . they can't do the: same prices because they have to survive . I mean
>
> 2-Ens   ca=can you just mention what organic is/
>
> 3-E1   [ah:
>
> 4-Ens   [when we say organic vegetables . [organic fruits/
>
> 5-E1   [is ah: . without ah: . without GMOs . without genetically:
>
> 6-Ens   (modific[ation?)
>
> 7-E1   [modification .
>
> 8-Ens   [it's even MORE than that
>
> 9-E1   and without any chemical products

E1 first repeats the prepositional head, and then introduces two more repetitions, the second of which includes a reformulation to hold the conversational floor during the overlap (in 5). His last turn is even more striking in that respect as he successfully uses the discourse particle 'and' to introduce his final contribution to the collaborative turn which cleverly falls back on the same prepositional head to complete the turn and mark the unity of topic with 5.

Finally in our last excerpt, we observe a multi-partied collaborative turn in which three students and the teacher work together at solving a case of interference between L1 and L2. What is particularly interesting in this case is

that although the teacher agrees to code-switch after the student has explicitly requested a code-switching turn (in 13), the other two students quite deliberately work on a collaborative reformulation in L2 which achieves the desired result (in 19 and 20).

Excerpt 03 – reformulation strategy to avoid code-switching:

10-Ens	we can have a normal fruit and you can have what you said . an [ORGANIC.
11-E1	[yeah
12-Ens	[fruit
13-E3	[BUT . he can translate/ . . organic fruit
14-E2	yeah but I [mean organic is . ah:
15-Ens	[what's it in French/
16-E1	without any[thing
17-E3	[bio
18-Ens	bio
19-E1	without anything . without chemical products and [everything
20-E4	[natural (quiet in the background) . natural fruits

These and recurrent similar observations in our data have led us to look into what may have favoured – in the teaching environment – these increased levels in spoken production. Our linguistically-grounded approach consisted in assuming that some contextually-determined parameter functioned as a pragmatic trigger.

Teaching environment and role-playing

This brings us to another aspect of this paper, namely the types of teaching environments which can lead to such higher-order discourse management techniques. According to Swain (1988:69-73) a typical immersion classroom approach is that the teacher asks questions and the pupils provide short answers which makes the teacher input abundant and the learner's output minimal. Furthermore, Swain says that not many tenses and grammatical structures are used and, therefore, little practise of more complex language structures can be observed in the immersion classroom. However, in our study there was a great amount of pupil output provided that the teacher used certain didactic strategies. In the 3 extracts discussed above, the pupils were acting to be the representatives of a company selling GMOs which seems to have taken away possible constraints that can be involved in spoken L2 production. This resulted in elaborate conversation work and more complex and

longer sentences compared to the approach and the results described by Swain.

Elsewhere in our corpus, in a history class where the students were asked to role-play the two sides in a debate, the same complexity and pupil-to-pupil interaction could be observed. Furthermore, the pupils seemed to feel comfortable using the language and showed a great motivation to make a contribution to the debate, while their contributions were limited to one-word utterances when the teacher asked them to come up with arguments outside the role-playing activity. The control group of the biology class was surprisingly less creative and discursively skilled in the same activity performed in French (L1). It looks as if the learning activity, in other words the discursive setting, in this case role-play, seems to facilitate the production of more – and more elaborate – output from the pupils. The impressive level of involvement of the pupils shown in the excerpts above illustrates this even more clearly.

Pragmatically, this is what we want to describe as a *mask effect*; in other words a pragmatically induced discursive pattern characterised by referential and modal blocking, whereby the linguistic activity becomes a purely language-internal phenomenon which ceases to refer and to imply epistemic grounding. We claim that the *mask effect* is triggered by L2 in CLIL.

A higher level of involvement of the students and 'real-life' discussions will eventually lead to better oral performance since increasingly varied opportunities are given to practise the spoken L2. Snow (1990:161) mentions such hand-on activities as well in his list of 'core instructional strategies'. Long and Porter (1985) and Snow (1990) also stress the importance of group- and pair-work to increase opportunities for students to practise the L2 in an environment which is non threatening.

As part of our study, interviews were conducted in which the pupils answered questions related to CLIL. They were also questioned about the progress they thought to have made in the four language competences (writing, reading, speaking and listening). Many students expressed the view that they thought to have improved most in the spoken competence of the L2.

In this context, we would like to make a further claim about another favourable teaching environment which we would expect to give rise to the same type of heightened discursive competence in L2 in the context of CLIL in Switzerland. Switzerland is a multilingual country which has - recently - tried to take advantage of its multilingualism by trying various forms of CLIL. In particular, in regions where two national languages are spoken (e.g. Biel), there have been attempts at developing CLIL curricula based on mixed classes where half of the students have German as their L1, and the other half are native speakers of French (similar 'double-headed' CLIL frameworks, or

dual language programmes, have been developed on the Swedish border in Finland (Nikula, *personal communication*)). We want to propose that such classes would indeed constitute an ideal environment for English CLIL, as it would naturally encourage the use of English as a lingua franca and, therefore, lead to the development of complex discursive strategies such as those discussed above. Data is currently being collected in higher-secondary education institutions implementing this model of CLIL.

Teacher L1

In Excerpt 03, it is important to point out that the teacher's mother tongue is French. We want to argue – perhaps controversially – that with respect to reformulation strategies, a non-native teacher would be at an advantage when it comes to stimulating such strategies from students within a collaborative turn. According to Klapper, teaching regulations in Germany "require a native speaker of the foreign language to possess good German-language skills and the German teacher-training qualification" which makes the recruitment of native language speakers quite difficult. This has led many schools in Germany to insist on 'subject-matter competence and knowledge of foreign language teaching methodology' instead of employing native speakers who have the qualification of one of the above mentioned requirements but not both (1996:149). In the classes that are part of our studies only one of the teachers is a native speaker of English, however, bilingual with French. The other teachers involved are native speakers of French who have either spent some time living in the U.S. or who are at the same time as being for example history teachers, teachers of English as a second language. In this context, we wish to suggest that a non-native CLIL teacher is a facilitating factor in the *mask effect* which we discussed above, as s/he is also wearing the mask.

Cognitive advantages

Finally, we would like to draw a parallel between our CLIL data and some current trends in research on the psycholinguistic impact of bilingualism. While it is clear that CLIL cannot simply be assimilated to a form of bilingualism, we want to argue that some of the observations made in studies on bilingualism shed some interesting light on our newly discovered *mask effect*. While this issue is still very hot, there has been a growing trend in psycholinguistic research to argue that bilingualism leads to cognitive advantages (for

a review see e.g. Hakuta, 1986; see also the landmark study by Peal and Lambert (1962)). The metalinguistic abilities of bilinguals have been the focus of much recent research (Bialystok&Majumder, 1998) with topics such as the development of word concept (Bialystok, 1988; Cummins, 1978) and grammaticality judgment and correction (Galambos & Goldin-Meadow, 1990). These results have often been contradictory (Bialystok&Majumder, 1998). Bialystok, Martin and Viswanathan (2005, 103-119) found in their survey cognitive advantages of bilingual students over monolinguals in different tests. However, this difference decreases as the pupils get older (between the age of 20 and 30).

In this context, we propose that the higher-order discursive competence triggered by the *mask effect* and displayed by the CLIL pupils (as opposed to the L1 pupils) follows from the heightened cognitive competence that results from bilingual education. Bialystok (2005: 425) writes that:

> Inhibition is the essential factor in distinguishing the performance of the bilingual children, so it may be that bilingualism exerts its effect primarily on the inhibition component of attention. (Bialystok 2005: 425)

Thus, we hold the view that the *mask effect* constitutes a pragmatic echo of the cognitive inhibition component identified by Bialystok, as pupils display a better competence at inhibiting the referential and epistemic anchoring of discourse and concentrate on the purely language-internal task of role-playing.

To conclude, we want to suggest with this paper that the contribution of CLIL to the evaluation of the acquisition of a spoken competence would benefit from being evaluated on higher-order organisational structures such as turn-taking mechanisms, argument structure, information flow, repair mechanisms, which, in turn, reflect more general cognitive, problem-solving strategies, on which the presence of a salient L2 bears heavily.

Transcription conventions

Ens = teacher
E= pupil
[= overlap
()= comment added by the researcher
?= not completely clear
M= capital letter for stress
/ = rising intonation

X= unintelligible

Bibliography

Bialystok, E. 1988. Levels of Bilingualism and Levels of Linguistic Awareness. *Developmental Psychology*, 24, 560-567.

Bialystok, E. 2005. Consequences of Bilingualism for Cognitive Development. Kroll, J. & De Groot, A. (eds.), *Handbook of Bilingualism: Psycholinguistic Approaches*. Oxford: Oxford University Press, 417-431.

Bialystok, E. and Majumder, S. 1998. The relationship between bilingualism and the development of cognitive processes in problem solving. In C.E Snow and J.L Locke (eds.) Applied Psycholinguistics: Psychological studies of language processes. Cambridge University Press.

Bialystok, E. and Martin, M. and Viswanathan, M. 2005. Bilingualism across the lifespan: The rise and fall of inhibitory control. *International Journal of Bilingualism*, Volume 9/, Nr 1, 103-119.

Cummins, J. 1978. Bilingualism and the Development of Metalinguistic Awareness. *Journal of Cross-Cultural Psychology*, 9, 131-149.

Cummins, J. and Swain, M. 1986. *Bilingualism in Education: Aspects of Theory, Research and Policy*. London: Longman

Hakuta, K. 1986. *Mirror of Language*. New York: Basic Books

Klapper, J. 1996. *Foreign-language learning through Immersion, Germany's Bilingual-Wing School*. United Kingdom: The Edwin Meilen Press

Peal, E. & Lambert, W. 1962. The relation of bilingualism to intelligence. *Psychological Monographs*, 73, 1-23.

Snow, M.A. 1990, Instructional methodology in immersion foreign language education. In A.M. Padilla, H.H. Fairchild and C.M. Valadez (eds.) *Foreign Language Education: Issues and Strategies* (pp. 156-71). London. Sage

Swain, M. and Lapkin, S. 1982. *Evaluating Bilingual Education: A Canadian Case Study*. Clevedon: Multilingual Matters.

Vocabulary Profiles of English Foreign Language Learners in English as a Subject and as a Vehicular Language

Rosa María Jiménez Catalán
Yolanda Ruiz de Zarobe and Jasone Cenoz Iragui

Does English foreign language learners' productive vocabulary vary according to the kind of instruction they receive? Are there differences or similarities concerning the number and the type of words produced by students in a writing task in different teaching situations?

In this study we will attempt to answer the above questions by means of reporting the preliminary results of an investigation in progress. This is being carried out with sixth year students (10 year-olds) studying English as a foreign language in Primary Education in two instructional contexts: English as a subject versus English in content teaching, in two communities located in the North of Spain: La Rioja and the Basque Country.

Our study has several theoretical and empirical foundations. Firstly, it makes reference to the linguistic immersion programs where the second language is used as the language of communication (Johnson and Swain, 1997; Wesche, 2001); secondly, there are content-based instruction programmes (Marsh, and Marshland, 1999; Met, 1998), where it is advocated that an intensive use of the second language as the language of instruction is very effective for the development of communicative competence (Brinton, Snow and Wesche, 1989; Snow, Met and Genesee, 1989; Johnson and Swain, 1997). Thirdly, our investigation is closely linked to the studies on vocabulary size in English L2, which suggest a positive relationship between vocabulary size (number of words known by students) and good results in language learning. Vocabulary size studies agree on highlighting the low level of vocabulary knowledge of their informants (Cameron, 2002; Laufer and Nation, 1995; Nurweni and Read, 1999; Pérez Basanta, 2004). Most of these studies are designed to measure receptive vocabulary, while there is a lack of research on productive vocabulary size. Regarding English as a subject, a team of researchers based at University of La Rioja has conducted intensive research aimed at finding out the number and the type of words known at the receptive and productive level by students who study English as a foreign

language in the context of Primary Education in a monolingual community, where English is taught as a subject since the first year of Primary Education (6 year olds) to the end of upper secondary education (16 year olds). The studies carried out so far with learners of EFL enrolled in fourth year Primary Education have shown that learners know receptively about 949 types (different words), and in fifth year, 1,145 types (Jiménez and Terrazas, in evaluation process); most of those types are found within the 1,000 most frequent English content words. Regarding productive vocabulary, the number of words used by 4th and 5th year students in written compositions show a gradual and cumulative increase, since a total number of 765 types were found in fourth year Primary Education compositions, and 886 types in fifth year compositions (Jiménez and Ojeda, 2004; Jiménez and Moreno, 2005). As in receptive vocabulary, the words used by the informants in the La Rioja project were found within the band of the 1,000 most frequent English content words (Jiménez and Moreno, 2004). With regard to the characteristics of productive vocabulary, results indicate that primary school learners do not show a great deal of lexical variation (Moreno, Agustín and Fernández, 2005) when English is learnt as a subject; results also show that students more frequently use shorter than longer words, and regarding content words, there is an overwhelming presence of nouns over verbs, adjectives, or adverbs (Jiménez and Ojeda, 2004, 2005, in press).

The study that will be reported here aims to investigate the effect of the intensiveness of English instruction on students' productive vocabulary. It differs from previous studies in several aspects: i) it investigates the influence of the use of English as a foreign language (FL) as the language of instruction; ii) it investigates the similarities and differences in the use of an FL as the language of instruction vs. its use as a school subject; iii) it analyses English vocabulary production in two communities with similar sociolinguistic characteristics but different language combinations: English as L3 in the Basque Country, and English as L2 in La Rioja.

Despite the vast number of theoretical papers on the benefits of using English as a vehicular language, empirical research on its effectiveness in the development of communicative competence carried out so far are in short supply. The few studies found show the positive effect of intensive instruction in the oral production of learners of English (Lightbown and Spada, 1997; White and Turner, 2005), although there are similar patterns in the development of communicative competence (Burger and Chretien, 2001). However, these studies focus on learners of English in second language contexts where the language is used in the community for communicative purposes. As far as we know, there is no research on the effect of the type of in-

struction[7] (English as a subject versus English as vehicular language) in the context of English as a foreign language, let alone on similarities and differences of English foreign language learners' productive vocabulary in these two different instructional settings. Moreover, there is hardly any research on the productive vocabulary of English foreign language learners, particularly as far as primary school students are concerned.

Our objective is to observe whether contextual factors such as the type of instruction have any bearing on learners' productive vocabulary size, and whether there is any difference regarding the type of vocabulary acquired. To fulfil this aim, during March 2006 more than 130 primary school students, learners of English as a foreign language in two different school settings (English as a subject versus as English as a vehicular language), were asked to complete a battery of tests to assess their English knowledge and use: firstly, a background questionnaire, designed to obtain information about their socioeducational background; secondly, two language level tests: a cloze test to measure lexical, grammatical and discursive aspects of language production, and a reading comprehension test (Corporate Author Cambridge ESOL, 2004); thirdly, the Vocabulary Levels Test (VLT) (Nation, 1993; Schmitt, Schmitt and Claphan, 2001), and finally a written composition, where participants were asked to write a letter to an English family telling them about their own family, hobbies and interests. Once the compositions were gathered, they were evaluated following The Profile (Jacobs et al. 1981), typed into the computer and analysed by means of the textual analysis program WordSmith Tools (Scott 1996).

As regards the language level tests, both the cloze test and the reading comprehension test indicate there is a difference in favour of content-based instruction. In the cloze test, content-based students scored 6.9 (out of 8), while non-content students scored 3.76 (out of 8). In relation to the reading comprehension task, content-based students scored 3.81 (out of 7) and non-content students scored 2.58 (out of 7).

Regarding the Vocabulary Levels Test, our results show that the overall receptive vocabulary both in non-content and in content-based instruction is lower than 1,000 words. Nevertheless, content-based students had better results at both the 1,000 and the 2,000 frequency bands. Specifically, the mean scores for 1,000 word receptive test were 22.43 (out of 30) for the sample of content-based students, and 21.40 (out of 30) for non-content students. In the case of the 2,000 frequency band, the mean scores were noticably higher for the content-based group (12.03 out of 30), when compared to the non-content group (9.02 out of 30).

---

[7]

Productive vocabulary was measured by means of the composition task, where the number of tokens and types, and the type/token ration was analysed. The results indicate that content-based students produced fewer tokens and types than the non-content group. However, the type/token ratio is higher with the content-based group, which suggests that lexical richness is more significant in the sample of the content-based group. Together with the higher ratio in the type/token ratio, content-based students made use of a larger number of lexical verbs, which is a synonym for lexical sophistication and higher language level.

Nevertheless, even though content-based students displayed more lexical richness and sophistication than non-content students, we cannot claim that content-based instruction has a strong effect on vocabulary production, at least not in relation to the number of types and tokens. It may be the case that content-based instruction has a stronger effect on comprehension and language level tasks than on productive vocabulary tasks. However, the possible explanations of the results presented here need to be further investigated. The longitudinal data that are being collected will provide more information about non-content vs. content-based instruction in formal contexts.

References

Brinton, D., Snow, M. A., and Wesche, M. B. 1989. *Content-based Second Language Instruction*. Boston: Heinle and Heinle Publishers.

Burger, S. and Chretien, M. 2001. The Development of Oral Production in Content-based Second Language Courses at the University of Ottawa. *The Canadian Modern Language Review* 58.

Cameron, L. 2002. Measuring vocabulary size in English as an additional language. *Language Teaching Research* 6,2.

Jiménez, R.M. and Moreno, S. (in press) Elaboración de un corpus de composiciones escritas de estudiantes de inglés L2 en educación primaria. *IX Simposio Internacional de la Sociedad Española de Didáctica de la Lengua y Literatura: La lengua escrita*. Universidad de La Rioja.

Jiménez, R.M and Ojeda, J. 2004. *El Vocabulario en composiciones escritas de aprendices de inglés de diez años*. VIII Congreso Internacional de la Sociedad Española de Didáctica de la Lengua y la Literatura. Universidad de la Habana, Cuba.

Jiménez, R.M. and Ojeda, J. 2005. The English vocabulary of girls and boys: similarities or differences? Evidence from a corpus based study. *Theoretical and Methodological Approaches to Gender and Language Study*. BAAL/Cambridge University Press Seminar. Universidad de Birmingham, Reino Unido.

Jiménez, R.M and Ojeda, J. (in press) La carta como instrumento de identificación personal e interacción comunicativa en L2: análisis del vocabulario de los saludos y despedidas.

Actas IX Simposio Internacional de la Sociedad Española de Didáctica de la Lengua y Literatura: La Lengua Escrita. Universidad de La Rioja.

Jiménez, R.M and Terrazas, M. (submitted) The Receptive Vocabulary of English Foreign Language Young Learners: Data from Spanish Primary Schools. *Language Testing*.

Johnson, K. and Swain, M. 1997. *Immersion Education: International perspectives*. New York: Cambridge University Press

Laufer, B. and Nation, P. 1995. Vocabulary Size and Use: Lexical Richness in L2 Written Production. *Applied Linguistics*, 16, 3.

Lightbown, P.M and Spada, N. 1997. Learning English as a second language in a special school in Quebec. *The Canadian Modern Language Review* 53, 2, 315-355.

Marsh, D. and Marshland, B. 1999. *Learning with languages* 1999. Jyväskylä: University of Jyväskylä.

Met, M. 1998. Curriculum decision-making in content-based language teaching. In J. Cenoz and F. Genesee (eds.) *Beyond Bilingualism: Multilingualism and Multilingual Education*. Clevedon: Multilingual Matters.

Pérez Basanta, C. 2004. Assessing the vocabulary size of Spanish students of English Philology: An empirical investigation. In Martínez-Dueñas Espejo, J.L et al. (eds.) Granada: Universidad de Granada.

Snow, M. A., Met, M., and Genesee, F. 1989. A conceptual framework for the integration of language and content in second/foreign language instruction. *TESOL Quarterly*, 23, 2, 201-217.

Wesche, M.B. 2001. French immersion and content-based language teaching in Canada. Toronto. *The Canadian Modern Language Review* 58 (special issue).

White, J. and Turner, C. 2005. Comparing Children's Oral Ability in Two ESL programs. *The Canadian Modern Language Review* 61, 4.

Linguistic analysis of secondary school students' oral and written production in CLIL contexts: studying social science in English

Ana Llinares and Rachel Whittaker

Recently, a number of Spanish autonomous communities have started projects integrating the teaching of a foreign language with that of content subjects. One of these projects is the result of an agreement between the British Council and the Spanish Ministry of Education, signed in 1996, in which a number of schools all over the country (ten primary and ten secondary schools only in the Madrid Autonomous Community) would incorporate subjects taught through an integrated curriculum (English/Spanish). The first children to learn English in this project have just finished their second year of secondary education, and the preliminary integrated curriculum for the subjects involved is still being tested. In the project, all the children are taught social science in English, English as a foreign language, including attention to literacy, and a third subject that depends on the availability in each school of specialists who can teach their subject in English. Teachers at the secondary level are content specialists, and must be able to show that they have a good command of the English language in order to join the project. Thus, they usually have little training (if any) in the teaching and learning of a foreign language and, as a result, they are often unaware of the type of language knowledge required by this group of learners if they are to perform well in their school subjects.

With this teaching/learning scenario, our research project focuses on the analysis of the spoken and written English produced by CLIL secondary school students in the area of social science (which at this level means geography and history), from linguistic (lexico-grammatical), discursive and pragmatic perspectives. We have two important objectives in the project: first, to identify the linguistic needs at different points in the process of schooling in a specific discipline, by analysing the language used by students (both oral and written), as well as that of the teachers and textbook material; second, to design a linguistic inventory for the subject, going beyond a list of discipline-specific vocabulary needed for each topic, to give information on the grammatical and discursive features of the activities and genres that the

students need to master in the foreign language in order to produce good oral and written texts. Thus, our main motivation is to provide linguistic support for secondary school teachers involved in projects in which they teach social science (geography and history) in English. Learning a discipline always implies learning the language of that discipline, and this is even more necessary when learning in a foreign language. This focus on the specific linguistic features of the discipline is precisely what is involved in CLIL, since here both learning content *and* learning a foreign language are seen as goals.

This research started formally in 2006 with a project financed by the Comunidad Autónoma de Madrid and the Universidad Autónoma de Madrid (09/SHD/017105). Its long-term plan is to analyse the learners' spoken and written production in two topics a year from the social science syllabus in two state secondary schools in different socio-economic areas of Madrid that follow an integrated curriculum. We started the research with first-year secondary school students, with the aim of following them during the four years of compulsory secondary schooling, and so also have a picture of their linguistic development from a longitudinal perspective.

In order to know the source of this language and the type of production expected, we are analysing the language of the textbook and of the teacher on the same topic, as a point of reference for our study of the learners' speech and writing. This, with all its differences, will give us the type of spoken interaction in which the learner is expected to perform, while in the case of written production, an approximation to the language of textbook is expected. In each case, of course, the role of the learner requires somewhat different linguistic resources. In addition, for a more realistic model of target written production, we have taken as another group of subjects learners attending a bilingual school from the early years of schooling. We intend, then, to compare our EFL learners' production with that of total immersion CLIL learners of social science in a school following a British curriculum. Finally, we would also like to compare our data with that from native speakers of same age.

The data collection was elicited in a number of tasks designed by the research team in collaboration with the subject teachers. In each school, two topics -one on geography and one on history- were chosen from the curriculum and the following tasks were carried out for each topic in each class:

- One 50-minute classroom end-of-topic discussion session, led by the teacher, in which the learners went over the main content of the topic.
- A short written text by each learner on the same topic.

- Six individual oral interviews on the same topic (students with three different levels).

The theoretical framework for this research project is that of genre theory, as developed within Systemic Functional Linguistics (eg. Halliday 2004). In this theory, a genre is seen as a social activity in a particular culture, the linguistic realizations of which make up a register. Members of the culture recognize the activity, its goal, and the appropriateness of its register in the context (see, for example, Martin and Rose, 2003). Our approach to the analysis of the language of our learners follows studies that looked for the features characteristic of different genres belonging to different subjects at different educational levels. These studies of the language of schooling began in the 1970s in the U.K. by linguists and teachers working with Michael Halliday (see chapters in Whittaker *et al.* 2006 for the history of this research and its applications). This research was developed further in a number of projects in Australian schools, led by Jim Martin (Christie, 2002; Christie and Martin 1997; Rothery 1994). The studies show the role of the changing linguistic choices as students make the transition from oral to written language (Halliday 1989a) as a key factor in the language of school disciplines, and they offer a linguistic model that allows us to analyse the written and oral texts produced by the students in the classroom. Finally, in our specific discipline, the language of social science has been studied by psychologists and linguists, given the difficulty it has been found to present for native learners both in comprehension and production. There are a number of SFL studies of the language of history and, to a lesser extent, geography (Coffin, 2000; Groom, 2004; van Leeuwen and Humphrey, 1996; Veel and Coffin 1996), as well as descriptions of genres and their linguistic features for the evaluation of ESL students at different points in the school system (Polias 2003).

The linguistic features to be analysed in the corpus have been selected following Halliday's (1989b) view of the use of language to convey three main functions: to represent reality (ideational function), to interact with others (interpersonal function) and to structure and connect the text (textual function). In Halliday's model, different areas of the grammar of English are used to carry out these three different functions. In our study, at present we are focusing on the analysis of transitivity and clause complexes (all part of the ideational function), used to express the content of the texts the students are creating, and modality (interpersonal function), used to qualify statements from the point of view of the writer/speaker. Our purpose is to find out how these learners realise these functions to construct a text that belongs to a specific genre. Given the task and the elaboration of the prompt, as well as the

level of these early secondary school learners of English, we have not yet analysed features realising the textual function.

The results obtained so far have been presented at the CLIL conference held in Helsinki (Llinares, Dafouz and Whittaker, 2006) and at the European Systemic Functional Linguistics Conference held in Trieste (Llinares and Whittaker, 2006). The paper presented in Helsinki, to be published in the conference proceedings, describes the type of written language which first year secondary school students from two schools following an integrated curriculum were able to produce in their introduction to geography in English, and reflects on the question of whether they are able produce the type of language necessary for the task. The data shows that our students are beginning to acquire some of the register features of their discipline. Some features, such as the distribution of the most common words in their texts, were similar to those found in the textbook used for this subject. Also, as shown in the analysis of transitivity, the students show control of the process types and circumstances required for the task. However, some resources, such as use of expressions of modality, or the expansion of the content of the clauses by elaboration ("that is...", etc...) hardly ever appeared in the students' texts. Modality, in particular, was shown to be a difficult area for these students.

The work presented at the Systemic conference in Italy has a different focus, examining oral and written EFL production by a group selected from these young learners. We analyse the language produced by a small group of students in oral interviews on two topics from the social science syllabus – one on geography and one on history-, and the texts written by these students on the same topics. The analysis was based on the features that realize the ideational function of language (processes, circumstances and clause complexes) and the interpersonal (expressions of modality). We were interested to see whether these students were beginning to differentiate the features of written and spoken language at this early stage of secondary school, and what linguistic resources they have to respond to the prompts in speech and writing. In this small group, no statistical differences were found for any of the linguistic features analysed –their written texts show features of orality. The main differences were field-related, regarding the type of processes and circumstances used.

Our research project is in its early stages, but we have already completed a number of analyses on the data collected and analysed in one academic year. With this project, which is both longitudinal and cross-sectional, we will obtain data giving us information on the spoken and written *interlanguage* of students who are learning English and social science in an integrated curriculum. This data is crucial at a moment in which this new approach

to the teaching and learning of foreign languages is receiving priority status in Europe, and is becoming very important -the Madrid Autonomous Community, for example, is very committed to the project. Our study is producing data which will enable us to make proposals to be incorporated into the teaching programme for this new situation.

References

Christie, F. and Martin, J. 1997. *Genre and institutions. Social processes in the workplace and school*. Cassell, London.

Christie, F. 2002. *Classroom Discourse Analysis*. Continuum, London.

Coffin, C. 2000. Defending and challenging interpretations of the past: the role of argument in school history. *Revista Canaria de Estudios Ingleses* 40, 135 – 153.

Groom, B. 2004. An analysis of a children's history text. In J. Foley (ed.) *Language, education and discourse*. Continuum, London.

Halliday, M.A.K. 1989a. *Spoken and Written Language.* O.U.P, Oxford.

Halliday, M.A.K. 1989b. Register variation. Chapter three of M.A.K. Halliday and R. Hasan *Language context and text: aspects of language in a social-semiotic perspective.* O.U.P, Oxford.

Halliday, M.A.K. 2004. *An Introduction to Functional Grammar.* Edward Arnold, London.

Leeuwen, T and Humphrey, S. 1996 On learning to look through a geographer's eyes. In R. Hasan and G. Williams (eds.) *Literacy in Society*. Longman, London.

Llinares, A, Dafouz, E. and Whittaker, R. 2006. The written language produced by Spanish learners of geography and history in two types of CLIL contexts. Paper presented at the CLIL 2006 Conference, Helsinki, Finland.

Llinares, A. and Whittaker, R. 2006. Register differences in EFL learners' written and spoken texts: an early introduction into the language of the disciplines. Paper presented at the European Systemic Functional Linguistics Conference, Trieste, Italy.

Martin, J. and Rose, D. 2003. *Working with Discourse*. Continuum, London.

Polias, J. 2003. *ESL Scope and Scales*. DECS Publishing, Adelaide, South Australia.

Rothery, J. 1994. Exploring Literacy in School English, Write it Right Project, Disadvantaged Schools Program, Department of School Education, Erskineville.

Veel, R. and Coffin, C. 1996. Learning to think like an historian: the language of secondary school history. In R. Hasan and G. Williams (eds.) *Literacy in Society*. Longman, London.

Whittaker, R., O'Donnell, M. and McCabe, A. (eds.) 2006. *Language and Literacy. Functional Approaches.* Continuum, London.

Negotiated interactions and repair patterns in CLIL settings

Cristina Mariotti

1. Introduction

This paper deals with the analysis of negotiation sequences in the repair trajectories produced by teachers and learners in CLIL classrooms in Northern Italy. The term 'negotiation of meaning' refers to a repair trajectory carried out by conversational participants to overcome communicative obstacles or to prevent them from arising. According to Long (1996), negotiation of meaning can promote second language acquisition when the more competent speaker (in this case the teacher) provides negative feedback that helps learners to detect mismatches between their own non-target productions and the teachers' target-like input. Moreover, during negotiation sequences learners can be pushed to produce comprehensible output, which has been identified as essential for interlanguage development because it can lead learners to move from the semantic to the syntactic processing of the L2 (Swain 1985, 1995, 2000, 2005). These two factors, i.e. negative feedback and comprehensible output, allow learners to focus on form. Recent SLA research has pointed out the need for learners in content-based and immersion courses to focus on formal aspects of the L2 used as a medium of instruction since researchers have found that in these settings a focus on subject matter content alone is not sufficient if the development of native-like competence is the goal (Doughty, Williams 1998; Doughty 2001; Lyster 2001, 2004; Pica 2002; Swain 2000, 2005).

The negative feedback produced during negotiation sequences in experimental studies (i.e. clarification requests, confirmation and comprehension checks) is typically implicit, since it signals to non-native speakers that a communicative obstacle has been met, but it does not explicitly state that one or more non-target forms were produced by the non-native, as the following example shows:

(1)

NS	NNS
	so there's a cross in the center
	of the paper
>what do you mean by cross?	traffic cross
>oh, where people can cross	
>or traffic light	yes
(Pica 1992:218)	

In order to overcome a communication breakdown, in this example the NS pushed the NNS to produce more comprehensible output by uttering a clarification request ("what do you mean by cross?"), implicitly providing the NNS with negative feedback. In addition, the NS also provided target-like forms ("oh, where people can cross or traffic light") for the non-native speaker to compare with her/his output. An explicit version of the feedback produced in (1) would have been "in English we do not say cross, we say traffic light".

The studies on negotiation sequences conducted under experimental conditions report the presence of negative feedback moves similar to the ones described in (1). The investigation carried out in the present study aims at discovering whether negotiation sequences took place in the analyzed CLIL settings and whether the teachers provided learners with negative feedback and opportunities to produce comprehensible output while negotiating for meaning.

2. Description of the corpus collected for the study

CLIL classrooms were chosen for the present study under the assumption that the authentic need to communicate about subject matter content may lead learners to self-select during classroom conversation and negotiate for meaning to solve comprehension problems.

The data were collected in Italian instructional settings where English was used to teach three different subject matters: biology, geography, and natural science. The lessons, organized in modules, were carried out following the CLIL approach with the purpose of language enrichment and were held in 22 classrooms in two different high schools[8].

---

[8] The schools are *Liceo scientifico T. Taramelli* (Pavia) and *Liceo tecnologico A. Volta* (Lodi)

The modules lasted ten hours each and covered the following issues: blood circulation and photosynthesis (biology), population development and urbanization (geography), the extinction of dinosaurs (natural science).

In all of the observed settings, English was used as the medium of instruction and the teachers generally spoke Italian only to overcome comprehension obstacles that could not be eliminated by means of negotiation. Concerning learners, as far as the observer was able to perceive both during her presence in the classrooms and from listening to the recordings, English was not used as the language of communication during peer-interactions, except for a few, one- or two-clause exchanges.

At the end of each module, learners took a written examination in English consisting of quizzes, cloze tests and open-ended questions. It is important to underline that in every project, learners were evaluated on the basis of their knowledge of the subject matter, and not in terms of the linguistic accuracy of their written productions. In addition, learners generally received feedback about their linguistic performance, but formal corrections were not taken into consideration during the grading process. According to information provided by the teachers, the learners involved in these projects showed levels of achievement that were similar to those normally obtained in mainstream instruction as far as subject matter knowledge is concerned.

Learners, aged from 13 to 18, had an overall competence in English ranging from beginner to intermediate. The teachers who took part in the present study were selected on the basis of their willingness to have their lessons observed and tape-recorded.

The teacher in Project A is a native speaker of Italian and a fully proficient speaker of English. She specialized in the teaching of English as a Foreign Language (EFL) and, at the time of recording, was about to be conferred a degree in science and biology by the Open University, which also entitles her to teach science as a subject matter.

The teacher in Project B is an English native speaker with twenty years of experience who specialized in the teaching of science in the United States.

Project C was conceived differently with respect to the first two: here, the teacher of English and the subject matter teacher, both of whom have extensive teaching experience and are specialized only in the subject matters they teach, cooperated in the project design and were both in charge of the teaching. Both of them followed in-service CLIL training sessions organized by the local school department. In project C, the science teacher was not a fully proficient speaker of English and she often switched to Italian in delivering presentations of new topics. Nevertheless, she was extensively supported by

her colleague who assisted her during the lessons supplying missing lexical items and encouraging her to speak in English.

Repair trajectories were coded identifying the type of trigger (or repairable), the participant who initiated the repair and the participant who completed it.

Negotiation sequences were considered as other-initiated repair trajectories produced by conversational participants to prevent or overcome a communicative breakdown (clarification requests, confirmation checks). Within negotiation sequences negative feedback and output-pushing moves were identified.

3. Presence of negotiation sequences

Negotiation of meaning was unevenly distributed between conversational participants. Learners, in particular, tended to start negotiation sequences with greater frequency than the teachers and they did so especially in projects A and B, where negotiation sequences were initiated by learners respectively in 94% and 76% of the cases, as opposed to 26% in project C. The trigger of these sequences, i.e. the communicative obstacle, was mainly represented by lexis.

In project C, the teachers' tendency to hold the floor more often than in the other two projects and to reciprocally implement question-answer sequences which excluded learners made it very difficult for the latter to take part in classroom discourse.

4. Presence of negative feedback and output-pushing moves in negotiation sequences

Data about the negative feedback produced by teachers in reaction to learner non-target productions show that teachers rarely used negotiation moves as a corrective device: clarification requests and confirmation checks produced by teachers correspond to less than 2% of the negative feedback moves produced in response to learner non-target utterances for all projects. Moreover, the few observed negotiation moves were generally imprecise in giving negative feedback on non-target forms found in learner utterances. An example of this, taken from project A, is provided in (2):

(2)

S1   I don't understand what's the meaning of entire.

T   entire?

S1   no. # veramente!

T   yes. # it means the whole part of the plant. ## he's just asked me. so he didn't know! ## either,

S1   ah. thank you.

In (2), the learner (S1) initiated a negotiation sequence asking for the clarification of a lexical item which had previosly been uttered by the teacher ('entire'). The latter responded to the signal by producing another negotiation move, i.e. a confirmation check, which consisted in the repetition of a part of the learner's utterance delivered with an ascending intonation ('entire?'). In so doing, the teacher missed an opportunity to show the learner that he had produced a violation of the syntactic norms of the English language by incorrectly positioning the auxiliary verb 'is' in the indirect interrogative clause. In other words, the teacher could have formulated her confirmation check in such a way as to include information about the non-target form (for instance "you don't understand what the meaning of entire is?").

Moreover, during negotiation sequences teachers did not encourage learners to produce comprehensible output, as can be seen in (3), taken from project B:

(3)

T   listen. Etiopia:, ## the HDI is twenty three. Etiopia:, twentythree. # it's measured between zero and one hundred. # Etiopia:? is twentythree. ##

S   what human development index.

T   it's this measurement. ok?

S   // ah.

T   // to living standards. # between zero and one hundred. one hundred is highest!

Here, the learner indicated his difficulty in understanding the teacher's message by repeating the phrase 'human development index', preceded by the interrogative adverb 'what'. With her answer ("it's this measurement. ok?") the teacher solved the comprehension problem but missed an opportunity to provide the learner with negative evidence about his output. In her study of interactions taking place during theme-based lessons, also Pica (2002) observed that teachers rarely stimulated learners to produce comprehensible output during negotiation sequences.

Other representative examples of the lack of output-pushing moves in teacher feedback are taken from project B:

(4)

    T   ask me questions if you don't understand.
    S   [raises hand]
    T   yes?
    S   withdrawal.
    T   withdrawal. # that's a good question! # that's always (xxx) that word withdrawal! # withdrawal means, # to take. ### withdraw. # like a bank. like a bank! # you put money in. # money. soldi. # you put money in? you take it out when you need it. # you go to the automatic teller. # click click click click ok? so, ## did I answer your question?
    S   yes

(5)

    T   //(xxx) they don't really die from aids. # they die of pneumonia, they die of malattia. # because their white blood cells can't fight the disease. #
    S   [raises hand] antibiotici. antibodies?
    T   yes. ok so. # I'm gonna erase this, [erases] NOW. hemoglobin! [...]

In these excerpts, the negotiation signals produced by learners were not organized in clauses and simply consisted in the repetition of lexical items found in the input. Nevertheless, they were understood by the teacher, who did not push learners to provide more target-like or accurate versions of their signals.

5. Conclusions

In the observed lessons, learners took an active part in classroom conversation and negotiated for meaning, thus confirming that the presence of teacher-learner interactions is a distinctive feature of CLIL lessons. Nevertheless, the data show that team-teaching may prevent learners from self-selecting and negotiating for meaning, since the presence of two teachers may result in a limitation of the time available to students in interactions (as in project C). This fact should perhaps be taken into consideration in the planning of CLIL projects.

Moreover, on the basis of the data collected for the present study it can be argued that under non-experimental conditions the presence of negotiation of meaning does not automatically entail the production of negative feedback (on the part of the teacher) and comprehensible output (on the part of the

learners), i.e. the conditions that are claimed to be conducive to L2 acquisition by SLA research. This means that teachers may need specific training to exploit the SLA potential of negotiation sequences and to encourage learners to hold the floor whenever they feel they need clarification.

References

Doughty C., 2001. Cognitive underpinnings of focus on form, in P. Robinson (ed.) *Cognition and Second Language Instruction*, Cambridge University Press, Cambridge, pp. 206-257.

Doughty C., Williams J. (eds.) 1998. *Focus on Form in Classroom Second Language Acquisition.* Cambridge University Press, Cambridge.

Long M.H., 1996. The role of the linguistic environment in second language acquisition. In W. Ritchie, T. Bhatia (eds.) *Handbook of Second Language Acquisition.* Academic Press, San Diego, pp. 413-468.

Lyster R., 2001. Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms, *Language Learning*, 51 (Suppl. 1), pp. 265-301. (Reprinted from Language Learning, 48, pp. 183-218.)

Lyster R., 2004. Differential effects of prompts and recasts in form-focused instruction, *Studies in Second Language Acquisition*, 26, pp. 399-432.

Pica T., 1992. The textual outcomes of native speaker-non-native speaker negotiation", in C. Kramsch, S. McConnell-Ginet (eds.) *Text and Context: Cross-disciplinary Perspectives on Language Study*, Heath & Co, Lexington MA, D.C., pp. 98-137.

Pica T., 2002. Subject matter content: How does it assist the interactional and linguistic needs of classroom language learners? *The Modern Language Journal*, 86, 1, pp. 1-19.

Swain M., 1985. Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S.M. Gass, C.G. Madden (eds.), pp. 235-253.

Swain M., 1995. Three functions of output in second language learning In G. Cook, B. Seidlhofer (eds.) *Principle and Practice in Applied Linguistics.* Oxford University Press, Oxford, pp. 125-144.

Swain M., 2000. The output hypothesis and beyond: Mediating acquisition through collaborative dialogue, in J. P. Lantolf (ed.) *Sociocultural Theory and Second Language Learning.* Oxford University Press, Oxford, pp. 97-114.

Swain M., 2005. The output hypothesis: Theory and research. In E. Hinkel (ed.) *Handbook on Research in Second Language Learning and Teaching.* Lawrence Erlbaum, Mahwah, NJ, pp. 471-483.

The acquisition of knowledge in bilingual learning: an empirical study on the role of language in content learning

Ursula Stohler

This contribution discusses the findings of an empirical study on the acquisition of knowledge in Content and Language Integrated Learning (CLIL), which was conducted by Hans Badertscher and his team at the university of Bern.[9]. By examining the subject-related conceptual fields of pupils, this investigation suggests that the teaching of non-linguistic topics in an L2 does not impair the acquisition of knowledge. The study, conducted at the University of Bern in Switzerland, examined several Swiss schools in which German or French were used as L2, and raises questions about the interrelationships of language and the development of conceptual knowledge. It also requires researchers to consider the factors that compensate for the additional difficulty pupils encounter when they are taught non-linguistic topics in an L2.

During the past fifteen years a considerable number of studies have appeared, especially in Scandinavia and Germany, which provide empirical evidence of the linguistic advantage of pupils when they are taught non-linguistic topics in an L2 (Wode, 1994; Johnson and Swain, 1997; Kroschewski and Scheunemann, 1998; Serra, 1999; Stern and Eriksson, 1999; Burmeister and Piske, 2002). Scepticism remains, however, as to whether the acquisition of *knowledge* is similarly efficient, or if the use of an L2 in the teaching of non-linguistic subject matters creates deficiencies in the pupils' conceptualisation of classroom topics. Canadian studies on content and language integrated teaching seem to remove these doubts, some researchers claim (Vollmer, 2000/2002, 54). The situation in Canada, where many of these studies were conducted, however, differs significantly from the preconditions existing in most European countries, both with regard to the socio-cultural

---

[9]   The following researchers worked on this project: Hans Badertscher, Otto Stern, Barbara Ruf, Cecilia Serra, Cornelia Heinz, Boldizsar Kiss, Stefan Goetz, Andrea Demierre, Thomas Bieri, Ursula Stohler, Pascale Mathys. The results presented here are a summary of a more exhaustive article that will appear in the collection *Bilingualer Unterricht (CLIL) zwischen Plurikulturalität, Plurilingualität und Multiliteralität*, published by Peter Lang Verlag

context and the target group, and so do similar studies from the USA. A further need to investigate the acquisition of knowledge in CLIL in more detail is indicated by the way in which most existing studies on this topic focus on disciplines such as mathematics or social studies (Ozerk and Krashen, 2001). Subject matters such as history, biology, or geography have far less often been the centre of academic research on this question.

The study presented in this contribution tried to find answers to these questions by collecting empirical data; specifically by focusing on whether deficiencies in subject matter learning exist when the teaching takes place in an L2, and if they exist, how to avoid possible disadvantages for the respective pupils. The intention was to examine the pupils' knowledge when they were taught in an L1 and to compare the findings with those resulting from an L2 teaching arrangement. Thus, classes taught subject matters in an L1 and classes taught subject matters in L2 were videotaped, analysed, and the pupils' cognitive performances evaluated. Such a procedure would help to identify possible differences in the teaching or classroom interaction of L1 and L2 classes. Each class was videotaped for a second time one year after the initial taping, so the development of the pupils' performance could be traced. The investigation lasted from 2002 to 2004. An on-going, follow-up project is evaluating further material from the inquiry and is examining possible reasons for the nature of the findings from the first part of the project.

In order to achieve these goals, the researchers opted for an exploratory rather than experimental research design. Instead of creating new teaching arrangements, as an experimental research design would have required, an exploratory research design was based on the investigation of existing teaching arrangements. It required only minimal interventions of the researchers: one of them was busy with the videotaping, the other with observations of the class. The following procedure was adopted to examine the pupils' knowledge of class-taught subject matter. It was decided pupils should reconstruct specific *conceptual fields* taught in class, rather than being examined on terms or definitions of terms. A conceptual field requires a learner to understand interdependences of various factors, relations between them, causes and effects of events and so on. Therefore, one of the researchers' first steps was to identify which conceptual fields had been taught in class; they consulted lessons plans, videotaped and transcribed lessons to help identify these conceptual fields.

The pupils would demonstrate their knowledge about the conceptual fields taught in class in interviews. A pupil chosen for an interview attended one class held in an L1, and one held in an L2. After either class, the pupil would give evidence of his or her grasp of some specific conceptual field

taught in these classes. From these interviews it would become clear if only conceptual fields taught in an L1 were completely understood and could be reconstructed, and if the same applied for conceptual fields taught in an L2. If, for instance, a pupil were only able to reconstruct a conceptual field from an L1 class, this would suggest that there are deficiencies in the acquisition of knowledge when the teaching takes place in an L2. It might, on the other hand, happen that conceptual fields taught in an L2 were understood better, or that no difference existed between the two teaching methods. The interviews in which the pupils gave evidence of their knowledge were initiated in the same language in which the class was held. The pupils of the L2-classes were, however, allowed to use the L1 when they did not remember an expression in the L2. In cases in which it was necessary, the interviewers helped the pupils reconstruct their knowledge by prompting them in either the L1 or L2 language or by referring to material used in the lesson.

In order to avoid a pupil's previous knowledge falsifying the results (for instance when a pupil knew more about a topic that was going to be taught in class than his or her peers), preliminary interviews were held prior to the lessons. During the preliminary interviews, existing knowledge about these conceptual fields was recorded. If a pupil was already familiar with a topic to be discussed in a lesson, this student had to be discarded from the study. After the preliminary interview and the second interview, which was held immediately after the class, a third interview was held approximately two months after the class had taken place. The aim here was to find out how well a topic was still known after a longer period of time. All three types of interviews were videotaped, and the respective dialogues transcribed. At the time this article was submitted, ten sets of interviews had been evaluated. Each included an example of an L1 class and an example of an L2 class with the same pupil, and consisted of a preliminary interview, an 'intake' interview (immediately after the class), and a 'longterm memory' interview (after two months).

The lessons that were videotaped and analysed were taken from classes at grade four, five, and six (Primarschule), and from classes at grade seven, eight and nine ('Sekundarstufe 1'). One of the schools chosen for this investigation operated in the German speaking area of Switzerland and three in the French speaking area. In the former case the L2 was German, in the latter French. While some of the schools investigated for this project were financed by the state, others were private schools. The schools have different conventions for the teaching of non-linguistic subjects in an L2. Some of the schools already begin with immersion classes in kindergarten; in other schools the pupils have only learnt the L2 for a very short time.

For the study presented here, five lessons from an L1-class and five lessons from an L2-class were recorded and analysed. The conceptual fields taught in these lessons and which some of the pupils were asked to reconstruct during the interviews included the subjects of history, biology, chemistry, German, and geography. (German was chosen as an example of a linguistic subject matter that nevertheless requires content learning as well). The lessons had different (but similar) subject matters—for instance one lesson was about geography and another about history. Both lessons were held with the same class of pupils, and the same pupils were interviewed after a lesson in L1 and in L2. In one interview a pupil was, for instance, asked to reconstruct the conceptual field 'Christopher Columbus and the track to the West', which was taken from a geography class. This conceptual field required the pupil to understand that Columbus wanted to find a shorter maritime track to India, that he believed that the earth is round and therefore decided to arrive in India from the other side than ships used to at that time. In the preliminary interview, which checked the pupils' possible existing knowledge on the topic, one pupil said that he knew that Columbus was looking for a new maritime track to India, and that, unlike his contemporaries, Columbus did not believe that the earth is flat. The pupil was, however, not yet able to make the connection between Columbus' choice of the maritime track and his belief that the earth is round. During the 'intake' interview, which was held straight after the lesson, the pupil was capable of making this connection: he explained that Columbus wanted to get to India by choosing a maritime track to the West because he believed that the earth is round. The pupil tried to give this explanation in the L2 French. During the interview that was held two months after the lesson the pupil was still able to reproduce this information completely, mostly by using the L2.

The evaluation of the interviews, which examined the pupils' knowledge of the class-taught conceptual fields, suggested that no significant differences exist in the acquisition of knowledge when pupils are taught in an L1 and when they are taught in an L2. In either case the pupils are capable of reproducing the conceptual fields taught in class, even if they have only partially mastered the L2. Pupils who usually perform well in class performed well in the interviews, and those who usually performed less well in class performed less well in the interviews, too. Content and language integrated learning seems to have neither positive nor negative consequences on the acquisition of knowledge. It is important to note, however, that the pupils were only capable of demonstrating the acquired knowledge if they were allowed to use the L1 as well. This aspect might have to be considered in questions of transitions of the pupils from one grade to the next.

This outcome of the investigation raises certain questions. How is it possible that no differences could be found in the acquisition of knowledge when the teaching took place in L1 or in L2? It seems difficult to deny that learning a subject matter in an L2 poses an additional difficulty for the pupils, and that factors must therefore exist that compensate for the linguistic obstacle the pupils have to surmount. The second part of this research project, which is ongoing, is trying to identify some of these compensatory factors, such as the structure of the lesson, the number and the quality of negotiations of meaning, and the use of media. At the present stage of the study it seems that there are no significant differences between the structure of L1 and L2 classes. It seems, however, that more negotiations of meaning take place in L2 classes than in L1 classes. This factor might compensate for the linguistic obstacles that CLIL pupils have to surmount.

If the investigation suggests that none of the factors mentioned can explain why this study could not find any significant differences in the acquisition of knowledge in L1 and in L2 classes, then the reasons for this paradox must be sought elsewhere. It is possible, for instance, that conceptions about the construction of knowledge have to be revised. The construction of knowledge might be connected with the learning of language so firmly that the two elements cannot be viewed as separate entities. Language could then not be regarded as a mere vehicle for the transport of knowledge. Rather, the language itself would then have to be seen as a constitutive element for the construction of knowledge.

References

Badertscher, H. 2005. Wissenserwerb im bilingualen Unterricht: Eine empirische Studie zur Bedeutung der Sprache im Sachlernen (Content and Language Integrated Learning CLIL). Schlussbericht, Lehrerinnen- und Lehrerbildung Universität und Kanton Bern.

Burmeister, P. and Piske, T. 2002. *An Integrated View of Language Development. Papers in Honour of Henning Wode.* Trier: Wissenschaftlicher Verlag.

Johnson, R. K. and Swain, M. E. 1997. *Immersion Education. International Perspectives.* Cambridge: Cambridge University Press.

Kroschewski, A. and Scheunemann, A. 1998. A Resource Base for Bilingual Educators, University of Jyväskylä, Finland.

Mäsch, N. 1991. Bilingual deutsch-französischer Bildungsgang – ein Stichwortverzeichnis. *Trait d'union* 6, 9-12.

Ozerk, K. and Krashen S. 2001. Subject Matter Teaching in Bilingual Education: Impact on Bilingual and Monolingual Students. *Review of Applied Linguistics* 131-132, 1-10.

Serra, C. 1999. Gespräche im zweisprachigen Unterricht – Entwicklung der Gesprächsfähigkeit. In E. Serra et al. (ed.) *Französisch – Deutsch: Zweisprachiges Lernen auf der Sekundarstufe I.* Chur / Zürich: Rüegger, 107-157.

Stern, O. and Eriksson, B. 1999. *Französisch-Deutsch: Zweisprachiges Lernen auf der Sekundarstufe I.* Chur / Zürich: Rüegger.

Vollmer, H. J. 2000/2002. Bilingualer Sachfachunterricht als Inhalts- und Sachlernen. In G. Bach and A. Niemeier (eds.) *Bilingualer Unterricht. Grundlagen, Methoden, Praxis, Perspektiven.* Frankfurt a. M.: Peter Lang.

Wode, H. 1994. *Bilinguale Unterrichtserprobung in Schleswig-Hostein.* Kiel: i&f Verlag.

How is extramural exposure to English among Swedish school students used in the CLIL classroom?

Liss Kerstin Sylvén

Introduction

Content and Language Integrated Learning (CLIL) has been used as a teaching method in Sweden since 1983 and at an increasing level ever since. The basic idea with using CLIL is, of course, that language is a means of communication and using language as a communicative tool resembles the natural way of learning a language. Supposedly, students then not only learn the subject content but they also learn the new language more effectively than is the case with traditional language teaching.

Swedish students are generally thought of as having a fairly good command of English (cf., e.g., the Swedish National Agency for Education 2004a). A contributing factor is said to be the amount of English they are exposed to outside of the school environment via TV, movies, music, etc (cf. e.g. Mobärg 1997, Svartvik 1999, Swedish National Agency for Education 2000). The fact that Swedes do get in contact with a comparatively large amount of English in various ways is well established, but less is known about the content. The aim of this paper is to present the findings of a study looking into the details of extramural exposure to English among Swedish school children.

In a CLIL group, the amount of the language used as the medium of instruction is often rather large, based on the principle that the more the students are exposed to the foreign language, the better they will learn it. In a large-scale study on the effects of CLIL on lexical proficiency (Sylvén 2004) it was found that it was probably not only the CLIL method per se that was decisive as regards the results on vocabulary tests. Rather, one of the most important factors influencing the size of students' English vocabulary was the reading of English texts outside of the school curriculum regardless of teaching method. However, no specification was made in the study as regards the nature of this reading. Hence, it is unclear if the students read books, newspapers, TV/computer-game instructions, technical manuals, or other types of text. The only thing that was made certain is that exposure to English texts

has a positive effect on lexical acquisition. Therefore, it is of importance to investigate this further and to look into such things as: what English reading habits do Swedish students have? What other types of contact with English do they have? Are there differences in the amount and type of exposure between CLIL and traditional students? Are there gender differences?

This contribution discusses how Swedish students' extracurricular exposure to English is reflected in the classroom. In particular, I will look at the use of other types of teaching material than the traditional school book. We will also study the results of a student self assessment protocol. First, a brief background is offered on the CLIL situation in Sweden. Then the results of a previous pilot study are presented and finally, the main study is described.

Background

The CLIL method was first introduced in Sweden as an experiment in 1977. This experiment was followed by another in 1984, and soon after that a growing number of schools introduced the method. In 2001 a total of 20 percent of all schools at upper secondary level and 4 percent of those at lower secondary level implemented the CLIL method in one way or another (Nixon 2000:8) and the number of schools offering CLIL is increasing[10].

The studies that exist on the CLIL method in Sweden show that teachers and students alike seem satisfied with the method and that students' proficiency in, especially, subject-specific English terminology has increased. The research carried out on the CLIL method as applied in Sweden so far suggests that the overall attitudes towards English are more positive among the CLIL students than among others. The CLIL students also seem to rate their own proficiency in English higher than their peers in traditional classes.

As was mentioned above, Sylvén (2004) shows that one of the most influential factors on vocabulary acquisition, and, thus, communicative competence (cf. e.g. Coady and Huckin 1997:ix) is the amount of exposure to the target language. The present study looks in detail into the types and the amount of extramural exposure to English among Swedish school students. The results will be correlated to results on written tests, focusing mainly on lexical proficiency. The aim is to be able to distinguish the effects of various types of exposure on the learning of vocabulary. Most importantly as regards this contribution, though, the results will also be correlated with the type of teaching material used in the CLIL classroom and a self assessment protocol.

---

[10]   Unfortunately, there are no up to date figures of the number of schools implementing CLIL presently.

A major reason for investigating the teaching material is that in Sylvén (2004) one of two areas of concern identified in connection with implementing the CLIL method in Sweden was the lack of appropriate teaching materials in the subjects taught in English. The reason for correlating test results with students' self assessment is that, as was mentioned above, CLIL students tend to rate their own proficiency higher than traditional students, and also that, according to a number of teachers, Swedish students generally tend to overrate their own capabilities.

In the national curriculum for the Swedish compulsory school it is stated that the English subject should "linguistically benefit from the rich and varied supply of English that children and adolescents are exposed to outside of school" (the Swedish National Agency for Education 2000, my translation). It is therefore of interest to investigate the degree to which this is the case, and to look into possible differences in this respect between a CLIL classroom and that of a control group. The hypothesis is that the CLIL teacher is more prone to taking advantage of any extracurricular exposure, not least in light of the fact mentioned above about a serious lack of appropriate and relevant teaching material in subjects taught in English.

The main study was preceded by a minor pilot study whose layout and major findings will be described in the following.

Pilot study

The overall aim of the pilot study was to try out a contact diary as a tool to find relevant information about students' extramural exposure to English. Informants were students in 7th grade (age: 13-14) in one CLIL class and one control class.

The contact diary specifies a number of different types of areas where the students are likely to encounter English, such as books, TV, movies, etc. The diary was filled out during a week in the spring of 2005.

The CLIL group proved to be much more exposed to English outside of school than the control group. This was expected, as we can assume that only students with a special interest in English apply to the CLIL instructed classes. During the week of this investigation, the CLIL students were exposed to English outside of school, on an average, approximately 13 hours, whereas the control students report an average time of exposure of 9 hours. It must be emphasized that these are average figures only. The individual differences in both groups are quite extensive.

There were clear differences in two respects between the two groups. The CLIL group reports reading English books twice as much as the control group. Similarly, the CLIL group surfs English Internet sites twice as much as the control group.

There were also some marked gender differences The girls, in both groups, seem to surf the Internet to a much larger extent than do the boys. The girls, again in both groups, listen much more to English music than do the boys. The boys in both groups, on the other hand, play extensively more computer games of various types. (For further details on the pilot study, see Sylvén forthcoming.)

Main study

During the spring term 2006, one control class and one CLIL class at two upper secondary schools in Sweden are taking part in an extended version of the pilot study described above. The main study consists of three parts; a language diary, a background questionnaire and vocabulary tests. The language diary is an expanded version of the contact diary that was used in the pilot study. Not only do the students fill in how much they are exposed to English in their spare time, but also how much and what types of contact they have with English during the school day. The aim of adding a column for information on exposure during the school day is to find out more about what type of teaching material is actually being used.

In the background questionnaire, a large number of questions are included, ranging from family background to attitudes toward English as a subject. For this contribution, the self assessment part also included in the questionnaire is of particular interest.

Some preliminary results

The data analysed so far comprise the language diary and the self assessment protocol filled out by a total of 54 CLIL students and 42 non-CLIL students. As the material in its entirety has not yet been evaluated, the statistical analyses remain to be carried out. It is important to bear this in mind and also to treat the results with caution.

The amount or extracurricular exposure to English was, in contrast to what was the case in the pilot study, strikingly similar in the two groups studied. However, the CLIL students tend to be more exposed to Swedish outside of

school as compared to the non-CLIL group. The exposure to other languages is at an extremely low level in both groups.

The hypothesis that CLIL classes are subjected to a range of various teaching materials apart from regular school books is, based on the data analysed thus far, refuted. This was an unexpected outcome, and will be investigated further in the continuation of the study, not least during classroom observations.

Self assessment

The analysis of the self assessment protocol shows that Swedish students in general are very self-confident as regards their proficiency in English. For instance, more than 90% of the students, in both groups, consider themselves "good" or "very good" at understanding spoken English. Likewise, approximately 80% in both groups assess themselves as being "good" or "very good" at communicating with other people in English. The greatest difference in the self assessment between the two groups is found in the ability to write in English. Whereas 90% of the CLIL students claim that they are "good" or "very good" at writing, approximately 80% of the non-CLIL group students have assessed themselves in these categories. These figures have not been analysed for statistical significance, but the overall picture is that there are no great differences between the groups in how the students assess their own abilities in the English language. This is also in line with what has been found elsewhere (cf., e.g., the Swedish National Agency 2004b).

Correlation between extramural exposure and self -assessment

In order to test the hypothesis that students who are regularly exposed to English outside of school rate themselves higher in a self assessment protocol, a correlation Z-test was performed on the data. The result shows a salient correlation between these two factors with p-levels of >0.4 for the CLIL group and >0.1 for the non-CLIL group. This means that students with a high amount of exposure tend to rate themselves higher in the self assessment protocol. Thus, there seems to be a statistically significant correlation between amount of extramural exposure and level of self assessment.

Conclusion

Young people in Sweden are very much exposed to English in various forms, not least in their spare time. In fact, for many youngsters, their main contact with English occurs outside of their school day. The question, then, is whether this fact is reflected and taken advantage of in school. My experience is that this varies between individual teachers. Due to the impact and apparent importance of the extramural exposure, this is something in need of further investigation. The present ongoing study will provide a knowledge base to assist in raising awareness of what kind of English the students encounter when their teachers are not involved. Having such knowledge will facilitate matters for any teacher willing to take advantage of students' extramural exposure in their own teaching. Another hypothesis is that acknowledging students' spare time interests and types of exposure in the classroom would also heighten the students' involvement in the teaching activities, thus facilitating and improving the learning process. As is well known, motivation is one of the most important driving forces as regards any type of learning (see e.g. Gardner & Lambert 1972, Gardner 1991, 1992, 1993).

The results so far of the present study indicate a strong correlation between amount of exposure to English and level of self assessment. It still remains to be seen whether there is also a similar type of correlation between the amount of exposure and actual performance. Should this be the case, however, it seems as though this is important information for everybody involved in teaching English as a second language to have. Teachers should use this knowledge to encourage students to take part of different kinds of English outside of school. Students should be informed that extracurricular exposure is of the essence as regards their proficiency in English. Last, but not least, parents should be aware of the fact that hours in front of the computer playing games and chatting in English is not necessarily a total waste!

References

Coady, James and Thomas Huckin (eds). 1997. *Second language vocabulary acquisition*. Cambridge: Cambridge University Press.

Gardner, Robert C. 1991. Attitudes and motivation in second language learning. In A. G. Reynolds (ed) *Bilingualism, multiculturalism, and second language learning,* 43-64.

Gardner, Robert C. and Wallace E. Lambert. 1972. *Attitudes and motivation in second language learning*. Rowley: Newbury House.

Gardner, Robert C. and Peter D. MacIntyre. 1993. On the measurement of affective variables in second language learning. *Language Learning*. 43:2. 157-194.

Gardner, Robert C., J.B. Day, and and MacIntyre Peter D. 1992. Integrative motivation, induced anxiety, and language learning in a controlled environment. *Studies in Second Language Acquisition*. 14:2. 197-214.

Mobärg, Mats. 1997. Acquiring, teaching and testing vocabulary. *International Journal of Applied Linguistics*. 7:2. 201-222.

Nixon, John. 2000. *Content and language integrated learning and teaching in Sweden*. Stockholm: Swedish National Agency for Education.

Svartvik, Jan. 1999. *Engelska - öspråk, världsspråk, trendspråk*. Stockholm: Norstedts.

Swedish National Agency for Education. 2000. *Kursplaner och betygskriterier*. Date of access: Feb 28, 2006. http://www3.skolverket.se/ki03/front.aspx?sprak=SV&ar=0506&infotyp=23&skolform=11&id=3870&extraId=2087.

Swedish National Agency for Education. 2004a. *Svenska elever bra i engelska och problemlösning – men försämringar i läsförståelse, matematik och kemi*. Date of access: Feb 28, 2006. http://www.skolverket.se/sb/d/203/a/311.

Swedish National Agency for Education. 2004b. *Engelska i åtta europeiska länder*. Date of access: Sep 30, 2006. http://www.skolverket.se/publikationer?id=1284

Sylvén, Liss Kerstin. 2004. *Teaching in English or English teaching? On the effects of content and language integrated learning on Swedish learners' incidental vocabulary acquisition*. Göteborg: Department of English, Göteborg University.

Sylvén, Liss Kerstin. Forthcoming. Extramural exposure to English among Swedish school students. In E. Larsson Ringqvist (ed), *ASLA 2006 conference selections*. Växjö: Växjö University.

Contributors

Jasone **Cenoz Iragui**
University of the Basque Country
Spain
fipceirj@vc.ehu.es

Emma **Dafouz Milne**
Department of English Language and
Linguistics
Universidad Complutense de Madrid
Spain
edafouz@filol.ucm.es

Christiane **Dalton-Puffer**
Department of English
University of Vienna
Austria
christiane.dalton-puffer@univie.ac.at

Denise **Gassner**
Swiss National Research Programme 56
Faculté des lettres
University of Geneva
Switzerland
Denise.Gassner@lettres.unige.ch

Rosa María **Jiménez Catalán**
Departamento de Filologias Modernas
University of La Rioja
Spain
rosa.jimenez@dfm.unirioja.es

Didier **Maillat**
Swiss National Research Programme 56
Département d'anglais et slavistique
University of Fribourg
Switzerland
didier.maillat@unifr.ch

Tarja **Nikula**
Centre of Excellence for the Study
of Variation, Contacts and Change in
English
University of Jyväskylä
Finland
tnikula@campus.jyu.fi

Liss Kerstin **Sylvén**
University of Göteborg
Sweden
liss.kerstin.sylven@samfak.gu.se

Ursula **Stohler**,
Institute for Educational Studies
University of Bern
Switzerland
ursula.stohler@edu.unibe.ch

Cristina **Mariotti**
Comunicazione Interculturale
e Multimediale
University of Pavia
Italy
cristina.mariotti@sys-net.it

Ana **Llinares**
Department of English Studies
Universidad Autónoma de Madrid
Spain
ana.llinares@uam.es

Rachel **Whittaker**
Department of English Studies
Universidad Autónoma de Madrid
Spain
rachel@uam.es

Yolanda **Ruiz de Zarobe**
University of the Basque Country
Spain
yolanda.ruizdezarobe@ehu.es

ROOM FOR NOTES

How to contact us:

VI@w[z]

c/o
Institut für Anglistik & Amerikanistik der Universität Wien
Universitätscampus AAKH, Spitalgasse 2, Hof 8
A – 1090 Vienna; Austria

fax   **(intern.) 43 1 4277 9424**
eMail   **christiane.dalton-puffer@univie.ac.at**
W³   http://www.univie.ac.at/Anglistik/views.htm
     (all issues available online)