Lexical Range and Communicative Competence of Learners in Bilingual Schools in Lower Austria

Claudia Mewald

University College of Teacher Education in Lower Austria

Abstract

This article discusses the impact of lexical range on the learners' ability to communicate in English when taught as a foreign language in bilingual schools, and emphasizes the importance of explicit vocabulary instruction. It draws on data from classroom observation, lexis-retrieval tasks, written and spoken performance in bilingual (German-English) and regular school classes at grades 5-8 in Austrian secondary schools. Results suggest that a wider lexical range results in better communicative competence and fluency and that breakdown of communication in spoken or written performance is more frequently caused by insufficient vocabulary rather than by lack of control or grammatical problems.   Consequently, insights from cognitive linguistics, the Lexical Approach, and Lexical Priming are discussed to justify the concept of vocabulary instruction in contextualized units. Taking the scarceness of theoretical and practical concepts into consideration, the need for research on the explicit instruction of vocabulary and metacognitive strategies is fleshed out.

Keywords

Vocabulary acquisition, content and language integrated learning (CLIL), communicative competence, Lexical Approach, Lexical Priming, English as a foreign language

Introduction

The rapid growth of international information exchange and inter-continental travel in recent years have increased language contact, language change, and language conflict and thus contributed to make some languages more influential, while others have declined in importance (Baker, 2002). Thus, language education does not only embrace the task of enabling people to communicate in private, public and professional domains, it also holds the power to influence the status of languages within societies and the acquisition of several languages in plurilingual contexts (Cooper, 1989). Content based instruction or content and language integrated learning[1] (CLIL) provides an extensive foundation to realize an approach with a focus on authenticity and real-life. For a long time it seemed that authenticity in foreign language (FL) education had been reduced or even lost by putting a stronger emphasis on *knowing about languages* than on the ability to *make use* of them in real world scenarios. This situation and the growing need to be able to communicate in an increasingly globalized world gave rise to a greater demand for authenticity in FL education. The desire to improve language

_____

Corresponding Author:
Claudia Mewald, University College of Teacher Education in Lower Austria, 2500 Baden, Muehlgasse 67, Austria, Europe.
Email: claudia.mewald@ph-noe.ac.at

learning opportunities for *all* learners thus encouraged the development of bilingual programs and the implementation of CLIL in Europe. In order to support plurilingualism, a paradigm shift from learning to use languages with native-speaker like perfection, to an objective that aims at communicative, social and intercultural competence was suggested. With successful communication being the goal in plurilingual societies, strategies that enable fast, effective and sustainable language acquisition have become interesting for planning instruction, especially at the beginner level.

CLIL classrooms emphasize the instruction of vocabulary, which seems to bear positive effects on the learners' communicative competence. Therefore, research was carried out to investigate whether a wider lexical range through CLIL would also result in better communicative competence and fluency.

Theoretical Background

Research results from cognitive linguistics suggests planned instruction of larger lexical units (Boers & Lindstromberg, 2008) in the form of chunks of language such as word partnerships (also called collocations) or fixed and semi-fixed phrases to achieve the goal of communicative competence as quickly and effectively as possible. The focus on collocations and phrases as the guiding framework for syllabus design has been promoted in the *Lexical Approach* (Lewis, 1993) and more recently in a new theory of words and language called *Lexical Priming* (Hoey, 2005). This work suggests that real communication is essential to fostering motivation in language learning. The desire not only to be able to communicate fact-based, simple information, but also to be able to communicate messages at an intellectual and emotional level, calls for materials and activities to express opinions and attitudes from an early stage in the language learning process. Hoey

(2005) maintains that collocation plays an important role in *lexical priming*, which is a potentially personal and unique process. He explains that in the process of understanding and intake, words are mentally primed for collocational use, which is responsible for naturalness. "Every word is primed for use in discourse as a result of the cumulative effects of an individual's encounter with the word" (Hoey, 2005, p. 13). Primings are neither static nor absolute. Any priming is unique because of the "individual's experience of language, and the primings that arise out of these experiences" (Hoey, p. 11). Primings may be reinforced, extended or cracked over time. Therefore, Hoey suggests that learners should be surrounded by authentic input that provides ample evidence for lexical primings to come into existence, and to get built up inductively and yet individually. This should be done in a way that collocations and word associations are encouraged, rather than in lists of isolated words disconnected from all their primings.

Taking the above into consideration, language education should make use of an individualized, strategic approach to the acquisition of a broad lexical repertoire in order to encourage natural language acquisition in the process of learning so that new language can be used effectively, but without the claim of native-speaker like perfection (Seidlhofer, 2011, p. 187). Thus, learners of English as a foreign language (EFL) would aim at becoming users of English as a lingua franca (ELF), which measures proficiency in terms of its use as a "communicative resource" and not only "in terms of degrees of conformity to NS norms"[2] (Seidlhofer, 2011, p. 195 & 187).

If learners were freed from the need to demonstrate grammatical perfection, especially at the beginning of the language learning process where basic interpersonal communication skills are prevalent, their language awareness and resources from other languages could be

consciously exploited and made use of without the "fear" of making connections between the languages that might result in temporarily incorrect use (interlanguage).   Being freed from the *inhibiting native speaker competence goal*, learners of additional languages would be encouraged to appreciate their ability to put the language they are learning into effective communicative use instead of limiting their output to what can be said or written in an absolutely correct way. This would simultaneously encourage risk taking and a richer and more complex, although not necessarily more accurate, output.

Seidelhofer suggests that understanding ELF "as a naturally occurring use of language" (2011, p. 208) should thus encourage a re-definition of *English as a subject.* In the light of this re-definition, a new perspective on CLIL and how to achieve functional plurilingualism should be considered as well.

With the focus of EFL instruction on successful communication in the early 1980s and the rejection of the grammar-translation and the audio-lingual method, the importance of vocabulary acquisition increased in linguistic and methodological research. Nevertheless, how learners can be supported in the vocabulary acquisition process, and how a sustainable knowledge base can be achieved "has remained a sporadically addressed, minority concern" (Boers & Lindstromberg, 2008, p. 3), and a widely neglected field in research (Richards, 1985, p. 176).

Despite the generally acknowledged importance of vocabulary acquisition through collocations, lexical chunks or phrases in connection with functional language, there does not seem to be common consensus about how to incorporate vocabulary acquisition in a meaningful way into teaching and learning. The common assumption that communicative language education alone would be sufficient to acquire a broad lexical repertoire subconsciously

and effortlessly has not been supported by research results; and empirically proven methods or concepts of explicit vocabulary instruction do not exist (Boers & Lindstromberg, 2008).

The neglect of explicit vocabulary instruction seems to have many reasons, the most prominent being the common disapproval of formal grammar instruction and the memorization of lists of decontextualized words (Laufer, 2005). Moreover, findings from corpus studies[3], which collect written or spoken linguistic data to describe languages, or theoretical and methodological implications of approaches such as the *Lexical Approach* (Lewis, 1993) or *Lexical Priming* (Hoey, 2005), have not yet shown sufficient impact on teaching.

One of the reasons for this seems to be the fact that cognitive linguists have only just started to research and describe *"motivation* of lexical units," e.g., the use of collocations and fixed and semi-fixed phrases, for the benefit of language learners (Boers & Lindstromberg, 2008, pp. 18-19). Moreover, apart from theories about memorization, remembering, or forgetting, very little seems to be known about vocabulary acquisition strategies (Clark & Paivio, 1991; Nation & Waring, 1997), or how anchoring and lexical priming work in second language acquisition (SLA) (Hoey, 2005).

While vocabulary acquisition in schools still seems to be a linear process based on vocabulary lists that are copied from course books, laboriously memorized, and quickly forgotten, CLIL classes seem to take completely different approaches that are perceived as more motivating and effective.

The following view into CLIL classrooms with a focus on vocabulary input and output attempts to picture ways of more meaningful vocabulary instruction. Data was collected in two studies between 1999 and 2014.

Context and Methods

When Lefranc (2000) suggested that bilingual education would become the norm in Europe and that it should start as early as possible (i.e., in kindergarten), Lower Austria was already looking back at a history of four years of bilingual education in sixty-five schools, with a steadily growing number of participants in a school pilot called "English Across the Curriculum"[4] (EAC) and an even longer tradition of previous autonomous implementation.

The data presented in this article was collected between 1999 and 2004, and between 2009 and 2014 in CLIL and regular general secondary schools. CLIL schools used to implement up to five lessons taught bilingually per week on a regular basis. The early sample comprised a purposeful selection of four CLIL case study schools with varying experience, human and material resources, and demographic profiles; and four regular schools with similar profiles to provide a broad overview of the impact of bilingual education. The later data focused on learners in one of the CLIL case study schools which had chosen to concentrate on explicit vocabulary instruction. Thus, the school was selected to provide information about the impact of the latter.

The data for the analysis of the learners' lexical range is based on a learner corpus[5], i.e., an electronically stored collection of text produced by the learners, which was compiled from a lexis retrieval task, and spoken and written texts produced in rehearsed as well as in spontaneous exercises. The lexis retrieval task was carried out with thirty-six year eight pupils from CLIL classes, and the texts were produced by seventy-two pupils in CLIL and regular classes in the early sample; the later sample comprised twenty pupils for the lexis retrieval task as well as for text production. The difference in number and sampling of the pupils in the two studies is a shortcoming in terms of the comparability of results. However, while the first study concentrated on the comparison of

CLIL to regular pupils, the second study was not intended to compare, but to describe the language CLIL pupils were able to produce after explicit vocabulary instruction.

The Lexis Retrieval Task

The lexis retrieval task was only carried out in CLIL classes. This task was not implemented at regular schools because the knowledge base of textbook related words was not of primary interest. In this task the pupils collaborated in triads to avoid shyness or inhibition when working with an unfamiliar person. They were asked to say words, phrases and sentences they could remember from CLIL lessons in twenty minutes. The items were processed by the researcher and shown on a whiteboard screen, assuming that this would trigger more output.

The output generated by the lexis retrieval task was analyzed for frequency and categories using MAXDICTIO (Kuckartz, 2003), a software for the evaluation of texts based on quantitative content analysis which helps to create an index of the words used in a text. To categorize the CLIL-specific items, information from course book analysis, interviews with experts from the case-study schools, and data from observations were used. Words used in the English textbooks were separated from CLIL-specific words and phrases, and the remaining items were then categorized according to subject. Items deriving from the pupils' knowledge of the world (KOW[6]), i.e., words most likely to be known from the real world, as well as international words (computer, mobile phone, to chill out, etc.), were identified by the pupils immediately after the lexis retrieval task and excluded using "stop-lists", i.e., the words remained in the corpus but they were not counted for frequency in MAXDICTIO.

To analyze the data a type-token ratio[7] was calculated, i.e., the total number of words, and the types, with and without L1 words was compared with the number of words excluding repetitions, the tokens.

Written and Spoken Texts

Data collected consisted of more than two hundred transcribed spoken texts. Seventy-two "typical" high, average and weak performances were selected by the teachers to avoid researcher error or bias. The texts were analyzed according to fluency (McCarthy, 1998; McCarthy, 2009), coherence and cohesion (Weir, 1998), first language (L1) influence (Bialystok, 1991; Duran, 1994), sentence length (Goldman-Eisler, 1972), lexical, grammatical, and phonological accuracy (Bialystok, 1982; Hammerly, 1991; McCarthy, 1998), the ability to express ideas comprehensibly and effectively, and creativity (the ability to provide divergent ideas or answers) (Baker, 2002).

To fully understand the complexity of the language used in CLIL classes, the collected data was supplemented by an examination of the input and output in twenty-five CLIL lessons. The data was organized as non-participant observation implementing a semi-structured observation plan with attention on space and objects, actors, time and acts including pupil participation, events and types of tasks in L1 and second language (L2), content goals and topics as well as language use (Mewald, 2005). The primary focus was on the pupils' utterances, i.e., their "output", which was recorded verbatim. Thus, the data set delivered both qualitative and quantitative data, which is why a framework to allow for the organization of data in a checklist matrix was developed. All systematized data

was summarized to identify recurrent incidents and to develop patterns to identify and to categorize themes and trends. In addition to the complexity of language, the categories included demographic information, classroom organization, task types, error correction, classroom interaction, metacognitive skills, practice, participation, and materials used in the lessons. This article, however, focuses exclusively on the learner's lexical range and communicative competence.

The 2014 sample comprised twenty spoken texts for the same speaking task as used 2004 and twenty-eight written texts from various CLIL settings to identify the impact of explicit vocabulary instruction.

Findings from the Lexis Retrieval Task

The pupils in the early sample produced an average of 96.36 L1 and L2 items in the lexis retrieval task. With an average of 85.7 items per pupil, the later sample produced fewer words but more L2 tokens (22.9) and types (21.55). Moreover, the type-token ratio was clearly higher and the result of 0.94 suggests that hardly any CLIL related words were repeated.

The results also showed that the later sample used more collocations (e.g., alternating current, direct current), chunks (e.g., . . . is made up of, . . . is called, starts . . . and ends . . .), and sentences.

Table 1. Lexis Retrieval Task: Words

	Complete List	L2 List	L2 List M	CLIL Related Tokens	CLIL Related Types	Type-Token Ratio[vii]	CLIL Related Tokens M	CLIL Related Types M
2004 (n=36)	4,362	3,469	96.36	597	461	0.77	16.58	12.81
2014 (n=20)	1,825	1,714	85.70	458	430	0.94	22.90	21.55

Table 2. Lexis Retrieval Task: Words, Phrases & Sentences

	Edited list	Words	Phrases	Sentences
2004	3,469	3,381	57	0
2014	1,714	1,420	68	30

In the early sample of CLIL related words and phrases, ten subjects emerged as categories. Biology (BIO), History (HIS) and Geography (GEO) had the most words per category. Physics & Chemistry (PC)[8], Mathematics (MA), and Information Technology (IT) included about half as many words compared to the leading three subjects. Music (MU) and Religious Education (RE) had twenty-one and twenty-six words, while Technology (TECH) and Art had fourteen and ten words. Some types were counted in more than one subject if they were used in polywords or chunks (e.g., global warming / global economy, copper is made up of . . . / India . . . producer of copper).

The original variety in subjects was not confirmed in the later sample. It only contained words from BIO, GEO, HIS, PC, and MA. The following items exemplify the data produced in the lexis retrieval task: *electric current, roughage, fiber, the reasons for the first world war, two thirds of our body is made up of water, a diode converts alternating current into direct current, NATO is short for North Atlantic Treaty Organization, large food molecules are broken down into smaller ones so they can pass into the blood, the opposite sites of a parallelogram are parallel and the opposite angles have the same amount of degrees ....* (function words were not counted).

Thus, a larger variety of words was produced in the context of fewer subjects. BIO, HIS and GEO again produced the most items in the pupils' productive lexis.

Table 3. CLIL Related Words per Subject

Nr. of words	BIO	HIS	GEO	PC	MA	IT	MU	RE	TECH	ART
2004	104	104	99	56	55	50	21	26	14	10
2014	123	117	129	67	59	0	0	0	0	0

Findings From Text Production

The pupils' performance in the communicative tests was analyzed according to a framework consisting of twenty-one criteria[9]. The framework was developed to enhance consistency in marking and to encourage a holistic approach to evaluation through counting frequencies (words, phrases, sentences, mistakes...), in addition to a more judgmental evaluation of overall performance based on a set of descriptors at five levels with five being the best rating[10] (Richards, Platt & Platt, 1997, pp. 141-142).

Fluency

Table 4 shows that pupils from CLIL classes were by and large more fluent than regular school learners, but that the fluency of low achievers did not benefit as much from a CLIL approach.

Taking data from observations into consideration it appears that the reasons for the "lack of fluency" in the performances of many low achievers seemed to mirror code-switching strategies which happened naturally in CLIL classes. Teachers and native speakers generally reacted instantly to L1 utterances of the pupils and hardly ever insisted on the use of L2. Even in their own statements teachers and native speakers switched the code seemingly intentionally to support understanding. The only request for L2 to be shown in the observations was made by a pupil who (possibly because he was being observed) insisted on L2 during pair work. The same utterance provided another example of a situation which often happened in CLIL lessons without teacher intervention: pupils would switch the code within a statement, as in *"Hast du ein* sheet *für mich?"*[11] (German words italicized).

Continuous Speech

Table 5 shows that pupils from CLIL classes were better in continuous speech, i.e., they spoke more and produced longer sentences than pupils from regular schools. They used fewer German words and interjections although they switched the code more frequently. Moreover, CLIL pupils were more elaborate than their peers at regular schools. They took risks, used conjunctions, and linking words. However, the increased number of words also raised the danger of making lexical mistakes. Pupils at regular school, instead, often went for the safest option, saying the simplest things in the simplest possible language thus avoiding incorrect language.

Table 4. Fluency by ability groups (2004)

	1st group	2nd group	3rd group
CLIL schools	3.53	2.92	1.78
Regular schools	2.58	2.64	1.97

Table 5. Continuous speech (2004)

	Number of Sentences	Words per Sentence	Code-switching after ... Words	% of German Words	Grammar Errors	Lexical Errors
CLIL Schools	1,374	7.71	73	7.07	596	282
Regular Schools	1,070	7.03	81	8.55	635	186

One of the tasks required the pupils to describe Georges-Pierre Seurat's *"Bathers at Asnières".* While the texts from CLIL classes demonstrated resourceful use of lexis, variation in sentence structure and creativity; the texts from regular classes were not only shorter, but they also made little use of structures other than "there is" or "there are". Apart from colors, learners at regular schools used just one adjective, while the texts from CLIL classes were rich in the use of modifiers, e.g., sunny, friendly, happy, sad, shiny, slow, etc. Moreover, the texts from regular school classes only used the present tense, while the sample texts from CLIL pupils included references to the past, relative clauses, and adverbial clauses, as well as the explanation of possible reasons for things observed. Generally, the texts from CLIL pupils demonstrated more variety and they were more elaborate while those of regular school pupils were straightforward and simple.

The extent to which CLIL pupils demonstrated a more resourceful lexical range than regular school pupils also showed in the evaluation of English types (words counted without repetitions) produced by both groups in the spoken texts, and by each group individually.

Table 6 shows that CLIL learners used more than twice as many different kinds of words than regular school pupils. Only proper names (e.g., Danube, New York...) were more frequently used by regular school pupils. Comparing the results reflecting the lexical range the CLIL learners had produced with the number of lexical mistakes made in the texts, it was observed that although CLIL pupils seemed to have a more relaxed attitude towards mistakes (as observed in the lessons), they produced not just more creative but also more accurate texts.

As can be seen in Table 7, the CLIL pupils produced more incorrect words that did not spoil the message, but at the same time the number of missing words was less.

Table 6. Words Used by CLIL and Regular School Pupils in Text Production

	Nouns	Verbs	Adjectives Adverbs	Proper Names	Other
CLIL Schools	175	80	58	14	13
Regular Schools	67	38	18	25	2

Table 7. Types of Mistakes in CLIL and Regular School Classes

	Wrong Word No Damage	Breakdown of Communication	Word Missing	Inappropriate Word
CLIL Schools	147	22	60	2
Regular Schools	102	24	108	5

The below text illustrates a sample text from a CLIL class.

> "It shows a sunny day in summer and a boy is swimming and some are on the boat. Maybe they want to fish. And on the grass there is sitting a boy. He looks very sad. Maybe he has got a problem with his girlfriend or at home he's got problems with his family. On the other side of the grass there are men with a hat on his head and he also looks not very happy. Maybe he lost his job or anything happened. And on this photo I see a dog beside a man who is lying in the grass. I see that he is dreaming about something. Maybe a girlfriend. He want to marry her. And on the back of the picture there are some flats and houses. There is *ah* is a beautiful forest at the back and ahm in the *Bootsteg* is *noch so* a young man who is looking to the water. Maybe he's searching for anything maybe he lost something. And also on the back is there are two men who are very slow and maybe they are hot. And one of them is lying on the floor and is looking on the floor and the other man is sitting on the grass. I think all the people on this picture have problems because they all look very sad. *Ahm* the water is very shiny and blue and the sky is also blue and white and there are a lot of boats in the water and there is one boat with an French flag maybe. It is colored with black. Beside one man are lying shoes and clothes and by the other man are also lying shoes and hat and on the backside there are there is maybe a bridge and there are very *ahm* there a people." (Sample text, CLIL class; German words italicized).

While the above text provides sufficient information about the picture, the following example from a regular school demonstrates how the lack of lexical resources creates a breakdown in communication. With the information from this description one would not be able to identify the picture.

> "*Also*, I see a lake with very *also*, *äh also* she and *äh* sie she were a boat and children *also* and I see, no, a dog. *Äh* she was very *äh glücklich* äh and the men right from the dog *äh* lay *äh liegt* on *der Wiese*. *Äh* she was she *wollt äh* swimming *gehen äh* swimming go. *Äh aber* the water was too cold and she was very *also*. She children played and she *äh* the other children *äh* shouted to him. *Äh* it is very beautiful and all the all the children and the other äh *füllen sich wohl und mehr fällt ma nicht ein*." (Sample text, regular school class, German words and fillers italicized).

Although attempts to produce complete statements in correct structural form were made, the pupil did not succeed in conveying meaningful information due to the lack of the vocabulary which would have been needed in order to do so:

> ...I see a lake with .... (noun missing)
> ...she was very... (adjective missing)
> ...all the children and all the other ... (verb missing)
> ...the men right from the dog... (verb missing)

Apart from one exception all sentences were either initiated by a word from the pupil's L1 or by an interjection, which suggests that the pupil was not able to produce "language at ease". Additionally, it seems that the pupil had sufficient structure-based sentence starters but did not succeed in their completion.

Creative and Divergent Thinking

CLIL pupils also outpaced the regular school pupils as measured by the number of hints for creative and divergent thinking. CLIL pupils produced 22.67% more creative or divergent responses in the spoken texts than the regular school pupils.

The complexity of language and thinking involved in task achievement are crucial elements of modern FL education and teachers are increasingly interested in finding ways to promote their students' thinking skills and their language learning. CLIL is an ideal context for this ambition. If CLIL lessons encourage explicit vocabulary work in addition to the tasks and their fulfillment, i.e., if content learning is supplemented by explicit language learning, the pupils will most likely benefit from it.

Therefore, the analysis of texts produced by the 2014 cohort was expected to show better results than the results from the 2004 CLIL cohort.

Text Production After Explicit Vocabulary Instruction

The texts that described Georges-Pierre Seurat's *"Bathers at Asnières"* showed that the cohort with explicit vocabulary instruction produced slightly more but clearly longer sentences. Code-switching was not observed and L2 interference only occurred in place names (e.g., Nizza vs. Nice), which was not counted. Moreover, grammar control also improved.

Sample sentences:

"I can see a boat with three people in nice hats. On the boat there is a France, the flag of France, and I think perhaps they are France people. I mean French people, who are maybe celebrating the national holiday."

"The boy who sitting by the water has brown hair and another boy in the water has blond hair and I think it's spring because, spring or summer, the summer the grass is fresh and green and the trees are green, too. There is a contrast with the gray color of the factories in the back which are …they are pollution, ah, polluting. Polluting the air really badly."

Text samples show the increased use of compound and subordinate clauses, adjectives and adverbs, but also an increase in CLIL related words.

Table 8. Continuous Speech (2004 and 2014)

	Number of Sentences per Pupil M	Words per Sentence	Code-switching after …. Words	% of German Words	Grammar Errors per Pupil M	Lexical Errors per Pupil M
CLIL 2004	38.16	7.71	73	7.07	16.55	7.83
CLIL 2014	40.10	9.32	not observed	0.0	12.25	4.89

Table 9. CLIL Related Words in Texts about the Seurat Picture (2004 and 2014)

	Nouns	Verbs	Proper Names
2004	18	4	9
2014	22	8	7

The 2014 cohort used more CIL related nouns and verbs in their description of the Seurat picture but fewer CLIL related proper names (e.g., names of cities or names of rivers in France). Especially the CLIL related verbs had doubled *(to contaminate, to dangle, to deduce, to explore, to force, to navigate, to reflect, to vary).*

The following samples were written by a year eight pupil whose course combined explicit vocabulary work in language and content lessons with process writing, provide examples of increasingly rich and more complex text production.

Dear Patrick,

In the summer holidays I went to my mother's cousin and her family. They're Amish people.

The family lived ~~old-fashioned~~ and ~~haven't~~ any electricity. That means no cell phone and no internet. The children ~~don't~~ went any more school after 8 years. They can't go to a university. They work after the school in a factory or as a farmer. They live ~~in~~ green lifestyle. That's good, because they ~~didn't~~ have noise *or* ~~and~~ air pollution. My mother ~~means~~ that I'm playing too much computer games. ①

I liked ~~there~~, that ~~there~~ are a big family, because they help each other.

I don't like that they ~~haven't~~ electricity, because th~~e~~n you ~~haven't~~ internet or anything that works with electricity. ②

I went there to school to see ~~how~~ the school looks like. It looks terrible, because it looks very old, like 100 years ago. It ~~is~~ good for me to ~~go~~ *stay* for two weeks there, but the *working* Amish lifestyle is not for me.

Yours,

Dominik

Figure 1. Sample of the First Version of Text Production

The next sample is the fourth version in a series of process writing which concentrated on accuracy, linking sentences, creating coherent paragraphs, and embellishing the text with adverbs and adjectives.

The sample of the fourth version shows that explicit vocabulary work and process writing results in texts that are richer, not only in their lexical but also in their grammatical range. Longer and more complex sentences develop through the conscious use of linking words and sentence starters, which derive from a lexical repertoire that is explicitly taught with the goal of aiding learning. This can be seen in Figure 3.

Let me tell you about my totally weird holidays.

In the summer holidays I went to my mother's cousin and her family. The family lives a terribly old fashioned life they and they don't have any electricity. That means no cell phone and no internet. The children don't go to school anymore after 8 years. They can't go to university and so they can't have many really interesting jobs. After school they work in a factory or as a farmer. They live a green lifestyle. That's good because they don't have any noise or any air pollution.

Figure 2. Sample of the Fourth Version of Text Production

> ➤ You are the specialists now. Rewrite the text – but don't only copy it!
>   ☺ Link sentences wherever possible! (and, but, because,…)
>   ☺ Use different "sentence starters" (- don't always start with "It".)
>   ☺ Add adjectives to make the text more informative and interesting.
>   ☺ Make paragraphs!

A few days ago I saw a crazy-looking creature. Its name
It had a lime coloured body of a shark, it had a
rat tail and three eyes. The animal had a very
big body. Its favourite food was mobile phones and
it lived in a hole. The special abilities of this
creature were flying, driving a car and reading a letter.
The people didn't like it because it wasn't friendly
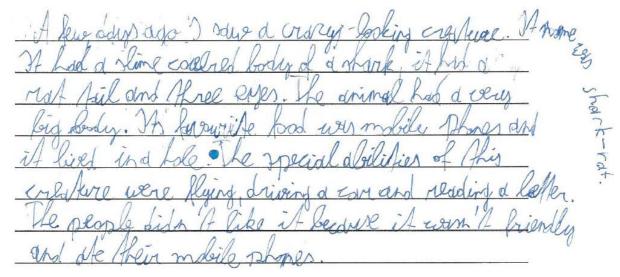and ate their mobile phones.

shark-rat.

Figure 3. Process Writing in a Year Six CLIL Class (extract)

The data also showed that even younger learners could benefit from explicit vocabulary instruction. The year six pupil was able to use complex lexical chunks such as *"a few days ago", "a crazy-looking creature", "a slime covered body"* or *"special abilities"* effectively after having been given explicit lexical input. Before the intervention the text read like this:

> *"It was a shark. It was very big, had three eyes and a rat tail. It lived in a whole. It ate Mobile Phones. It was not friendly."*

Explicit instruction in vocabulary instruction and process writing also resulted in improved performance in creative and divergent thinking. The students created longer texts with more creative ideas and detail. On the one hand, this was a result of instructions given by the teacher, as can be seen in the below feedback on the text in Figure 4.

On the other hand, pupils had to add detail and ideas to their writing if they were asked to make sentences longer through linking words or modifiers. In most of the cases, this resulted in explanations why things had happened as can be seen in the last sentence in the text shown in Figure 3.
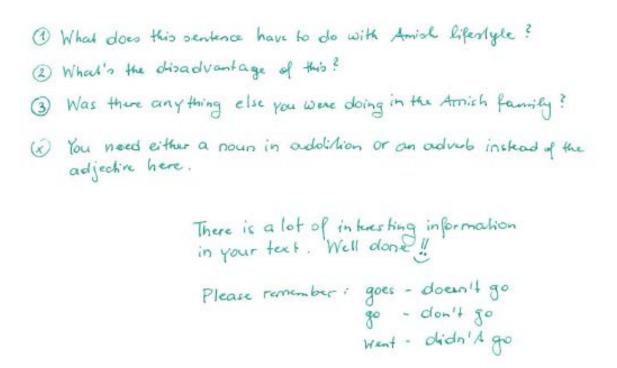
① What does this sentence have to do with Amish lifestyle?

② What's the disadvantage of this?

③ Was there anything else you were doing in the Amish family?

(x) You need either a noun in addition or an adverb instead of the adjective here.

There is a lot of interesting information in your text. Well done!!

Please remember: goes - doesn't go
go - don't go
went - didn't go

Figure 4. Teacher Feedback and Input in Process Writing

Interpretation

Data from a lexis retrieval task and a comparison of spoken texts produced by pupils in CLIL schools and regular schools showed that the additional instruction through bilingual education made the students more resourceful and fluent in L2 production but they also had a tendency to switch to L1 more frequently or to put less emphasis on accuracy than pupils from regular schools.

While increased lexical resourcefulness and fluency were certainly considered to be desired outcomes of bilingual education, more code-switching and lack of correctness had to be considered negative results and required reflection.

A possible explanation for this phenomenon was seen in the fact that by and large accuracy was more important in the subject English than in CLIL lessons, where making mistakes was not penalized and only incorrect or incomprehensible content was corrected. This might have encouraged the livelier speech and risk-taking amongst CLIL pupils. Pupils in regular schools produced lexically more restricted but more accurate texts. That the CLIL learners used more different words, which increased the risk of making mistakes, can be explained by the fact that in communication more meaning is carried by lexis than by grammatical structure. As suggested by Lewis (1993, p. 33), a focus on communication should result in increased emphasis on lexis and decreased emphasis on structure, which was observed in CLIL but not in regular schools.

As far as the frequency of code-switching is concerned it can be seen from the pupils' texts as well as from classroom observation that using L1 and L2 simultaneously occurs naturally and unconsciously with CLIL pupils and that a "standard" or "strict" evaluation of code-switching, accuracy or fluency, as might be the case in monolingual English subject lessons, does not exactly reflect the routine of CLIL learners, particularly not that of low achievers. The same should be considered in the evaluation of continuous speech which indicated that high and average CLIL learners showed more advantage over regular school learners although low achievers were lagging behind the good results of their peers.

This finding seems to confirm Helfrich who suggested that "[b]ilingual teaching seems to be very demanding for both learners and teachers, [and] it may be a frustrating experience for average or below average children" (Helfrich, 1993, p. 34). Moreover, many teachers and principals confirmed that CLIL should be "voluntary, limited to basics for all learners, while the gifted and talented pupils should get optional supplementary input" (Mewald, 2004, p. 470). Conversely, Baker (2002) argued that especially with young learners or low achievers the impact of bilingual education should not be subject to short term evaluation because some effects could only be observed on a long term basis. Therefore, it can be concluded that within the context of Lower Austrian CLIL schools the 2004 study provided evidence of the positive impact of bilingual education on the learners' communicative competence in English. At the same time the 2004 study provided direction for improvement, which was pursued in some CLIL schools through more explicit instruction of vocabulary.

Ten years later a much smaller but similar study sought to investigate the impact of explicit vocabulary instruction and its results suggested that teachers were able to lead their learners to a communicative competence that showed no code-switching, an increased lexical range, and also fewer grammatical and lexical errors. This result emphasized the importance of explicit vocabulary instruction and suggested that new developments in learning materials and electronic resources might provide still better results if implemented.

Outlook

The grounding of communicative language teaching in genuinely functional and authentic concepts happens naturally in CLIL classes. Communicative strategies supplemented with individualized and explicit vocabulary work through conscious and autonomous training of collocations and phrases in meaningful and contextualized units enables learners to become more fluent and creative in their production. In order to reach this goal, vocabulary has to be learned and practiced in real life contexts, using comprehensible but progressively authentic and accessible content.

The fact that *input* can only lead to *intake* if it is comprehensible for every user constitutes a potentially difficult scenario in increasingly heterogeneous CLIL classes.
Therefore, items that are chosen for explicit vocabulary work should be relevant, appropriate, and linked to their word families, and should include collocations and alternative meanings to create new elements that can be connected to existing ones by the individual learner.

Conscious and autonomous training in connection with strategic personalization is crucial because lexis that has already been primed in one's brain can only be added and create a greater and more precise personal lexicon if existing items receive addition, reformulation or even correction and changes though new input. This does not work by using linear vocabulary list. More creative solutions such as lexical notebooks including mind maps, text/dialogue frames, or flow diagrams etc. are necessary to achieve the goal of continuous and complementary (rather than purely additive) lexical development. Such solutions open opportunities for personalization by adding what is relevant and necessary for the individual learner over time, which is helpful when it comes to remembering what needs to be learnt, as opposed to copying what is already printed in a course book which does not allow for personalization.. If what needs to be learnt is contextualized and personalized, the chance for intake is higher and the crucial motivation to become a lifelong learner of language(s) is much more likely.

Students create better spoken and written texts if they receive explicit vocabulary instruction as suggested in CLIL classrooms, they feel more at ease and they become more motivated to language learning, which also supports *plurilingualism.*

Teaching strategies that encourage explicit learning strategies in the learners' vocabulary acquisition process that employ emergent and ever growing lexical notebooks rather than linear vocabulary lists seem to be powerful aids in becoming better and more efficient language learners.

Future research, more overt and strategic support in methodology courses, and more targeted material development should thus be encouraged to aid *plurilingualism* and its ultimate goal: successful communication in *plurilingua*l societies.

Notes

1. CLIL, more frequently used in a European context, is used synonymously to CBI in this article.
2. NS – native speaker.
3. Corpus (corpora): A collection of linguistic data, either written texts or a transcription of recorded speech, which can be used as a starting-point of linguistic description or as a means of verifying hypotheses about a language (corpus linguistics), (Crystal, 1997).
4. The Austrian translation for EAC was "Englisch als Arbeitssprache". The term was replaced by CLIL in the 1990s.
5. See 3, above.
6. Knowledge of the world.
7. A type-token ratio of 1.0 would suggest that none of the words in a set has been repeated.
8. Physics and Chemistry are taught as one subject.

9. Lexical criteria: code switching, error-no damage, error-communication breakdown, missing, inappropriate word; Content criterion: wrong statement/information; Grammar: tense, verb form, preposition, verb/noun modification, comparison, word order, quantifiers, singular/plural, question words, a/an, articles, relative pronouns; Syntactic criteria: complete clause, incomplete clause; Pauses.

10. Performance criteria: fluency, pronunciation/intonation/stress; Content criteria: effectiveness, divergence, and creativity of answers.

11. Have you got a sheet for me?

References

Baker, C. (2002). *Foundations of Bilingual Education and Bilingualism.* Clevedon: Multilingual Matters.

Baker, C., & Prys Jones, S. (1998). *Encyclopedia of Bilingualism and Bilingual Education.* Clevedon: Multilingual Matters.

Bialystok, E. (1982). On the relationship between knowing and using forms. *Applied Linguistics*(3), pp. 181-206.

Bialystok, E. (1991). *Language processing in bilingual children.* New York: Cambridge University Press.

Boers, F., & Lindstromberg, S. (Eds.). (2008). *Cognitive Linguistic Approaches to Teaching Vocabulary and Phraseology* (Applications of Cognitive Linguistics 6 ed.). Berlin: Mouton de Gruyter.

Cooper, R. L. (1989). *Language planning and social change.* Cambridge: Cambridge University Press.

Crystal, D. (1997). *A Dictionary of Linguistics and Phonetics.* Oxford: Blackwell Publishers Inc.

Duran, L. (1994). Toward a better understanding of code switching and interlanguage in bilinguality: Implications for bilingual instruction. *The Journal of Educational Issues of Language Minority Students, 14*, pp. 69-88.

Goldman-Eisler, F. (1972). Pauses, clauses, sentences. *Language and Speech*(15), pp. 103-113.

Hammerly, H. (1991). *Fluency and accuracy: Toward balance in language teaching and learning.* Clevedon: Multilingual Matters.

Helfrich, H. (1993). Bilingual Teaching in Europe: a survey. In E. H. Thürmann, *Bilingual Education in secondary schools: Learning and teaching non-language subjects through a foreign language* (pp. 28-34). Soest: Council of Europe.

Hoey, M. (2005). Lexical Priming. A new theory of words and language. London & New York: Routledge.

Kuckartz, U. (2003). *MAXDICTIO. Modul zur Wortschtzanalyse, Diktionärserstellung und quantitativen Inhaltsanalyse für MAXQDA.* Berlin: VERBI Software.

Laufer, B. (2005). Focus on form in second language vocabulary acquisition. In S. Foster-Cohen (Hrsg.), *EUROSLA Yearbook 5* (S. 223-250). Philadelphia: John Benjamins.

Lefranc, M. (2000). Opening speech to the international experts' meeting – Bilingual Education in Austria. Graz: European Centre for Modern Languages and ZSE III.

Lewis, M. (1993). *The Lexical Approach.* Hove: LTP.

McCarthy, M. (1998). *Spoken Language and Applied Linguistics.* Cambridge: Cambridge University Press.

McCarthy, M. (2009). Rethinking Spoken Fluency. *EILA, 9*, pp. 11-29.

Mewald, C. (2004). *Paradise Lost and Found: A Case Study of Content Based Foreign Language Education in Lower Austria.Unpublished PHD Thesis.* Norwich: Unversity of East Anglia.

Mewald, C. (2005). Die Beobachtung als Methode der Datensammlung in der qualitativen Bildungsforschung. In F. Radits, M.-L. Braunsteiner, & K. Klement (Eds.), *Konzepte und Werkzeuge für Foschung in der LehrerInnenbildung. Perspektiven für Nachhaltigkeit* (Vol. 3, pp. 74-87). Baden: Kompetenzzentrum für Forschung und Entwicklung.

Richards, J. C. (1985). The Context of Language Teaching. Cambridge: Cambridge University Press.

Seidlhofer, B. (2011). *Understanding English as a Lingua Franca.* Oxford: Oxford University Press.

Weir, C. (1998). *Communicative Language Testing.* Hemel Hempstead: Prentice Hall.

About the Author

Claudia Mewald, PhD, is a professor at the University College of Teacher Education in Lower Austria. Her scholarship focuses on the teaching of English as an additional language to learners from a very young age to adult learners. Her research interests are learner autonomy, CLIL (Content and Language Integrated Learning), language, metacognition and culture in plurlingual classrooms as well as testing and assessment.