

## Cross-curricular CLIL projects in Swedish middle school

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### Abstract

In this article, we report and discuss findings from a case-study of cross-curricular CLIL implementation involving English and home economics at a Swedish middle school. The objective was to study teaching strategies for supporting students' integrated development of content and language knowledge in practical school subjects and to explore the role of the majority language in the CLIL classroom. The study is theoretically grounded in the perspective of languages as being socially constructed (Lantolf, 2000; Lantolf & Thorne, 2006). The focus of the analysis is the role of scaffolding (Walqui, 2006) in CLIL. Data consist of field notes and teaching materials from lesson observations as well as teachers' plans and evaluations of the CLIL theme. Findings show that practical subjects, such as home economics, offer ample opportunities for visual scaffolding, and that the content is concrete and often close to students' everyday life. Further, the content of the English lessons becomes highly relevant for the students as it will be used in an authentic situation, i.e. in home economics class. With careful planning, including strategies for scaffolding, and cooperation among teachers, cross-curricular CLIL themes involving a practical subject seem highly suitable for CLIL among young learners.

### Keywords

*cross-curricular CLIL; middle school; home economics; English*

## 1. Introduction

In Sweden, English is moving from being a foreign language among many others to being a second language (L2) for large groups of the citizens (Andersson, 2016; Lundström, 2020). This is evident by, for instance, the regular and natural use of English words and phrases in advertisements, the original dialogue in foreign-made (most commonly from the English-speaking world) tv-programs and movies, and the fact that English, unlike other foreign languages, is one of three core subjects in the Swedish school system. Furthermore, the availability of digital devices such as tablets, computers and smartphones, is extremely high in Sweden (Swedish Media Council, 2021) and thereby English is easily accessed.

Several studies indicate that the proficiency level in L2 English among Swedish students is high (Erickson, 2004; European Commission, 2012; Löwenadler, 2022). In a recent ranking from Education First (EF), Sweden ranks as number seven among the countries labelled as having very high proficiency in English (<https://www.ef.com/wwen/epi/>).

In sum, many Swedes get into contact with and know a great deal of English. In particular, this is true for the younger generations (e.g., Olsson & Sylvén, 2015; Sylvén, 2022). This, in turn, may be one of the explanations as to why the positive language learning outcomes of CLIL in Sweden have been less obvious than in many other countries, where the extra input of English through CLIL has been shown to have a greater impact (Sylvén, 2013). However, most CLIL research conducted in the Swedish context has focused on theoretically oriented programs at upper secondary level, for instance Natural or Social Science programs (Sylvén, 2019). The focus in this paper is on a cross-curricular CLIL project involving English and a practical subject, home economics, taught in 6<sup>th</sup> grade, and more specifically on the methods implemented by the teachers to enhance learning. The research questions guiding the study are:

- What teaching strategies can support CLIL students' integrated development of content and language knowledge in practical school subjects?
- What is the role of the majority language in the CLIL classroom? When and for what purposes is it used?

## 2. Theoretical underpinnings

A sociocultural framework is often associated with CLIL (Lantolf, 2000; Lantolf & Thorne, 2006). Within that framework, the three aspects of substantial content, challenging linguistic input, and authenticity, are included. Furthermore, in CLIL the linguistic input generally leans

more towards the academic genres than everyday language (Coyle, Hood, & Marsh, 2010). Language learning takes place most effectively in communicative and meaningful social and academic contexts (Krashen, 1982; Lee & VanPatten, 1995). In CLIL, subject content is communicated (partly) through an L2. As students are in school to learn subject content, the motivation to understand the language through which it is being communicated could be strengthened. Even if students may not necessarily be overly enthusiastic about school content simply because it is being communicated through an L2, there is an intrinsic potential in CLIL to learn the L2 alongside the subject content, as language is conveyed through substantial content in an authentic manner. The inherent variation in naturally occurring language is yet another important basis for CLIL. When language and content are integrated, learners come into contact with the registers and genres of the respective school subjects, something which is virtually impossible to attain through traditional language teaching (Dalton-Puffer, Hüttner, & Llinares, 2022; Lo, Lin, & Cheung, 2018).

Furthermore, input, output and interaction are necessary ingredients for language learning (Gass & Mackey, 2006). In a CLIL classroom, input is provided both orally and in writing, as teachers use the target language to talk about content, and books and other sources are used for various purposes. Students produce output, orally when discussing the content in the classroom, and in writing when completing essays and other types of tasks. Whole group discussions, small-group activities, and pair work in the target language also involve interaction, where students (and teachers) need to use different strategies, such as circumlocution, code switching and repair, for instance by paraphrasing (Lewandowska, 2019), to make meaning. The authenticity of the CLIL classroom situation – real subject content is to be learnt and it is taught through an L2 – is, potentially, highly beneficial for L2 learning to take place, when the basic cornerstones for learning, input, output and interaction, are included (see, e.g., Lo & Macaro, 2015; Villabona & Cenoz, 2022).

### ***2.1 Scaffolding***

Language use in various school subjects often differs substantially from students' everyday language use, and from subject to subject (e.g., Cummins, 2008; Schleppegrell, 2004). Hence, focus on language is often required in all subjects also when the medium of instruction is the students' first language, L1. When the language of instruction is an L2, special attention must be paid to linguistic matters for the purpose of supporting students' understanding of the content and their ability to express content knowledge. Thus, scaffolding (Gibbons, 2001; Wood,

Bruner & Ross, 1976) is imperative and yet, it has been shown that there might be limited focus on language in CLIL instruction, and hence, the full potential of education based on content and language integrated learning may not be fulfilled (e.g., Lyster, 2007; Villabona & Cenoz, 2022). It may, for instance, be challenging to plan and implement language supporting activities for non-language teachers without training (Pérez Cañado, 2016). For language teachers, it could be challenging to fully grasp and identify the specific literacy demands of various subjects (Pavón Vázquez, 2018). In Canadian immersion programs, teachers are often native speakers of the target language, English or French, whereas in European CLIL education, the language of instruction is not the teachers' L1, which may be more challenging (e.g., Lasagabaster & Sierra, 2010).

Scaffolding for the purpose of supporting students' development of content knowledge and language competence is often regarded as an integral part of CLIL instruction (e.g., Coelho, 2017; Mahan, 2023), as the additional cognitive workload of learning content through an L2 makes such support necessary (Walqui, 2006). Walqui points out that scaffolding can be operationalized at different levels, for instance, at the macro-level in curricula or at the micro-level in instances of response and support in classroom interactions. For support of conceptual, academic and linguistic development, Walqui suggests different types of scaffolding strategies: Modelling (e.g., through examples that students can imitate), bridging (i.e., linking to knowledge already obtained), contextualization (e.g., through films or images), support of schema building (e.g., illustrating ideas using charts), re-presenting text (i.e., the content is presented in different ways), and support of meta-cognition (e.g., students' skills to plan and assess learning). In the present study, scaffolding is a key concept as teachers' strategies for scaffolding student learning are analysed.

### **3. Previous studies**

CLIL has been implemented in various forms, where L2 English has been used as the medium of instruction, for instance, in occasional projects, in certain subjects, or in entire school programs, since the mid 1970's in Sweden (Sylvén, 2004; Washburn, 1997; Åseskog, 1982); yet, it has been left under-researched. In 2019, the results of a large-scale, longitudinal project in Sweden were published (Sylvén, 2019) with a focus on theoretically oriented programs at upper secondary level. In brief, the results indicate that CLIL students compared to non-CLIL peers are at an advantage as regards L2 English proficiency already when they begin CLIL education. This advantage is maintained, but not increased during the three years of the study (Olsson & Sylvén,

2019; Sylvén & Ohlander, 2019). However, great differences in CLIL implementation were identified at the schools involved. At one of the schools, where so-called partial CLIL (Paulsrud, 2019; Pfenninger, 2021) was implemented and both Swedish and English were languages of instruction, with an increasing proportion of English throughout upper secondary school, a clear CLIL effect was found as regards English academic vocabulary growth (Olsson, 2021).

Further, a CLIL-related study in Sweden looking into practices at a vocational program (Kontio & Sylvén, 2015) found that L2 English was used in a very relaxed and humorous manner among the students. These findings indicate that the use of English for communicative purposes in another school subject can be less threatening as compared to the English class, where the purpose is to learn the language.

Although neither focusing on CLIL nor on practical subjects, some recent studies from Norway (Myhre, Dewaele, Fiskum, & Holand, 2023; Myhre & Fiskum, 2020) are of interest here. These studies investigate the effects of being outdoors, as opposed to the confinement of the classroom, on L2 English fluency. Myhre and Fiskum (2020, p. 204) argue that being outdoors is beneficial for the learning process as “an outdoor setting offers other opportunities for learning than an indoor classroom”. This can indeed also be true for the focus of the present article, namely practical subjects. Home economics is taught in a kitchen, which is very different from a regular classroom. Both Myhre and Fiskum (2020) and Myhre et al. (2023) conclude that the outdoor setting has a positive impact on L2 English fluency, with, among other things, lowered anxiety levels and a stimulated eagerness to learn.

CLIL implemented in Dutch vocational education at junior high school is in focus in Denman et al. (2013). In the Netherlands, streaming is done at the end of primary level when the students are on average 12 years old. Approximately 60 per cent are streamed to the vocational program, *vmbo*. CLIL is offered as an optional choice at some *vmbo* schools. Denman et al. (2013, p. 297) conclude that the bilingual education offered in the CLIL streams is perceived as positive by both teachers and students, and the teachers are of the opinion that their *vmbo* students “learn best when actively doing things and when they can be creative”. It seems safe to say that earlier studies reinforce that the theoretical underpinnings of CLIL, namely substantial content, challenging linguistic input, and authentic interaction and communication in the target language, are indeed also the basis of CLIL in practical subjects.

As scaffolding is a key concept in this study, research on scaffolding in CLIL is of particular interest and relevance. Most studies, the present one included, are based on earlier research and conceptualisations of scaffolding in various L2 contexts, often involving L2 learners in mainstream classrooms (e.g., Wood et al., 1976; Walqui, 2006; Gibbons, 2015). In a recent study by Mahan (2022), scaffolding in Norwegian CLIL classrooms was explored, showing that teachers tended to support students' comprehension but not as much their ability to solve tasks. Mahan also found that different scaffolding strategies were used in different subjects; more visual support was observed in science classrooms than in social science. Strategies for multimodal scaffolding, including visual support, was suggested by Fernandez-Fontecha et al. (2020) to facilitate scientific language acquisition and content knowledge in CLIL. Further, in a study exploring CLIL teachers' scaffolding in connection to reading, Li and Zhang (2022) concluded that effective scaffolding "gradually evolves along a series of task chains to prepare learners for more complicated tasks" (p. 354). They argue that skilful scaffolding is necessary for balancing the level of challenge and support in CLIL, an argument that most previous research on scaffolding in CLIL would agree on. For a comprehensive overview of research on scaffolding in CLIL, see, for instance Coelho (2017) and Mahan (2023).

### ***3.1 Some counterarguments raised against CLIL***

Being taught subject content through another language than one's own L1 may be problematic from a number of perspectives. For instance, many scholars have pointed to the importance of competence in one's first language for developing subject knowledge (e.g., Nygård Larsson, 2011; Piesche et al., 2016). The main argument is that the L1, which is already well-established within the learner, supports the cognitive development to a much larger degree, than an L2 is likely to do. However, in the CLIL model discussed in this study, the target language and the majority language are used in parallel. It has been argued that the cognitive development can potentially be greater when two languages are used in the classroom (e.g., Jäppinen, 2005).

For students who struggle either with the target language and/or the subject, CLIL may pose challenges (Bruton, 2011). This is important to take into consideration when planning and implementing CLIL education. With the right kind of scaffolding, however, this is a hurdle that may be overcome. Furthermore, students who struggle with a particular subject, but enjoy English, may see the subject in a new light and come to appreciate it when the content is taught

mainly through English. Conversely, some students may like the subject but not English. When English is used to teach that subject, it becomes useful and necessary to understand and the window to appreciating English is opened.

Another argument that has been raised in the literature is that CLIL only caters to an elite group of students. Bruton (2013), for instance, argues that the good results achieved by CLIL students in Spain can be attributed to the fact that they stem from contexts with a high socio-economic status with well-educated parents. However, in a study on who the CLIL student is, Olsson and Sylvén (2022) show contrary findings. In the group investigated, more than half of the CLIL students (N = 300) were born outside Sweden or their parents were, compared to the average 26 per cent with such background in Swedish schools. The level of education among parents varied. In addition, it was evident that the multilingual students appreciated the CLIL option and the opportunity to use English in various school subjects. It thus seems as though CLIL attracts students with a wide variety of backgrounds.

It is a well-known fact that interaction will enhance L2 learning (e.g., Li & Jeong, 2020). However, this is a point where earlier research has shown that there is room for improvement in some CLIL classrooms (Lim Falk, 2002; Nikula, 2010; Pérez Cañado, 2018). Therefore, it is of decisive importance that CLIL teachers are qualified and trained specifically for CLIL, in order to be able to perform in an optimal manner.

In addition, concerns have been raised in several countries regarding the future of the majority language when English is increasingly used. This is particularly worrying for countries with a relatively small number of users, such as, for instance, the Nordic countries. In Sweden, there has been an ongoing debate for decades on the possible threat the growing use of English may pose for the future of Swedish (Josephson, 2004; Norén, 2006; Svensson, 2023). This is a serious concern meriting attention. As regards the threat of English taking over large domains due to the use of it as the medium of instruction in school (often in parallel with the majority language), it is important to keep in mind that languages are not learnt at the expense of one another. On the contrary, the more languages one knows, the easier it seems to master new ones (e.g., Jarvis, 2015; Thompson & Aslan, 2015). When CLIL is implemented bilingually, using both the target and the majority language as is the general model for CLIL in Sweden for instance, the risk for attrition in the majority language is kept at a minimum. Having said that, though, it is imperative for teachers to put emphasis on both languages and make students aware of the vital importance of also being highly competent in the majority language.

#### 4. The collaborative research project

The research project, of which the present study is a part, is funded through a national program, launched by the government in 2017, to support and develop research collaboration between academia and the school system (<https://www.ulfavtal.se>). Our particular project focuses on bridging the gap between research on CLIL and the actual, day-to-day practices of implementing CLIL in the middle years of compulsory education. We, as researchers, have collaborated with the teachers at a school, for the benefit of both parties. We have been present during evaluation and planning days, to gain insights into the teachers' perspectives on their various CLIL themes in order to deepen our understanding of CLIL, and we, in turn, have reported from research to possibly improve implementation. Furthermore, we have been observers in various classrooms and collected teaching material as well as assessment tests.

The school involved in this project is located in a large city in Sweden. It is an independent school providing lower secondary education, which means that the students are between 12 and 16 years old. There are approximately 250 students and 20 teachers. The language background of the student population is diverse. More than two thirds of the students were born in another country than Sweden or their parents were, compared to the average 26 per cent for Swedish schools. The teachers are generally not native speakers of English but some of them are trained English as a foreign language (EFL) teachers. Like many other schools in Sweden, this school has defined a specific profile that should permeate the education offered, in this case the profile is international.

Some years ago, the board of the school decided that CLIL teaching targeting English should be introduced, partly in response to requests of parents and students, who expressed a wish and an expectation that a school with an international profile should have a stronger focus on developing the students' English language competence. The principal contacted the university to ask if we could offer in-service training about CLIL, which we did, in the form of a university course including lectures, readings, seminars and a final exam, where the teachers wrote a paper connecting CLIL to their own subjects. A majority of the teachers attended the course.

As already mentioned, CLIL can be implemented in many different ways. At this school, the CLIL model could be labelled partial CLIL (Paulsrud, 2019). Once or twice a year, cross-curricular CLIL themes, lasting for three to six weeks, are implemented. The teachers involved – often an English language teacher and other subject teachers – plan these themes in cooperation. Together, they discuss and set up learning objectives, based on the syllabi for the



subjects involved; there is no specific CLIL syllabus in Sweden. Further, the teachers discuss when and for what purposes Swedish and English should be used, they decide on teaching methods and how to evaluate the students' learning.

In this article, we describe and analyse one of the CLIL themes, involving English and home economics. The material used is notes and photos from classroom observations, notes from meetings with the teachers involved, collected teaching materials and teachers' written evaluations of the CLIL theme. In the analysis, we draw on Walqui's (2006) model for categorising different types of scaffolding strategies.

### **5. CLIL theme: English and home economics**

The CLIL theme described and analysed here was carried out in school year 6, when the students were 12 years old. Two English teachers and a home economics teacher planned the project together, but the activities were carried out in separate lessons – the English lessons before the home economics lessons. Below, an overview of the plan for the CLIL theme is offered:

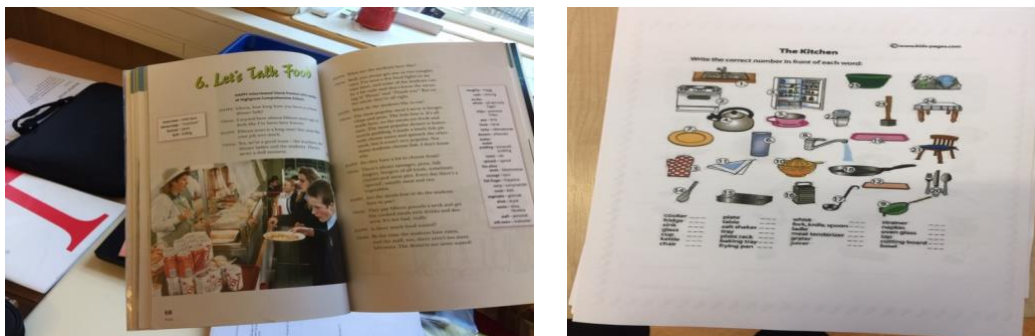
	<b>English lessons</b>	<b>Home economics lessons</b>
Number of lessons	6 lessons of 1 hour	3 lessons of 2 hours
Learning objectives	Learn vocabulary and phrases related to food and eating Practise reading and listening, speaking and writing	Understand verbal instructions and follow a recipe Learn methods needed for cooking using appropriate equipment
Material	Texts/exercises in course book Worksheets, e.g. picture word lists Video clips	Recipes Ingredients Equipment
Language use by teacher	Instructions in English Contrasting vocabulary in Swedish	Instructions in English Clarifications in Swedish
Language use by students	Mainly English	English and Swedish
Listening tasks in English	Watch video clips about cooking and baking	Listen to teacher's instructions
Reading tasks in English	Food-related texts in text book and copied material	Recipes and information on the white board
Speaking tasks in English	Oral group/pair work on food topics	Speak English while cooking and eating
Writing tasks in English	Write texts e.g. recipes and plans for a meal	Answer questions partly in English

**Table 1:** Overview of CLIL theme

### 5.1 English lessons

The English lessons were implemented before the home economic lessons as they were meant to introduce vocabulary and concepts that would be useful when cooking. The lessons were planned in detail and included a great variety of material, such as relevant chapters from the EFL textbook that was normally used in class, including texts and exercises about food, as well as copied worksheets from printed or online sources, for example, picture wordlists and crosswords. Further, the English teachers, together with the home economics teacher, had selected some freely available video clips of English-speaking cooks giving instructions about cooking or baking. Below, the sequence of lessons, which were planned with progression in mind, are described and exemplified.

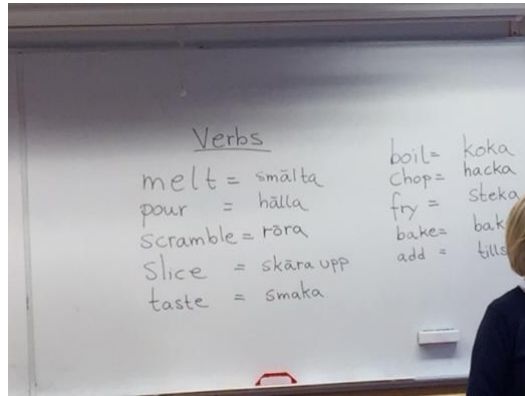
In the initial phase, during the first lessons, there was a focus on building vocabulary and studying texts about food and cooking, for instance using the material shown in Figure 1 below. When showing the video clips mentioned above, special attention was drawn to specific vocabulary and phrases used in connection to cooking and baking.



**Figure 1:** Examples of material used in English lessons in the initial phase

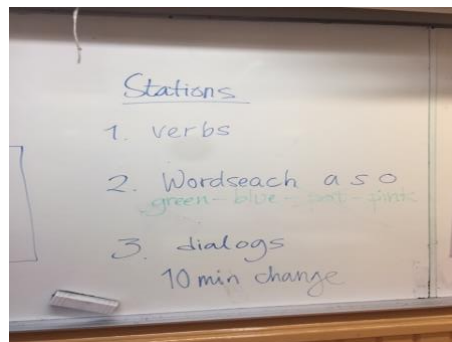
The initial phase provided input and models that could be used in productive tasks at a later stage. When introducing the content, the teachers used a number of the scaffolding strategies suggested by Walqui (2006). More specifically, they drew attention to the students' existing knowledge of the topic, e.g., by asking questions and referring to the students' everyday life. Further, the teachers presented the content in different ways and contextualised the content using pictures, videos and texts (see Figure 1).

Since both English and Swedish were second languages to many of the students, the new vocabulary was often presented in both languages (see Figure 2), as the students would benefit from knowing the vocabulary in Swedish as well. If another language than Swedish was spoken at home, the students might not know the Swedish equivalent for everyday household vocabulary such as “boil” and “pour”.



**Figure 2:** Bilingual wordlist.

In the following phase, new input was added but the students also returned to the vocabulary and phrases introduced the previous lessons, now integrated into new tasks. Some lessons were organised as station rotation in the classroom; the students, working in pairs, would spend 10-15 minutes at each station before moving to the next one. The instruction on the whiteboard was very brief as is shown in Figure 3.



**Figure 3:** Instruction for station rotation

However, the teacher explained the three stations in more detail verbally. At station one, the pairs took turns to describe and guess kitchen verbs, using a worksheet from an earlier lesson (see Figure 4). At station two, the task was to find hidden cooking verbs in yet another worksheet (see Figure 4), thus activating vocabulary introduced in earlier lessons. At the final station, the task was to create a dialogue about breakfast habits. In this task, phrases and vocabulary from previous lessons could be used and the teacher also provided some initial questions to help the students' get started with the dialogues.

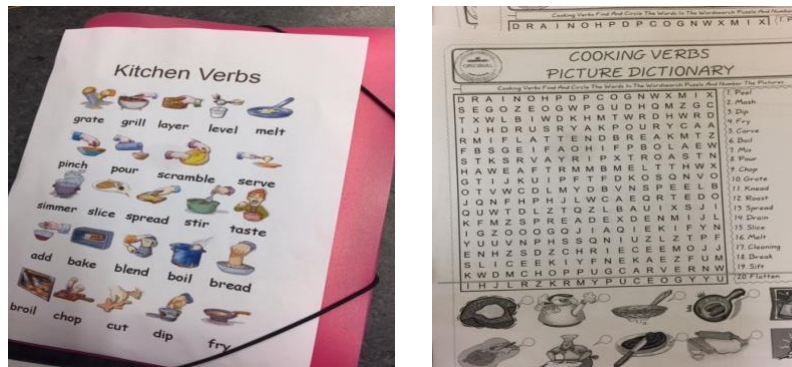


Figure 4: Examples of worksheets used in station rotation

The examples of tasks and material illustrate how the students were invited to return to and practice using the content specific vocabulary and phrases several times, often with visual support in the form of pictures. Thus, vocabulary retention was promoted through scaffolding strategies.

In the last phase, there was a greater focus on the students’ own language production as they were given tasks whereby they practiced talking and writing about food and cooking. At the end of the last phase, the students prepared a short verbal presentation for the class or a group of students, and they should also hand in short written tasks. The tasks were based on previous work in class, for instance, to write a short text including a number of the kitchen verbs practised earlier on and a text presenting their favourite breakfast, including a shopping list and a recipe. An example of a text from a student’s notebook is shown in Figure 5.

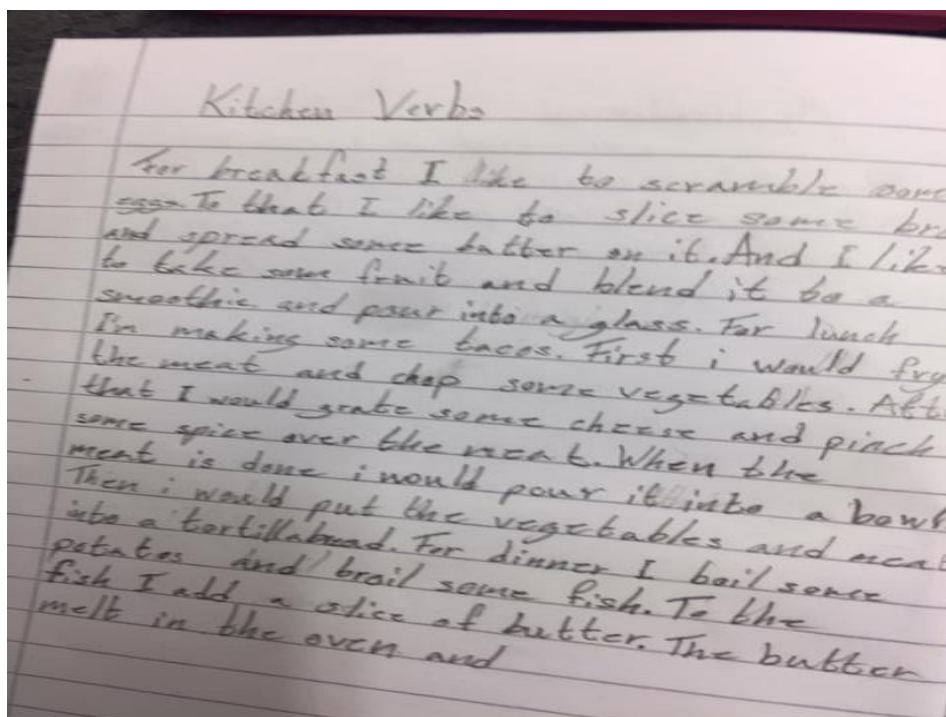


Figure 5: Example of student text in notebook

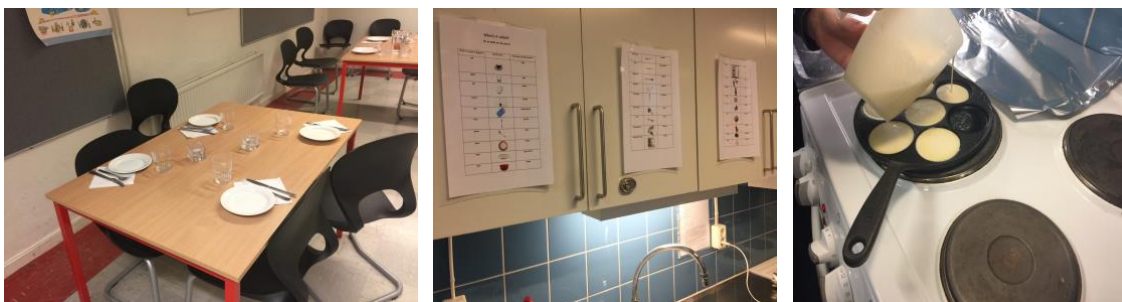
Thus, students' writing was scaffolded by using previously encountered material as models and support for their own language production. The teachers also offered individual support when needed as they circulated the classroom when the students were writing.

To summarize, the English lessons had dual but combined aims: to prepare students for the upcoming lessons in home economics and to develop their English language skills related to reading, listening, speaking and writing – skills stressed in the syllabus for English. Relatively simple material, easily accessible, was used in carefully planned ways, including strategies for scaffolding students' progression, for instance by returning several times to key vocabulary and concepts in different types of tasks. There was a clear progression in the level of difficulty of the tasks. Simple tasks, such as worksheets with a picture word lists, could, at a later stage, be used as tools to support students when completing more demanding productive tasks, such as writing tasks.

According to the teachers, students seemed more motivated to learn when they knew that their language knowledge would be needed in home economics lessons in the near future. They seemed more determined in their efforts to learn than what was generally the case. The tempo of the lessons invited students to be alert, and to keep working. During lessons using stations, they knew that new activities were upcoming – they did not have the time to get bored or disengaged.

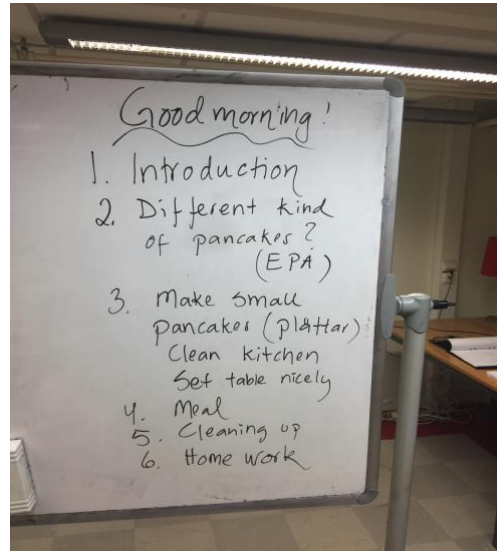
## ***5.2 Home economics***

After the English lessons, three home economics lessons followed, where English was mainly the language of instruction. Swedish classrooms for home economics are often designed to allow for practical work, such as cooking and baking. In this classroom, there was an area with tables and chairs, where students assembled for instructions and for eating, and another area with kitchens where the students prepared the meals (see Figure 6).



**Figure 6:** The home economics classroom

During one of the observed lessons, the students prepared small pancakes, called *plättar* in Swedish. At the start of the lesson, the students sat down at the tables and the teacher talked them through the lesson plan which was introduced on the whiteboard in English, shown in Figure 7.



**Figure 7:** Lesson plan

As an introduction, the teacher asked the students what they knew about different types of pancakes. The interaction between the teacher and the students was in English; it functioned as a warm-up for the students to use English during the lesson, and at the same time the warm-up contextualised the content in focus of the lesson and activated students' prior knowledge. The teacher pointed out that she was not a native speaker of English or an English teacher – her English would not be perfect. She encouraged the students not to worry about speaking English and stressed that this would be a good opportunity to practise English. She reminded students that their work in English lessons had prepared them well for having home economics in English. She showed them that the same picture wordlists they had used in English class were now placed on the kitchen cupboards as support.

After going through the lesson plan, the teacher presented the recipe (see Figure 8), standing at a table with all the ingredients in front of her and all equipment needed within reach.

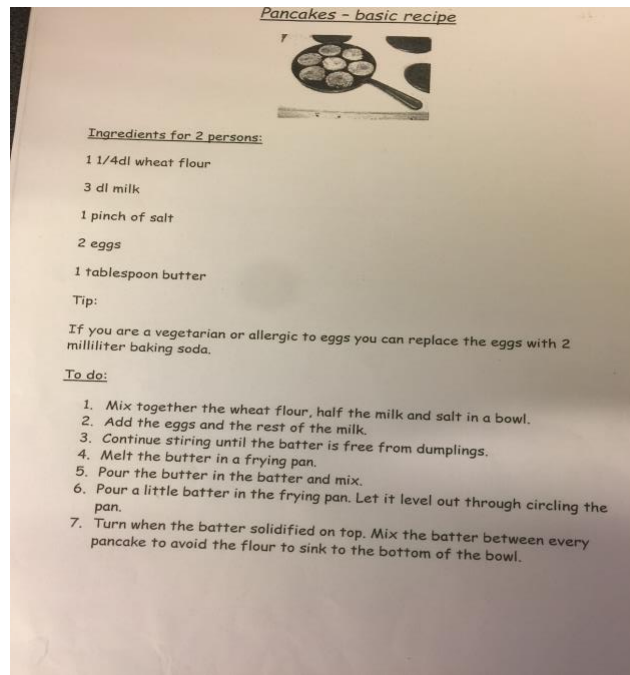


Figure 8: Recipe

The teacher introduced the whole recipe, step by step, and scaffolded the students' understanding of the recipe by giving verbal and visual support. She pointed at or lifted up the ingredients and equipment as she introduced each step of the recipe, and often asked the students to give synonyms to certain words or the Swedish equivalent. The students were encouraged to ask if anything was unclear. She paid special attention to the different measurements mentioned in the recipe, for instance, 1  $\frac{1}{4}$  dl, a pinch, a tablespoon, literally showing the class how to measure, as she knew from experience that measurements could be problematic.

After this, students worked in groups of four in the kitchen where they prepared pancakes following the recipe and the teacher's instructions. The teacher moved between groups to assist when needed, speaking English most of the time, but sometimes clarifying in Swedish. The fact that the recipe was in English did not seem to cause any trouble. While preparing the pancakes, some of the students spoke Swedish with each other, for instance, when discussing what to do next or if a problem occurred, but most groups used English. After successfully preparing the pancakes, the students laid the tables and sat down to eat. Then, to facilitate for the students to speak English during the meal – it would be more natural to speak in Swedish for a group of Swedes around a table – they were given two suggestions for topics to talk about: Talk about a book or a movie that you would recommend or talk about your plans for the weekend.



At the end of the lesson, the teacher asked the students to comment on using English in home economics class. Most comments were positive; it was fun and a good opportunity to practice English. One student said he preferred using Swedish because he “liked to speak Swedish”.

After the three lessons of home economics in English, the class was given a homework task: to answer some questions in writing related to the content of the lessons, for instance if any problems had occurred while cooking and how they had been resolved. The students could choose to answer in Swedish or English but they were encouraged to try to answer at least one of the questions in English, which most students did successfully, according to the teacher.

To summarize, home economics in English turned out to work well. The students were able to follow a recipe in English and to communicate in English most of the time. The English lessons seemed to have prepared them well. Further, they had had other home economics lessons where Swedish was used before; they knew the basic routines. The home economics teacher’s visual and verbal scaffolding seemed to facilitate the students’ understanding of the recipe and the procedures for preparing the dish. The students achieved the learning objectives for home economics that had been set up, and at the same time they practiced and learned English.

### ***5.3 The teachers’ evaluation of the CLIL theme***

The described project was implemented several times as both teachers and students found that the outcome was successful. According to the teachers, the students became more engaged and alert during lessons in both subjects, English and home economics, which was beneficial for learning. The teachers concluded that a CLIL theme combining English with a practical subject, such as home economics, was ideal since there could be a great deal of visual support; the home economics teacher could show and speak English at the same time. Considering the age of the students, CLIL in a theoretical subject might be more of a challenge for many students. The content of home economics had previously been prepared in English class, and it was concrete and connected to students’ everyday life. The teachers explained that they had spent a lot of time planning and finding material when they first initiated the theme, but the plans and the material could be reused. However, they also developed the theme over time, for instance by renewing the material or the recipes. Another advantage was that new teachers could get access to existing, well-prepared lesson plans.

## 6. Discussion

The following research questions have been addressed in this study:

- What teaching strategies can support CLIL students' integrated development of content and language knowledge in practical school subjects?
- What is the role of the majority language in the CLIL classroom? When and for what purposes is it used?

To summarise, several of the scaffolding strategies suggested by Walqui (2006) were operationalized in the CLIL theme in focus here, involving English and home economics, as we have illustrated through many examples. In the English lessons, the content was presented, re-presented, contextualized and practiced in different ways, for instance through the use of different types of texts and tasks, often including pictures, and through video clips. Further, the students were given models for talking and writing about food-related topics. The home economics teacher often referred to the content of the English lessons, thereby inviting students to activate their prior knowledge. The use of visual support was prominent in both English and home economics classes. The students' development of meta-cognitive skills was supported to some extent as, for instance, the home economics teacher initiated a verbal evaluation at the end of the lesson, where students' discussed advantages and disadvantages of home economics in English.

Since teaching of non-language subjects at this school is generally conducted using Swedish as the medium of instruction, the language in focus of CLIL themes is mainly English. English was used as the language of communication by both teachers and students in this study, and teaching materials were in English, providing ample input. However, Swedish was also used to a limited extent, mainly for clarifying instructions when needed and for explaining words or expressions. Key vocabulary was presented in both English and Swedish since subject literacy in both languages was deemed important. In home economics lessons, the use of Swedish was somewhat greater than in English lessons. Both students and teachers were used to speaking English in English class whereas the content of home economics sometimes required clarifications in Swedish or, occasionally, students forgot to speak English.

During the time of this study, we have come to understand CLIL more comprehensively, as we have been able to see it both from the teachers' and the students' perspectives when observing lessons. We have come to realise that practical subjects, such as home economics, are well-suited for CLIL. There are several reasons for this. First, to address the concern from Bruton (2013), among others, about CLIL not being compatible with students who struggle with the target language and/or the subject, CLIL in practical subjects offers a multimodality

that is beneficial for all learners, and in particular those who struggle in one way or another (Dressman, 2019). For students struggling with the language, the practical aspects of making pancakes, as in our example, can lower their cognitive barriers towards the target language as it is being used in a positive and friendly atmosphere (cf., Kontio & Sylvén, 2015). Likewise, a student who dislikes home economics as a school subject, may find it more appealing if it is done in English, and thereby adding another dimension to the subject. As shown in the description of English lessons above, strong scaffolding characterized these lessons as well, not least through the use of pictures and video clips. In line with previous research on scaffolding (e.g., Fernandez-Fontecha et al., 2020), the results of this study illustrate that visual scaffolding can be used to support learning in CLIL in English language lessons as well as in home economics. In English lessons, the four skills were practised through various tasks based on food-related topics. As shown in the description of the sequence of lessons, there was a clear progression in the level of complexity of tasks and activities, from simple tasks to more demanding ones; there was a balance between challenge and support (see Li & Zhang, 2022). According to the English teachers, the students' efforts were greater during the CLIL theme than normally, as they knew that the acquired knowledge would be useful in home economics. Also the home economics teacher noticed a greater enthusiasm among students during the CLIL theme.

As mentioned, competence in the first language seems to be very important for developing subject knowledge (see, e.g., Nygård Larsson, 2011; Piesche et al., 2016), and this is sometimes an argument against CLIL (see, e.g., Fernández-Sanjurjo et al., 2019). At the school involved in the present study, however, both the target language and the majority language were languages of instruction and teachers often stressed the importance of literacy in both languages. A practical subject requires using a number of specific tools, the names of which not even L1 speakers of the majority language necessarily know. Therefore, it is not only important for L2 learners of the majority language to acquire such terms, but also for L1 speakers. When discussing CLIL projects with teachers at the school, they often stressed the importance of strengthening students' language proficiency in both English and Swedish, not least since the proportion of students with another L1 than Swedish was increasing. At one meeting, one of the teachers expressed the opinion that using English as the language of instruction would not be possible any longer because there were too many students with a low proficiency in Swedish and thus, they would have to focus on Swedish. This started a discussion about the importance of also learning English and the fact that English might be a stronger language than Swedish for some students. The conclusion of the discussion was that well-planned CLIL projects could be beneficial for all

students, regardless of their L1. By and by, the teachers also realised that the scaffolding methods they used when teaching in English could be just as useful and even necessary when teaching in Swedish.

Previous CLIL studies have shown how often too little attention is paid to linguistic matters (Lyster, 2007; Villabona & Cenoz, 2022) and that classroom interaction may suffer when an L2 is used as the medium of instruction in non-language subjects (Nikula, 2010). However, as exemplified in this study, with trained CLIL teachers who are aware of the role of language, this does not have to be an issue. In line with, for instance, Pérez Cañado (2016), our study illustrates the apparent need for CLIL training for CLIL to be successful. At the school involved, all teachers who participated in the CLIL theme had undergone CLIL training. The target language teacher and the subject teacher worked very closely together in both the planning, implementing and reflecting parts of the thematic process. In doing so, they made sure that subject-specific language was dealt with, sometimes both in the majority language and the target language, that there was a clear progression in the level of difficulty of the material and tasks that were used, and that ample opportunity was given for interaction to take place, both between teacher and students, and between students. In all this, various scaffolding strategies were central: how to contextualise, how to connect to students' existing knowledge, how to present and re-present the context and how to create models to support students' language production.

## **7. Conclusion**

This study has illustrated that practical subjects, in our case home economics, in combination with English seem highly suitable for CLIL for young learners, not least since practical subjects offer ample opportunities for visual scaffolding. The content of these subjects is concrete and often close to students' everyday life experiences. At the same time, the relevance of the English lessons can also be strengthened through CLIL compared to regular EFL, as the content will be useful in an authentic situation in the near future. In cross-curricular CLIL themes, the natural connection between content and language becomes evident to students. Our analysis showed that close cooperation between teachers who carefully planned what material and tasks to use, and how to scaffold the students' learning catered for successful implementation of CLIL and for the students' progression in learning.

## References

- Andersson, L. G. (2016, June 24). Är engelska vårt andraspråk? [Is English our second language?]. *Göteborgs-Posten*.
- Åseskog, T. (1982). *Att undervisa el-lära på engelska [Teaching electrical engineering in English]*. Reports from the English Department, University of Gothenburg.
- Bruton, A. (2011). Are the differences between CLIL and non-CLIL groups in Andalusia due to CLIL? A reply to Lorenzo, Casal and Moore (2010). *Applied Linguistics*, 32(2), 236-241. doi: <https://doi.org/10.1093/applin/amr007>
- Bruton, A. (2013). CLIL: Some of the reasons why...and why not. *System*, 41(3), 587-597. doi: <https://doi.org/10.1016/j.system.2013.07.001>
- Coelho, M. (2017). Scaffolding Strategies in CLIL Classes – supporting learners towards autonomy. In M. d. Ribeiro, A. Gonçalves, & M. M. Silva (Eds.), *Languages and the Market: A ReCLes.pt Selection of International Perspectives and Approaches* (pp. 106-115). ReCLes.pt – Associação de Centros de Línguas do Ensino Superior em Portugal.
- Coyle, D., Hood, P., & Marsh, D. (2010). *Content and language integrated learning*. Cambridge University Press.
- Cummins, J. (2008). BICS and CALP: Empirical and theoretical status of the distinction. In B. Street & N. H. Hornberger (Eds.), *Encyclopedia of language and education. Vol. 2, Literacy* (2<sup>nd</sup> ed., pp. 71-83). Springer.
- Dalton-Puffer, C., Hüttner, J., & Llinares, A. (2022). CLIL in the 21<sup>st</sup> Century: Retrospective and prospective challenges and opportunities. *Journal of Immersion and Content-Based Language Education*, 10(2), 182-206. <https://doi.org/10.1075/jicb.21021.dal>
- Denman, J., Tanner, R., & de Graaff, R. (2013). CLIL in Junior Vocational Secondary Education: Challenges and Opportunities for Teaching and Learning. *International Journal of Bilingual Education and Bilingualism*, 16(3), 285-300. <https://doi.org/10.1080/1367-0050.2013.777386>
- Dressman, M. (2019). Multimodality and Language Learning. In M. Dressman, & R. W. Sadler (Eds.), *The Handbook of Informal Language Learning* (pp. 39-55). John Wiley. doi: <https://doi.org/10.1002/9781119472384.ch3>
- Erickson, G. (2004). *Engelska i åtta europeiska länder – en undersökning av ungdomars kunskaper och uppfattningar [English in eight European countries – a study of knowledge and opinions among youth]*. Skolverket. Retrieved July 3, 2023, from [https://www.gu.se/sites/default/files/2020-04/Engelska\\_i\\_atta\\_europeiska\\_lander.pdf](https://www.gu.se/sites/default/files/2020-04/Engelska_i_atta_europeiska_lander.pdf)
- European Commission, Directorate-General for Education, Youth, Sport and Culture, (2012). *First European survey on language competences: final report*, Publications Office. Retrieved July 3, 2023, from <https://data.europa.eu/doi/10.2766/34160>
- Fernandez-Fontecha, A., O'Halloran, K. L., Wignell, P., & Tan, S. (2020). Scaffolding CLIL in the science classroom via visual thinking: A systemic functional multimodal approach. *Linguistics and Education*, 55. doi: <https://doi.org/10.1016/j.linged.2019.100788>
- Fernández-Sanjurjo, J., Fernández-Costales, A., & Arias Blanco, J. M. (2019). Analysing students' content-learning in science in CLIL vs. non-CLIL programmes: Empirical evidence from Spain. *International journal of bilingual education and bilingualism*, 22(6), 661-674. doi: <https://doi.org/10.1080/13670050.2017.1294142>
- Gass, S., & Mackey, A. (2006). Input, interaction and output: An overview. *AILA Review*, 19, 3-17. doi: <https://doi.org/10.1075/aila.19.03gas>
- Gibbons, P. (2001). What is scaffolding? In J. Hammond (Ed.), *Scaffolding: Teaching and learning in language and literacy education* (pp. 1-14). Primary English Teaching Association, Australia.

- Gibbons, P. (2015). *Scaffolding language, scaffolding learning. Teaching English language learners in the mainstream classroom* (2nd ed.). Heinemann.
- Jarvis, S. (2015). Influences of Previously Learned Languages on the Learning and Use of Additional Languages. In M. Juan-Garau & J. Salazar-Noguera (Eds.), *Content-based Language Learning in Multilingual Educational Environments* (pp. 69-86). Springer International Publishing.
- Josephson, O. (2004). Engelskan i 2000-talets Sverige [English in Sweden in the 21<sup>st</sup> century]. In B. Lindgren, & O. Josephson (Eds.), *Engelskan i Sverige* (pp. 7-24). Svenska Språknämnden.
- Jäppinen, A. (2005). Thinking and content learning of mathematics and science as cognitional development in content and language integrated learning (CLIL): Teaching through a foreign language in Finland. *Language and Education*, 19(2), 147-168. <https://doi.org/10.1080/09500780508668671>
- Kontio, J., & Sylvén, L. K. (2015). Language alternation and language norm in vocational content and language integrated learning. *The Language Learning Journal*, 43(3), 271-285. <https://doi.org/10.1080/09571736.2015.1053279>
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Pergamon.
- Lantolf, J. P. (Ed.) (2000). *Sociocultural theory and second language learning*. Oxford University Press.
- Lantolf, J. P., & Thorne, S. L. (2006). *Sociocultural theory and the genesis of second language development*. Oxford University Press.
- Lasagabaster, D., & Sierra, J. M. (2010). Immersion and CLIL in English: More differences than similarities. *ELT journal*, 64(4), 367-375. doi: <https://doi.org/10.1093/elt/ccp082>
- Lee, J. F., & VanPatten, B. (1995). *Making Communicative Language Teaching Happen*. McGraw-Hill.
- Lewandowska, E. (2019). English as a lingua franca: an overview of communicative strategies. In B. Loranc-Paszylk (Ed.), *Rethinking directionson in language learning and teaching at university level* (pp. 27-52). Research-publishing.net.
- Li, P., & Jeong, H. (2020). The social brain of language: grounding second language learning in social interaction. *npj Science of Learning*, 5(1), 8. <https://doi.org/10.1038/s41539-020-0068-7>
- Li, D., & Zhang, L. (2022). Exploring teacher scaffolding in a CLIL-framed EFL intensive reading class: A classroom discourse analysis approach. *Language Teaching Research*, 26(3), 333-360. doi: <https://doi.org/10.1177/1362168820903340>
- Lim Falk, M. (2002). *Språk- och innehållsintegrerad inläring och undervisning i praktiken: meningsfull målspråksundervisning [Language and content integrated learning and teaching in practice: meaningful target language education]*. Institutionen för nordiska språk. Stockholm University.
- Lo, Y. Y., Lin, A. M. Y., & Cheung, T. C. L. (2018). Supporting English-as-a-Foreign-Language (EFL) Learners' Science Literacy Development in CLIL: A Genre-Based Approach. In K.-S. Tang, & K. Danielsson (Eds.), *Global Developments in Literacy Research for Science Education* (pp. 79-95). Springer International Publishing.
- Lo, Y. Y., & Macaro, E. (2015). Getting used to content and language integrated learning: what can classroom interaction reveal?. *The Language Learning Journal*, 43(3), 239-255. doi: <https://doi.org/10.1080/09571736.2015.1053281>
- Lundström, N. (2020). *Underlätta arbetskraftsinvandring - utred engelska som andra officiellt språk [Facilitate labor immigration - investigate English as a second official language]*. Motion 2020/21:268. Swedish Parliament. Retrieved July 3, 2023, from <https://www.riksdagen.se/sv/sok/?sok=Motion+2020%2F21%3A2687>

- Lyster, R. (2007). *Learning and teaching languages through content. A counterbalanced approach*. John Benjamins.
- Löwenadler, J. (2022). Trends in Swedish and English reading comprehension ability among Swedish adolescents: a study of SweSAT data 2012-2018. *Scandinavian Journal of Educational Research*, 67(4), 591-606. <https://doi.org/10.1080/00313831.2022.2042841>
- Mahan, K. R. (2022). The comprehending teacher: scaffolding in content and language integrated learning (CLIL). *The Language Learning Journal*, 50(1), 74-88. doi: <https://doi.org/10.1080/09571736.2019.1705879>
- Mahan, K. R. (2023). Instructional scaffolding in CLIL: An overview of theory and research. In D. L. Banegas & S. Zappa-Hollman (Eds.), *The Routledge Handbook of Content and Language Integrated Learning*, 284-298. Routledge.
- Myhre, T. S., Dewaele, J.-M., Fiskum, T. A., & Holand, A. M. (2023). Anxiety and enjoyment among young teenagers learning English as a foreign language outdoors: a mixed-methods study. *Innovation in Language Learning and Teaching* (Open access). doi: <https://doi.org/10.1080/17501229.2022.2161550>
- Myhre, T. S., & Fiskum, T. A. (2020). Norwegian teenagers' experiences of developing second language fluency in an outdoor context. *Journal of Adventure Education and Outdoor Learning*, 21(3), 201-216. <https://doi.org/10.1080/17501229.2022.2161550>
- Nikula, T. (2010). Effects of CLIL on a teacher's classroom language use. In C. Dalton-Puffer, T. Nikula, & U. Smit (Eds.), *Language Use and Language Learning in CLIL Classrooms* (Vol. 7, pp. 105-124). John Benjamins.
- Norén, K. (2006). Engelska är bättre, ibland [English is better, sometimes]. *Språkvård*, 3, 35-39. doi: Not available
- Nygård Larsson, P. (2011). *Biologiämnets texter: text, språk och lärande i en språkligt heterogen gymnasieklass [Texts of the Biology subject: text, language and learning in a language diverse upper secondary class]*. (PhD). Malmö högskola, Malmö.
- Olsson, E. (2021). A comparative study of CLIL implementation in upper secondary school in Sweden and students' development of L2 English academic vocabulary. *Language Teaching Research*, 0(0). doi: <https://doi.org/10.1177/13621688211045000>
- Olsson, E., & Sylvén, L. K. (2015). Extramural English and academic vocabulary. A longitudinal study of CLIL and non-CLIL students in Sweden. *Apples - Journal of Applied Language Studies*, 9(2), 77-103. <http://dx.doi.org/10.17011/apples/urn.201512234129>
- Olsson, E., & Sylvén, L. K. (2019). English productive proficiency. In L. K. Sylvén (Ed.), *Investigating content and language integrated learning. Insights from Swedish high schools* (pp. 117-135). Multilingual Matters.
- Olsson, E., & Sylvén, L. K. (2022, April 7-8). *Who is the CLIL/EMI student in Sweden?*. [Conference presentation]. ASLA symposium, Stockholm University.
- Paulsrud, B. (2019). Mapping CLIL in Sweden. In L. K. Sylvén (Ed.), *Investigating content and language integrated learning. Insights from Swedish high schools* (pp. 19-34). Multilingual Matters.
- Pavón Vázquez, V. (2018). Innovations and Challenges in CLIL Research: Exploring the Development of Subject-Specific Literacies. *Theory Into Practice*, 57(3), 204-211. doi: <https://doi.org/10.1080/00405841.2018.1484035>
- Pérez Cañado, M. L. (2016). Are teachers ready for CLIL? Evidence from a European study. *European Journal of Teacher Education*, 39(2), 202-221. doi: <https://doi.org/10.1080/02619768.2016.1138104>
- Pérez Cañado, M. L. (2018). Innovations and Challenges in CLIL Teacher Training. *Theory Into Practice*, 57(3), 212-221. doi: <https://doi.org/10.1080/00405841.2018.1492238>

- Pfenninger, S. (2021). About the INTER and the INTRA in age-related research: Evidence from a longitudinal CLIL study with dense time serial measurements. *Linguistics Vanguard*, 7(2). doi: <https://doi.org/10.1515/lingvan-2020-0028>
- Piesche, N., Jonkmann, K., Fiege, C., & Keßler, J.-U. (2016). CLIL for all? A randomised controlled field experiment with sixth-grade students on the effects of content and language integrated science learning. *Learning and Instruction*, 44, 108-116. doi:10.1016/j.learninstruc.2016.04.001
- Schleppegrell, M. (2004). *The language of schooling; a functional linguistics perspective*. Lawrence Erlbaum Associates.
- Svensson, A. (2023). Så ser svenskarna på hotet från engelskan [Swedes' views on the threat of English]. *Språktidningen*.
- Swedish Media Council (2021). *Ungar och medier [Youth and media]*. Retrieved July 3, 2023, from <https://www.statensmedierad.se/rapporter-och-analyser/material-rapporter-och-analyser/ungar--medier-2021>
- Sylvén, L. K. (2004). *Teaching in English or English teaching? On the effects of content and language integrated learning on Swedish learners' incidental vocabulary acquisition*. (PhD). Acta Universitatis Gothoburgensis, Gothenburg.
- Sylvén, L. K. (2013). CLIL in Sweden - why does it not work? A metaperspective on CLIL across contexts in Europe. *International Journal of Bilingual Education and Bilingualism*, 16(3), 301-320. doi: <https://doi.org/10.1080/13670050.2013.777387>
- Sylvén, L. K. (2022). Very young Swedish children's exposure to English outside of school. In: C. Bardel *et al* (Eds.), *Exploring Language Education*. Stockholm University Press. doi: <https://doi.org/10.16993/bbz.e>
- Sylvén, L. K. (Ed.) (2019). *Investigating content and language integrated learning. Insights from Swedish high schools*. Multilingual Matters.
- Sylvén, L. K., & Ohlander, S. (2019). English Receptive Vocabulary. In L. K. Sylvén: *Investigating content and language integrated learning. Insights from Swedish high schools* (pp. 101-116). Multilingual Matters.
- Thompson, A. S., & Aslan, E. (2015). Multilingualism, perceived positive language interaction (PPLI), and learner beliefs: what do Turkish students believe? *International Journal of Multilingualism*, 12(3), 259-275. <https://doi.org/10.1080/14790718.2014.973413>
- Villabona, N., & Cenoz, J. (2022). The integration of content and language in CLIL: a challenge for content-driven and language-driven teachers. *Language, Culture and Curriculum*, 35(1), 36-50. doi: <https://doi.org/10.1080/07908318.2021.1910703>
- Walqui, A. (2006). Scaffolding Instruction for English Language Learners: A Conceptual Framework. *International Journal of Bilingual Education and Bilingualism*, 9(2), 159-180. doi: <https://doi.org/10.1080/13670050608668639>
- Washburn, L. (1997). *English immersion in Sweden: A case study of Röllingby high school 1987-1989*. (PhD). Stockholm University.
- Wood, D. J., Bruner, J. S., & Ross, G. (1976). The Role of Tutoring in Problem Solving. *Journal of Child Psychiatry and Psychology*, 17, 89-100. <https://doi.org/10.1111/j.1469-7610.1976.tb00381.x>